VALLEY BLVD

COMPLETE STREETS

Feasibility Study Report

April 2024

Prepared By:

Michael Baker
INTERNATIONAL



TABLE OF CONTENTS

1.0 Executive Summary 6
2.0 Introduction 10
3.0 Existing Conditions 13
4.0 Plans, Codes & Policies Influencing Complete Street Plan Development 35
5.0 Complete Street Plan Development 38
6.0 Mobility Assessment of Preferred Complete Street Plan 95
7.0 Parking Study and Findings 100
8.0 Cost Estimate 106
9.0 Community Engagement 110
10.0 Implementation Plan 119
11.0 Recommendations 127
12.0 Next Steps 128

APPENDICES

Appendix A: Count Data
Appendix B: PEQI Scoring Criteria
Appendix C: PEQI Existing Conditions Worksheets
Appendix D: Bus Stops Route Overview Map
Appendix E: Volume Development Worksheets
Appendix F: Synchro Worksheets
Appendix G: PEQI Proposed Conditions Worksheets
Appendix H: Parking Utilization Tables
Appendix I: Public Outreach Summary Report

LIST OF TABLES

Table 1: Level of Service Criteria 14
Table 2 : Operational Analysis Results - Existing Conditions (2023) 15
Table 3: Crash Severity by Location on Valley Boulevard 20
Table 4: Crash Type by Location on Valley Boulevard 21
Table 5: Crash Cause by Location on Valley Boulevard 22
Table 6: Existing Conditions PEQI Roadway Segment Analysis 28
Table 7: Existing Conditions PEQI Intersection Analysis 28
Table 8: Criteria for Roadways with Mixed Traffic (No Bicycle Facility or a Class III Facility) 30
Table 9: Criteria for Roadways with Bicycle Facilities 30
Table 10: Existing Conditions Bicycle LTS Analysis 31
Table 11: Potential BMP Locations Summary 63
Table 12: Utility Agencies and Facility Type 94
Table 13: Complete Street Plan Operational Analysis Results 97
Table 14: Proposed PEQI Roadway Segment Analysis 98
Table 15 : Proposed PEQI Intersection Analysis 99
Table 16: Proposed LTS Analysis 99
Table 17: Valley Boulevard Parking Inventory Summary 100
Table 18: Peak Parking Utilization 101
Table 19: Valley Boulevard Parking Inventory Summary 105
Table 20: Rough Order of Magnitude Cost Estimate - Construction Costs 108
Table 21: Rough Order of Magnitude Cost Estimate- Support Costs 109
Table 22: Potential Funding Sources 123

LIST OF FIGURES

Figure 1: Segment Breakdown Overview Map 10
Figure 2: Corridor Overview Map 13
Figure 3: 100' Existing Cross Section 13
Figure 4: 80' Existing Cross Section 13
Figure 5: Project Study Area Intersections and Traffic Control 16
Figure 6: Intersection Lane Configurations 17
Figure 7: Existing AM & PM Peak Hour Volumes 18
Figure 8: Cause of Crash 23
Figure 9: Crash Severity by Location 24
Figure 10: Vehicle Collision Heat Map 25
Figure 11: PEQI Score Ranges 27
Figure 12: Pedestrian-Involved Collisions 32
Figure 13: Bicycle-Involved Collisions 33
Figure 14: Complete Streets Elements 38
Figure 15: Segments 1,3 & 5 - Class II Facility No Parking Cross Section 40
Figure 16: Segments 1, 3 & 5 - Class II Facility with Parking Cross Section 41
Figure 17: Segments 1, 3 & 5 - Class IV Facility with Parking Cross Section 41
Figure 18: Segments 1, 3 & 5 - Class IV Southside Two-Way Cycle Track Cross Section 42
Figure 19: Segments 1, 3 & 5 - Class IV Cross Section 42
Figure 20: Segments 1, 3 & 5 - Combined Class II/IV Bicycle Facility Cross Section 43
Figure 21: Segment 2 - Class II Facility Narrow Median Cross Section 43
Figure 22: Segment 2 - Class IV Bicycle Facility with Lane Reduction Cross Section 44
Figure 23: Segment 2 - Class IV Elevated Cycle Track with Narrow Median Cross Section 44
Figure 24: Segment 2 - Class IV Southside Two-Way Cycle Track Cross Section 45
Figure 25: Segment 2 - Class II Facility Cross Section 45
Figure 26: Segment 4 - Class IV Bicycle Facility Cross Section 46
Figure 27: Buffer Detail 46

Figure 28: On-Street Parking Plan View 47
Figure 29: Example of Crosswalk Improvements with HAWK Signal 48
Figure 30: Example of Bus Stop Relocation and Bus Island 49
Figure 31: Raised Median at Esto Avenue 50
Figure 32: Complete Street Plan 51
Figure 33: Torrenet MaxWell Plus Drywell System 61
Figure 34: Drywell Location Concept Plan 66
Figure 35: Landscape Concept Plan 77
Figure 36: Santa Anita Mini Park Option 1 90
Figure 37: Santa Anita Mini Park Option 2 91
Figure 38: Santa Anita Mini Park Option 3 92
Figure 39: Santa Anita Mini Park Hybrid Option 93
Figure 40: Proposed Santa Anita Avenue Intersection Layout 95
Figure 41: Proposed Garvey Avenue Intersection Layout 96
Figure 42: Parking Utilization 102
Figure 43: Photo Renderings 113

LIST OF IMAGES

Photo 1: Valley Boulevard near La Madera Avenue 10
Photo 2: Existing conditions near Santa Anita Avenue 11
Photo 3: Valley Boulevard and Garvey Avenue intersection 11
Photo 4: Rendering of proposed concepts including Class IV bicycle facility, bus islands and landscaped median 12
Photo 5: Example crosswalk along Valley Boulevard 27
Photo 6: Example sidewalk along Valley Boulevard 27
Photo 7: Bus stop with bench only 34
Photo 8: Bus stop with shelter, bench and trash can 34
Photo 9: Bus pullout with shelter 34
Photo 10: Long Beach curb stops example 46
Photo 11: Example of HAWK signal at controlled crosswalk 47
Photo 12: Ramona Boulevard bus island 49
Photo 13: Bioswale example with curb inlet 62
Photo 14: Bioswale example 62
Photo 15: Median landscaping example 76
Photo 16:Parkway landscaping example 76
Photo 17: Palm tree median landscaping example 76
Photo 18: Gateway Feature at Ramona Boulevard 89
Photo 19: Main Street Gateway Feature Potential Design 89



1.0 Executive Summary

INTRODUCTION

The City of El Monte (City) commissioned this Feasibility Study to evaluate opportunities and constraints surrounding the integration of mobility improvements that will transform Valley Boulevard into a Complete Street Corridor. This Feasibility Study provides a comprehensive overview of the process the City undertook in developing this Complete Street plan. At the cornerstone of the process was a multi-pronged community engagement strategy that provided opportunities for the community to provide their input either virtually, through the website or in person through pop up events, workshops and focused advisory committee meetings. As such, this plan is a reflection of the concerns and priorities expressed by the business owners and members of the community and will create a true transformation that aims to improve the walking, bicycling, and traveling experience along Valley Boulevard.

GOALS AND OBJECTIVES OF THE FEASIBILITY STUDY

The goals and objectives of this project are to:

- provide multi-modal accommodations,
- improve safety and access for all users,
- ensure the corridor is fully accessible for users of all ages and abilities,
- identify ways to incorporate low impact development through drainage improvements, and
- improve corridor aesthetics through landscape and streetscape enhancements.

EXISTING CONDITIONS

Valley Boulevard runs roughly parallel to Interstate 10 (I-10) and is an east-west spine that provides vital links to residential areas, commercial centers, activity centers, and transit hubs. The key issues identified in the development of this study were the lack of bicycle facilities, safety concerns, inconsistent pedestrian and transit accommodations and the inconsistent streetscape design. The first phase of the project focused on the physical existing conditions including an evaluation of roadway conditions, a mobility assessment, parking, and collision data, as well as the physical conditions of existing bicycle, transit and pedestrian facilities.

Through the project limits, Valley Boulevard is a four-lane corridor with either a raised or striped center median that transitions to left turn lanes at intersections. There are 15 signalized intersections and six uncontrolled marked crosswalks through the study area. Parking is provided along both sides of the street with the exception of Santa Anita Avenue to Ramona Boulevard, where parking is prohibited. Sidewalks exist on both sides of the street with benches and shade trees located intermittently to provide a reasonable environment for pedestrians or transit passengers. Transit is a key component of the transportation system along Valley Boulevard, with multiple routes running along and across the corridor. The proximity of the regional transit centers to the corridor makes the first/last mile connections between the corridor and the transit stations vital to mode selection in the community.

The posted speed limit through the study area is 35 miles per hour (mph); however, the City's Engineering and Speed survey prepared in May 2023 suggests that the prevailing speed along the corridor ranges from 41mph to 42mph. One of the goals of this project is to physically modify the roadway to reduce the travel speed to align with the posted speed limit.

Existing operating conditions at seven key intersections were evaluated to determine the current delay experienced by travelers at along Valley Boulevard. Additionally, historic crash data was obtained from the Statewide Integrated Traffic Records System (SWITRS) to determine the emphasis areas where safety measures could be recommended along Valley Boulevard to address localized and systemic crash trends. A Pedestrian Environmental Quality Index (PEQI) and Level of Traffic Stress (LTS) analysis were undertaken to provide a qualitative assessment of the existing pedestrian and cycling accommodations to identify priority areas along the corridor.

A comprehensive review of the plans, codes and policies influencing this Complete Street plan was conducted including but not limited to the; Vision El Monte General Plan, Vision Zero Action Plan, and the Streetscape Beautification Master Plan. These plans influenced the options evaluated and the recommendations of this Feasibility Study.

ALTERNATIVES CONSIDERED

Preliminary design concepts were developed that incorporate complete streets elements and address the identified corridor needs. The overall objective of the Complete Street plan is to formalize recommendations that improve access and mobility for users of all abilities. The key objectives for Valley Boulevard were developing concepts that incorporate bicycle facilities, improve pedestrian accessibility, improve the efficiency of transit operations, and beautify the streetscape. When considering all modes along the corridor, the lack of bicycle lanes is the key issue that needed to be addressed when developing alternatives. Options explored included a Class IV bicycle facility, Class II bicycle facility (with and without parking), southside two-way cycle track, removing a through lane on Valley Boulevard in certain segments, and introducing a narrow-raised median between Santa Anita Avenue and Ramona Boulevard. The lane reduction option and narrowed raised median option were dismissed because there were concerns from stakeholders that this would have a significant impact on the capacity and circulation of the roadway network. Other options were dismissed because there were concerns about the high vehicular volumes on Valley Boulevard and cyclists travelling adjacent to parked cars or moving vehicles without a physical buffer. Once the approach for adding a bicycle facility was selected, the other issues along the corridor could be addressed.

ELEMENTS OF COMPLETE STREET PLAN

The selected alternative will add Class IV bikeways with a raised buffer along Valley Boulevard which dedicate and protect space for bicycles in order to improve perceived comfort and safety and reduce the risk and fear of collisions with over-taking vehicles. Some segments of the corridor will have the Class IV bicycle facility on one side and the Class II facility on the other to provide on-street parking. The segment between Santa Anita Avenue and Ramona Boulevard will have Class II bicycle facilities without a buffer or on-street parking.

With the bicycle facility type selected, the details for each of the other modes were refined. Improving pedestrian access and walkability along Valley Boulevard is a critical component of the Complete Street plan. All pedestrian crossings along the corridor are upgraded to high visibility crosswalks and all intersections are equipped with ADA compliant features. At the uncontrolled marked crosswalks, refuge islands, HAWK signals, RRFBs and advanced yield/stop bar markings are provided where suitable. Additionally, at the signalized intersections; the crosswalks are realigned where possible to reduce the exposure time through the intersection, Leading Pedestrian Intervals are added to allow pedestrians a head start to establish themselves in the intersection, and bus stops are relocated to the far side to improve the visibility of pedestrians in the crosswalk. Raised medians and a reduction in lane widths are proposed to promote slower speeds along the corridor and improve vehicle safety by reducing the number of conflict points.

The Complete Street plan improves the transit experience along Valley Boulevard by improving the efficiency for buses at bus stops, connecting transit riders to the Metrolink Station via a new pedestrian paseo, and improving the comfort and



accommodations at the stops. Bus Islands, far side bus stops, and upgraded stop accommodations are proposed as part of this Complete Stret plan. Other considerations of the Complete Street plan include sidewalk and pavement rehabilitation to meet ADA requirements and improve the riding surface, incorporating low impact developments/stormwater quality improvement, improving the streetscape.

The Complete Street plan includes gateway features at five key locations along the corridor that will help connect the corridor to the surrounding activity centers, which may range from small signs along the side of the road to overhead entryways that span the width of the roadway. A mini park, now coined the Santa Anita Mini Park, is proposed on the southwest corner of Valley Boulevard and Santa Anita to provide a community space along the corridor. Four distinctive concepts were developed for the mini park, each focusing on a passive recreational experience, integration with the downtown area, and the inclusion of street trees. The Santa Anita Mini Park not only responds to the community's demand for a park space in the downtown area but also serves as a catalyst for enhancing the downtown environment, fostering increased community engagement, and connection. While a preferred option was not formally selected throughout this study, a hybrid option was developed that combined the Memorial-themed option and interactive features from the other options.

Preliminary design concepts were developed that illustrate the recommended improvements.

MOBILITY ASSESSMENT OF PREFERRED COMPLETE STREET PLAN

A mobility assessment of the Preferred Complete Street plan was conducted to evaluate the improvements for cyclists and pedestrians and understand the impacts to vehicular operations at key locations. Significant improvements from the existing conditions were recorded for both pedestrians and cyclists.

The Complete Street plan does not include significant changes to intersection geometrics or roadway capacity along Valley Boulevard, which will not impact capacity or flow in the travel lanes. However, additional modifications are proposed to the Santa Anita Avenue and Main Street intersections and the Valley Boulevard and Garvey Avenue intersections that may impact operations. The study intersections were evaluated without and with the intersection modifications for the Horizon Year 2035 conditions. Findings indicate that the intersection of El Monte Avenue and Valley Boulevard will operate at unacceptable LOS E during the PM peak hour and the intersection with Garvey Avenue will operate at unacceptable LOS E during the PM peak hour. All other intersections are projected to operate at LOS D or better during the AM and PM peak hours.

Field observations along the corridor suggested that most of the on-street parking along Valley Boulevard was unused or underutilized. As part of this feasibility study, a detailed parking utilization survey was conducted to validate the overall need for on-street parking along the corridor as the Preferred Concept plan eliminates a significant amount of the existing on-street parking.

COMMUNITY ENGAGEMENT

Input from the community was a cornerstone of the concept development for the Valley Boulevard Complete Street plan. A series of community engagement activities were held to spread project awareness and gather community feedback on the concepts. A Community Advisory Committee (CAC) was developed to provide more guided feedback in small group settings before taking the concepts to the public. The CAC for Valley Boulevard consisted of Downtown El Monte Business Association (DEMBA), Active San Gabriel Valley (Active SGV), El Monte Police Department Traffic Safety Bureau, LA Metro, Metrolink and a small group of engaged residents and business owners. Targeted business engagement was also conducted to understand the impacts of the on-street parking removal for local businesses on Vally Boulevard.



Two rounds of public meetings were hosted to hear existing concerns about the corridor and get feedback on the proposed concepts.

Pop-up events where the project team hosted an informational booth at a City organized event were used for the project because of the high levels of public attendance and participation at these events. The project team attended four pop-up events throughout the course of the project. Other tools for engagement included an online survey tool, with an explanation video, and photo renderings to demonstrate the changes along the corridor.

IMPLEMENTATION AND NEXT STEPS

There are various options to be considered for implementing the project. Flexibility will be needed in the implementation process, with the consideration of timing, to maximize available funding, including grant funding. While it would be ideal to construct all improvements at the same time, this could be both financially infeasible and impractical. Phasing of this project will likely be required. This study explores opportunities for immediate or near-term construction and construction of other more complex or costly elements at a later time as funding becomes available. Potential funding opportunities have been identified for the project and are outlined in detail below.

Rough Order of Magnitude (ROM) cost estimates have been developed to provide a general idea of costs to implement the Complete Street plan. The ROM cost includes general overhead related items such as mobilization, traffic control, stormwater protection plan, monument preservation, and utility relocation/coordination; general construction items including contingency; and project delivery costs such as engineering, right of way coordination and construction engineering.

The Complete Street plan was presented to City Council in January 2024 for consideration and comment. Next steps will be for City Council to adopt a resolution of this Feasibility Study Report and Final Complete Street Plan in March 2024; condition development projects to implement the elements of the Final Complete Street plan where applicable; and pursue grant funding to funding the Preliminary Engineering and Construction costs. The timeline for the next phases of the project are contingent upon receipt of funding.

RECOMMENDATIONS

Based on the corridor needs, alternatives analysis, mobility assessment, and community engagement, the Valley Boulevard Complete Street Concept plan was developed. The Complete Street plan included within this Feasibility Study Report should be carried forward for design and construction. However, additional consideration should be given to the streetscape design, the Santa Anita Mini Park, the Main Street bypass closure, and the conversion of El Monte Avenue into a pedestrian paseo as the design progresses.

2.0 Introduction

SCOPE AND PURPOSE OF THE COMPLETE STREET PLAN

The City of El Monte commissioned this Feasibility Study to evaluate opportunities and constraints surrounding the integration of mobility improvements that will transform Valley Boulevard into a Complete Street Corridor. Valley Boulevard runs roughly parallel to Interstate 10 (I-10) and has a direct connection to I-10 at the Valley Boulevard/Peck Road intersection. It is an east-west spine that provides vital links to residential areas, commercial centers, activity centers, and transit hubs.



Photo 1: Valley Boulevard near La Madera Avenue

The study area for the Valley Boulevard Complete Street plan extends the length of the city limits. The typical cross section is 100', which is inclusive of travel lanes, medians, parking, and sidewalks. The exception is from Santa Anita Avenue to Ramona Boulevard where the cross section narrows to approximately 80' due to a lack of on-street parking. Based on minor variations in the roadway features, Valley Boulevard was broken into five segments as follows:

- Segment 1 – Western City Limits to Santa Anita Avenue
- Segment 2 – Santa Anita Avenue to Ramona Boulevard
- Segment 3 – Ramona Boulevard to Mountain View Road
- Segment 4 – Mountain View Road to Garvey Avenue
- Segment 5 – Garvey Avenue to Eastern City Limits

Figure 1 below is a visual representation of this breakdown, which will be discussed in further detail throughout this report. Through all segments Valley Boulevard is four lanes with either a raised or striped center median that transitions to left turn lanes at intersections and carries between 19,000 and 28,500 vehicles per day (per the City's Draft Engineering and Traffic Survey completed in 2023).

Figure 1: Segment Breakdown Overview Map



8' to 12' sidewalks exist on both sides of Valley Boulevard, which are in fair condition with some lifting or deterioration due to age or landscaping. Benches and shade trees are located intermittently along the corridor that help provide a reasonable environment for pedestrians and transit passengers. In addition to the crosswalks at signalized intersections, there are six uncontrolled marked crosswalks along the corridor.



Photo 2: Existing conditions near Santa Anita Avenue

Valley Boulevard lacks bicycle facilities and amenities. While cyclist should share the road with vehicular traffic, bicyclists are commonly observed riding on the sidewalk to avoid parked and moving vehicles.

Transit service along Valley Boulevard is frequent with multiple bus lines running along the corridor. In addition, there are two transit centers within walking distance of the corridor: El Monte Metrolink Station and El Monte Busway Station. The El Monte Metrolink Station is situated approximately 350' north of Valley Boulevard off Tyler Avenue, which connects El Monte with Downtown LA and San Bernardino County. The El Monte Busway Station is located approximately 0.3 miles south of Valley Boulevard along Santa Anita Avenue and is the terminus for the Metro J Line (Silver Line), which is an express bus services that connects El Monte to Downtown LA and San Pedro.



Photo 3: Valley Boulevard and Garvey Avenue intersection

The proximity of these regional transit centers to the corridor makes the first/last mile connections between the corridor and the transit stations vital to mode selection in the community. Once along the corridor, bus stops along Valley Boulevard provide key linkages to local bus service provided by LA Metro, Foothill Transit, and Norwalk Transit.

GOALS AND OBJECTIVES OF THE FEASIBILITY STUDY

The goals and objectives of this project are to:

- provide multi-modal accommodations,
- improve safety and access for all users,
- ensure the corridor is fully accessible for users of all ages and abilities,
- identify ways to incorporate low impact development through drainage improvements, and
- improve corridor aesthetics through landscape and streetscape enhancements.

The Valley Boulevard Complete Street plan meets these objectives by:

- integrating Class IV directional bicycle facilities by removing on-street parking,
- modifying existing transit stops by relocating to the far side of the intersection where feasible to improve visibility of pedestrians in crosswalks and improve transit efficiency,
- enhancing existing uncontrolled marked crossings by adding raised medians where feasible to create a two-phase crossing and reduce pedestrian exposure time to vehicular traffic, as well as add either new High Intensity

Activated Crosswalk (HAWK) signals or rectangular rapid flashing beacons (RRFBs) to stop vehicles while pedestrians are crossing,

- enhancing streetscape and corridor beautification through a consistent plant palette including a mix of palms and canopy trees in the center median, new parkway planting and curb adjacent canopy street trees, and
- integrating sustainable solutions including drainage infrastructure to capture and treat street run off from wet or dry weather conditions, integration of new street lighting (solar where feasible), and creating more permeable surfaces.



Photo 4: Rendering of proposed concepts including Class IV bicycle facility, bus islands and landscaped median

This feasibility study report provides a comprehensive overview of the process the City undertook in developing this Complete Street plan. At the cornerstone of the process was a multi-pronged community engagement strategy that provided opportunities for members of the community to provide their input either virtually, through the website or in person. As such, this plan is a reflection of the concerns and priorities expressed by the community and will create a true transformation that aims to shift traveler behaviors and encourage people to walk, ride, roll or stroll to the many activity centers along Valley Boulevard.

3.0 Existing Conditions

The first phase of the project included analysis of existing conditions along the corridor. As summarized in this section, the existing conditions analysis included intersection counts, level of service (LOS) analysis by intersection, analysis of collision data, analysis of existing bicycle facilities and analysis of existing pedestrian facilities.

VEHICULAR CONDITIONS

Regionally, Valley Boulevard runs parallel to I-10 from Lincoln Heights to City of El Monte, where it then dips south and continues east paralleling SR-60 and eventually transitions to Holt Boulevard in the City of Pomona. This feasibility study and Complete Street plan focuses on the section of Valley Boulevard from the western to the eastern limits of the City of El Monte (**Figure 2**). Through the project limits, Valley Boulevard is a four-lane corridor with either a raised or striped center median that transitions to left turn lanes at intersections.

In general, Valley Boulevard carries between 19,000 and 28,500 vehicles per day. Parking is provided along both sides of the street (100' cross section) with the exception of Santa Anita Avenue to Ramona Boulevard where parking is prohibited (80' cross section). **Figure 3** and **Figure 4** below show the existing cross sections on Valley Boulevard for the 100' and 80' cross sections respectively.

Figure 2: Corridor Overview Map

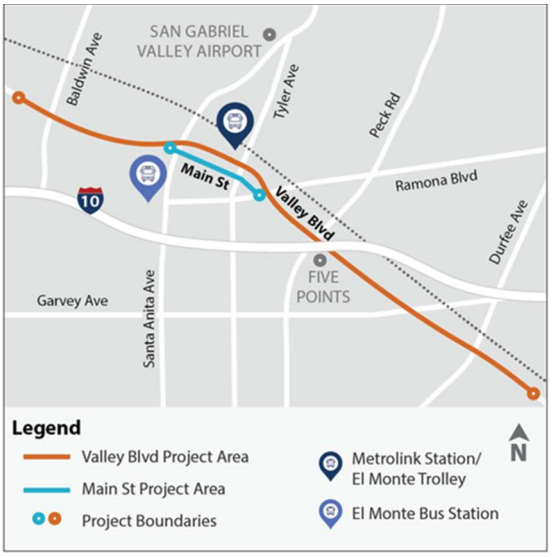


Figure 3: 100' Existing Cross Section

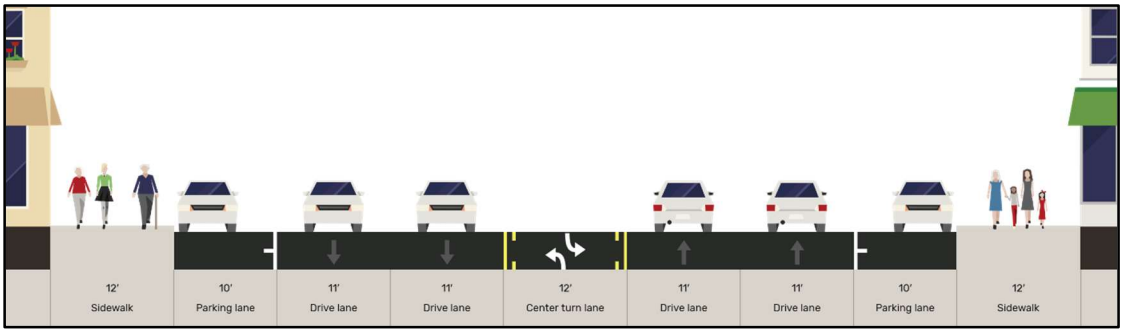
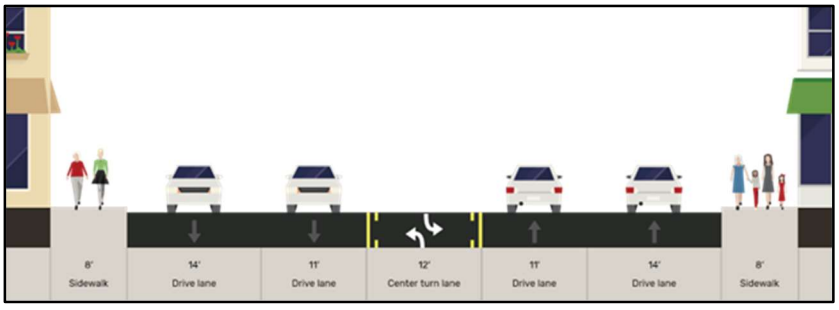


Figure 4: 80' Existing Cross Section





The posted speed limit through the study area is 35 miles per hour (mph); however, the City's Engineering and Speed survey prepared in May 2023 suggests that the prevailing speed along the corridor ranges from 41mph to 42mph. This indicates that drivers travelling along Valley Boulevard feel comfortable travelling at speeds higher than the posted speed limits. One of the goals of this project is to physically modify the roadway to reduce the travel speed to align with the posted speed limit.

Field observations indicated that while on-street parking is allowed along most of the corridor, most of the time those spaces were unoccupied. The parking study prepared for the corridor confirmed that for most of the corridor on-street parking was occupied less than 25% of the time. The areas with the greatest demand for parking are in Segment 5 between Garvey Avenue and the eastern city limits.

Operational Analysis

LOS is commonly used as a qualitative description of intersection operation. The intersection analysis prepared for the corridor conforms to the operational analysis methodology outlined the *Highway Capacity Manual (HCM) 6th Edition* and performed utilizing the *Synchro 10*. The HCM methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions). LOS is assigned based on the corresponding stopped delay, in terms of seconds per vehicle (sec/veh). The criteria of the LOS grade designations for intersections are provided in **Table 1** below.

Unsignalized intersection LOS for all-way stops is based on the average delay for all approaches. Delay for one-way or two-way stop-controlled intersections is based on available gaps in traffic flow on the non-controlled approach and LOS is based on the approach with the worst delay.

Table 1: Level of Service Criteria

LOS	Control Delay (seconds/vehicle)		Description
	Signalized	Unsignalized	
A	<10	<10	Operations with very low delay and most vehicles do not stop.
B	>10 and ≤20	>10 and ≤15	Operations with good progression but with some restricted movements.
C	>20 and ≤35	>15 and ≤25	Operations where a significant number of vehicles are stopping with some backup and light congestion.
D	>35 and ≤55	>25 and ≤35	Operations where congestion is noticeable, longer delays occur, and many vehicles stop. The proportion of vehicles not stopping declines.
E	>55 and ≤80	>35 and ≤50	Operations where there is significant delay, extensive queuing, and poor progression.
F	>80	>50	Operations that are unacceptable to most drivers, when the arrival rates exceed the capacity of the intersection.

Source: *Highway Capacity Manual, 6th Edition*



There are 15 signalized intersections and six uncontrolled marked crosswalks through the study area. **Figure 5** illustrates the limits of the study area, locations of the signalized intersections, and the locations of the uncontrolled marked crosswalks.

Intersections determined to be the most representative of the overall driver experience along Valley Boulevard were selected for detailed operational analysis. Existing operating conditions at seven key intersections conditions were evaluated to determine the current delay experienced by travelers at along Valley Boulevard. **Figure 6** illustrates the lane configuration at each of the seven key intersections.

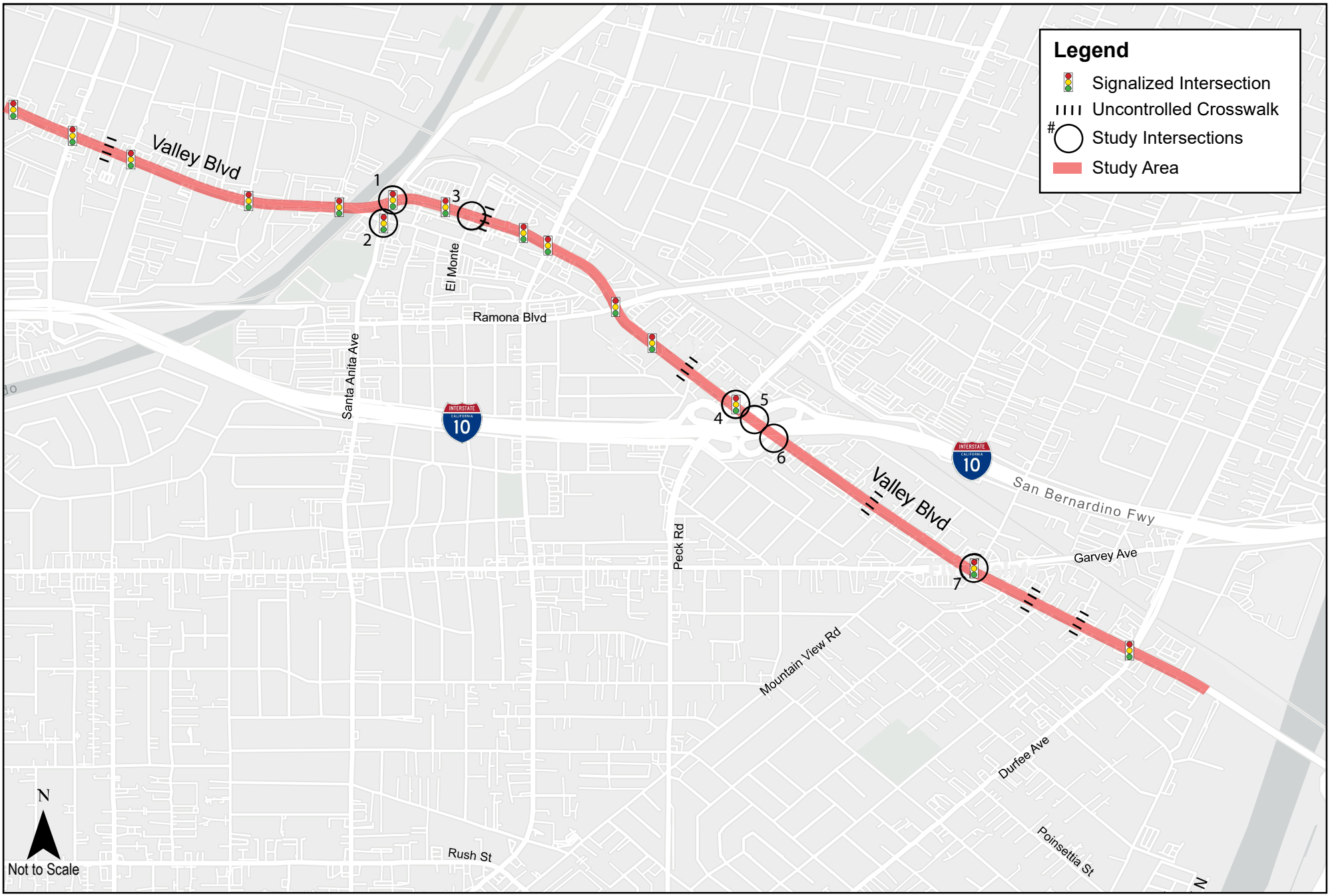
Traffic counts were collected at the seven intersections on Tuesday April 25, 2023 for the morning (7:00 AM to 9:00 AM) and the evening (4:00 PM to 6:00 PM) peak periods and are summarized in **Figure 7**. **Appendix A** contains the count data collected for this analysis. For the purposes of this analysis, LOS D will be the minimum acceptable condition.

Table 2 summarizes the results of the existing conditions operational analysis. As shown, all intersections operate at LOS D or better during the AM and PM peak hours.

Table 2 : Operational Analysis Results - Existing Conditions (2023)

ID	Intersection	Control Type	AM Peak Hour		PM Peak Hour	
			LOS	Delay	LOS	Delay
1	Santa Anita Avenue & Valley Boulevard	SIG	D	42.3	D	36.7
2	Santa Anita Avenue & Main Street	SIG	C	22.7	C	25.4
3	El Monte Avenue & Valley Boulevard	TWSC	D	26.4	D	31.2
4	Peck Road & Valley Boulevard	SIG	D	49.7	D	47.0
5	Peck Road & I-10 WB Ramps	OWSC	B	12.7	B	10.8
6	I-10 WB Ramps & Valley Boulevard	OWSC	C	16.7	B	12.8
7	Garvey Avenue/Cogswell Road/Valley Boulevard	SIG	C	28.9	D	35.2

Notes: 1) LOS = Level of Service.
2) LOS E or LOS F in **red bold font** where applicable.
3) SIG = Signalized Control; TWSC = Two-Way Stop-Controlled; OWSC = One-Way Stop-Controlled.
4) Overall LOS provided for signalized intersection. Worst approach LOS provided for one-way and two-way stop-controlled intersections.
5) Delay shown in seconds per vehicle.

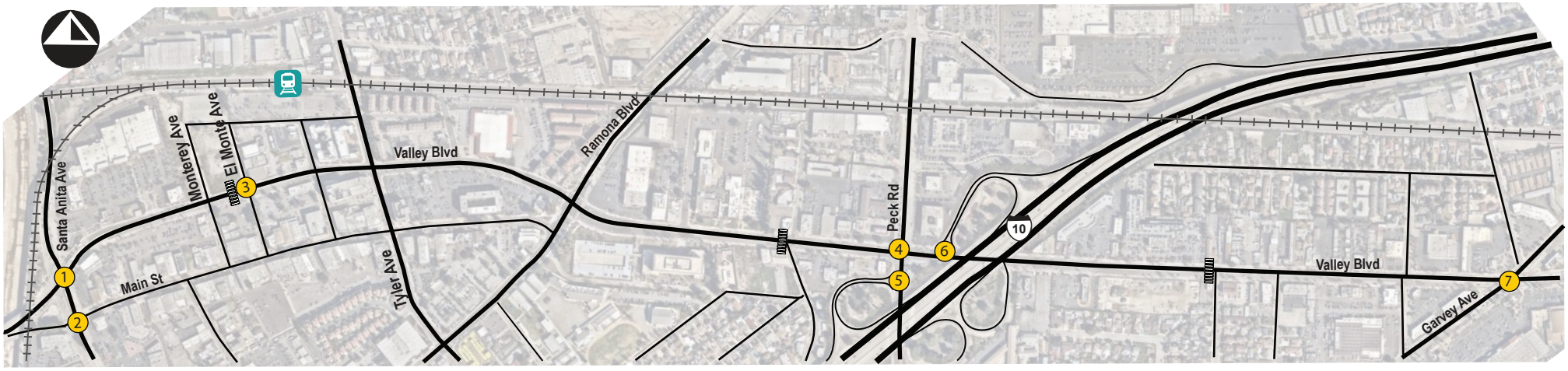


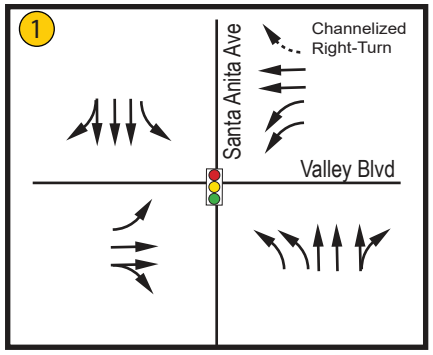
Michael Baker INTERNATIONAL

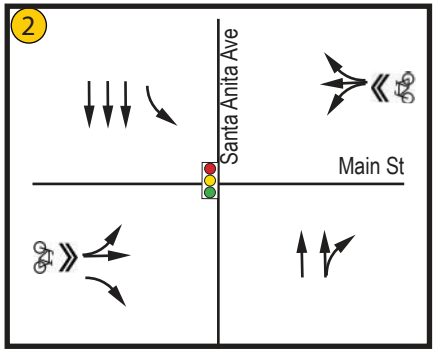
Project Study Area

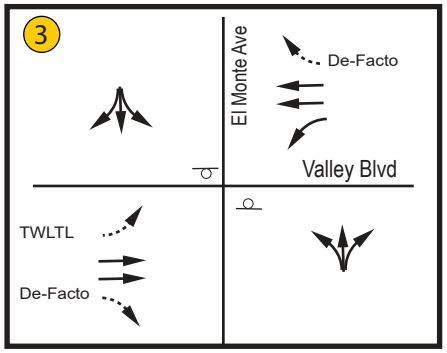
Figure 5

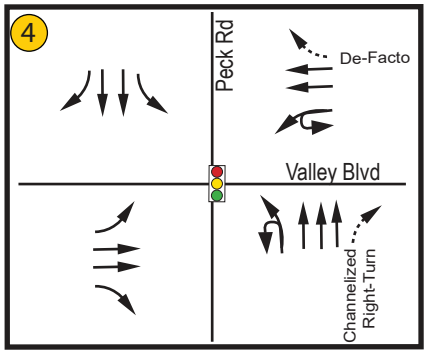
Not to Scale

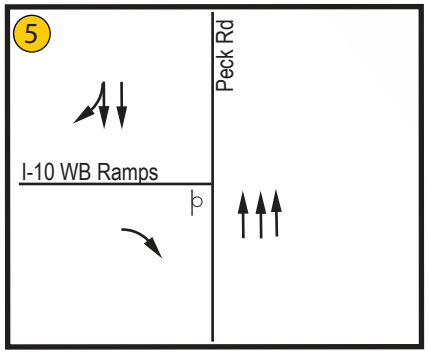


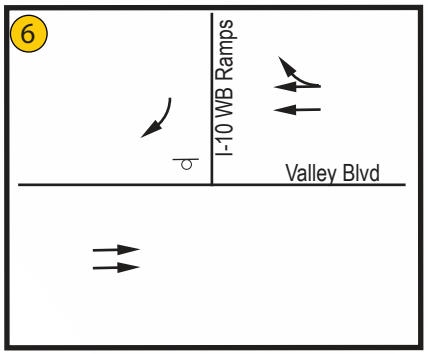


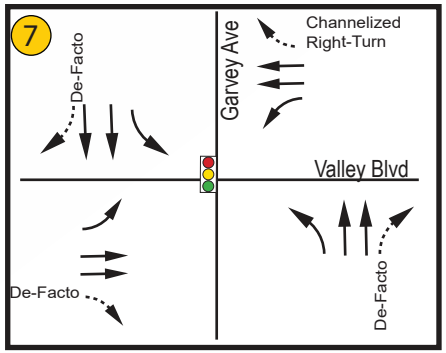


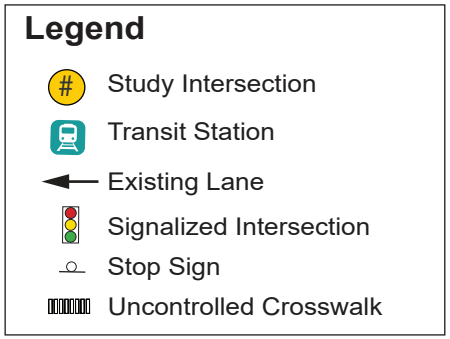










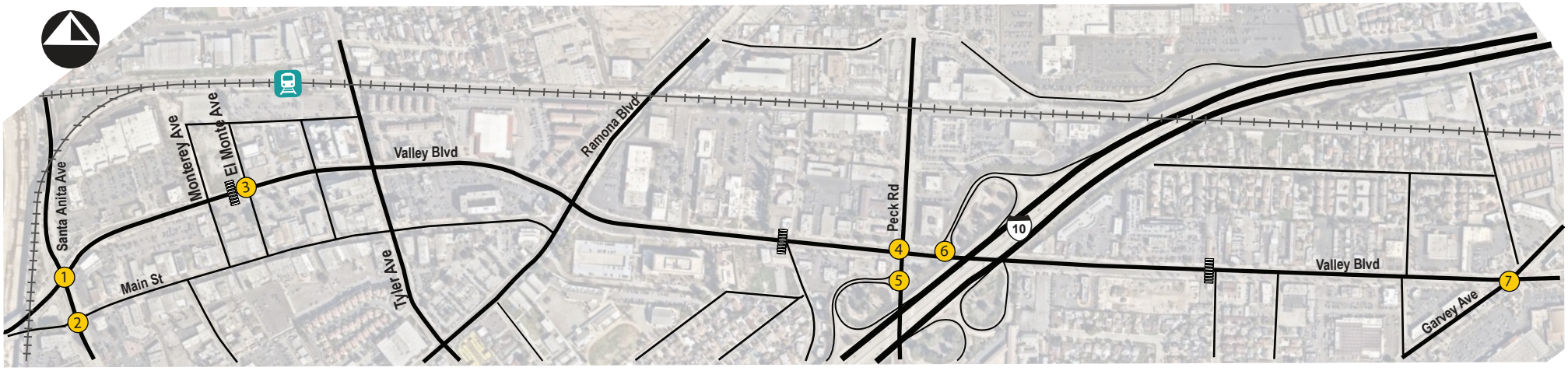


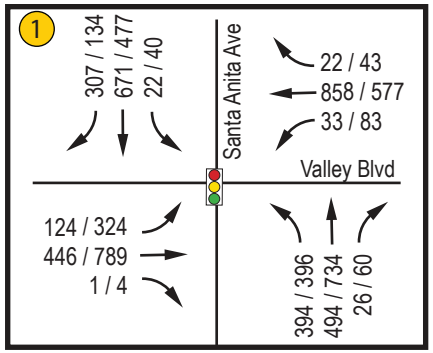
Michael Baker INTERNATIONAL

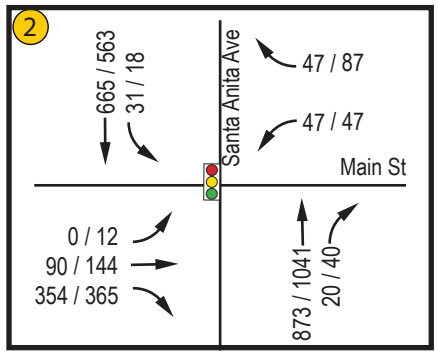
Intersection Lane Configuration

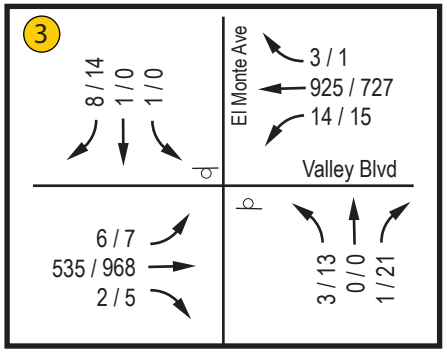
Figure 6

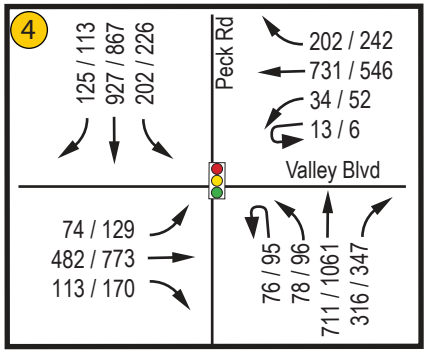
Not to Scale

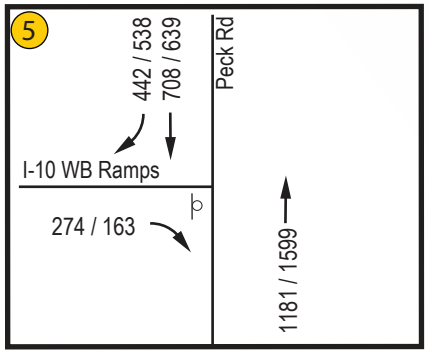


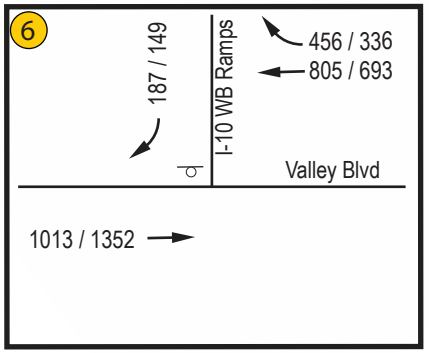


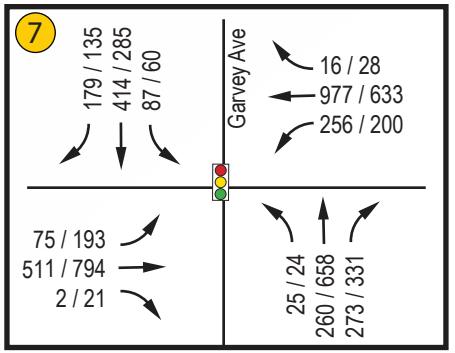


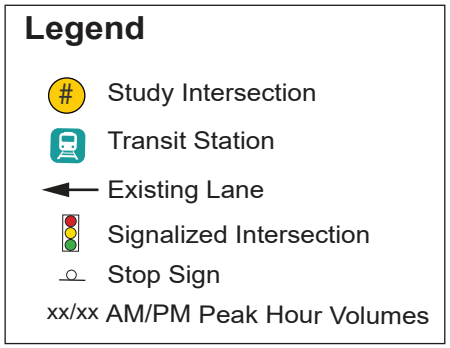












Michael Baker INTERNATIONAL

Existing AM & PM Peak Hour Volumes

Figure 7

Vehicular Safety Assessment

Crash data is a key metric when assessing the safety and reliability of the overall transportation system. Crash data was obtained from the Statewide Integrated Traffic Records System (SWITRS) for a five-year period from January 2018 to December 2022. The data was used to determine the emphasis areas where safety measures could be recommended along Valley Boulevard to address localized and systemic crash trends.

During this study period, a total of 351 crashes were reported with 1% resulting in a fatality, 8% resulting in a severe injury, 43% resulting in a visible injury, and 49% resulting in complaints of pain. **Figure 9** illustrates the location of the fatalities, severe injury crashes and locations of crashes resulting in visible injuries. Crash severity by location is summarized in **Table 3.**

The most common crash type was a broadside collision and the most common cause was automobile right of way violation, as illustrated in **Figure 8**. A summary of crash type by location is provided in **Table 4** and crash cause in **Table 5**.

The top five vehicle-involved crash locations occurred at the intersections of Valley Boulevard with Baldwin Avenue, Santa Anita Avenue, Tyler Avenue, Peck Road, and Durfee Avenue, which are highlighted in green on the tables below. **Figure 10** is a heat map that shows where the highest concentration of vehicle-involved crashes occurred along Valley Boulevard.



Table 3: Crash Severity by Location on Valley Boulevard

Crash Locations	Number of Crashes (2018 – 2022)	Crash Severity				
		Fatal	Severe	Other Visible Injury	Complaint of Pain	Property Damage Only
Rowland Avenue	3	0	0	2	1	0
Eunice Avenue	8	0	1	3	4	0
Baldwin Avenue	35	0	4	15	16	0
Shirley Avenue	7	0	0	0	7	0
Gibson Road	14	1	0	10	3	0
Rockwell Avenue	4	0	0	2	2	0
Velma Avenue	4	0	0	2	2	0
De Garmo Avenue	3	0	0	0	3	0
Arden Drive	20	0	2	7	11	0
Esto Avenue	6	0	0	1	5	0
Santa Anita Avenue	30	0	1	13	16	0
Monterey Avenue	2	0	0	1	1	0
El Monte Avenue	2	1	0	1	0	0
Center Avenue	2	0	0	0	2	0
Tyler Avenue	25	0	2	9	14	0
Wiggins Avenue	5	0	0	2	3	0
Ramona Boulevard	17	0	0	8	9	0
Johnson Avenue	4	0	2	0	2	0
Meeker Avenue	15	0	1	7	7	0
Peck Road	32	1	3	13	15	0
La Madera Avenue	10	0	1	5	4	0
Baseball Avenue	5	0	1	2	2	0
Mountain View Road	21	0	0	12	9	0
Garvey Avenue	22	0	2	11	9	0
Cogswell Road	8	0	0	3	5	0
Allgeyer Avenue	11	1	2	4	4	0
Maxson Road	7	0	0	5	2	0
Durfee Avenue	23	0	1	10	12	0
Gilman Road	2	0	0	2	0	0
Rumford Avenue	4	0	1	2	1	0
Total	**351**	**4**	**25**	**152**	**170**	**0**

1) Green text indicates top five intersections with highest number of crashes



Table 4: Crash Type by Location on Valley Boulevard

Crash Locations	Number of Crashes (2018 – 2022)	Broadside	Head-On	Hit Object	Not Stated	Other	Overturned	Rear-End	Sideswipe	Vehicle/Pedestrian
Rowland Avenue	3			2		1				
Eunice Avenue	8	6				1		1		
Baldwin Avenue	35	18						8	5	4
Shirley Avenue	7							5		2
Gibson Road	14	5	1					5	1	2
Rockwell Avenue	4	4								
Velma Avenue	4	3							1	
De Garmo Avenue	3	1	1	1						
Arden Drive	20	16				1		1	1	1
Esto Avenue	6	2					1	2	1	
Santa Anita Avenue	30	12	2	1	1			7	4	3
Monterey Avenue	2					1		1		
El Monte Avenue	2	1		1						
Center Avenue	2	1						1		
Tyler Avenue	25	18		2				4		1
Wiggins Avenue	5	3		1						1
Ramona Boulevard	17	8	3	2				2		2
Johnson Avenue	4							1	2	1
Meeker Avenue	15	10	1			1		1		2
Peck Road	32	9	1	1		1		15	3	2
La Madera Avenue	10	9							1	
Baseball Avenue	5	3		1					1	
Mountain View Road	21	11	1				1	4	1	3
Garvey Avenue	22	7		2		3	1	6	1	2
Cogswell Road	8	1		1				5	1	
Allgeyer Avenue	11	6						3		2
Maxson Road	7	2	2					2	1	
Durfee Avenue	23	11						10	1	1
Gilman Road	2							1		1
Rumford Avenue	4							3		1
Total	**351**	**167**	**12**	**15**	**1**	**9**	**3**	**88**	**25**	**31**

1) Green text indicates top five intersections with highest number of crashes



Table 5: Crash Cause by Location on Valley Boulevard

Crash Locations	Number of Crashes (2018 – 2022)	Automobile ROW	DUI	Following too Closely	Improper Passing	Improper Turning	Other Hazardous Violation	Other improper Driving	Other than Driver (Or Ped)	Pedestrian ROW	Pedestrian Violation	Traffic Signals and Signs	Unknown/Not Stated	Unsafe Lane Change	Unsafe Speed	Unsafe Starting or Backing	Wrong Side of Road
Rowland Avenue	3					1									1		1
Eunice Avenue	8	3							1				2		1		1
Baldwin Avenue	35	6	1	2	1	2				2	2	3	4	1	9		2
Shirley Avenue	7									2					5		
Gibson Road	14	3	2	2					1			3			1	1	1
Rockwell Avenue	4	1										1					2
Velma Avenue	4					2									1		1
De Garmo Avenue	3		2												1		
Arden Drive	20	9		1		1		2			1	1	3			1	1
Esto Avenue	6	1			1	2									1		1
Santa Anita Avenue	30	6	1	2		4		1			3	2	1		5	3	2
Monterey Avenue	2								1						1		
El Monte Avenue	2					1							1				
Center Avenue	2	1													1		
Tyler Avenue	25	1		2					1	1		13	3	2	2		
Wiggins Avenue	5				1	1		2					1				
Ramona Boulevard	17	3	2			3				1		4			2		2
Johnson Avenue	4	1				1					1			1			
Meeker Avenue	15	8								2			1		2		2
Peck Road	32	1	3	7	1	2	2	1			2	4	2		6	1	
La Madera Avenue	10	6	1											1			2
Baseball Avenue	5	3												1	1		
Mountain View Road	21	6	1	1		1				1	1	6	1		2		1
Garvey Avenue	22	5	2		1	2			1	1	1	2	1		5	1	
Cogswell Road	8	1		1	1	2									3		
Allgeyer Avenue	11	6		1						1	1			1			1
Maxson Road	7	2				2							1		2		
Durfee Avenue	23	3	2	1		2		1				4	1		4	2	3
Gilman Road	2											1			1		
Rumford Avenue	4			1							1				2		
Total	**351**	**76**	**17**	**21**	**6**	**29**	**2**	**7**	**5**	**11**	**13**	**44**	**22**	**7**	**59**	**9**	**23**

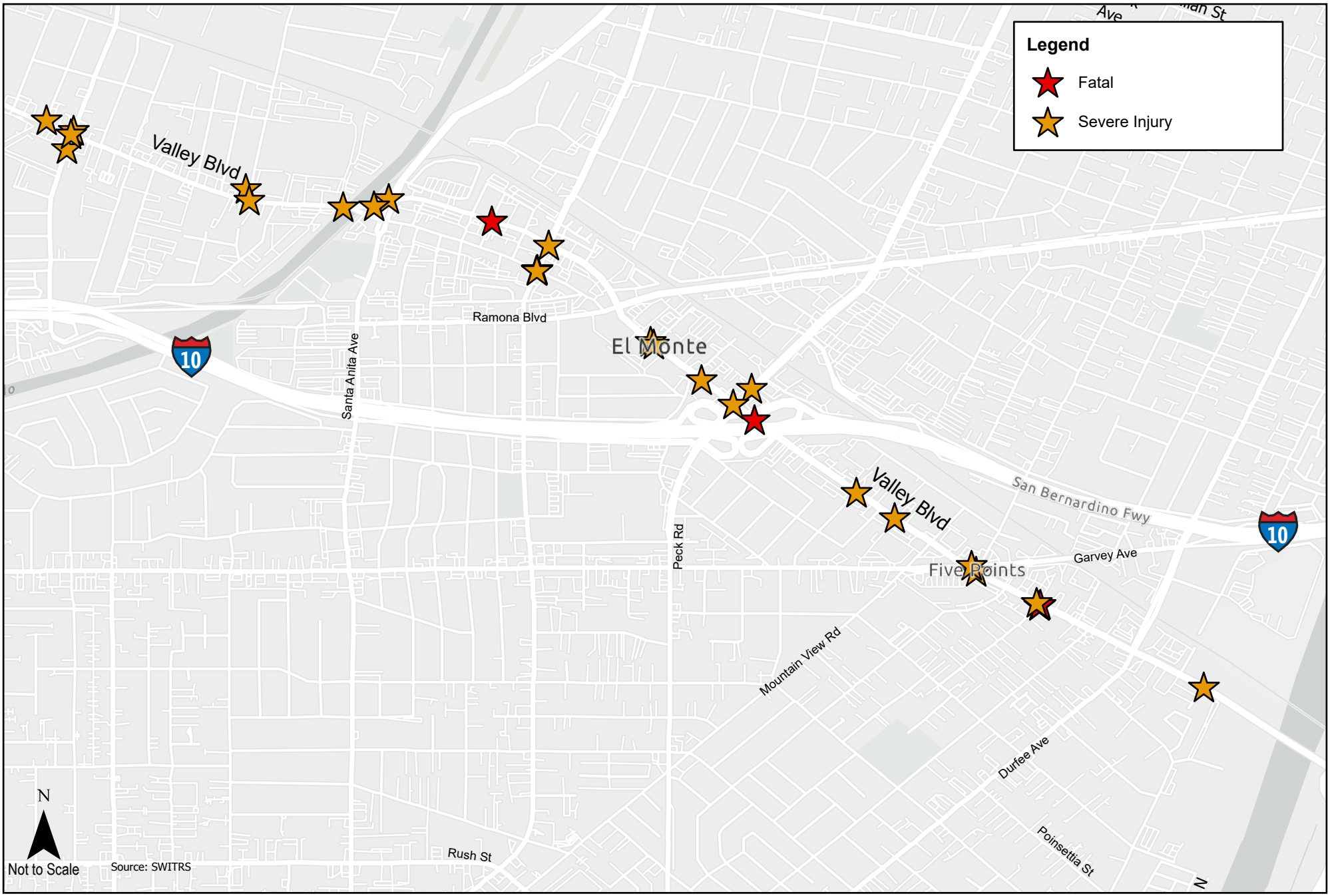
1) Green text indicates top five intersections with highest number of crashes



Michael Baker INTERNATIONAL

Cause of Collisions

Figure 8



Michael Baker INTERNATIONAL

Collision Severity by Location

Figure 9



Michael Baker INTERNATIONAL

Vehicle Collision Heat Map

Figure 10

PEDESTRIAN AND BICYCLE CONDITIONS

There are existing 8′ to 12′ sidewalks on both sides of Valley Boulevard. Most of the sidewalks are in fair condition with some lifting or deterioration due to age or landscaping. Benches and shade trees are provided intermittently along the corridor that help provide a reasonable environment for pedestrians or transit passengers.

While most marked pedestrian crossings are located at signalized intersections, there are six uncontrolled marked crosswalks along Valley Boulevard. These six locations typically have overhead street lighting, RRFBs and signage. During public meetings and pop-up events, community members expressed concerns about these crossings indicating they felt uncomfortable crossing as vehicles failed to stop for them or the speed and volume of traffic made crossing challenging or raised safety concerns.

There are no bicycle facilities along Valley Boulevard. While cyclist should share the road with vehicular traffic, many bicyclists were observed riding on the sidewalk to avoid parked and moving vehicles. There are limited locations where bicycle racks are provided at or near local businesses or near bus stops.

Pedestrian Environmental Quality Index

Roadway segments and intersections were evaluated for pedestrian quality using the Pedestrian Environmental Quality Index (PEQI). The PEQI is a qualitative pedestrian survey of the street that assesses the quality of the walking environment along roadway segments and at intersections.

The PEQI methodology is based on a tool originally developed in 2018 by the San Francisco Department of Public Health and later refined by Center for Occupational and Environmental Health at the University of California, Los Angeles. The methodology provides the point thresholds and weighted criteria for each item included in the index. The weighted criteria and scoring for each item are included in **Appendix B**.

It should be noted that the PEQI assessment is a high-level look at the study area and does not necessarily take into account the detailed pedestrian infrastructure. Therefore, the assessment should be considered more qualitative assessment of the quality and comfort of the overall pedestrian environment.

The PEQI assessment requires the collection of specific data about the elements of the physical environment and establishes the "walkability" of the area. The tool considers data in five categories: intersection safety, traffic, street design, land use, and perceived safety. The elements shown to the right were assessed within the study area.

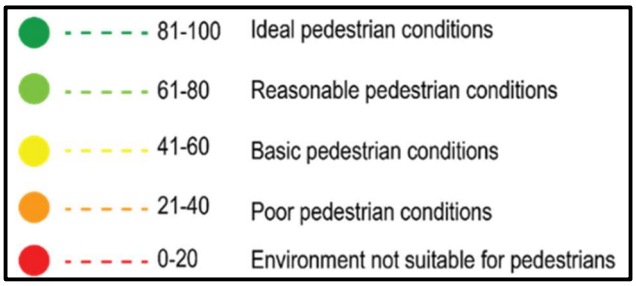
Analysis Criteria for PEQI Analysis

- **Intersection Safety**
  - Crosswalks
  - Countdown Signal
  - Traffic Signal
  - Crossing Distance
  - No Turn on Red
  - Traffic Calming Features
  - Pedestrian Signs
- **Traffic**
  - Number of Lanes
  - Two-Way Traffic
  - Vehicle Speed
  - Traffic Volume
  - Traffic Calming Features
- **Street Design**
  - Sidewalk Width
  - Sidewalk Surface
  - Sidewalk Obstructions
  - Presence of Curb
  - Driveway Cuts
  - Trees, Gardens
  - Public Seating (or bus stops)
  - Buffers
  - Distance between Controlled or
  - Enhanced Crosswalks
- **Land Use**
  - Public Art
  - Historic Sites
  - Retail
- **Perceived Safety**
  - Illegal Graffiti
  - Litter
  - Pedestrian-Scale Lighting
  - Construction Sites
  - Abandoned Buildings

The index evaluates individual components of the physical environment, which are assessed for existence, quality, and overall pedestrian comfort. Information collected from the survey can be used to identify priority areas for improving the walkability of an area, either through individual index elements or for comprehensive improvements.

The total PEQI score can range from 0 to 100 points, broken into the five categories shown in **Figure 11** (from the San Francisco Department of Public Health).

Figure 11: PEQI Score Ranges



PEQI Analysis

Existing pedestrian conditions along Valley Boulevard were analyzed using the PEQI methodology discussed above. Existing conditions worksheets are provided in **Appendix C**. The results of this analysis are shown in **Table 6** (roadway segment analysis) and **Table 7** (intersection analysis).

As shown in the tables, the roadway segment analysis indicated that the pedestrian conditions along Valley Boulevard are ranked as "basic pedestrian conditions." This could be due to the lack of wide and consistent driveways, and general lack of shade, benches, or planters.

The intersection analysis indicated that all analyzed intersections along Valley Boulevard were ranked as "basic pedestrian conditions" or worse. This could be due to lack of pedestrian signs, poorly marked or limited visibility crossings, and missing or non-compliant curb ramps.



Photo 5: Example crosswalk along Valley Boulevard



Photo 6: Example sidewalk along Valley Boulevard



Table 6: Existing Conditions PEQI Roadway Segment Analysis

Street Name	Cross Street 1	Cross Street 2	Side of Street	Total PEQI Score	Pedestrian Conditions
Valley Boulevard	Rowland Avenue	Santa Anita Avenue	East	48	Basic Pedestrian Conditions
			West	50	Basic Pedestrian Conditions
	Santa Anita Avenue	Ramona Boulevard	East	43	Basic Pedestrian Conditions
			West	45	Basic Pedestrian Conditions
	Ramona Boulevard	Mountain View Road	East	51	Basic Pedestrian Conditions
			West	48	Basic Pedestrian Conditions
	Mountain View Road	Garvey Avenue	East	53	Basic Pedestrian Conditions
			West	53	Basic Pedestrian Conditions
	Garvey Avenue	Rumford Avenue	East	50	Basic Pedestrian Conditions
			West	50	Basic Pedestrian Conditions

Table 7: Existing Conditions PEQI Intersection Analysis

Street Name 1	Street Name 2	Total PEQI Score	Pedestrian Conditions
Valley Boulevard	Rowland Avenue	45	Basic Pedestrian Conditions
	Baldwin Avenue	33	Poor Pedestrian Conditions
	Shirley Avenue	40	Poor Pedestrian Conditions
	Gibson Road	45	Basic Pedestrian Conditions
	Arden Drive	26	Poor Pedestrian Conditions
	Valley Circle	18	Environment Not Suitable for Pedestrians
	Santa Anita Avenue	33	Poor Pedestrian Conditions
	Plaza Entrance	30	Poor Pedestrian Conditions
	El Monte Avenue	52	Basic Pedestrian Conditions
	Center Avenue	33	Poor Pedestrian Conditions
	Tyler Avenue	33	Poor Pedestrian Conditions
	Ramona Boulevard	41	Basic Pedestrian Conditions
	Johnson Avenue	26	Poor Pedestrian Conditions
	Meeker Avenue	24	Poor Pedestrian Conditions
	Peck Road	33	Poor Pedestrian Conditions
	La Madera Avenue	40	Poor Pedestrian Conditions
	Mountain View Road	33	Poor Pedestrian Conditions
	Garvey Avenue	38	Poor Pedestrian Conditions
	Allgeyer Avenue	40	Poor Pedestrian Conditions
	Maxson Road	29	Poor Pedestrian Conditions
	Durfee Avenue	38	Poor Pedestrian Conditions

Bicycle Assessment

Existing bicycle facilities were assessed using the Level of Traffic Stress (LTS) analysis. LTS is a qualitative measure that assesses a bicyclist's level of discomfort or stress based on the quality of the bicycling environment and provided facilities. In this assessment, scores range from LTS 1 (most comfortable, least stressful) to LTS 4 (least comfortable, most stressful).



LTS 1 Typical Users

LTS 1 – Represents the most comfortable and least stressful bicycling environment. LTS 1 is the level that is comfortable for most people, including children.



LTS 2 Typical Users

LTS 2– Represents a fairly comfortable and low-stress bicycling environment. LTS 2 is the level that is comfortable for the mainstream adult population.



LTS 3 Typical Users

LTS 3 – Represents a fairly uncomfortable and high-stress bicycling environment. LTS 3 is the level that is comfortable for those who are confident in their bicycling abilities but prefer to have dedicated space while riding.



LTS 4 Typical User

LTS 4 – Represents the least comfortable and most stressful bicycling environment. LTS 4 is tolerated only by the most seasoned and confident cyclists but is generally avoided by all other people who want to bike.

The LTS analysis traditionally takes into account existing facilities—such as bike lanes, bike paths, bike routes, and any provided separation from vehicles—that are constructed. In general, roads with dedicated space for people biking are considered to be less stressful.

The LTS analysis can also be used to forecast the level of stress of future or proposed facilities if planned roadway characteristics are known. Several factors of data are needed to assess existing and planned improvements. The data used for this assessment was found using in-person site observation and Google Earth analysis. The data used included the number of lanes in each direction, presence and type of bicycle facility, presence and type of median, speed, and functional class of the roadway.

The thresholds used in this feasibility study for the Valley Boulevard Complete Street plan LTS analysis were adapted from those developed in the paper "Low-Stress Bicycling and Network Connectivity" prepared by the Mineta Transportation Institute.[1] **Table 8** summarizes the LTS criteria used in this analysis for roadways where bicyclists mix with traffic, which occurs both when a bicycle facility is not provided and when a Class III bike route is provided. A Class III bicycle facility requires bicyclists to claim the vehicular lane (often marked with sharrows) and requires a high level of bicycling confidence. As shown, a roadway with a speed of 20mph, street width of two lanes, and a residential functional class was assigned a value of LTS 1. A roadway with speed greater than 35mph is categorized as LTS 4.

Table 8: Criteria for Roadways with Mixed Traffic (No Bicycle Facility or a Class III Facility)

Speed Limit	Width of Street (travel lanes in one direction)		
	1 lane	2–3 lanes	4+ lanes
Up to 25mph	LTS 1[a] or 2[a]	LTS 3	LTS 4
30mph	LTS 2[a] or 3[a]	LTS 4	LTS 4
35mph or higher	LTS 4	LTS 4	LTS 4

[1]Maaza C. Mekuria, Peter G. Furth, and Hilary Nixon, 2012, http://transweb.sjsu.edu/PDFs/research/1005-low-stress-bicycling-network-connectivity.pdf.

Note: Use lower value for streets classified as residential with fewer than three lanes; use higher value otherwise.

For Class I (bike path) and Class II (bike lane) facilities, the LTS criteria are different and assume that cycling along a separated bicycle facility is less stressful than riding in mixed traffic. The criteria yielding the highest LTS were applied for each roadway segment evaluated. **Table 9** summarizes the criteria for roadways with a Class I or Class II bike facility.

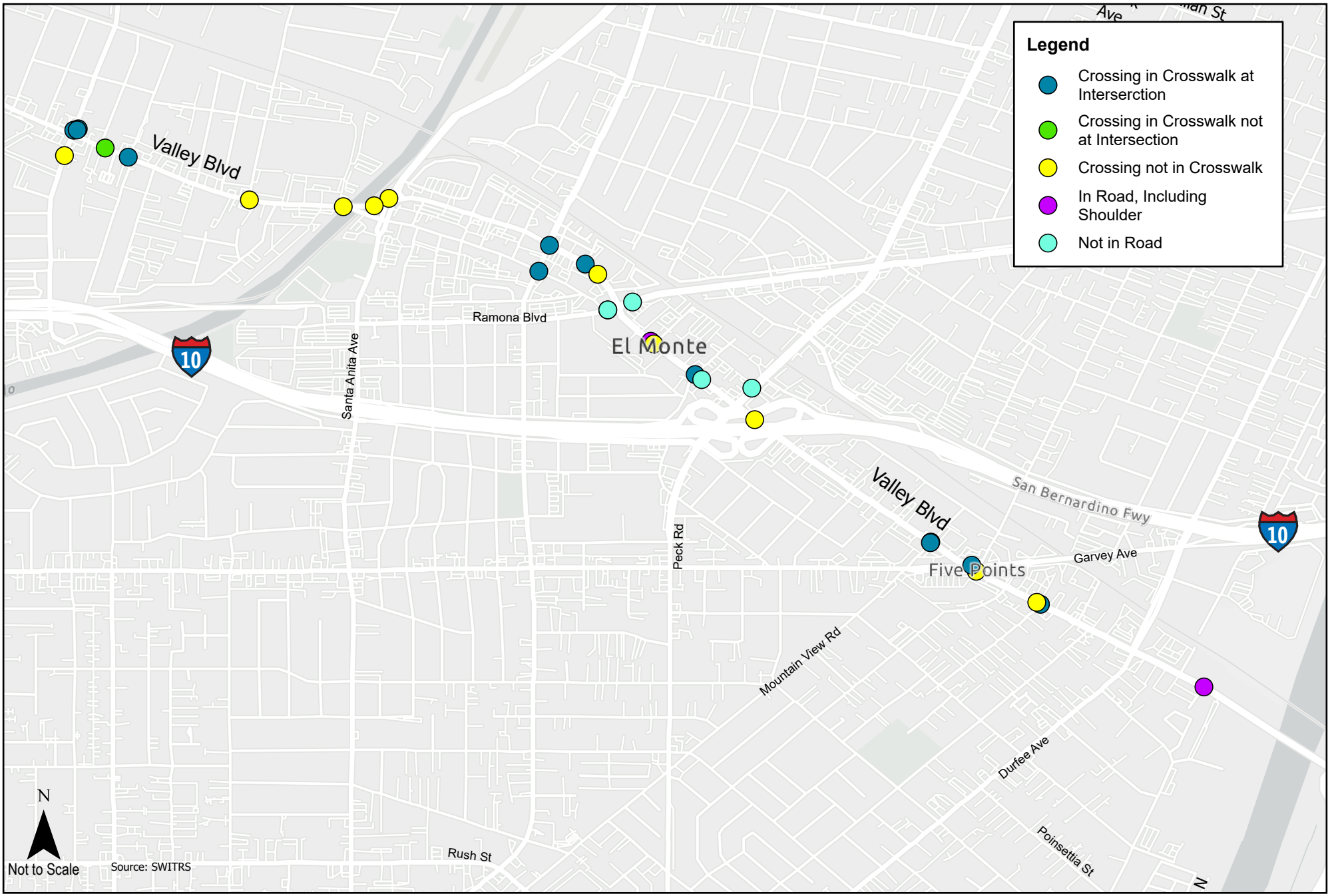
Table 9: Criteria for Roadways with Bicycle Facilities

	LTS ≥ 1	LTS ≥ 2	LTS ≥ 3	LTS ≥ 4
Street Width (through lanes per direction)	1	2 (if directions are separated by a raised/striped median)	More than 2, or 2 without a raised/striped median	(no effect)
Bike Facility Type	Class I	Class II	(no effect)	(no effect)
Speed	30mph or less	(no effect)	35mph	40mph or more

[1]Maaza C. Mekuria, Peter G. Furth, and Hilary Nixon, 2012, http://transweb.sjsu.edu/PDFs/research/1005-low-stress-bicycling-network-connectivity.pdf.

Note: (no effect) = factor does not trigger an increase to this level of traffic stress

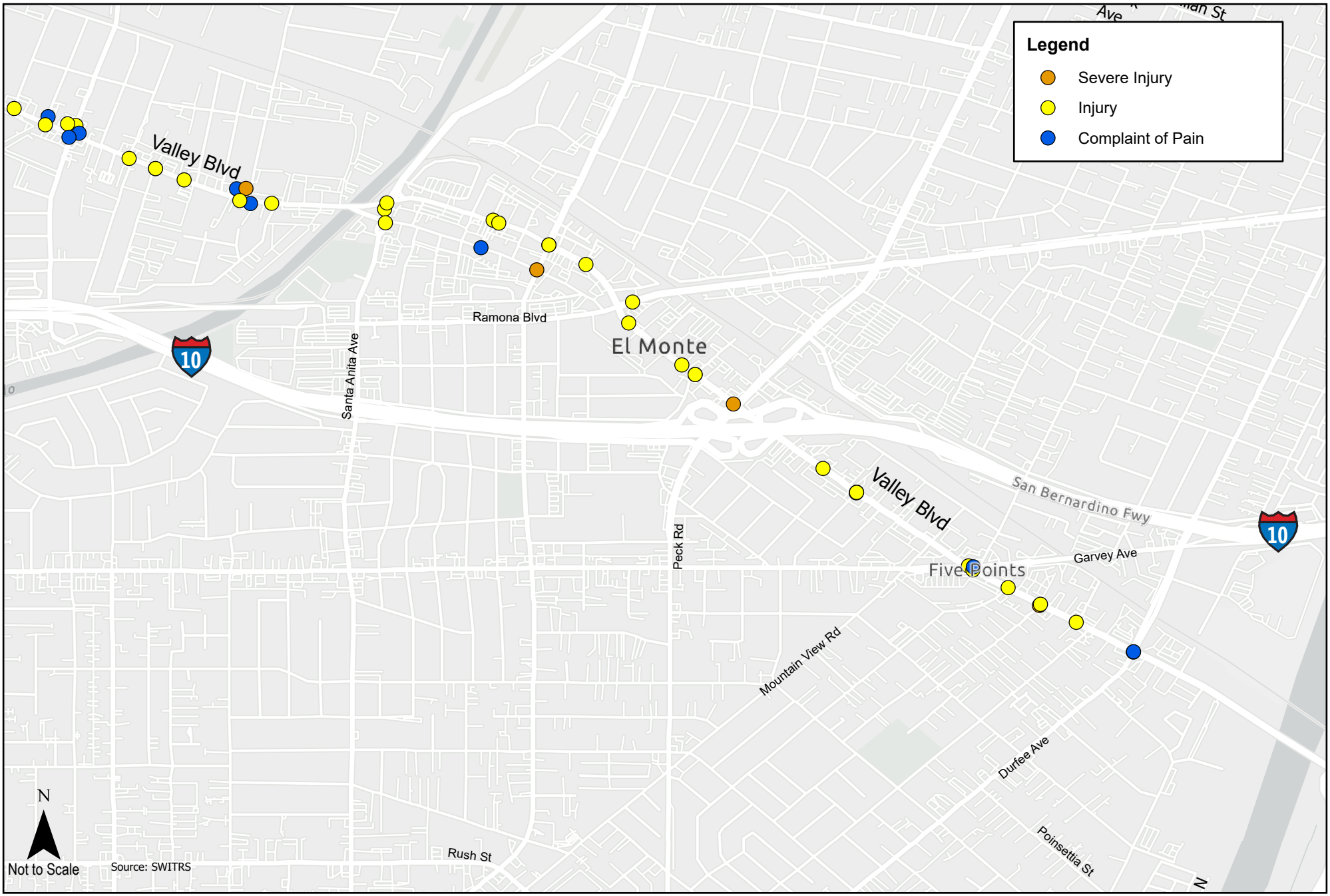
[1] Maaza C. Mekuria, Peter G. Furth, and Hilary Nixon, *Low-Stress Bicycling and Network Connectivity* (San Jose, CA: Mineta Transportation Institute, 2012), http://transweb.sjsu.edu/PDFs/research/1005-low-stress-bicycling-network-connectivity.pdf.



Michael Baker INTERNATIONAL

Pedestrian Involved Collisions

Figure 12



Michael Baker INTERNATIONAL

Bicycle Involved Collisions

Figure 13

LTS Analysis

Table 10 shows the results of the LTS analysis conducted for the existing conditions along Valley Boulevard. The lack of dedicated existing bicycle facilities results in a high level of bicycle stress (LTS 4), which indicates that the most confident bicyclists (categorized as "Strong and Fearless") would more likely ride on the roadway than those with less capabilities and confidence. The addition of dedicated facilities and the incorporation of traffic calming features would improve the bicycle environment along Valley Boulevard.

Table 10: Existing Conditions Bicycle LTS Analysis

Street Name	Cross Street 1	Cross Street 2	Direction	Presence of Bicycle Facility	Number of Travel Lanes	Observed Speed	Total LTS Score	Suitable for
Valley Boulevard	Rowland Avenue	Santa Anita Avenue	East	None	2	35+ mph	4	Strong and Fearless Bicyclists
			West		2	35+ mph		
	Santa Anita Avenue	Ramona Boulevard	East	None	2	35+ mph	4	Strong and Fearless Bicyclists
			West		2	35+ mph		
	Ramona Boulevard	Mountain View Road	East	None	2	35+ mph	4	Strong and Fearless Bicyclists
			West					
	Mountain View Road	Garvey Avenue	East	None	2	35+ mph	4	Strong and Fearless Bicyclists
			West					
	Garvey Avenue	Rumford Avenue	East	None	2	35+ mph		Strong and Fearless Bicyclists
			West					

Bicycle and Pedestrian Involved Collisions

Using SWITRS data for the period from January 2018 through December 2022, a total of 352 crashes were reported. Of those crashes 13% (45 crashes) involved a bicyclist and 11% (37 crashes) involved a pedestrian. **Figure 12** shows the location of and cause of pedestrian-involved crashes and **Figure 13** shows the location of and cause of bicycle-involved crashes.

Of the bicycle and pedestrian involved crashes reported during this time period, there were four fatalities and 17 crashes resulted in severe injuries. Most crashes involving a bicycle were caused by a party driving on the wrong side of the road. Most crashes involving a pedestrian occurred when the pedestrian was walking inside a crosswalk, indicating that the pedestrian's right of way may have been violated.

TRANSIT CONDITIONS

Transit is a key component of the transportation system along Valley Boulevard. The El Monte Metrolink Station is situated approximately 350' north of Valley Boulevard off of Tyler Avenue, which connects El Monte with Downtown LA and San Bernardino County. The Busway Station is located approximately 0.3 miles south of Valley Boulevard along Santa Anita Avenue. The proximity to these transit connections is an important consideration for the Valley Boulevard Complete Street plan because it will provide people not only with short-distance non-motorized options but allow them to connect with these transit links and connect further to the region.

The following transit providers have routes running along Valley Boulevard:

- LA Metro (Routes 76, 267)
- Foothill Transit (Routes 178, 194, 270, 282)
- Norwalk Transit (Route 7)
- El Monte Shuttle Services

In addition to the routes listed above that run along Valley Boulevard, all three agencies also have routes crossing across Valley Boulevard with stops on the north and south side of many of the intersections. The Red, Blue, Green, Orange and Yellow Fixed Route Trolleys, which are organized through the City of El Monte's Shuttle Services, all have portions of their routes on Valley Boulevard. **Appendix D** includes overview maps that illustrate the bus routes and stops along the corridor.

Buses stop curb adjacent either in the travel lane or they transition into a bus bay for loading and unloading passengers. Amenities at each stop vary from simply a sign with a bench to a transit shelter as shown in **Photo 7** to **Photo 9**. Generally, the stops are located on the nearside of intersections but some stops along the corridor are located on the far side. The preferred location is on the far side in order to allow buses to more easily re-enter traffic and to minimize line of sight obstructions at intersections. This will be discussed in greater detail in the recommended improvements section of this report.



Photo 7: Bus stop with bench only



Photo 8: Bus stop with shelter, bench and trash can



Photo 9: Bus pullout with shelter

4.0 Plans, Codes & Policies Influencing Complete Street Plan Development

The following documents were consulted as part of the Complete Street Feasibility Study. These sections include explanations of how these existing documents and guidelines relate to components of the Complete Street plan.

VISION EL MONTE GENERAL PLAN (2022)

El Monte adopted their award winning "Vision El Monte General Plan" in 2011 and updated it in 2022. The General Plan provides a blueprint to create and sustain a community that appreciates its heritage, respects its culture, and is a place of opportunity and achievement. The Plan's goals and policies serve as the foundation for local decision making and community engagement.

Connectivity Goals

- Work with partners to capitalize on freeway access, regional bus transit, commuter rail, and City fixed route bus transit to improve mobility.
- Design and retrofit roadways where feasible to allow for multiple uses and improve the aesthetics and safety of roadways.
- Create a walkable and bikeable city with a network of sidewalks, greenways, and paths to encourage residents to walk, bike, and move about El Monte without a car.

VISION ZERO ACTION PLAN (2022)

Adopted in 2022, the Vision Zero Action Plan, provides the City with the tools and guidance to reduce (with the ultimate goals of zero) traffic fatalities and serious injuries on city streets by 2028.

The Vision Goals are:

- Enhance safety education programs for all ages and abilities.
- Employ quick-build bicycle and safety projects.
- Provide for a safe and comfortable safe route to schools.
- Design and promote human-centered streets.
- Partner with the Police Department to focus on traffic safety enforcement and educational safety campaigns.
- Improve infrastructure to increase roadway safety for all users.
- Lower vehicle speeds.
- Prioritize road safety investments through an equitable lens.
- Monitor and evaluate success of investment for vulnerable roadway users.

STREETSCAPE BEAUTIFICATION MASTER PLAN (2022)

The City of El Monte developed the Streetscape Beautification Master Plan in 2022 that will provide a general guidance for streetscape elements as they relate to different street types throughout the City.

SAN GABRIEL VALLEY BICYCLE MASTER PLAN (2014)

In 2014, Bike San Gabriel Valley partnered with five cities to develop a regional bicycle master plan that will guide the development and maintenance of a comprehensive bicycle network in the San Gabriel Valley for the next 20 years. Within the Bicycle Master Plan, a Class II bike lane was recommended along Valley Boulevard.

PAVEMENT MANAGEMENT PLAN (2023)

The Highway Performance Monitoring System (HPMS) is a federally mandated planning study designed by the Federal Highway Administration (FHWA). It is implemented as a continuing information system that includes data collection, analysis, and analytical modeling, which is based on the 2017 California Public Road Data by the State of California Department of Transportation, Division of Transportation System Information.

On the local level, cities also put in place methodologies to prioritize roadway maintenance needs through the use of a Pavement Management System (PMS). In addition, Proposition C requires that cities develop a PMS and update it triennially in order to use Proposition C funds for street improvement projects.

The purpose of this program is to outline consistent and efficient implementation of annual pavement projects based on pavement degradation analysis from the PMS Report and to move forward with a systemic program of preservation, repair and improvement of the local, collector and arterial streets in the City. There will be three components to each annual street maintenance program, which consists of the following:

- Improvements on prioritized arterial streets (roadway overlay, Americans with Disabilities Act (ADA) ramps, curb and gutter repairs and median island upgrades).
- Improvements on prioritized areas (local street slurry seals and cap seals).
- Miscellaneous repairs (slurry seals, miscellaneous roadway and concrete repairs on an as-needed basis).

SIDEWALK INVENTORY REPORT

It is the City's goal to perform a complete Citywide inventory and assessment of the City's sidewalk network resulting in a web-based GIS application database of the City's sidewalk network, which will identify the location and condition of sidewalks and provide the capabilities to process and analyze the recorded data and actively manage, track and update ongoing sidewalk and curb ramp maintenance programs and conditions.

SYSTEMIC SAFETY ANALYSIS REPORT

Caltrans established the Systemic Safety Analysis Report Program (SSARP) in 2016 to provide funding for local agencies to identify safety needs and recommend projects to address these needs. The systemic analysis is a proactive safety approach that focuses on evaluating an entire roadway network using a defined set of criteria. It looks at crash history on an aggregate basis to identify high-risk roadway characteristics, rather than looking at high-collision concentration locations through site analysis. The systemic analysis acknowledges that crashes alone are not always sufficient to prioritize countermeasures across a system.

The City developed a City-wide SSARP in February 2020 to understand the existing safety needs and recommend countermeasures to address these concerns. The SSARP proposed countermeasures at five of the intersections within this project limits including Valley Boulevard and Santa Anita Avenue, Peck Road, Mountain View Road and Garvey Avenue. The countermeasures vary by location but include installing upgraded signals with better visibility, high visibility



crosswalks and replacing the ADA curb ramps. Many of these countermeasures are consistent with the recommendations of this study.

CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

The California Manual on Uniform Traffic Control Devices (MUTCD-CA) establishes uniform policies and procedures for roadway design including signage, striping, and traffic signal warrants. These design standards were integrated into the conceptual design for the corridor and will be integrated to a greater extent during the final design phase of the project.

URBAN BIKEWAY DESIGN GUIDE – NATIONAL ASSOCIATION OF CITY TRANSPORTATION OFFICIALS

This guide provides cities and counties with state of the art and state of the practice design guidance for multimodal roadways. It includes unique solutions for bicycle facilities rooted in local agency experience from across the United States and is largely consistent with the MUTCD-CA and American Association of State Highway Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities. To create the guide, city officials conducted an extensive worldwide literature search from design guidelines and real-life experience. Authors of the guide worked closely with a panel of urban bikeway planning professionals from National Association of City Transportation Officials (NACTO) member cities, as well as traffic engineers, planners, and academics with deep experience in urban bikeway applications. This guide was used in the designing the Class IV facilities for Valley Boulevard.

CALTRANS DESIGN INFORMATION BULLETIN 89 (DIB-89)

The Protected Bikeways Act of 2014 (Assembly Bill 1193 - Ting, Chapter 495) established Class IV facilities for California and required the California Department of Transportation (Caltrans), in cooperation with local agencies and in consultation with the existing Caltrans advisory committee dedicated to improving access for persons with disabilities, to establish design criteria for separated bicycle facilities. Design Information Bulletin (DIB) 89 was initially drafted in 2018 and finalized in February 2022. It provides the design criteria and other general guidance on best practices related to separated bicycle facilities to establish uniform guidance for the use of these facilities.

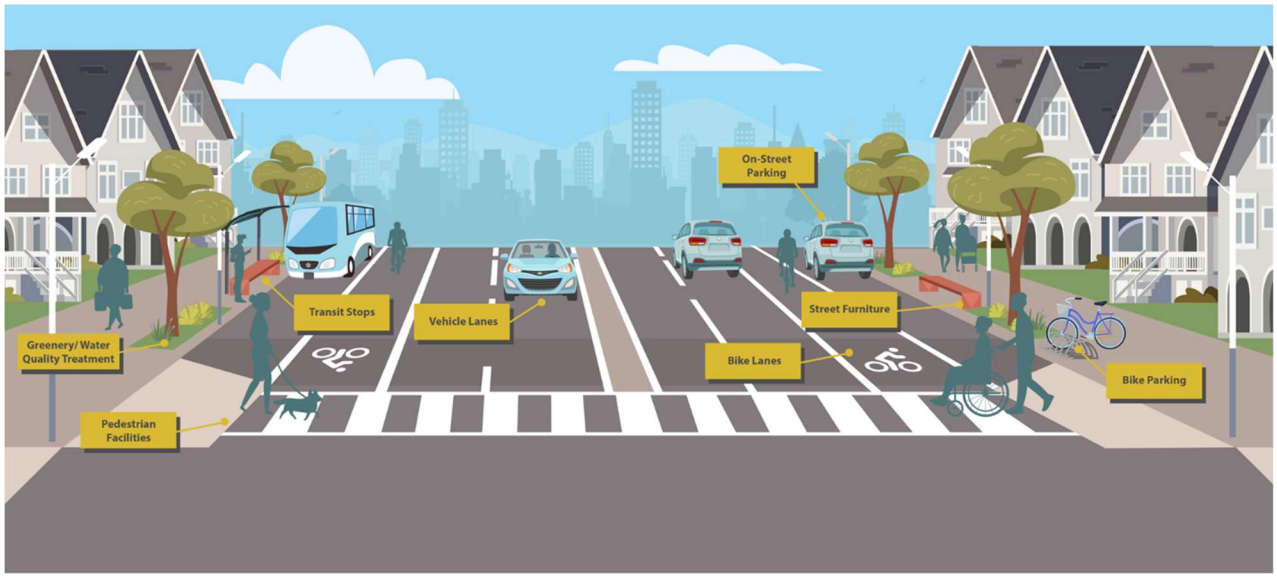
5.0 Complete Street Plan Development

Preliminary design concepts were developed that incorporate complete streets elements and address the identified corridor needs. The overall objective of the Complete Street plan is to formalize recommendations that improve access and mobility for users of all abilities. The following sections discuss elements of a complete street, the existing corridor needs and deficiencies, the alternatives considered throughout this study, and the elements of the preferred concepts.

ELEMENTS OF A COMPLETE STREET

Complete Streets is a concept used to describe planning and design for roadways that considers all users such as cyclists, pedestrians, transit users, and drivers. Per the FHWA, "Complete Streets are streets designed and operated to enable safe use and support mobility of all users. Those include people of all ages and abilities, regardless of whether they are travelling as drivers, pedestrians, bicyclists, or public transportation riders". Elements that define a complete street depend heavily on the community context and identified gaps in connectivity, safety, walkability or bikeability, and accessibility. **Figure 14** highlights below different elements of a complete street that should be considered when developing solutions for a corridor. Incorporating complete streets elements on Valley Boulevard is a cornerstone of the concept development.

Figure 14: Complete Streets Elements



CORRIDOR NEEDS

Based on the findings of the existing conditions assessment and input from the community, the following issues and needs, organized by mode, were identified along the corridor:

Auto: In general, speeds along the corridor exceed the posted speed limit. Crash data suggests that broadside collisions are the most common type of crash occurring along the corridor. There are several causes of broadside collisions, with speed and traffic control at intersections as the key factors in most instances. Slowing down speeds along the corridor and improving driver awareness along the corridor will be key safety improvements on Valley Boulevard. In addition, 60% of the crashes along the corridor (215 crashes) occurred outside of an intersection. Of those, many were due to improper turning or auto right of way violations. A raised median along the corridor will consolidate turns and u-turns



at controlled and a limited number of uncontrolled locations. This will help reduce the number of turning movements and conflicts along the corridor in an effort to improve overall safety for vehicles, transit, pedestrians and bicycles traveling along Valley Boulevard.

Bicycles: There are no bicycle facilities along Valley Boulevard and many bicyclists were observed riding on the sidewalk to avoid traveling in the roadway. The LTS analysis confirms this observation, with a consistent score of LTS 4. During community engagement events, the public supported these findings as they expressed concerns with riding a bicycle on the street due to the speed and volume of traffic. Providing a dedicated or separated bicycle facility would improve bicycling conditions significantly along Valley Boulevard. In addition, high bus activity and on-street parking along the curb creates conflict for cyclists, further increasing the complexity of bicycle travel along Valley Boulevard. Addressing the location of the bus stops, removing or modifying on-street parking will help to reduce these conflicts and will provide a continuous and consistent travel way for bicyclists.

Pedestrians: Pedestrian crossings along the corridor are generally located at signalized intersections, but due to the skewed alignment of Valley Boulevard many of the crossings are angled leading to long crossing times and periods of pedestrian exposure in the intersection. At the six uncontrolled marked crosswalks along Valley Boulevard, there is typically overhead street lighting, RRFBs and signage. Community members expressed concerns about these crossings indicating they felt uncomfortable crossing as vehicles failed to stop for them or the speed and volume of traffic made crossing challenging or raised safety concerns.

Transit: There are three transit operators along the corridor with frequent routes, many of which share multiple stops along Valley Boulevard. The transit stops are curb adjacent, frequently located on the nearside of intersections, have minimal signage and do not have consistent stop accommodations. Overall, the quality of the transit stops along the corridor are favorable providing shelters, benches and trash cans for passengers. The location of the stops should be evaluated to relocate the stop to the far side. This improvement would both help buses pull away from the curb and re-enter traffic and help improve visibility pedestrians and bicycles crossing Valley Boulevard. When stopped, buses may obstruct the view of pedestrians crossing in front of the bus when the bus is stopped along the curb.

In addition to the issues and opportunities related to each mode, there are several issues that were considered when developing the Complete Street plan, as described below:

Streetscape and Landscape: There are existing street trees along some of the parkways, however many have been removed over time leading to a sporadic and inconsistent landscaping aesthetic along the corridor. In addition, some of the existing trees are lifting or impacting the conditions of the sidewalks. Providing a consistent landscape palette along the corridor, both in the median and along the curb in the parkway, will create an inviting and consistent travel experience. This visual modification along with physical modifications will help keep drivers engaged while traveling along Valley Boulevard, which will lead to slower speeds (in line with posted speed limits) and awareness of other users along the corridor.

Branding/monumentation: There is an existing monument on the western end of Valley Boulevard and existing signage near El Monte Avenue highlighting the "Valley Mall". The monumentation throughout the corridor is sporadic and inconsistent. Providing a cohesive branding throughout the corridor will create a sense of space and a visual queue for drivers that they are approaching a point of interest.

Utilities: There are extensive utility lines running under both sidewalks and within the roadway on Valley Boulevard. Many of the lines under the sidewalk are situated close to the existing curb lines, making it very expensive to relocate.

The concept plan should minimize curb realignment and utility relocations where possible so the improvements are not cost prohibitive.

Water Quality: The existing wide sidewalks and large number of catch basins create opportunities for parkway landscaping strips and dry wells which treat water before entering the storm drain system. Finding ways to provide water quality treatment within the existing footprint of the sidewalk and roadway is a key consideration of the concept plan.

Sustainable Design Considerations: Looking for ways to implement sustainable design considerations is an important aspect of the Complete Street plan. Pedestrian paseos create opportunities for sustainable designs by encouraging people to walk or cycle, providing shade and spaces to enjoy the community space, and opportunities for permeable pavers and low-level pedestrian lighting. A pedestrian paseo is planned north of Valley Boulevard on El Monte Avenue as part of the City's Area Y Project, the Complete Street plan considered ways to make this final connection from Main Street to the planned paseo and the Metrolink Station.

ALTERNATIVES CONSIDERED

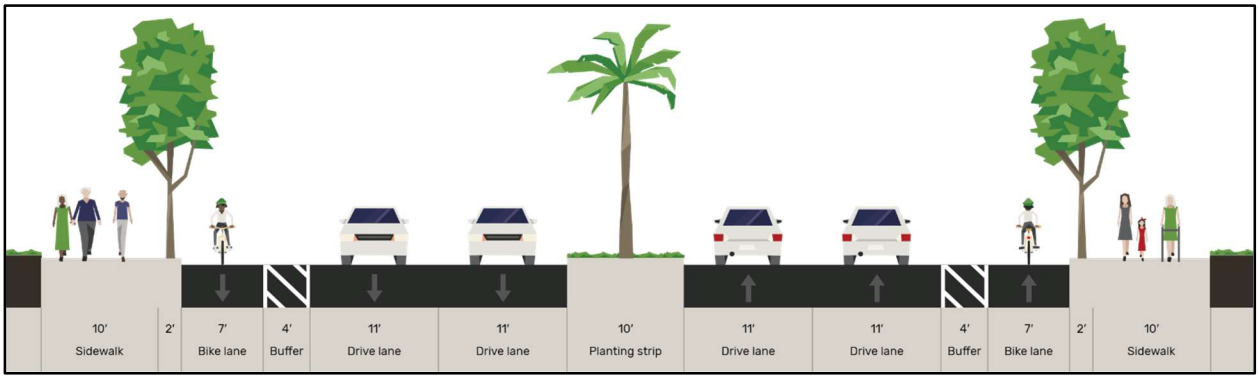
When considering all modes along the corridor, the lack of bicycle lanes is the key issue that needed to be addressed when developing alternatives. Once the approach for adding a bicycle facility was selected, the other issues along the corridor could be addressed. The following section describes the various bicycle facility alternatives considered for each segment and an explanation for the options that were dismissed from further evaluation.

Segments 1, 3 and 5

Segments 1, 3 and 5 of Valley Boulevard have the same right of way width (approximately 100') and curb to curb width (approximately 76'). In these three segments, there is existing on-street parking, two-way left turn lanes, and the existing sidewalks are 12' wide. The following options were considered for these Segments of Valley Boulevard:

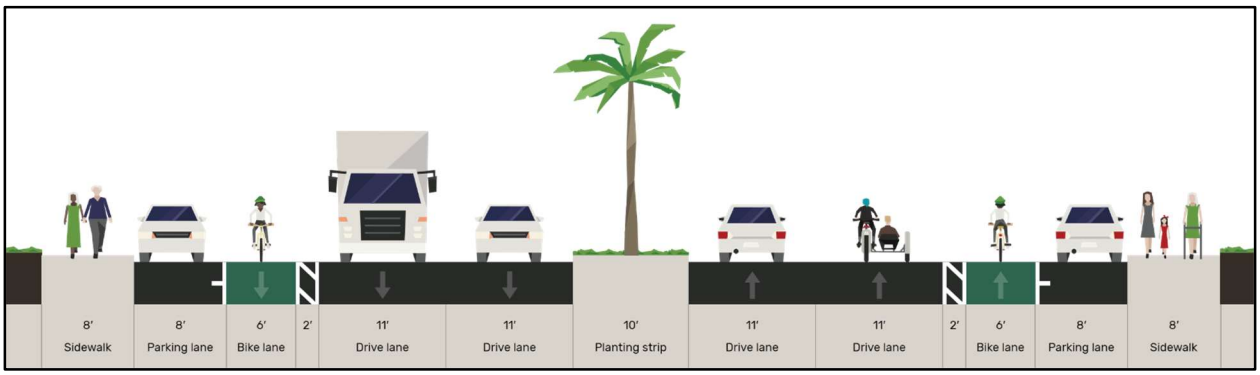
- **Class II Bicycle Facility - No Parking (Figure 15):** Includes two 11' vehicle lanes in each direction, a 4' striped buffer and a 7' bike lane. A 10' raised median is introduced between intersections and all on-street parking is removed. While striping the buffer would nominally improve LTS and the travel experience for bicyclists, the community preference was to include a physical separation. Therefore, this option was eliminated from further consideration.

Figure 15: Segments 1,3 & 5 - Class II Facility No Parking Cross Section



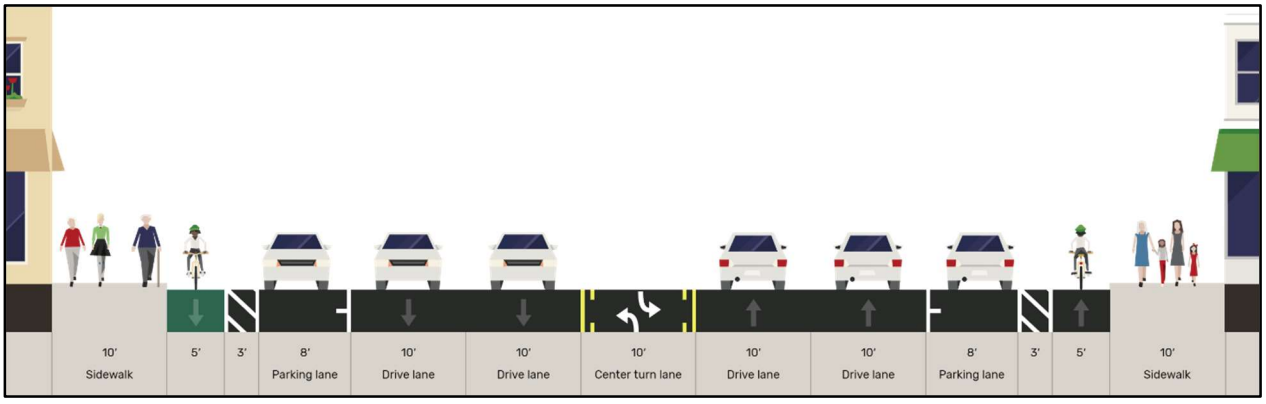
- **Class II Bicycle Facility - With Parking (Figure 16)**: Includes 11′ vehicle lanes, a 2′ striped buffer, 6′ wide bike lane and 8′ parallel parking on both sides of the street. The existing 10′ wide striped median remains in place. This option was eliminated from further evaluation due to the potential cost of relocating utilities located in the sidewalk.

Figure 16: Segments 1, 3 & 5 - Class II Facility with Parking Cross Section



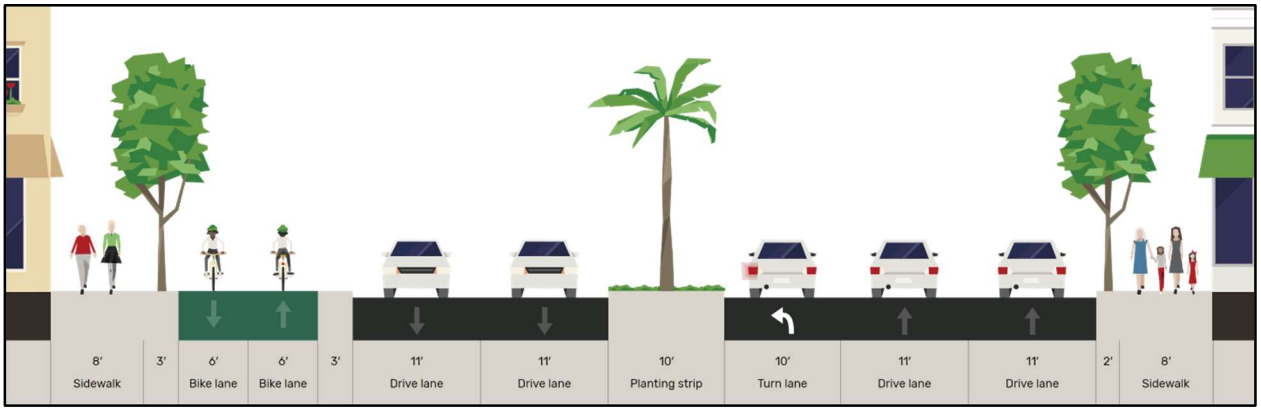
- **Class IV Bicycle Facility - With Parking (Figure 17)**: Includes two 10′vehicles lane in each direction, a 3′ striped buffer, a 5′ protected bike facility and 8′ parallel parking on both sides of the street. The existing 10′ striped median remains in place. The on-street parallel parking is used as the buffer to the protected bicycle facility to maximize the roadway cross section. With the number of driveways along the corridor, the number of parking spaces that could be preserved would be limited in order to provide adequate line of sight at each driveway of not only on-coming traffic but also bicyclists in the bikeway. The City experienced a similar issue on the recently completed Tyler Avenue project. Therefore, this option was eliminated from further evaluation.

Figure 17: Segments 1, 3 & 5 - Class IV Facility with Parking Cross Section



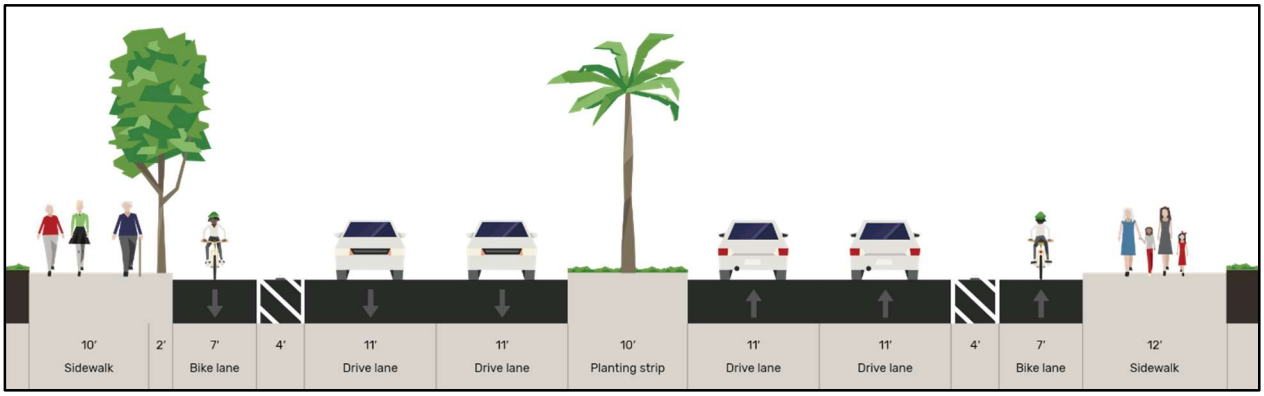
- **Class IV Southside Two Way Cycle Track (Figure 18)**: Includes two 11′ vehicle lanes in each direction and a two-way 12′ Class IV cycle track on the south side of Valley Boulevard. A 10′ raised median and 10′ left turn lanes are provided where required. The sidewalks would remain 12′ but the southern curb line would be relocated. This option was eliminated from further evaluation because of concerns of providing sufficient and comfortable access for cyclists to access the south side of Valley Boulevard consistently along the corridor. There were also due to visibility concerns with the large number of cross streets and driveways on both sides of Valley Boulevard and drivers may not be expecting cyclists to approach from both directions.

Figure 18: Segments 1, 3 & 5 - Class IV Southside Two-Way Cycle Track Cross Section



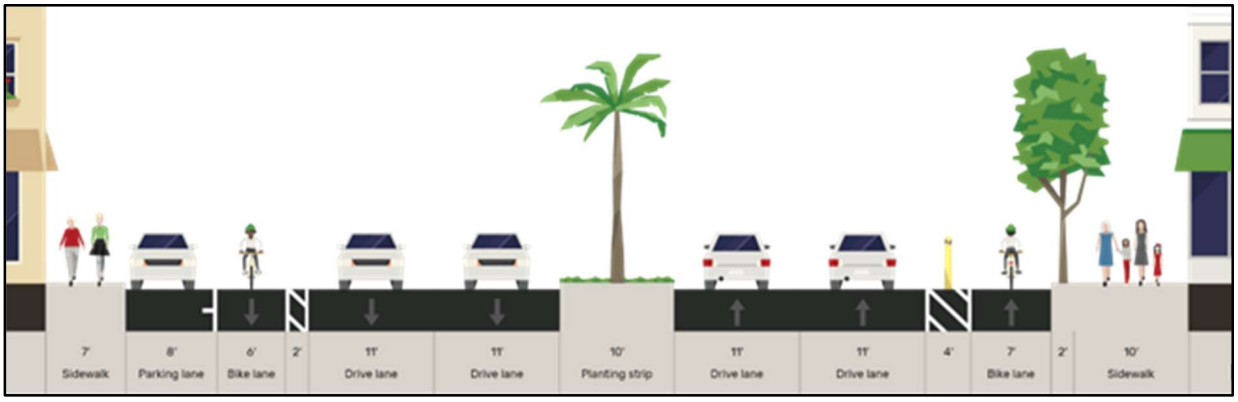
- **Class IV Bicycle Facility (Preferred Option 1 - Figure 19):** Includes two 11′ vehicle lanes in each direction, a 4′ physical buffer and a 7′ bike lane. A 10′ raised median is introduced between intersections and all on-street parking is removed. Bus islands are introduced at all bus stops to provide physical protection for cyclists through the bus stop. This option was selected as the preferred option for the majority of Valley Boulevard.

Figure 19: Segments 1, 3 & 5 - Class IV Cross Section



- **Combined Class II/IV Bicycle Facility (Preferred Option 2 - Figure 20):** While most of the parking along the corridor is less than 25% utilized throughout the day, sections of the corridor were found to have a need for the on-street parking, primarily due to a lack of on-site parking. Therefore, parking pockets are recommended through two stretches of the corridor. To accommodate the parking and the bicycle facilities, the existing sidewalk is narrowed from 12′ to 7′. The cross section in the areas with parking pockets includes two 11′ vehicle lanes in each direction and a 10′ raised median between intersections. On one side of the street, a protected 7′ Class IV facility is included and on-street parking is removed. On the other side of Valley Boulevard, a 6′ buffered Class II bike lane and on-street parallel parking is included. This option was selected as the preferred option for Valley Boulevard between La Madera Avenue and Mountain View Road (north side parking) and between Cogswell Road and Allgeyer Avenue (south side parking).

Figure 20: Segments 1, 3 & 5 - Combined Class II/IV Bicycle Facility Cross Section

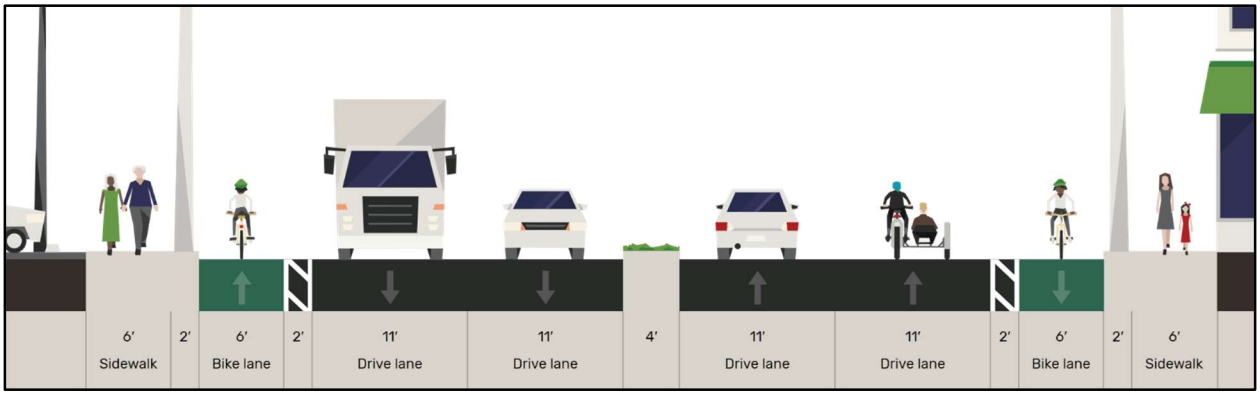


Segment 2

Segment 2 of Valley Boulevard, from Santa Anita Avenue to Ramona Boulevard, is the narrowest segment of the corridor. The right of way width is approximately 80′ and the curb to curb width is approximately 65′. There is no existing on-street parking in this Segment. The following options were considered:

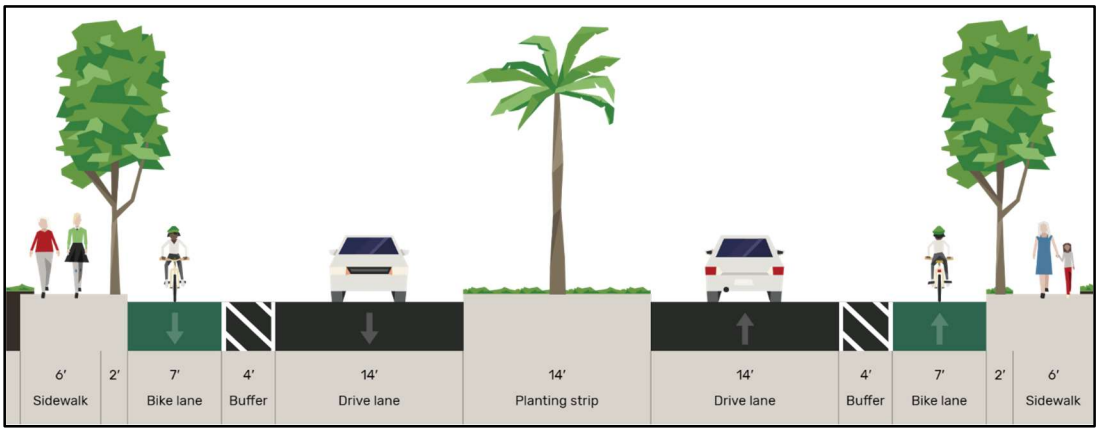
- **Class II Bicycle Facility – Narrow Median (Figure 21):** Includes two 11′ vehicle lanes in each direction, a 2′ striped buffer and a 6′ bike lane. A 4′ raised median is introduced for the entire segment removing left turn access to the adjacent side streets. This option was eliminated for further evaluation because of concerns related to restricting left turn access to/from side streets. Limiting access to Main Street and the public parking on the south side of Valley Boulevard was of particular concern to business owners along Main Street.

Figure 21: Segment 2 - Class II Facility Narrow Median Cross Section



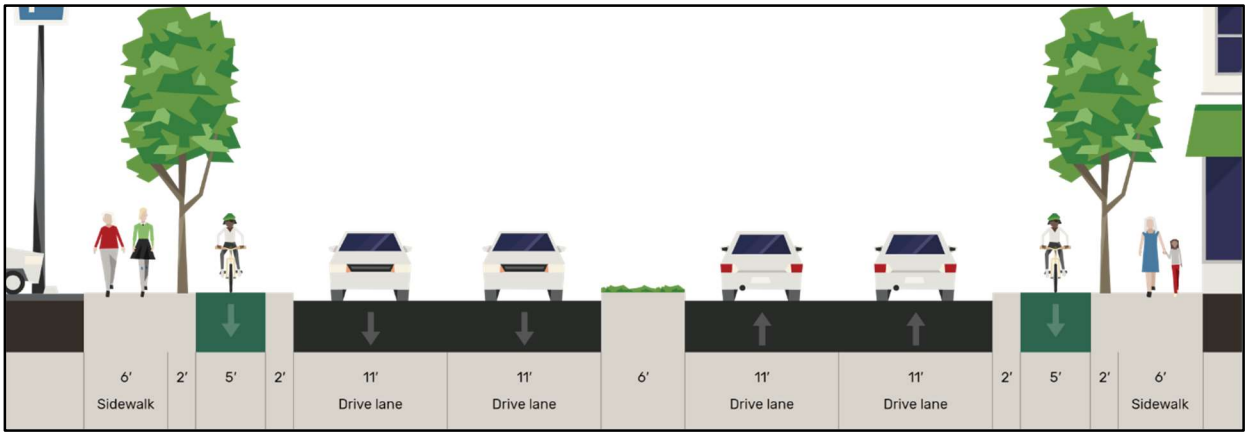
- **Class IV Bicycle Facility – Lane Reduction (Figure 22):** Includes one 14′ vehicle lane in each direction, a 4′ striped buffer and 7′ bike lane. A 14′ raised median is introduced between intersections and left turn lanes remain where they currently exist. The lane reduction would taper back to the existing configuration in advance of the Santa Anita Avenue and the Ramona Boulevard intersections so the existing turn pockets are not affected. A striped buffer is provided in lieu of a physical buffer so emergency service vehicles can use the bike lane and buffer as a bypass in the event of an emergency. This option was eliminated for further evaluation due to concerns with congestion on Valley Boulevard especially during peak hours.

Figure 22: Segment 2 - Class IV Bicycle Facility with Lane Reduction Cross Section



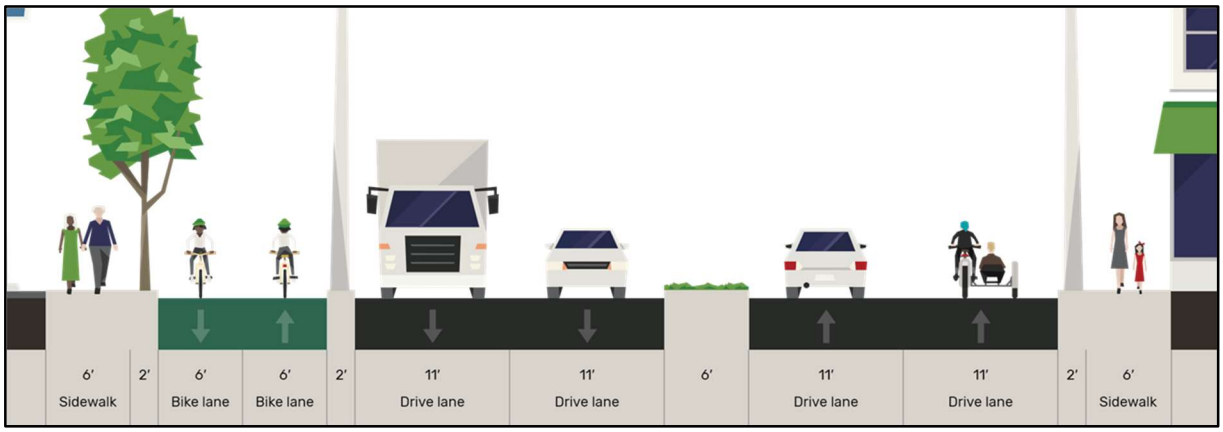
- **Class IV Elevated Bicycle Facility – Narrow Median (Figure 23):** Includes two 11′ vehicle lanes in each direction and an elevated Class IV cycle track on both sides of Valley Boulevard. A 6′ raised median is introduced for the entire segment removing left turn access to the adjacent side streets. This option was eliminated for further evaluation because of the removal access to the adjacent side streets. Limiting access to Main Street and the public parking on the south side of Valley Boulevard was of particular concern. There were also concerns with the drainage and maintaining the existing crossfall along the sidewalk due to widening to accommodate for the elevated bicycle facility.

Figure 23: Segment 2 - Class IV Elevated Cycle Track with Narrow Median Cross Section



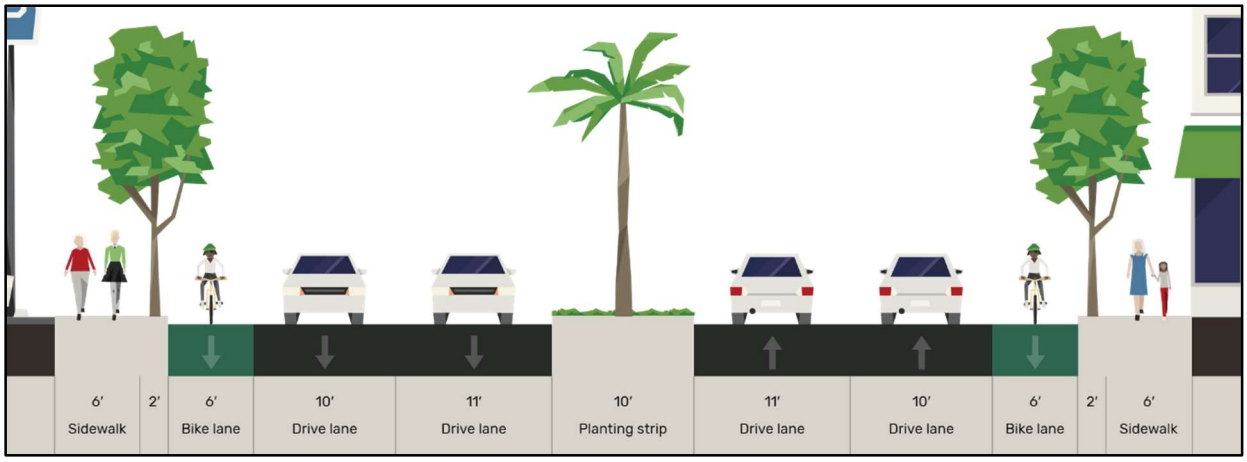
- **Class IV Southside Two-Way Cycle Track (Figure 24)**: Includes two 11′ vehicle lanes in each direction and a two-way 12′ Class IV cycle track on the south side of Valley Boulevard. A 6′ raised median is introduced for the entire segment removing left turn access to the adjacent side streets. The sidewalks would remain 8′ wide but the southern curb line would be relocated. This option was eliminated from further evaluation because of concerns of providing sufficient and comfortable access for cyclists to access the south side of Valley Boulevard consistently along the corridor. There were also due to visibility concerns with the large number of cross streets and driveways on both sides of Valley Boulevard and drivers may not be expecting cyclists to approach from both directions.

Figure 24: Segment 2 - Class IV Southside Two-Way Cycle Track Cross Section



- **Class II Bicycle Facility (Preferred Option - Figure 25):** Includes one 10′ vehicle lane and one 11′ vehicle lane in each direction and a 6′ bike lane (no buffer). A 10′ raised median is introduced between intersections and all existing left turn pockets remain in place. This option was selected as the preferred option because it meets the objectives of this feasibility study but minimizes the changes to the traffic circulation patters around the project area.

Figure 25: Segment 2 - Class II Facility Cross Section

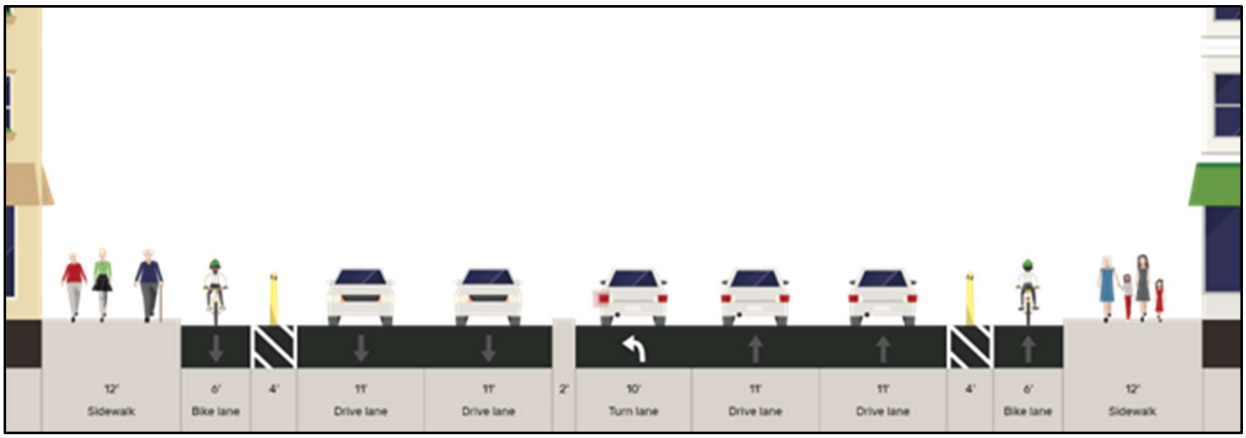


Segment 4

Segment 4 of Valley Boulevard, from Mountain View Road to Garvey Avenue is 500′ long, the existing right of way width is 100′, and the curb to curb width is approximately 75′. There are left turn lanes with raised or striped medians for the entire segment and no existing on-street parking. Given the length of this Segment, the design is controlled by Segments 3 and 5 and the geometrics at the Garvey Avenue intersection. Therefore, options for this segment were developed after the preferred option was selected for those segments. The following option was determined to be the most feasible solution for Segment 4:

- **Class IV Bicycle Facility (Preferred Option -Figure 26):** Includes two 11′ vehicle lanes in each direction, a 4′ physical buffer and a 6′ bike lane. A 2′ raised median is introduced for the entire segment. Bus islands are introduced at all bus stops to provide physical protection for cyclists through the bus stop.

Figure 26: Segment 4 - Class IV Bicycle Facility Cross Section



ELEMENTS OF COMPLETE STREET PLAN

With the bicycle facility type selected, the details for each of the other modes were refined. This section focuses on the detailed design descriptions for each element of the Complete Street Plan. The full plan set with the proposed Complete Street plan is included in **Figure 32** at the end of this section.

Bicycle Facilities

The project will add Class IV bikeways with a raised buffer along Valley Boulevard which dedicate and protect space for bicycles in order to improve perceived comfort and safety and reduce the risk and fear of collisions with over-taking vehicles. The directional facility includes a 7′ bike lane and 4′ raised buffer to greatly improve the cycling experience along Valley Boulevard. The buffer includes edge striping on both sides and hatching and raised curb stops as the vertical element (shown in **Figure 27**). Other types of buffers were considered such as flexible delineators or raised medians, however due to ongoing maintenance concerns, the curb stops were selected. **Photo 10** is an example of curb stops used as a physical buffer in the City Long Beach. The bicycle facility must be wide enough to accommodate a street sweeper in order to maintain the facility and remove dirt, debris and obstructions from the travel way. The minimum dimension for the street sweeper is 10′. For these reasons, the curb stops were selected and are set closer to the travel lane on the inside of the buffer to allow for the street sweeper to pass through and potentially overrun the curb stops if required.

Figure 27: Buffer Detail

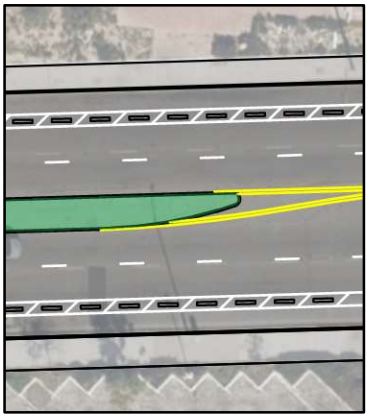
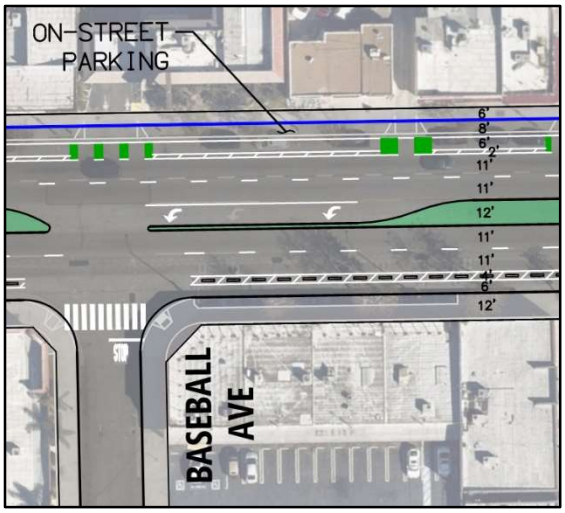




Photo 10: Long Beach curb stops example

The segment between La Madera Avenue and Mountain View Road will have the Class IV bicycle facility on the northern side of Valley Boulevard and Class II buffered bicycle lanes on the southern side with parking pockets. Between Cogswell Road and Allgeyer Avenue, the Class IV facility will be on the south side and the Class II facility will be on the north side. This change to the facility type is necessary to provide on-street parking in these segments. Targeted engagement with business owners along Valley Boulevard was conducted (discussed further in Section 8.0 Community Engagement) to determine where on-street parking is required along Valley Boulevard. In these segments, 8' wide parking pockets are provided and the existing sidewalk is narrowed to accommodate the bicycle facility and the parking pockets. **Figure 28** shows this section in plan view.

Figure 28: On-Street Parking Plan View



Pedestrian Crossings

Improving pedestrian access and walkability along Valley Boulevard is a critical component of the Complete Street plan. While the majority of marked crossings are located at signalized intersections, the six uncontrolled marked crosswalks are a high priority due to the safety concerns and the vulnerability of pedestrian when crossing. All pedestrian crossings along the corridor should be upgraded to high visibility crosswalks and all intersections should be equipped with ADA compliant features. In addition, the following elements should be included at all uncontrolled marked crosswalks:

- **Refuge Islands:** 10'-12' refuge islands provide pedestrians a protected space in the center of Valley Boulevard. This allows for two-stage crossings so pedestrians can cross one direction of travel at a time. Refuge islands reduce the overall crossing length and exposure to vehicular traffic.
- **HAWK Signal:** HAWK signals control traffic and alert vehicles when pedestrians are attempting to cross the road (example shown in **Photo 11**). They are only activated when a pedestrian is waiting to cross reducing the impact to vehicular operations, but they provide pedestrians a protected phase to cross Valley Boulevard. HAWK signals should only be used in mid-block locations because they do not control oncoming traffic from adjacent side-streets.

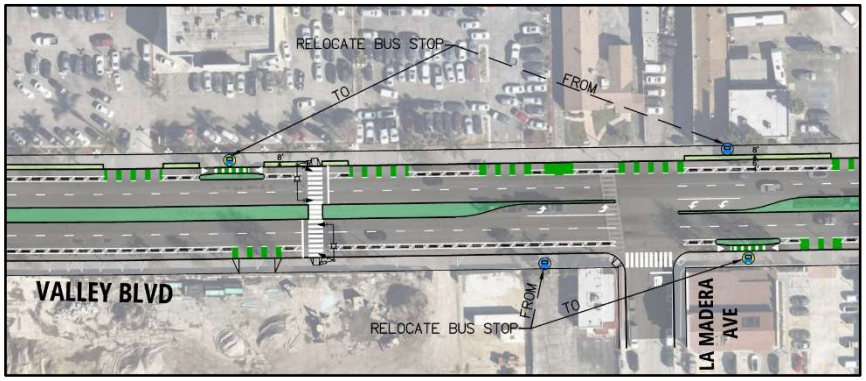


Photo 11: Example of HAWK signal at controlled crosswalk

- **RRFBs:** These yellow flashing beacons are activated by pedestrians when they are waiting to cross Valley Boulevard, indicating to drivers that they should yield to pedestrians entering the crosswalk. RRFBs create an awareness for drivers of pedestrians waiting to cross thereby increasing driver yield compliance at these uncontrolled marked crosswalks. The installation of refuge islands as discussed above also provides an opportunity to place RRFBs in the center of the roadway such that signage is provided on both sides of the travel way, thereby improving the visibility of the crosswalk.
- **Advanced Yield/Stop Bar Markings:** Provided 10'-50' in advance of the marked crosswalk to increase driver awareness of the presence of pedestrians crossing Valley Boulevard.

Figure 29 is a plan view example of the improvements proposed at the uncontrolled marked crosswalks.

Figure 29: Example of Crosswalk Improvements with HAWK Signal



The majority of crossings across Valley Boulevard occur at signalized intersections which is ideal for pedestrians as the signals provide traffic control and remove the need to yield to vehicles. However, the skewed alignment of Valley Boulevard leads to long crossing distances for pedestrians. The preferred concepts propose the following treatments at signalized intersections to improve crossings for pedestrians:

- **Crosswalk Realignment:** Crosswalks are realigned where possible to shorten pedestrian crossing distances and reduce the exposure time for pedestrians in the intersections.
- **Leading Pedestrian Intervals (LPIs):** A change to the signal timing to give pedestrians the opportunity to enter the crosswalk 3-7 seconds before vehicles are given the green light. This lead time improves the visibility of pedestrians in the intersection and reinforces their right of way in advance of turning vehicles.

Additional improvements that will help improve the walking environment and pedestrian safety along the corridor include:

- **Far Side Bus Stops:** Bus stops that are situated in advance of crosswalks are relocated to the farside of the intersection or downstream of the crosswalk to prevent buses from blocking the visibility of a pedestrian in the crosswalk and to improve transit operations.
- **Raised Intersection:** The planned pedestrian paseo along El Monte Avenue includes a raised intersection at the crossing on Valley Boulevard. Introducing the vertical element reinforces slow speeds on Valley Boulevard and encourages drivers to yield to pedestrians in the crosswalk.

Transit Accommodations

The Complete Street plan improves the transit experience along Valley Boulevard by improving the efficiency for buses at bus stops, connecting transit riders to the Metrolink Station via a new pedestrian paseo, and improving the comfort and accommodations at the stops. Currently the buses along the corrector either stop in the travel lane adjacent to the curb or buses pull adjacent to the curb. The following elements are included in the Complete Street plan to address transit:

- **Bus Islands:** With the Class IV bicycle facility, buses will not be able to pull adjacent to the curb for loading/unloading passengers. Bus islands will be necessary to provide accessible access for all users to the buses at the stop and will allow buses to stop in the travel lane for loading and unloading. Therefore, the bus islands are anticipated to improve the operations of transit services because buses are not required to merge and diverge from traffic at stops. Bicyclist comfort is also improved throughout the stop since they are no longer required to travel to left around buses or wait for them to stop. Bus islands must be wide enough to accommodate the bus ramp to allow for full accessibility. The City recently constructed bus islands on Ramona Boulevard (shown in **Photo 12**) to demonstrate the interaction between cyclists, pedestrians and buses at the bus islands.

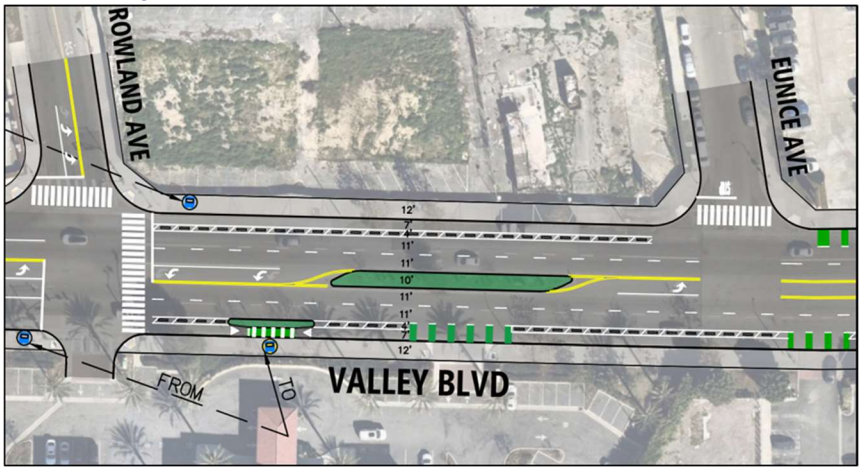


Photo 12: Ramona Boulevard bus island

- **Far Side Bus Stops:** Relocating the bus stop to the far side of the intersection improves bus operations by allowing buses to clear the intersection before stopping and improves the efficiency of buses re-entering the flow of traffic.
- **Upgraded Accommodations:** Many of the bus stops on Valley Boulevard do not have bus shelters and some do not have benches or trash receptacles. The Complete Street plan include adding bus shelters, with bus scheduled arrival times, and trash receptables to provide transit users a comfortable space to wait for buses.

Figure 30 below provides a plan view example along Valley Boulevard of the transit accommodations including relocating bus stops and installing bus islands.

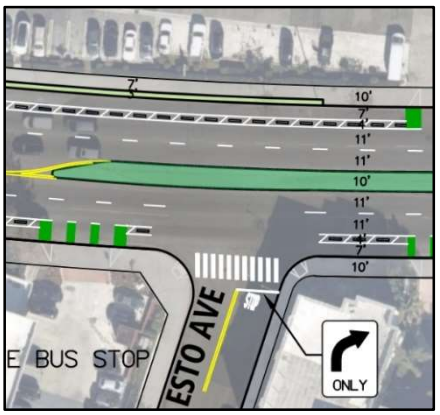
Figure 30: Example of Bus Stop Relocation and Bus Island



Raised Medians

The existing medians consist of striped center turn lanes or striped medians with left turn pockets at intersections. The project will add raised landscaped medians in the sections where striped medians currently exist. Providing curbed medians improve safety along the corridor by separating the two opposing directions of travel and by reducing the number of left turns from the side streets and driveways which are potential conflict points. The raised medians are extended across some intersections with lower volumes. As a result, access is restricted to right in/right out movements and the number of conflict points on Valley Boulevard are reduced for all modes. The medians also improve the pedestrian crossing comfort as discussed previously. An example of a raised median extension is shown in **Figure 31** at Esto Avenue.

Figure 31: Raised Median at Esto Avenue



Reduction in Lane Widths

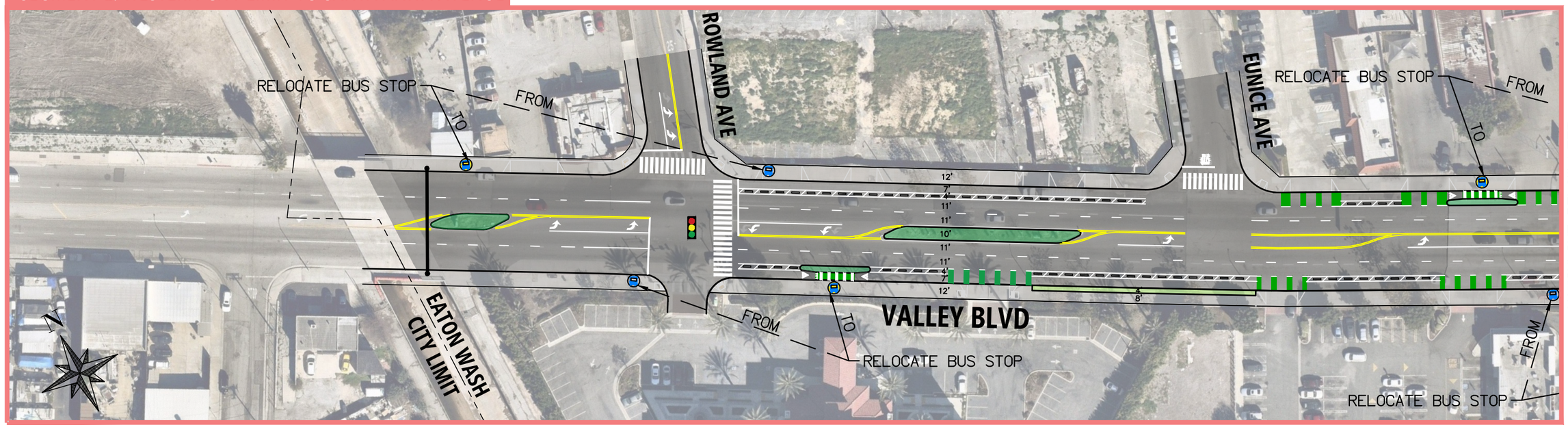
The Complete Street plan includes a proposed reduction in the lane widths along the corridor, from the current 12′ down to 11′. This slight lane width reduction is proposed as an additional measure to address community concerns on the need for traffic calming along the corridor and increased pedestrian safety. In accordance with best practices for traffic calming and pedestrian safety, wider lanes are directly correlated to higher prevailing speeds and reducing lanes to 11′ wide does not decrease safety. The lane width reduction will also provide additional space within the right of way for the buffer area for the bicycle facility. The Complete Street plan does not propose further lane width reductions (such as 9′ lanes) which can be more common in urban areas, particularly due to the prevalence of truck traffic along the corridor.

Sidewalk and Pavement Rehabilitation

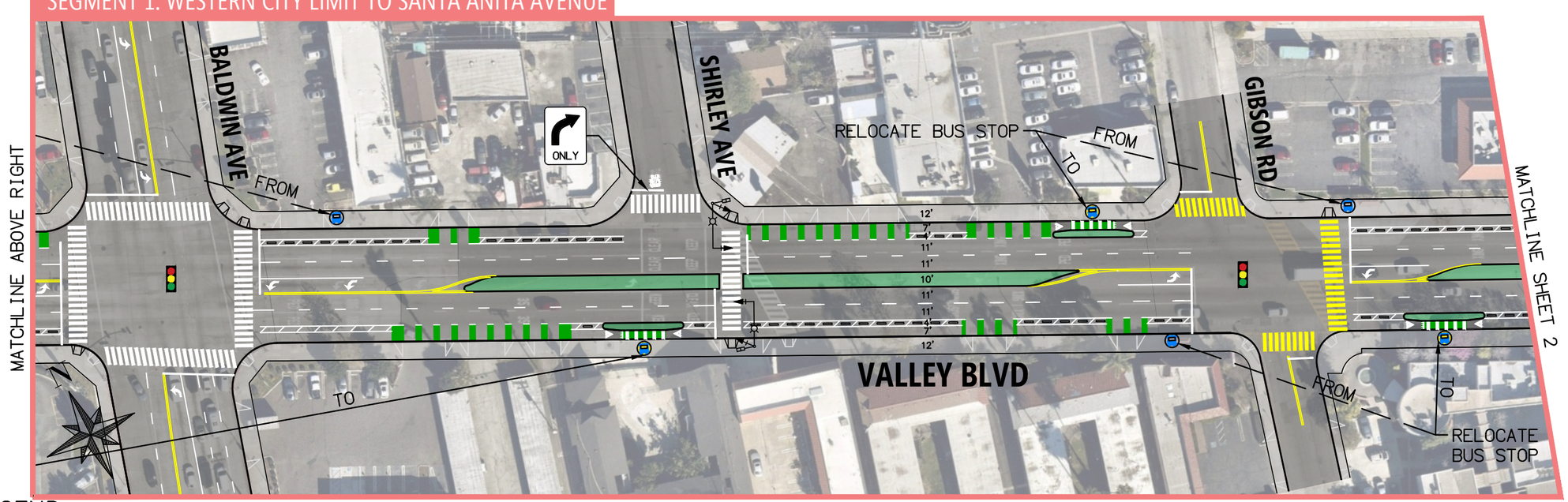
The existing sidewalks along Valley Boulevard range from 8′ to 12′ wide and are in generally good condition. There are localized areas with damaged sidewalk that will be repaired as part of this project. The majority of improvements along the sidewalk will be to address ADA compliance at driveways to ensure a 4′ wide passageway is maintained through each driveway and curb ramps are provided at intersections.

The pavement condition along Valley Boulevard ranges from fair to very poor according to the City's Pavement Management Report dated February 2023. The corridor is primary asphalt with concrete at the large intersections and at the concrete bus pads. Pavement evaluation was not a focus of this feasibility study, however ensuring that cyclists have a smooth and consistent riding surface is a key consideration that should be addressed in future project phases. Additionally, with the relocation of the bus stops as discussed above, new concrete bus pads will need to be installed at the proposed stop locations. Repaving of the corridor will be undertaken with various methods depending on the existing pavement condition.

SEGMENT 1: WESTERN CITY LIMIT TO SANTA ANITA AVENUE



SEGMENT 1: WESTERN CITY LIMIT TO SANTA ANITA AVENUE



LEGEND

- CURB
- PROPOSED STRIPE
- BIKE LANE CONFLICT AREA
- BIKE BUFFER WITH WHEEL STOP
- SIDEWALK
- RAISED MEDIAN
- PEDESTRIAN PASEO
- PLANTING STRIP
- TRAFFIC SIGNAL
- PEDESTRIAN HAWK SIGNAL
- RAPID RECTANGULAR FLASHING BEACON (RRFB)
- RIGHT TURN ONLY SIGN
- EXISTING CURB RAMP
- PROPOSED CURB RAMP
- EXISTING BUS STOP
- RELOCATED BUS STOP
- GATEWAY FEATURE

80 40 0

SCALE: 1"=80'

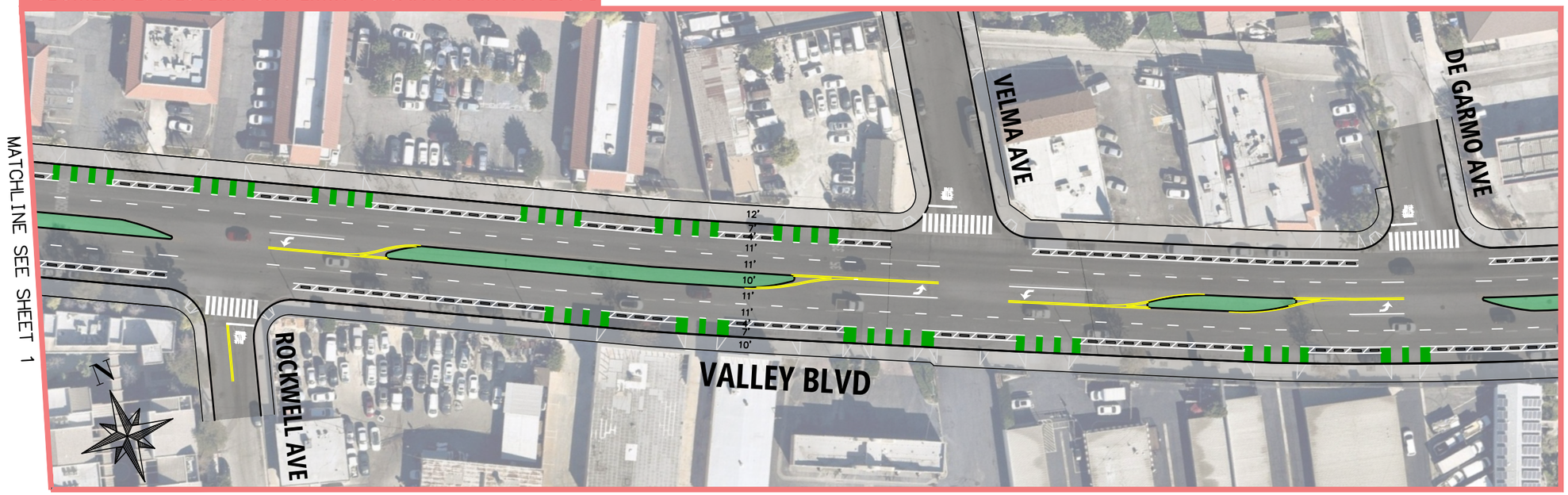
Valley Boulevard Complete Street Plan

Michael Baker INTERNATIONAL

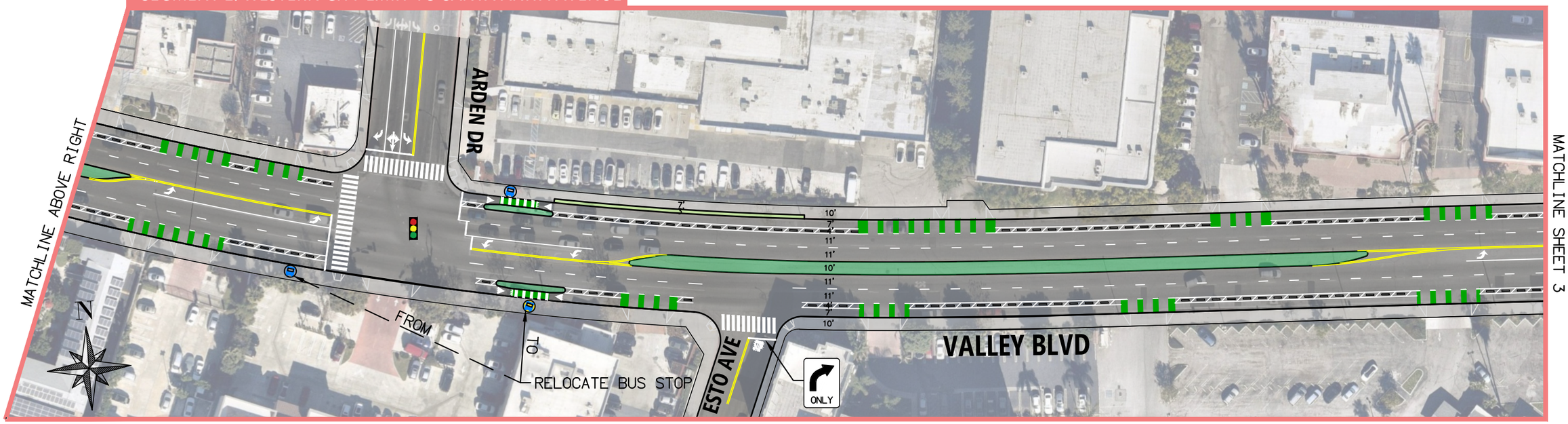
Figure 32

\\CARLCA1FS1.BKR.MBAKERCORP.COM\HROOT\PDATA\194628_VALLEY BLVD COMPLETE ST\CAD\EXHIBITS\VALLEY BLVD_CONCEPTS_OPT2_11X17.DWG MELENDEZ, ANGEL 12/22/2023 9:32 AM

SEGMENT 1: WESTERN CITY LIMIT TO SANTA ANITA AVENUE



SEGMENT 1: WESTERN CITY LIMIT TO SANTA ANITA AVENUE



LEGEND

- CURB
- PROPOSED STRIPE
- BIKE LANE CONFLICT AREA
- BIKE BUFFER WITH WHEEL STOP
- SIDEWALK
- RAISED MEDIAN
- PEDESTRIAN PASEO
- PLANTING STRIP
- TRAFFIC SIGNAL
- PEDESTRIAN HAWK SIGNAL
- RAPID RECTANGULAR FLASHING BEACON (RRFB)
- RIGHT TURN ONLY SIGN
- EXISTING CURB RAMP
- PROPOSED CURB RAMP
- EXISTING BUS STOP
- RELOCATED BUS STOP

80 40 0

SCALE: 1"=80'

Valley Boulevard Complete Street Plan

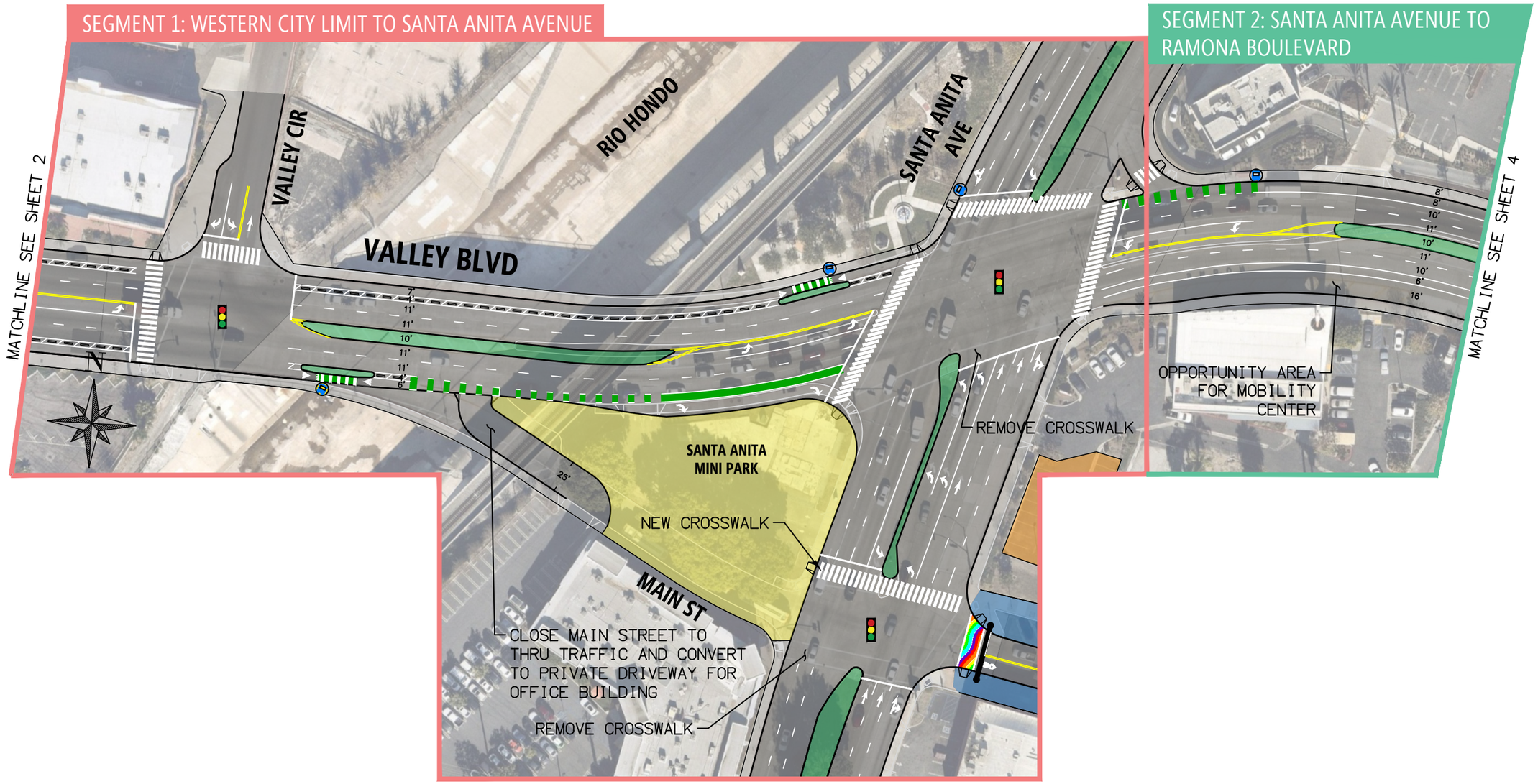
Michael Baker INTERNATIONAL

Figure 32

\\CARLCA1FS1.BKR.MBAKERCORP.COM\HROOT\PDATA\194628_VALLEY BLVD COMPLETE ST\CAD\EXHIBITS\VALLEY BLVD_CONCEPTS_OPT2_11X17.DWG MELENDEZ, ANGEL 12/22/2023 9:33 AM

SEGMENT 1: WESTERN CITY LIMIT TO SANTA ANITA AVENUE

SEGMENT 2: SANTA ANITA AVENUE TO RAMONA BOULEVARD



LEGEND

- CURB
- PROPOSED STRIPE
- BIKE LANE CONFLICT AREA
- BIKE BUFFER WITH WHEEL STOP
- SIDEWALK
- RAISED MEDIAN
- PEDESTRIAN PASEO
- PLANTING STRIP
- TRAFFIC SIGNAL
- PEDESTRIAN HAWK SIGNAL
- RAPID RECTANGULAR FLASHING BEACON (RRFB)
- RIGHT TURN ONLY SIGN
- PROPOSED BOLLARD
- EXISTING CURB RAMP
- PROPOSED CURB RAMP
- EXISTING BUS STOP
- RELOCATED BUS STOP
- GATEWAY FEATURE

80 40 0

SCALE: 1"=80'

Michael Baker INTERNATIONAL

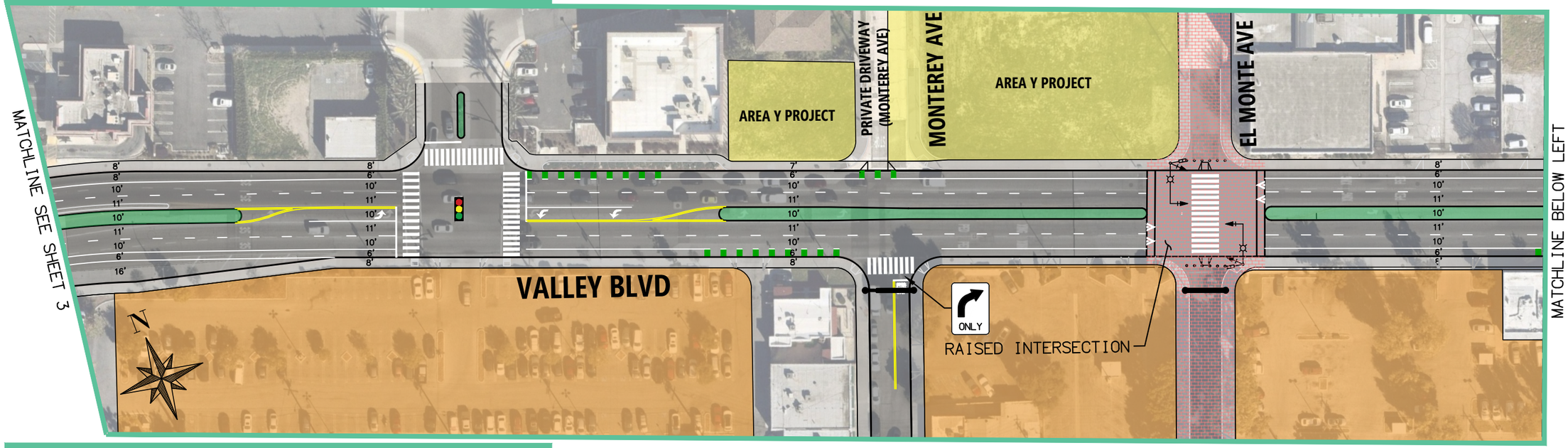
Valley Boulevard Complete Street Plan

Sheet 3 of 10

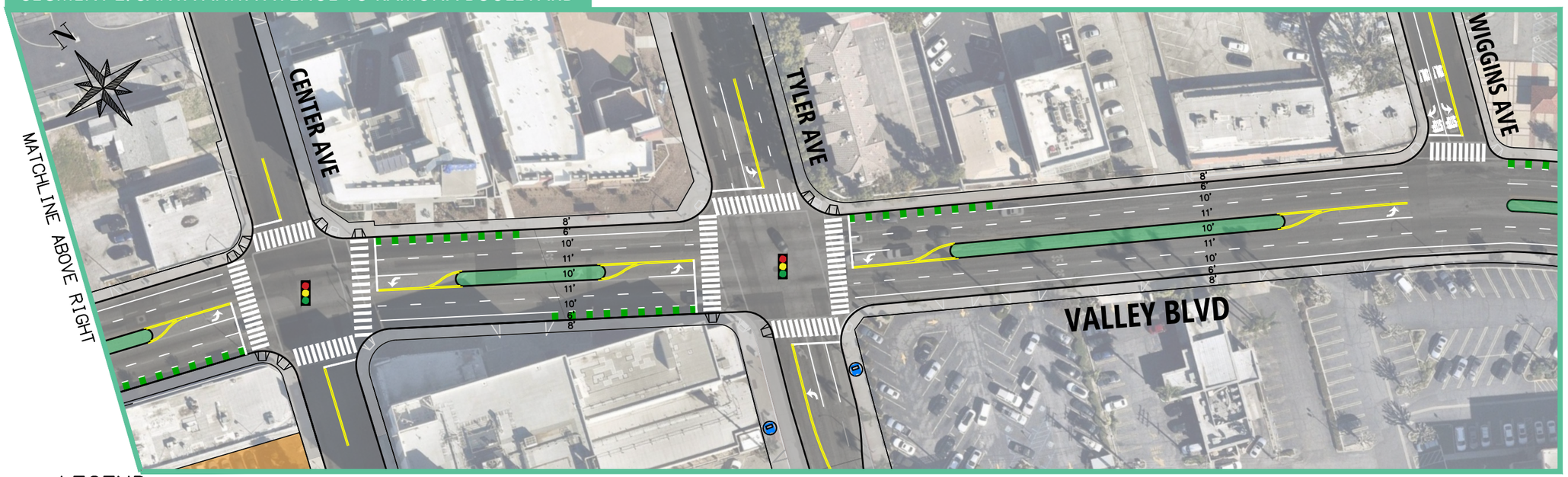
Figure 32

\\CARLCA1FS1.BKR.MBAKERCORP.COM\HROOT\PDATA\194628_VALLEY BLVD COMPLETE ST\CAD\EXHIBITS\VALLEY BLVD_CONCEPTS_OPT2_11X17.DWG MELENDEZ, ANGEL 12/22/2023 9:33 AM

SEGMENT 2: SANTA ANITA AVENUE TO RAMONA BOULEVARD



SEGMENT 2: SANTA ANITA AVENUE TO RAMONA BOULEVARD



LEGEND

- CURB
- PROPOSED STRIPE
- BIKE LANE CONFLICT AREA
- BIKE BUFFER WITH WHEEL STOP
- SIDEWALK
- RAISED MEDIAN
- PEDESTRIAN PASEO
- PLANTING STRIP
- TRAFFIC SIGNAL
- PEDESTRIAN HAWK SIGNAL
- RAPID RECTANGULAR FLASHING BEACON (RRFB)
- RIGHT TURN ONLY SIGN
- PROPOSED BOLLARD
- EXISTING CURB RAMP
- PROPOSED CURB RAMP
- EXISTING BUS STOP
- RELOCATED BUS STOP
- GATEWAY FEATURE

80 40 0

SCALE: 1"=80'

Valley Boulevard Complete Street Plan

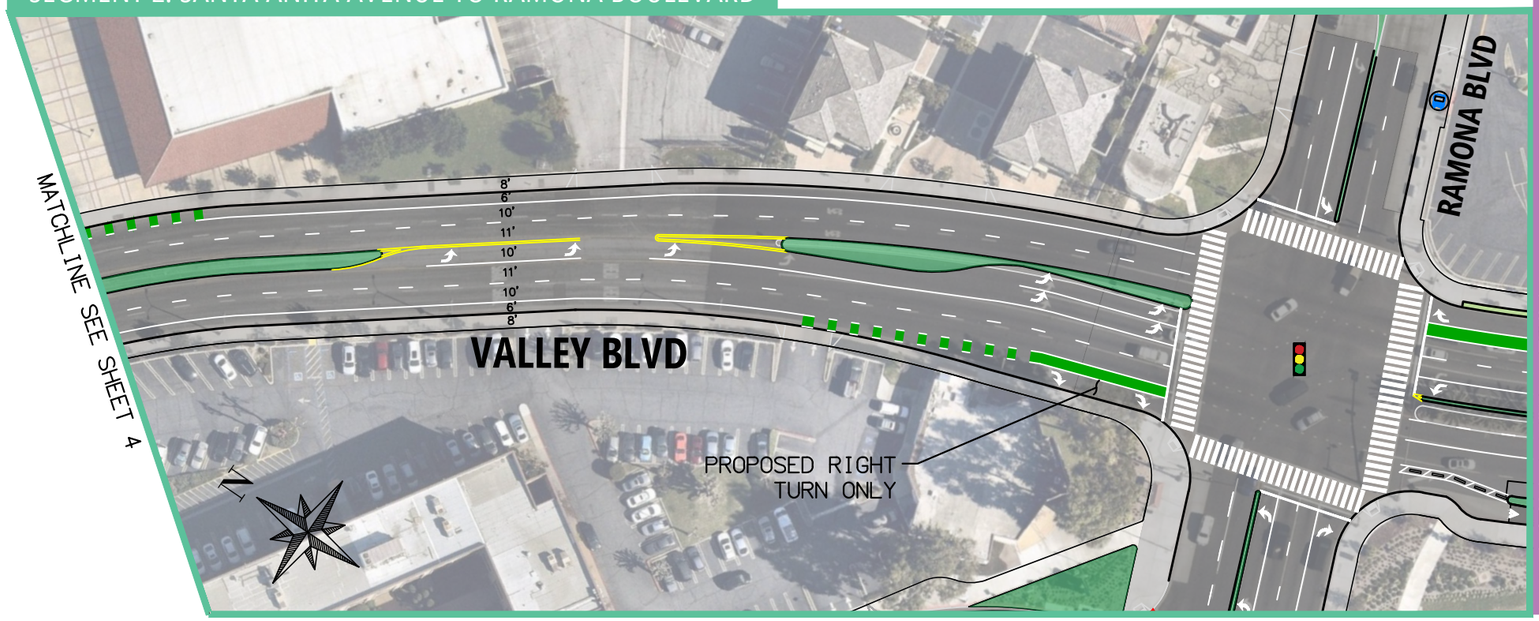
Sheet 4 of 10

Michael Baker INTERNATIONAL

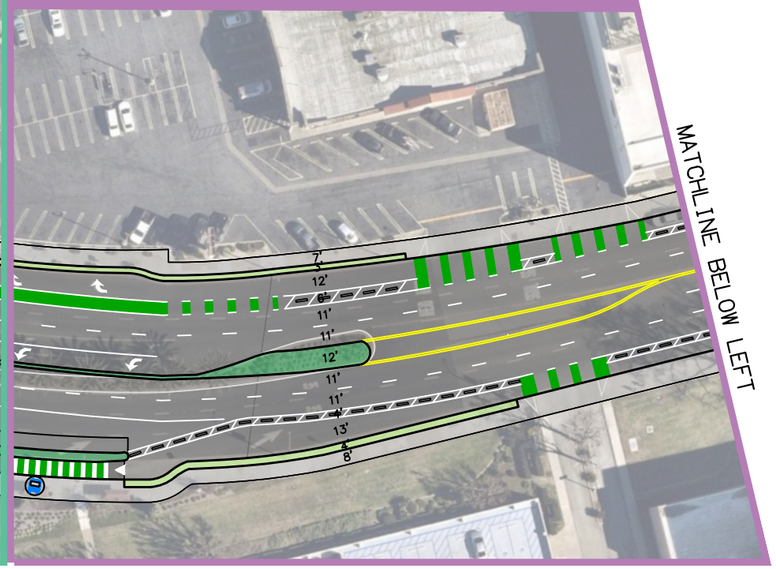
Figure 32

\\CARLCA1FS1.BKR.MBAKERCORP.COM\HROOT\PDATA\194628_VALLEY BLVD COMPLETE ST\CAD\EXHIBITS\VALLEY BLVD_CONCEPTS_OPT2_11X17.DWG MELENDEZ, ANGEL 12/22/2023 9:33 AM

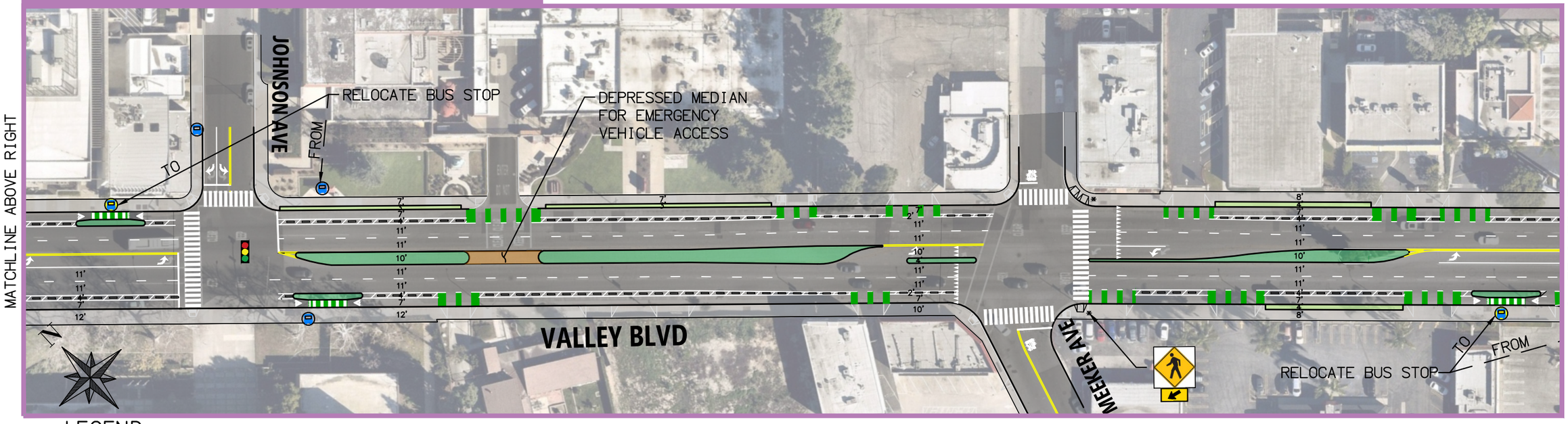
SEGMENT 2: SANTA ANITA AVENUE TO RAMONA BOULEVARD



SEGMENT 3: RAMONA BOULEVARD TO MOUNTAIN VIEW ROAD



SEGMENT 3: RAMONA BOULEVARD TO MOUNTAIN VIEW ROAD



LEGEND

- CURB
- PROPOSED STRIPE
- BIKE LANE CONFLICT AREA
- BIKE BUFFER WITH WHEEL STOP
- SIDEWALK
- RAISED MEDIAN
- PEDESTRIAN PASEO
- PLANTING STRIP
- TRAFFIC SIGNAL
- PEDESTRIAN HAWK SIGNAL
- RAPID RECTANGULAR FLASHING BEACON (RRFB)
- RIGHT TURN ONLY SIGN
- EXISTING CURB RAMP
- PROPOSED CURB RAMP
- EXISTING BUS STOP
- RELOCATED BUS STOP

80 40 0

SCALE: 1"=80'

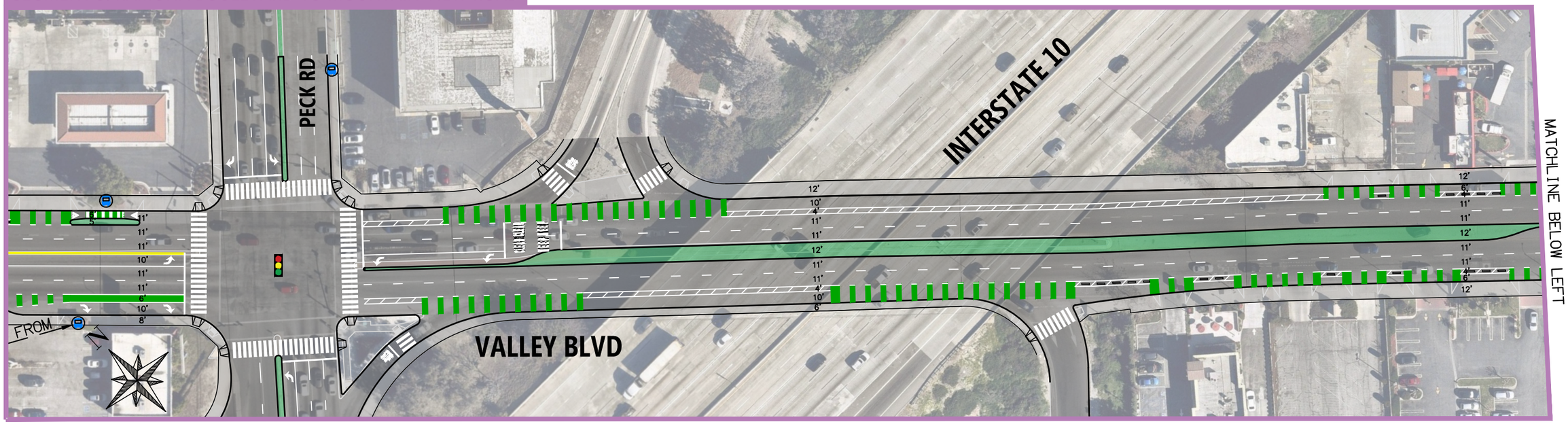
Valley Boulevard Complete Street Plan

Michael Baker INTERNATIONAL

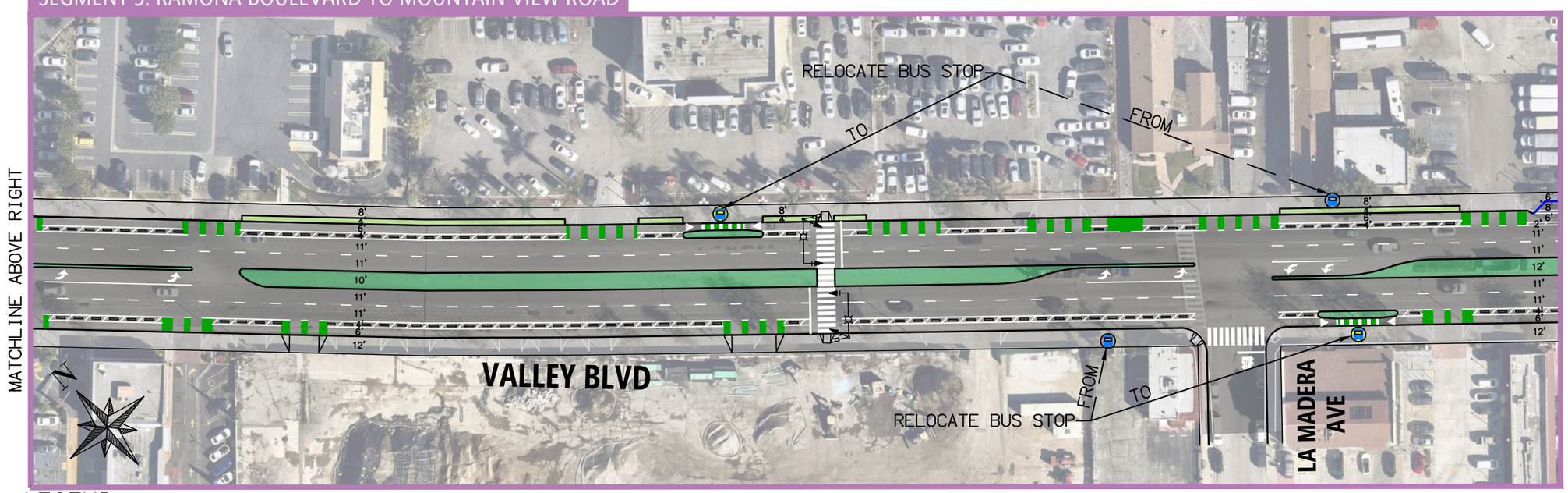
\\CARLCA1FS1.BKR.MBAKERCORP.COM\HROOT\PDATA\194628_VALLEY BLVD COMPLETE ST\CAD\EXHIBITS\VALLEY BLVD_CONCEPTS_OPT2_11X17.DWG MELENDEZ, ANGEL 12/22/2023 9:33 AM

Figure 32

SEGMENT 3: RAMONA BOULEVARD TO MOUNTAIN VIEW ROAD



SEGMENT 3: RAMONA BOULEVARD TO MOUNTAIN VIEW ROAD



LEGEND

- CURB
- PROPOSED STRIPE
- BIKE LANE CONFLICT AREA
- BIKE BUFFER WITH WHEEL STOP
- SIDEWALK
- RAISED MEDIAN
- PARK AREA
- PLANTING STRIP
- 1-HR ON-STREET PARKING BAYS
- TRAFFIC SIGNAL
- PEDESTRIAN HAWK SIGNAL
- RAPID RECTANGULAR FLASHING BEACON (RRFB)
- RIGHT TURN ONLY SIGN
- EXISTING CURB RAMP
- PROPOSED CURB RAMP
- EXISTING BUS STOP
- RELOCATED BUS STOP

80 40 0

SCALE: 1"=80'

Valley Boulevard Complete Street Plan

Sheet 6 of 10

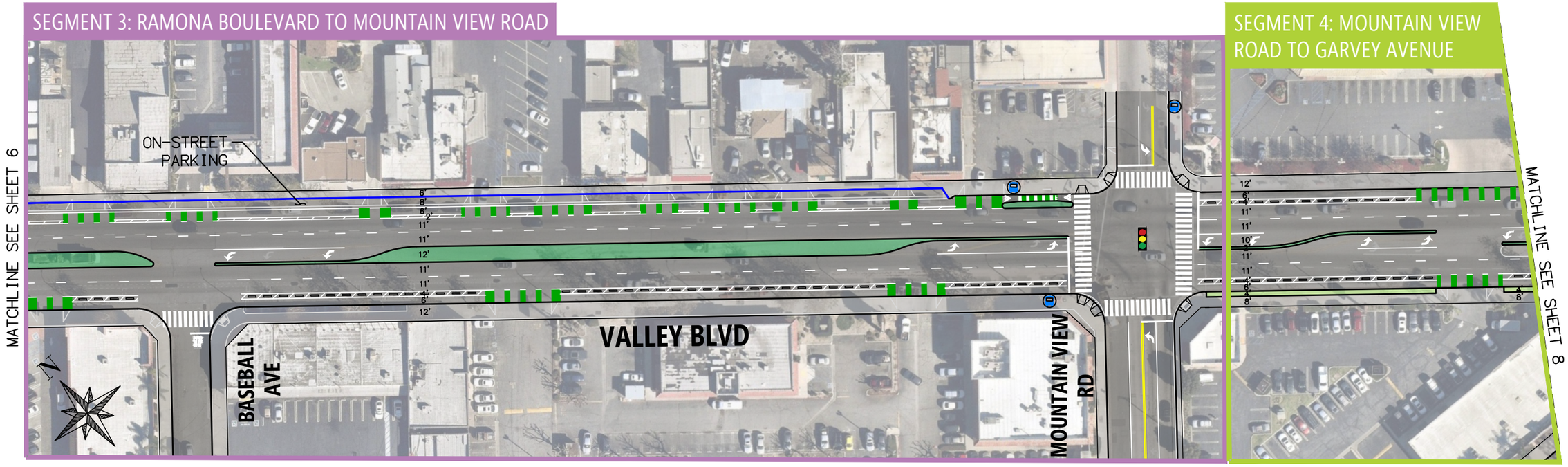
Michael Baker INTERNATIONAL

Figure 32

\\CARLCA1FS1.BKR.MBAKERCORP.COM\HROOT\PDATA\194628_VALLEY BLVD COMPLETE ST\CAD\EXHIBITS\VALLEY BLVD_CONCEPTS_OPT2_11X17.DWG MELENDEZ, ANGEL 12/22/2023 9:33 AM

SEGMENT 3: RAMONA BOULEVARD TO MOUNTAIN VIEW ROAD

SEGMENT 4: MOUNTAIN VIEW ROAD TO GARVEY AVENUE



LEGEND

- CURB
- PROPOSED STRIPE
- BIKE LANE CONFLICT AREA
- BIKE BUFFER WITH WHEEL STOP
- SIDEWALK
- RAISED MEDIAN
- PARK AREA
- PLANTING STRIP
- 1-HR ON-STREET PARKING BAYS
- TRAFFIC SIGNAL
- PEDESTRIAN HAWK SIGNAL
- RAPID RECTANGULAR FLASHING BEACON (RRFB)
- RIGHT TURN ONLY SIGN
- EXISTING CURB RAMP
- PROPOSED CURB RAMP
- EXISTING BUS STOP
- RELOCATED BUS STOP

80 40 0

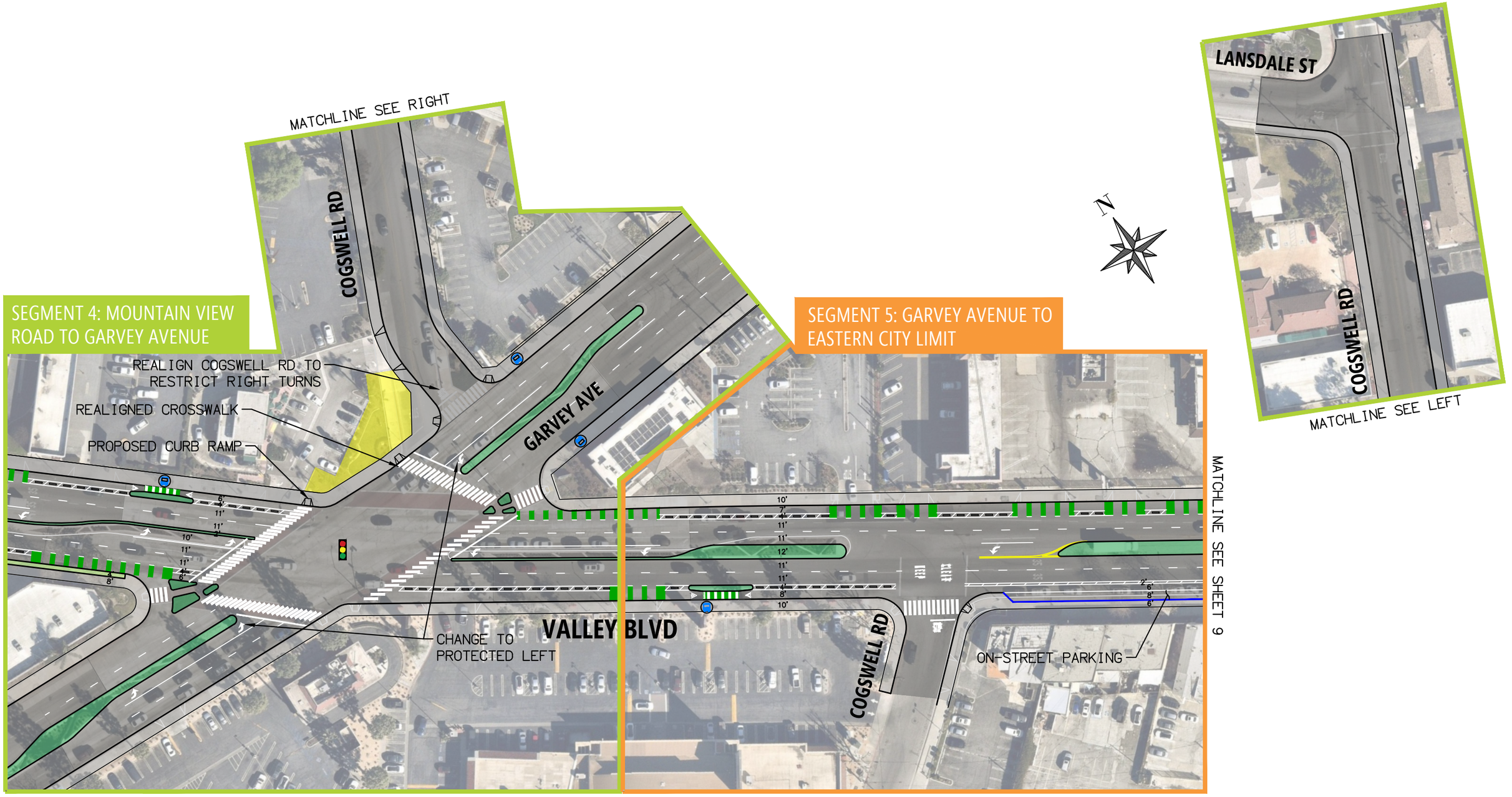
SCALE: 1"=80'

Valley Boulevard Complete Street Plan

Michael Baker INTERNATIONAL

Figure 32

\\CARLCA1FS1.BKR.MBAKERCORP.COM\HROOT\PDATA\194628_VALLEY BLVD COMPLETE ST\CAD\EXHIBITS\VALLEY BLVD_CONCEPTS_OPT2_11X17.DWG MELENDEZ, ANGEL 12/22/2023 9:33 AM



LEGEND

- CURB
- PROPOSED STRIPE
- BIKE LANE CONFLICT AREA
- BIKE BUFFER WITH WHEEL STOP
- SIDEWALK
- RAISED MEDIAN
- PARK AREA
- PLANTING STRIP
- 1-HR ON-STREET PARKING BAYS
- TRAFFIC SIGNAL
- PEDESTRIAN HAWK SIGNAL
- RAPID RECTANGULAR FLASHING BEACON (RRFB)
- RIGHT TURN ONLY SIGN
- EXISTING CURB RAMP
- PROPOSED CURB RAMP
- EXISTING BUS STOP
- RELOCATED BUS STOP

80 40 0

SCALE: 1"=80'

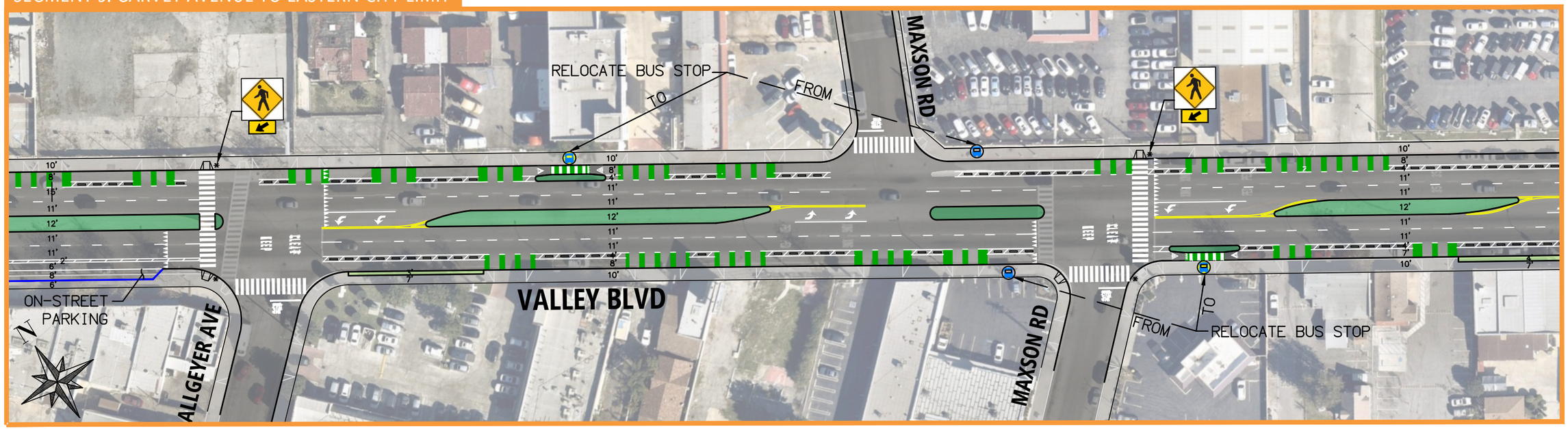
Valley Boulevard Complete Street Plan

Michael Baker INTERNATIONAL

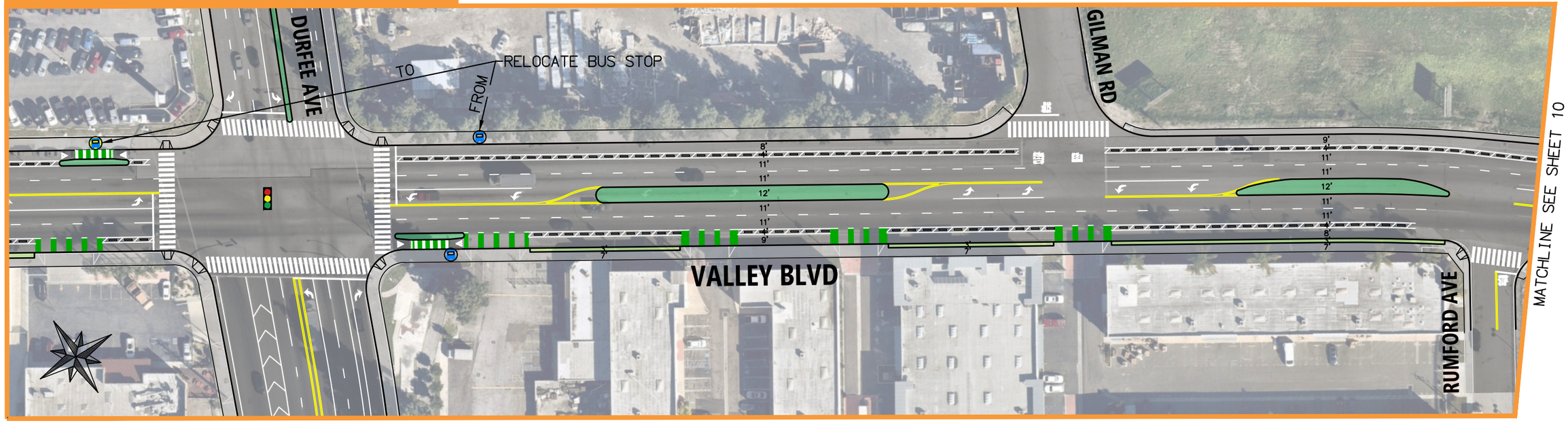
Figure 32

\\CARLCA1FS1.BKR.MBAKERCORP.COM\HROOT\PDATA\194628_VALLEY BLVD COMPLETE ST\CAD\EXHIBITS\VALLEY BLVD_CONCEPTS_OPT2_11X17.DWG MELENDEZ, ANGEL 12/22/2023 9:34 AM

SEGMENT 5: GARVEY AVENUE TO EASTERN CITY LIMIT



SEGMENT 5: GARVEY AVENUE TO EASTERN CITY LIMIT



LEGEND

- CURB
- PROPOSED STRIPE
- BIKE LANE CONFLICT AREA
- BIKE BUFFER WITH WHEEL STOP
- SIDEWALK
- RAISED MEDIAN
- PARK AREA
- PLANTING STRIP
- 1-HR ON-STREET PARKING BAYS
- TRAFFIC SIGNAL
- PEDESTRIAN HAWK SIGNAL
- RAPID RECTANGULAR FLASHING BEACON (RRFB)
- RIGHT TURN ONLY SIGN
- EXISTING CURB RAMP
- PROPOSED CURB RAMP
- EXISTING BUS STOP
- RELOCATED BUS STOP

80 40 0

SCALE: 1"=80'

Valley Boulevard Complete Street Plan

Michael Baker INTERNATIONAL

Figure 32

\\CARLCA1FS1.BKR.MBAKERCORP.COM\HROOT\PDATA\194628_VALLEY BLVD COMPLETE ST\CAD\EXHIBITS\VALLEY BLVD_CONCEPTS_OPT2_11X17.DWG MELENDEZ, ANGEL 12/22/2023 9:34 AM

SEGMENT 5: GARVEY AVENUE TO EASTERN CITY LIMIT



LEGEND

- CURB
- PROPOSED STRIPE
- BIKE LANE CONFLICT AREA
- BIKE BUFFER WITH WHEEL STOP
- SIDEWALK
- RAISED MEDIAN
- PEDESTRIAN PASEO
- PLANTING STRIP
- TRAFFIC SIGNAL
- PEDESTRIAN HAWK SIGNAL
- RAPID RECTANGULAR FLASHING BEACON (RRFB)
- RIGHT TURN ONLY SIGN
- EXISTING CURB RAMP
- PROPOSED CURB RAMP
- EXISTING BUS STOP
- RELOCATED BUS STOP
- GATEWAY FEATURE

80 40 0
SCALE: 1"=80'

Valley Boulevard Complete Street Plan

Michael Baker INTERNATIONAL

Figure 32

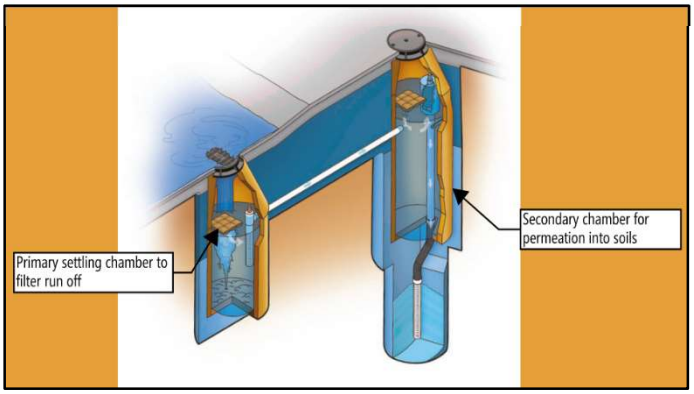
\\CARLCA1FS1.BKR.MBAKERCORP.COM\HROOT\PDATA\194628_VALLEY BLVD COMPLETE ST\CAD\EXHIBITS\VALLEY BLVD_CONCEPTS_OPT2_11X17.DWG MELENDEZ, ANGEL 12/22/2023 9:34 AM

Surface Water Quality Improvements

Finding ways to integrate elements in the Complete Street plan that reduce stormwater and urban runoff, reduce the impervious surface areas, and create a green environment within the public right of way was a primary focus of the plan development. After completing the conceptual design for the corridor, potential locations for installing Best Management Practices (BMPs) that incorporate stormwater quality improvement were identified in parallel to developing the landscape plan. While this section includes suggestions for stormwater treatment options, specific proposals for stormwater treatment will be further refined during final engineering to address the evolving nature of stormwater regulations and the need to factor in analysis that occurs during the final engineering design stage of the corridor study.

There are many options for BMPs. Due to the available space and the proximity to the travel way, the Torrenet MaxWell Plus Drywell System (drywell system) (shown in **Figure 33**) was selected as the ideal BMP to be placed in roadways, parking lots, and sidewalks because they are designed to withstand traffic loading and have a small footprint. The drywell system design includes a low-flow catch basin inlet, a primary settling chamber that removes pollutants through settling, screening, and hydrocarbon absorption, and a drywell chamber that recharges groundwater aquifers. The three drywell chamber elements are connected via inlet and crossover pipes.

Figure 33: Torrenet MaxWell Plus Drywell System



Catch basins along the corridor were identified and characterized by location, direction of travel and adjacent property land use. Once identified, the sites were assessed for the feasibility of installing these drywell chambers using the following criteria:

- **Vertical Clearance:** Must have a minimum vertical clearance of 47′ to allow access for the drill rigs used during installation.
- **Utility Setback:** Must have a minimum setback of 5′ from utilities and underground BMPs.
- **Other Constraints:** assessed for other constructions such as obstructions, sidewalk spacing or unusual locations making maintenance difficult.

The following criteria were used to establish low and high priority locations and "not feasible" locations.

- **High Priority:** All three criteria are satisfied. Ideal location for installing the drywell system.
- **Low Priority:** Minimum vertical clearance requirement is satisfied. However the utility setback is not satisfied and other constraints were observed in the vicinity. This would require modifying the drywell system configuration, utility location or other observed constrain for installation.
- **Not feasible:** Location did not meet the minimum vertical clearance requirements.

Table 11 lists the potential BMP site locations along Valley Boulevard. There are a total of 41 catch basins along Valley Boulevard that were assessed for potential drywell system locations. Of the sites assessed, 12 of the potential sites are rated as "high priority", while 28 were rated as "low priority" and one was "not feasible".

While the BMP's described can be installed within the existing catch basins, vegetated swale BMPs (shown in **Photo 13** and **Photo 14**) may be incorporated to provide additional pollutant removal. These vegetated swales could be constructed along the corridor to feed water into the parkway and through settling and infiltration in the Santa Anita Mini Park.

In the next phase of the design process, it is recommended that the following steps are taken for the Low Impact Development sites:

- Delineate total drainage area for each potential site.
- Verify utility locations (including depth).
- Perform Geotechnical study to determine soil type, conditions and infiltration rates.
- Confirm configuration of each BMP location with vendor and geotechnical engineer.

Figure 34 includes the full list of the potential locations assessed on a map.



Photo 13: Bioswale example with curb inlet



Photo 14: Bioswale example

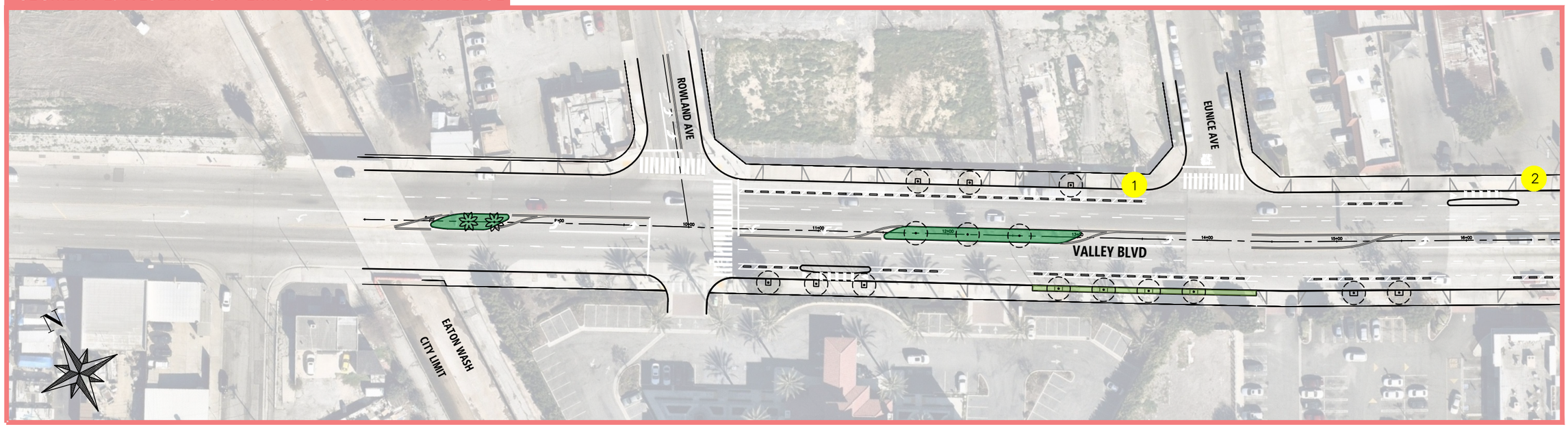
Table 11: Potential BMP Locations Summary

Location Number	Travel Direction	Criteria Check		Feasible	Priority Rating	Adjacent Lane Use	Notes
		Vertical Clearance	Utility Clearance				
1	West	Yes	No	Yes	Low	Commercial	Street lighting upstream of catch basin. Various driveways upstream and very little space for the drywell system. CalAM FH and SCG lines underneath (would need to be confirmed through field verification).
2	West	Yes	No	Yes	Low	Commercial	CalAM FH line may be underneath (would need to be confirmed through field verification). Low flow catch basin and dry well system can be added upstream of drop inlet catch basin. The width of the sidewalk is about 12′.
3	East	Yes	Yes	Yes	High	Commercial	Bus stop proposed to be moved. SCE line appear to be on street and away sidewalk. The width of the sidewalk is 12′.
4	West	Yes	No	Yes	Low	Commercial	Existing fire hydrant and traffic light is about 5′ to the left of the catch basin. CalAM FH and SCG lines may be underneath (would need to be confirmed through field verification). Drainage area appears to be the corner of the intersection. There is not much space for low flow catch basin nor drywell system.
5	East	Yes	No	Yes	Low	Commercial	The traffic light and fire hydrant are 5′ to the right of the catch basin. CalAM FH, City Sewer MH, and SCG lines are underneath (would need to be confirmed through field verification). SCE powerline is nearby. The width of the sidewalk is 12′.
6	West	Yes	No	Yes	Low	Commercial	It appears that the SCG, CalAM FH, and City Sewer MH lines are all underneath (would need to be confirmed through field verification). A building adjacent to the sidewalk. The width of the sidewalk is 12′. Existing bus stop proposed to be relocated.
7	West	Yes	No	Yes	Low	Commercial	SCG, CalAM FH, and City Sewer MH lines all underneath (would need to be confirmed through field verification). Street lighting near the catch basin. Building awning adjacent to sidewalk. The width of the sidewalk is 12′.
8	East	Yes	No	Yes	Low	Commercial	SCG, CalAM FH, and City Sewer Lines underneath (would need to be confirmed through field verification). Two story-building behind catch basin. The width of the sidewalk is 12′.
9	West	Yes	No	Yes	Low	Commercial	CalAm FH line underneath (would need to be confirmed through field verification). Existing bus stop proposed to be relocated away from catch basin. The width of the side walk is 12′. May be possible to place drywell system at an angle from the catch basin.
10	East	Yes	No	Yes	Low	Commercial	CalAM FH, City Sewer MH, SCG, and SCE underneath (would need to be confirmed through field verification). Two story building behind the catch basin. The sidewalk width is 12′. Trees are along the perimeter.
11	West	Yes	No	Yes	Low	Commercial	Adjacent to fire hydrant. Tree may need to be relocated. Not enough space for drywell system. CalAM FH line underneath (needs to be confirmed through field verification).
12	East	Yes	No	Yes	Low	Commercial	Adjacent to street lighting and bus stop. Bus stop will need to be temporarily moved. SCE, SCG, CalAM FH line underneath (need to be confirmed through field verification).
13	West	Yes	No	Yes	Low	Commercial	Adjacent to building and awning. CalAM FH and SCG line underneath (need to be confirmed through field verification).
14	East	No	No	Yes	Low	Commercial	Adjacent to City Hall and tree canopy overhead of sidewalk. SCE, City Sewer, and Metro line underneath (need to be confirmed through field verification).
15	West	Yes	No	Yes	Low	Mixed Urban	Adjacent to empty lot and a driveway to the left. Sidewalk is not wide . Metro line underneath (needs to be confirmed through field verification).

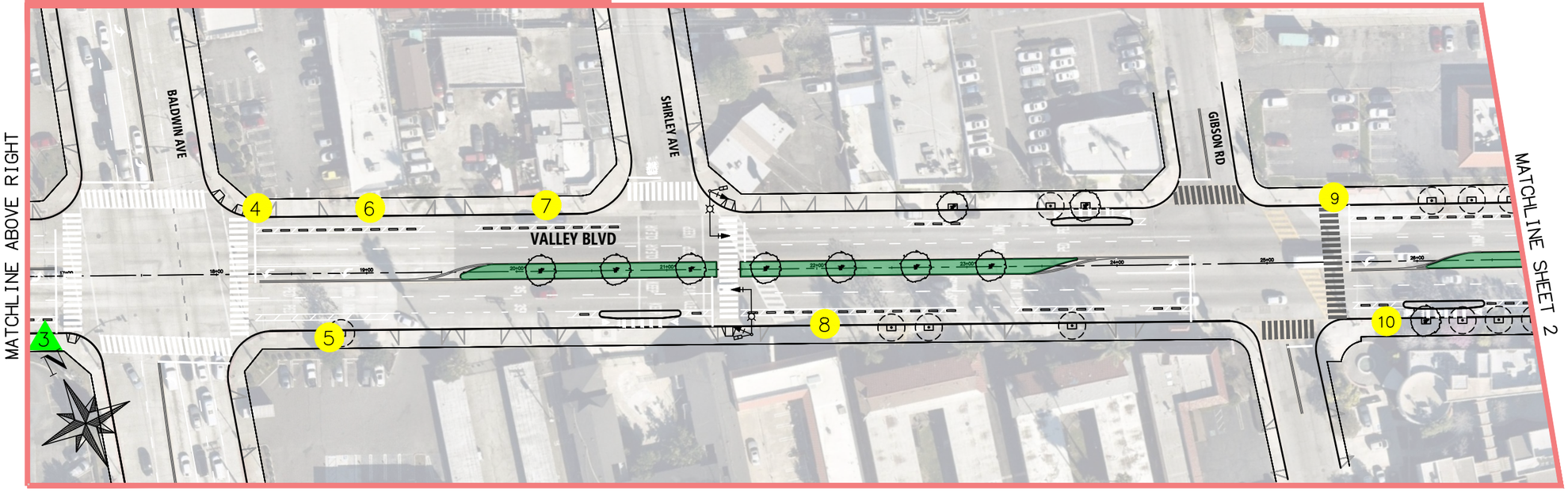
Location Number	Travel Direction	Criteria Check		Feasible	Priority Rating	Adjacent Lane Use	Notes
		Vertical Clearance	Utility Clearance				
16	West	Yes	No	Yes	Low	Industrial	Adjacent to recycling center and street lighting. Plenty of space for drywell system. Trees present along right of way. Metro and SCE line underneath (need to be confirmed through field verification).
17	West	Yes	No	Yes	Low	Commercial	Adjacent to auto business and medical supply. Temporary relocation of bus stop during construction is needed. Plenty of space for drywell system. SCE vault may be in the way. SCE line underneath (needs to be confirmed
18	West	Yes	No	Yes	Low	Commercial	Adjacent to business center located at intersection island. Very little space for enough space for DWS. Metro, and SCG line underneath (need to be confirmed through field verification).
19	West	Yes	No	Yes	Low	Commercial	Adjacent to business center and traffic signal post. May have a large tributary drainage area. SCE, LACSD, and City Sewer line underneath (need to be confirmed through field verification).
20	West	No	No	Yes	Low	Commercial	Adjacent to shopping center and utility box. Trees and light post may have to be relocated. SCE, Metro, and City Sewer line underneath (need to be confirmed through field verification).
21	West	Yes	Yes	Yes	High	Commercial	Adjacent to restaurant and shops. Bus stop may need to be temporarily relocated.
22	West	Yes	Yes	Yes	High	Commercial	Adjacent to restaurant buildings. Light post will need to be relocated.
23	West	Yes	No	Yes	Low	Commercial	Adjacent to business center building. Temporary relocation of bus stop during construction Is needed. SCE, SCG, Metro, and City Sewer line underneath (need to be confirmed through field verification).
24	West	Yes	No	Yes	Low	Commercial	Adjacent to auto dealership and is in between a driveway and a culvert where water is released from dealership. SCE, SCG, Metro, and City Sewer line underneath (need to be confirmed through field verification).
25	West	Yes	No	Yes	Low	Commercial	Adjacent to restaurant buildings, street lighting, and utility boxes. Tree location is needed. SCE, SCG, Metro, and City Sewer line underneath (need to be confirmed through field verification).
26	West	No	No	No	Not Feasible	N/A	Located underneath a bridge highway with no drill rig clearance.
27	West	Yes	Yes	Yes	High	Commercial	Adjacent to business center and traffic signal post. May require relocating trees.
28	West	Yes	Yes	Yes	High	Commercial	Adjacent to gas station. Temporary relocation of bus stop (bench, signage, trash) during construction is needed.
29	West	Yes	Yes	Yes	High	Commercial	Adjacent to multi-story business center building and fire hydrant.
30	West	Yes	Yes	Yes	High	Commercial	Adjacent to restaurant buildings and many street utilities. A temporary relocation of newspaper stand during construction is needed.
31	West	Yes	Yes	Yes	High	Commercial	Adjacent to City Hall and Police Station. Fire hydrant present but no FH line on PDF. Bus stop is being relocated and there is plenty of space upstream for drywell system.
32	West	Yes	Yes	Yes	High	Commercial	Adjacent to business center, traffic signal post, and a filters unit upstream of catch basin.
33	West	Yes	Yes	Yes	High	Commercial	Adjacent to fire hydrant and US Post Office. SCG line appears to be on the street (would need to be confirmed through field verification).

Location Number	Travel Direction	Criteria Check		Feasible	Priority Rating	Adjacent Lane Use	Notes
		Vertical Clearance	Utility Clearance				
34	West	Yes	Yes	Yes	Low	Commercial	Adjacent to business center with building canopy. Installation may be between sidewalk and proposed bike lane. SCG line underneath (would need to be confirmed through field verification).
35	West	Yes	Yes	Yes	High	Mixed Urban	Adjacent to multi-story residential, business center, and traffic signal post.
36	West	Yes	No	Yes	Low	High-Density Residential	Adjacent to multi-story apartment complex development. Sidewalk width is 8' wide. SCE line underneath (would need to be confirmed through field verification).
37	West	Yes	No	Yes	Low	Commercial	Adjacent to shopping center, bus stop, and street lighting. SCE line underneath (would need to be confirmed through field verification).
38	West	Yes	Yes	Yes	High	Mixed Urban	Street lighting and a park located near catch basin.
39	West	Yes	Yes	Yes	Low	Commercial	Adjacent to business center. Sidewalk width is 8'. LACSD and SCE lines appear to be on the street (would need to be confirmed through field verification).
40	West	Yes	No	Yes	Low	Commercial	Adjacent to business center, fire hydrant, bus stop, and traffic signal posts. City Sewer line underneath (would need to be confirmed through field verification).
41	West	Yes	No	Yes	Low	Commercial	Adjacent to gas station with driveways on each side. Sidewalk is 13' wide. Very little space for drywell system. Cal FH line underneath (would need to be confirmed through field verification).

SEGMENT 1: WESTERN CITY LIMIT TO SANTA ANITA AVENUE



SEGMENT 1: WESTERN CITY LIMIT TO SANTA ANITA AVENUE



LEGEND

SYMBOL	DESCRIPTION
#	LOW PRIORITY DRYWELL
#	HIGH PRIORITY DRYWELL
#	DRYWELL NOT FEASIBLE

0 40' 80' 160'

SCALE: 1" = 80'



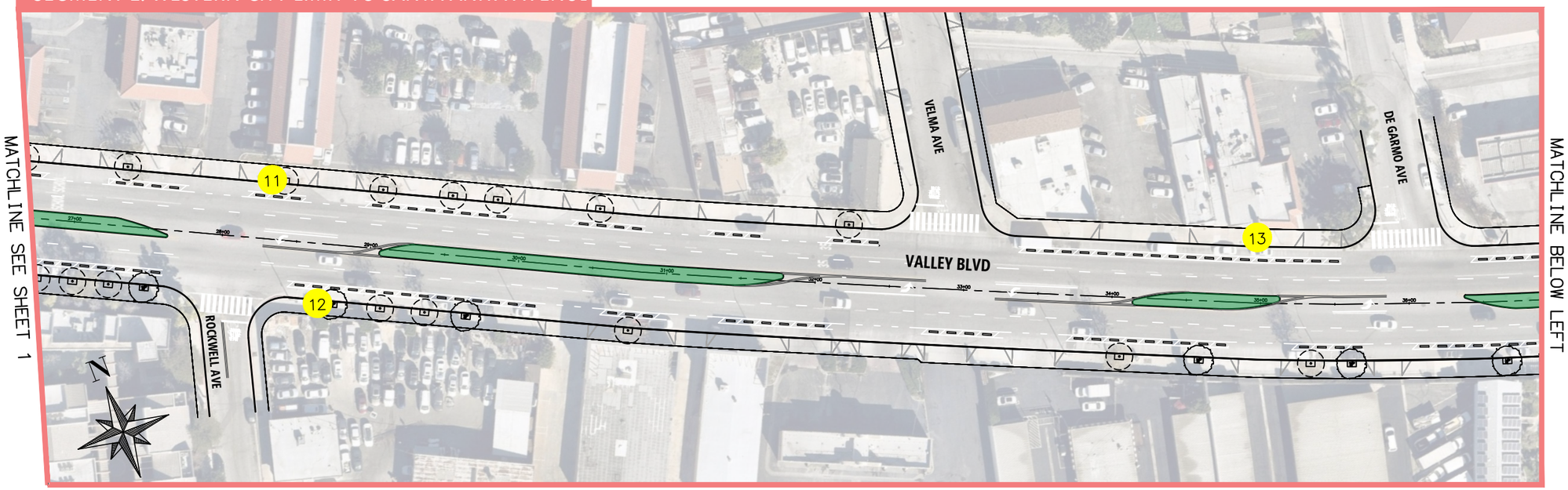
Valley Boulevard
Drywell Location Concept Plan

Sheet 1 of 10

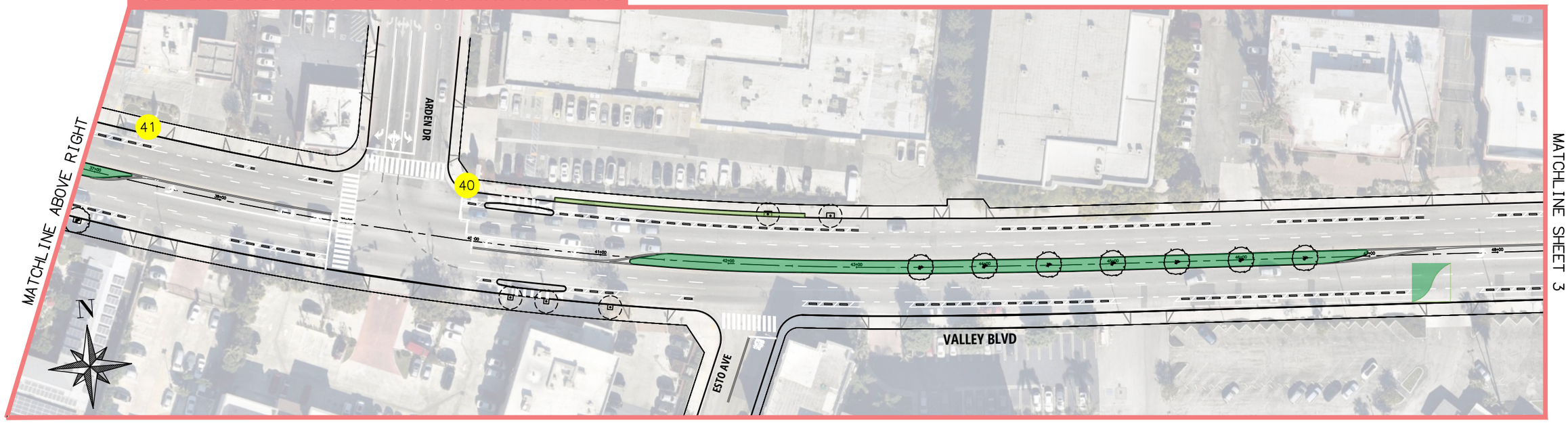
Michael Baker INTERNATIONAL

Figure 34

SEGMENT 1: WESTERN CITY LIMIT TO SANTA ANITA AVENUE



SEGMENT 1: WESTERN CITY LIMIT TO SANTA ANITA AVENUE



LEGEND

SYMBOL	DESCRIPTION
#	LOW PRIORITY DRYWELL
#	HIGH PRIORITY DRYWELL
#	DRYWELL NOT FEASIBLE

0 40' 80' 160'

SCALE: 1" = 80'



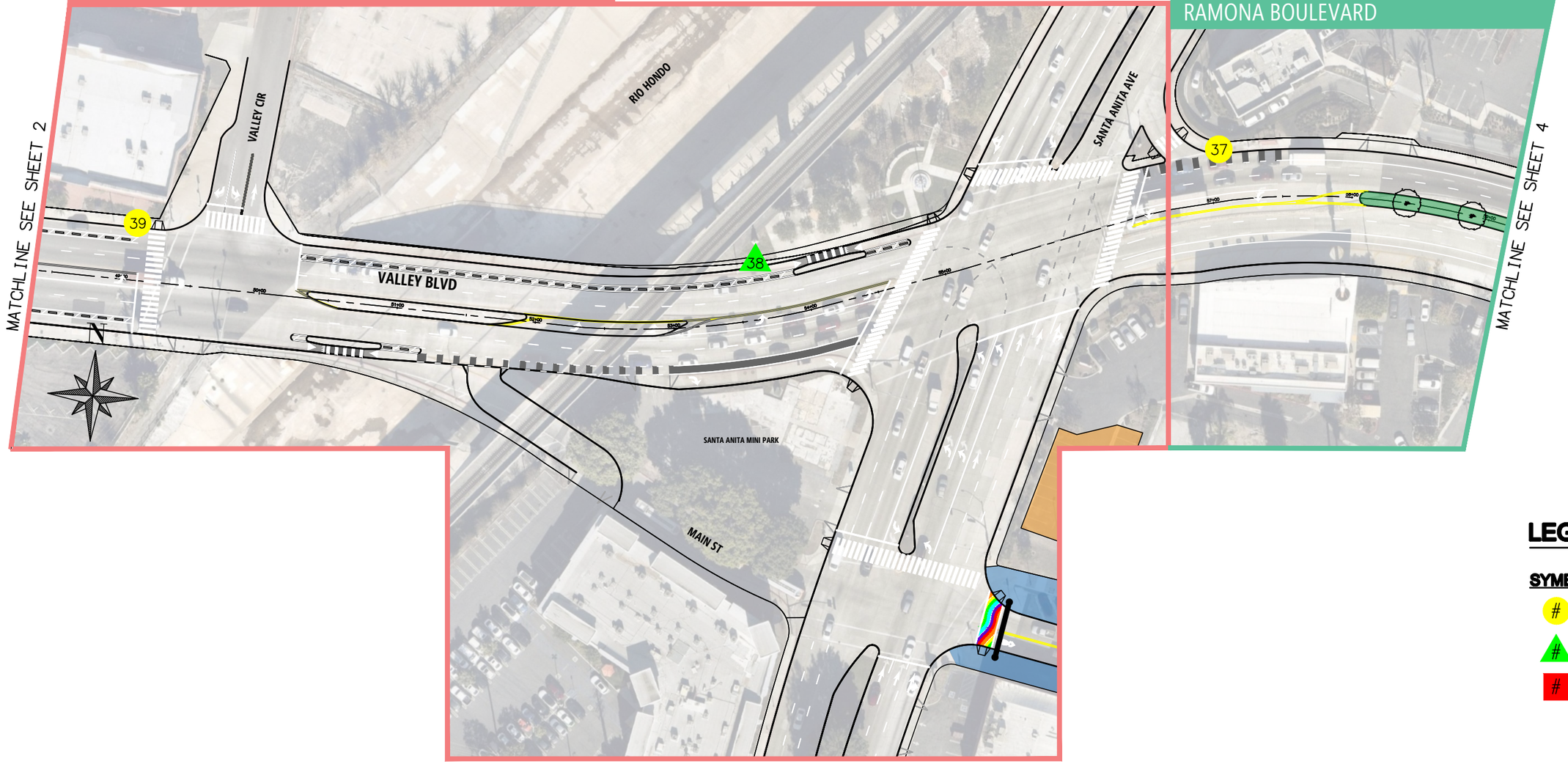
Valley Boulevard
Drywell Location Concept Plan

Michael Baker INTERNATIONAL

Figure 34

SEGMENT 1: WESTERN CITY LIMIT TO SANTA ANITA AVENUE

SEGMENT 2: SANTA ANITA AVENUE TO RAMONA BOULEVARD



LEGEND

SYMBOL	DESCRIPTION
#	LOW PRIORITY DRYWELL
#	HIGH PRIORITY DRYWELL
#	DRYWELL NOT FEASIBLE

0 40' 80' 160'

SCALE: 1" = 80'

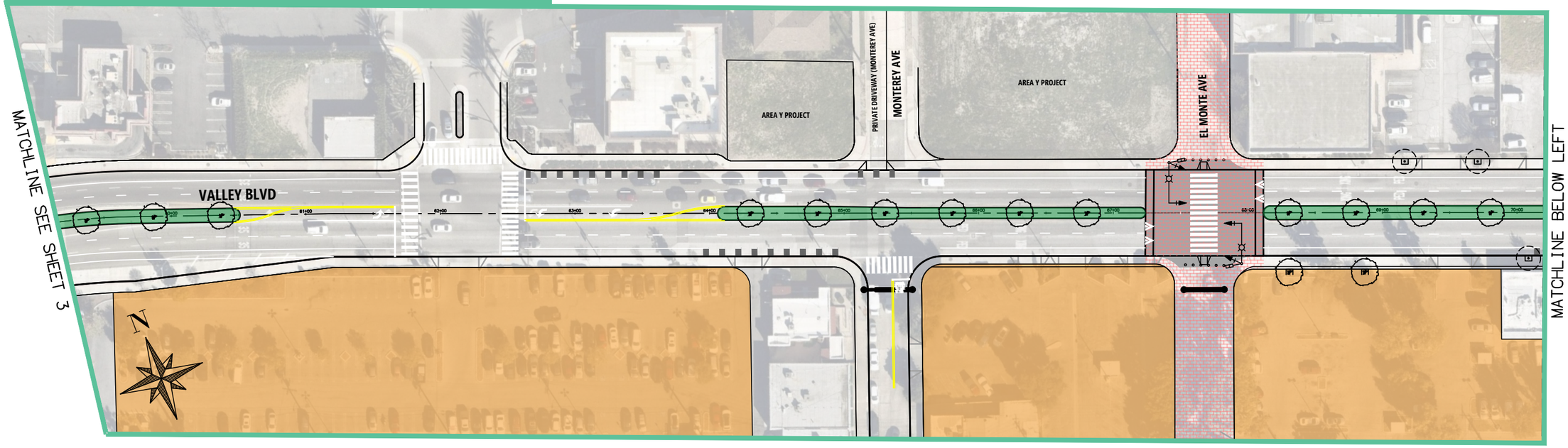
Valley Boulevard
Drywell Location Concept Plan

Sheet 3 of 10

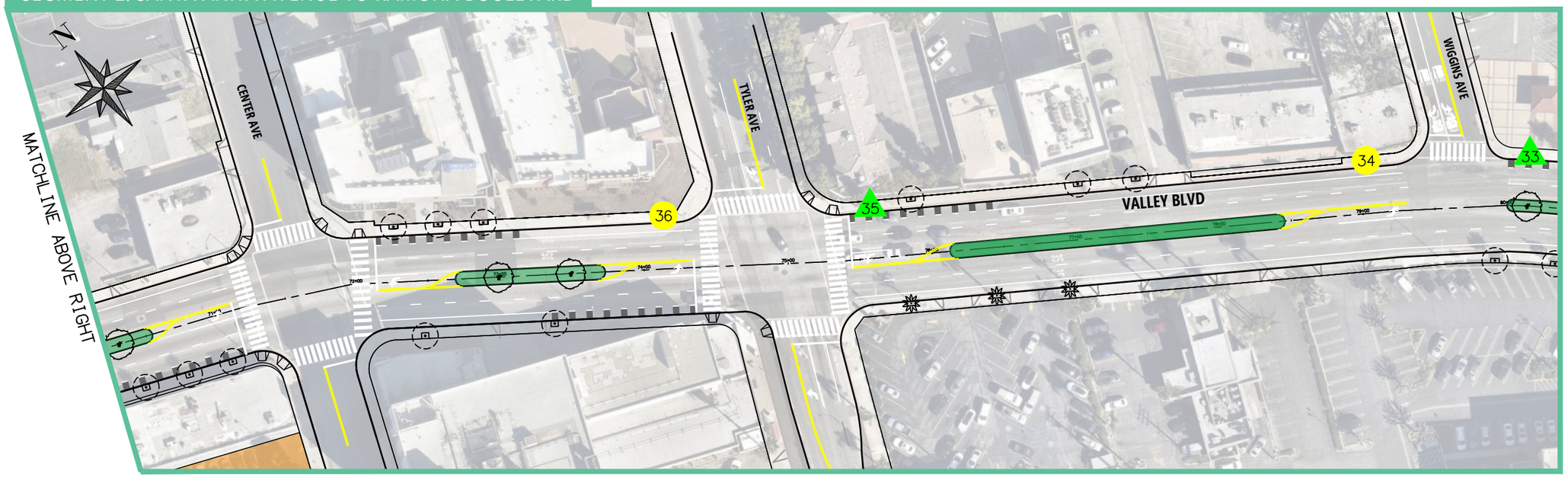
Michael Baker INTERNATIONAL

Figure 34

SEGMENT 2: SANTA ANITA AVENUE TO RAMONA BOULEVARD



SEGMENT 2: SANTA ANITA AVENUE TO RAMONA BOULEVARD



LEGEND

SYMBOL	DESCRIPTION
#	LOW PRIORITY DRYWELL
#	HIGH PRIORITY DRYWELL
#	DRYWELL NOT FEASIBLE

0 40' 80' 160'

SCALE: 1" = 80'



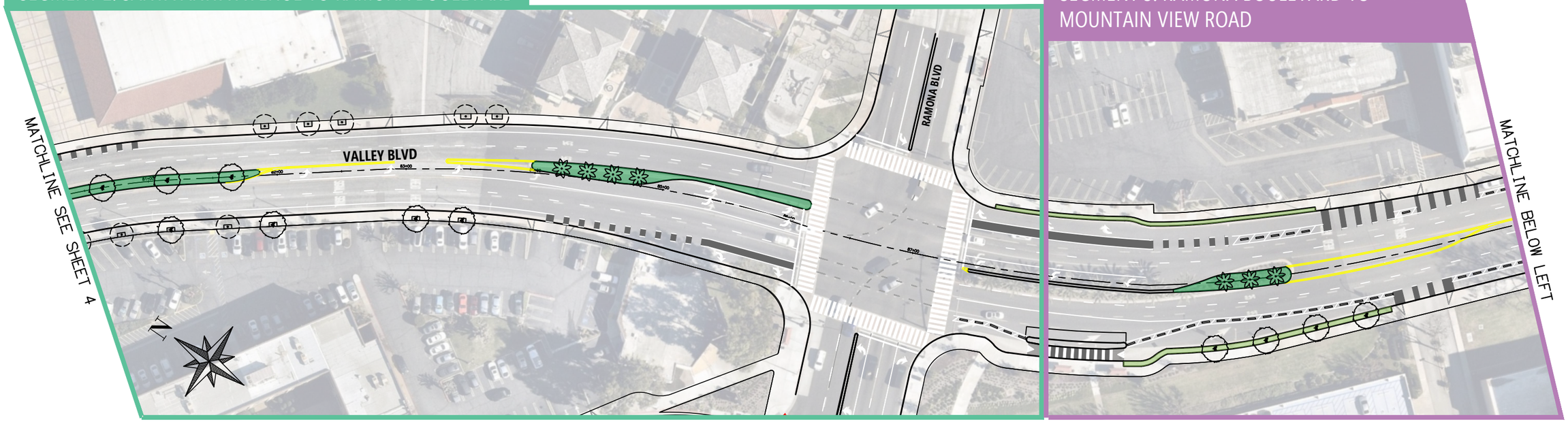
Valley Boulevard
Drywell Location Concept Plan

Michael Baker INTERNATIONAL

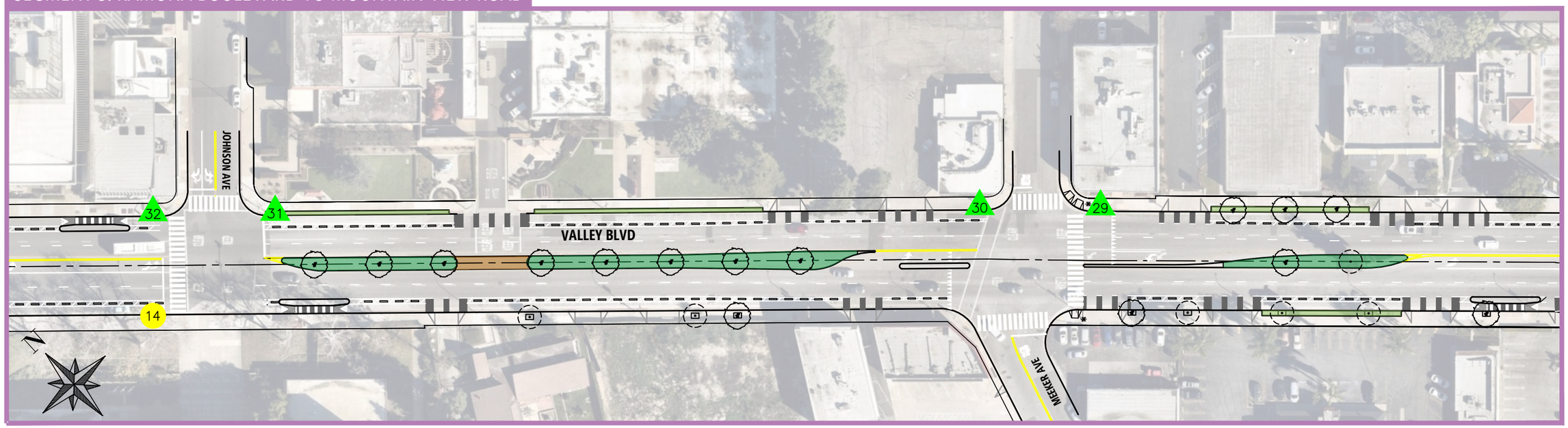
Figure 34

SEGMENT 2: SANTA ANITA AVENUE TO RAMONA BOULEVARD

SEGMENT 3: RAMONA BOULEVARD TO MOUNTAIN VIEW ROAD



SEGMENT 3: RAMONA BOULEVARD TO MOUNTAIN VIEW ROAD



0 40' 80' 160'

SCALE: 1" = 80'

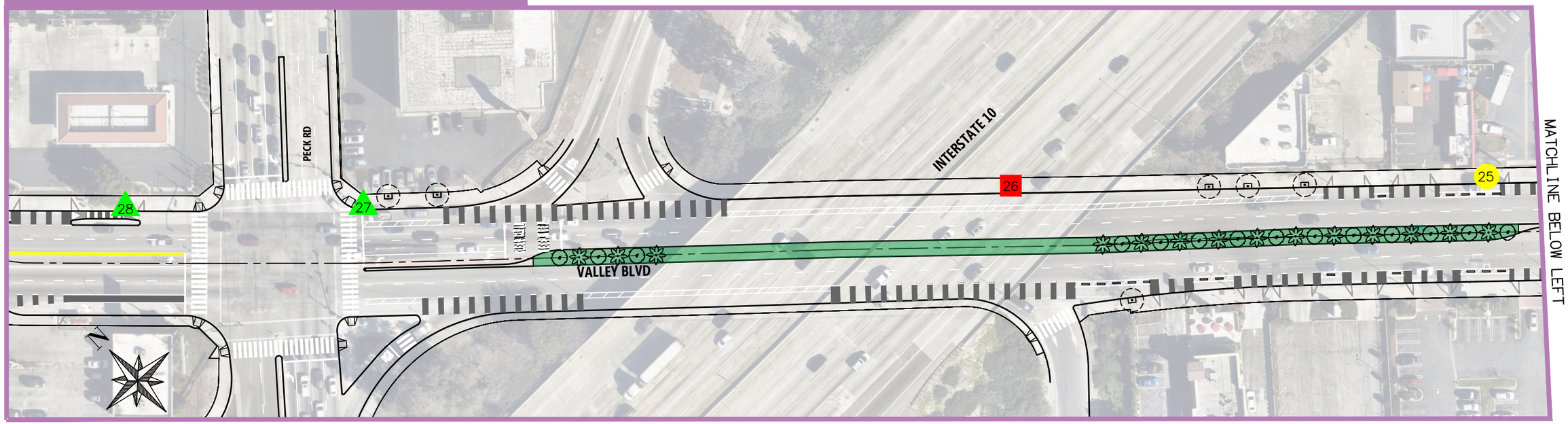
Valley Boulevard
Drywell Location Concept Plan

Sheet 5 of 10

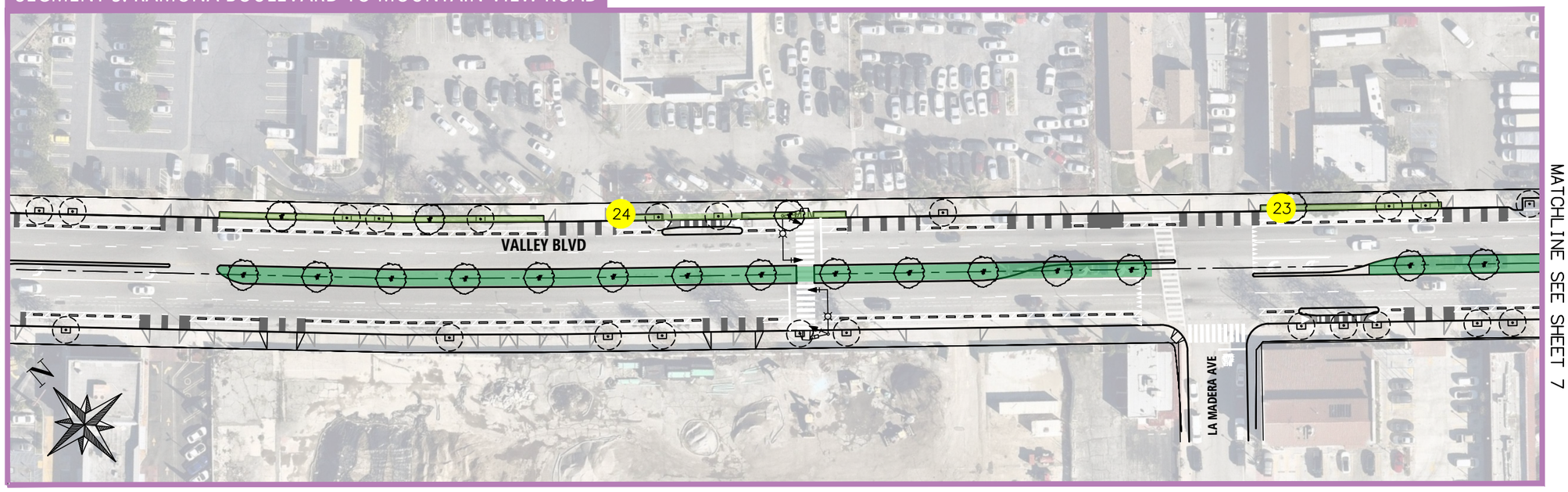
Michael Baker INTERNATIONAL

Figure 34

SEGMENT 3: RAMONA BOULEVARD TO MOUNTAIN VIEW ROAD



SEGMENT 3: RAMONA BOULEVARD TO MOUNTAIN VIEW ROAD



LEGEND

SYMBOL	DESCRIPTION
#	LOW PRIORITY DRYWELL
#	HIGH PRIORITY DRYWELL
#	DRYWELL NOT FEASIBLE

0 40' 80' 160'

SCALE: 1" = 80'



Valley Boulevard
Drywell Location Concept Plan

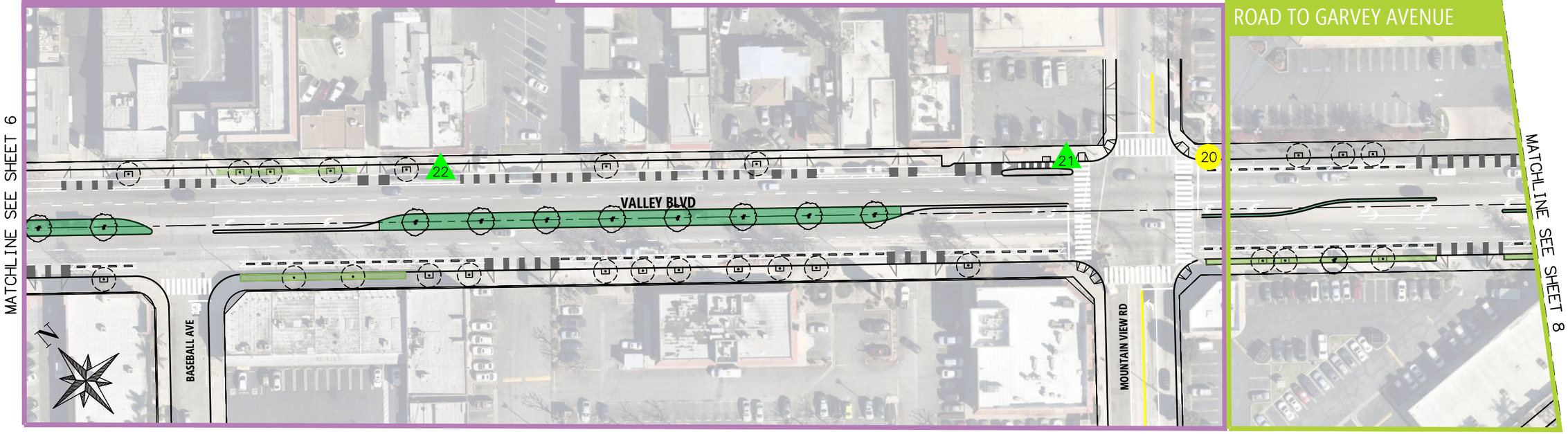
Sheet 6 of 10

Michael Baker INTERNATIONAL

Figure 34

SEGMENT 3: RAMONA BOULEVARD TO MOUNTAIN VIEW ROAD

SEGMENT 4: MOUNTAIN VIEW ROAD TO GARVEY AVENUE

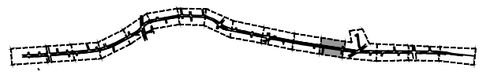


LEGEND

SYMBOL	DESCRIPTION
#	LOW PRIORITY DRYWELL
#	HIGH PRIORITY DRYWELL
#	DRYWELL NOT FEASIBLE

0 40' 80' 160'

SCALE: 1" = 80'



Valley Boulevard
Drywell Location Concept Plan

Sheet 7 of 10

Michael Baker INTERNATIONAL

Figure 34

MATCHLINE SEE RIGHT

SEGMENT 4: MOUNTAIN VIEW ROAD TO GARVEY AVENUE

SEGMENT 5: GARVEY AVENUE TO EASTERN CITY LIMIT

COGSWELL RD

GARVEY AVE

VALLEY BLVD

COGSWELL RD

19

18

MATCHLINE SEE SHEET 7

MATCHLINE SEE SHEET 9

LANSDALE ST

COGSWELL RD

MATCHLINE SEE LEFT

N

LEGEND

SYMBOL	DESCRIPTION
#	LOW PRIORITY DRYWELL
#	HIGH PRIORITY DRYWELL
#	DRYWELL NOT FEASIBLE

0 40' 80' 160'

SCALE: 1" = 80'

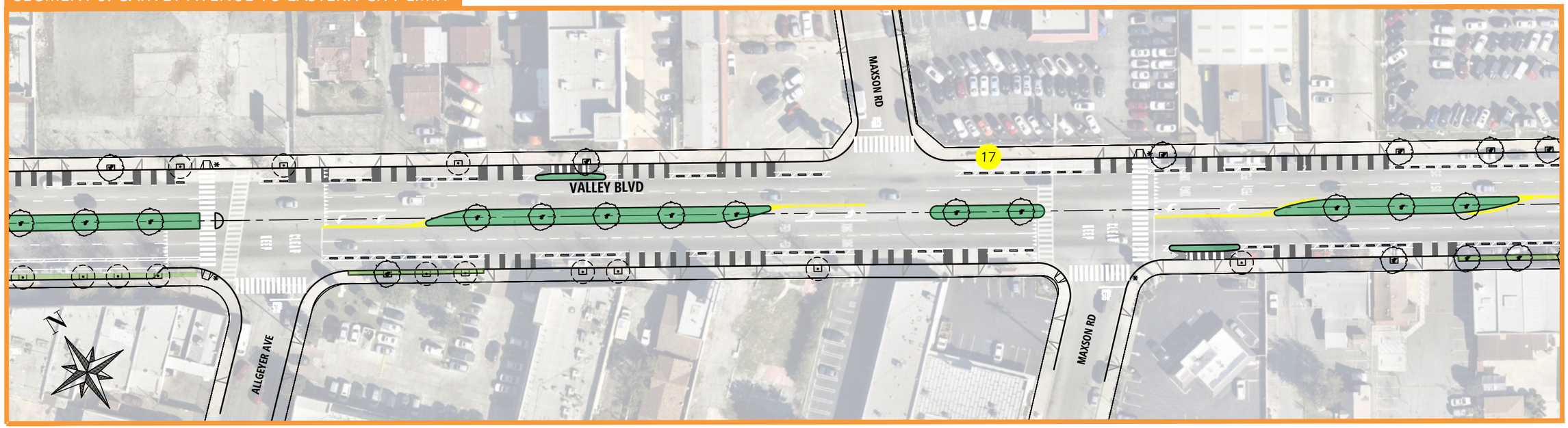
Michael Baker INTERNATIONAL

Valley Boulevard
Drywell Location Concept Plan

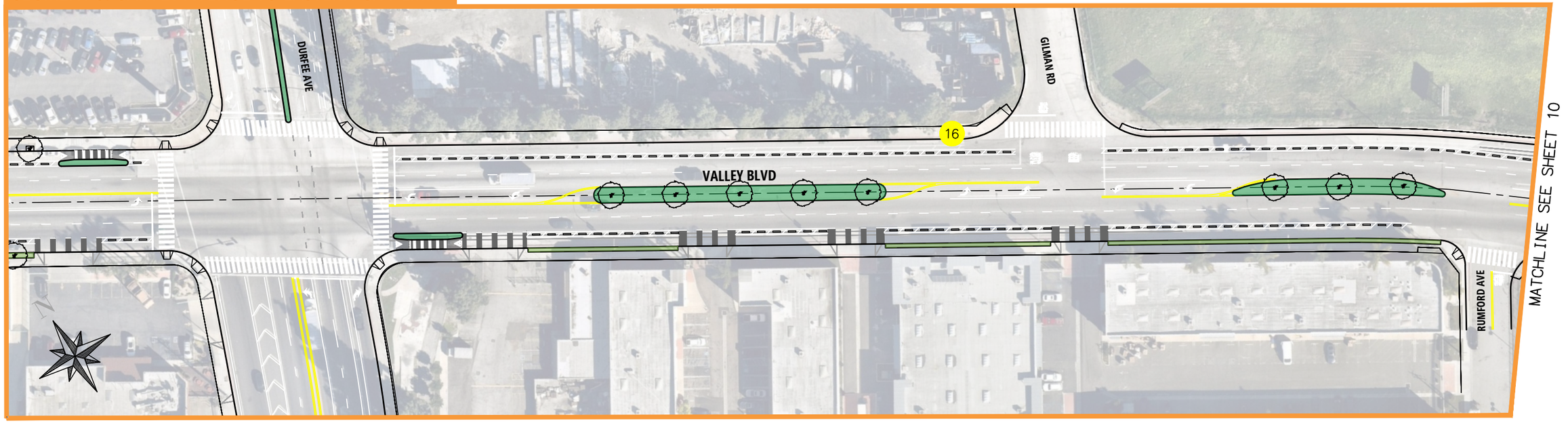
Sheet 8 of 10

Figure 34

SEGMENT 5: GARVEY AVENUE TO EASTERN CITY LIMIT



SEGMENT 5: GARVEY AVENUE TO EASTERN CITY LIMIT



0 40' 80' 160'

SCALE: 1" = 80'

Valley Boulevard
Drywell Location Concept Plan

Michael Baker INTERNATIONAL

Figure 34

SEGMENT 5: GARVEY AVENUE TO EASTERN CITY LIMIT

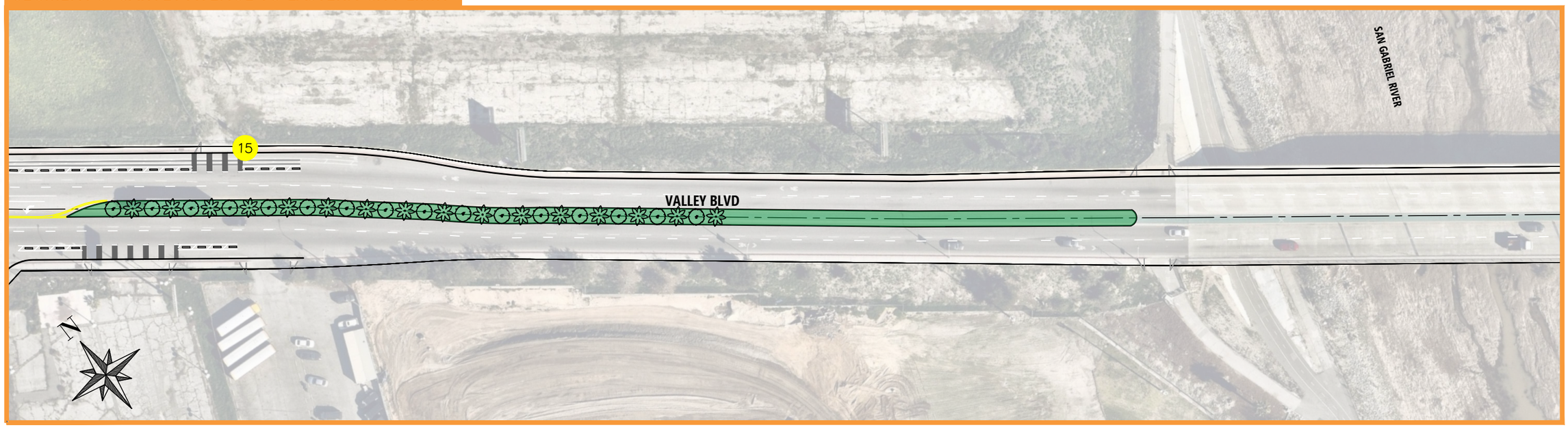


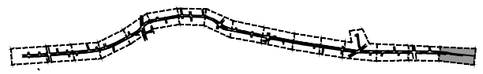
Figure 35

LEGEND

SYMBOL	DESCRIPTION
#	LOW PRIORITY DRYWELL
#	HIGH PRIORITY DRYWELL
#	DRYWELL NOT FEASIBLE

0 40' 80' 160'

SCALE: 1" = 80'



Valley Boulevard
Drywell Location Concept Plan

Sheet 10 of 10

Michael Baker INTERNATIONAL

Figure 34

Landscaping Enhancements

The Valley Boulevard Landscape Concept Plan (Landscape Concept Plan) illustrates the typical median and parkway landscaping and the proposed tree layout along the corridor. The Landscape Concept Plan aligns with the objectives outlined in the City of El Monte Streetscape Beautification Master plan and strategically aims to elevate Valley Boulevard as a destination. The Landscape Concept Plan is thoughtfully aligned with the overarching aim of fostering climate resilience by integrating trees and plants suited to the local climate and region. Mindful of the goal to streamline maintenance, the proposed tree spacing and plant selections are tailored for simplicity and efficiency, addressing the need for increased tree canopy coverage while providing essential shade for people.



Photo 15: Median landscaping example

The planting selections play a pivotal role in softening the streetscape, introducing an array of colorful flowers that add vibrancy and charm to the urban environment. Beyond their visual appeal, these plants serve a dual purpose by treating stormwater runoff and promoting environmental sustainability. Curb inlets are proposed within the parkway landscaping strips to allow for stormwater to flow into the planting area, water the plants and then the overflow will drain via a drywell system as discussed under the Water Quality section of this report. To align with local and state water conservation requirements, the proposed shrubs and groundcovers are selected for their low-water usage. **Photo 15** and **Photo 16** are examples of the median and parkway landscaping respectively.



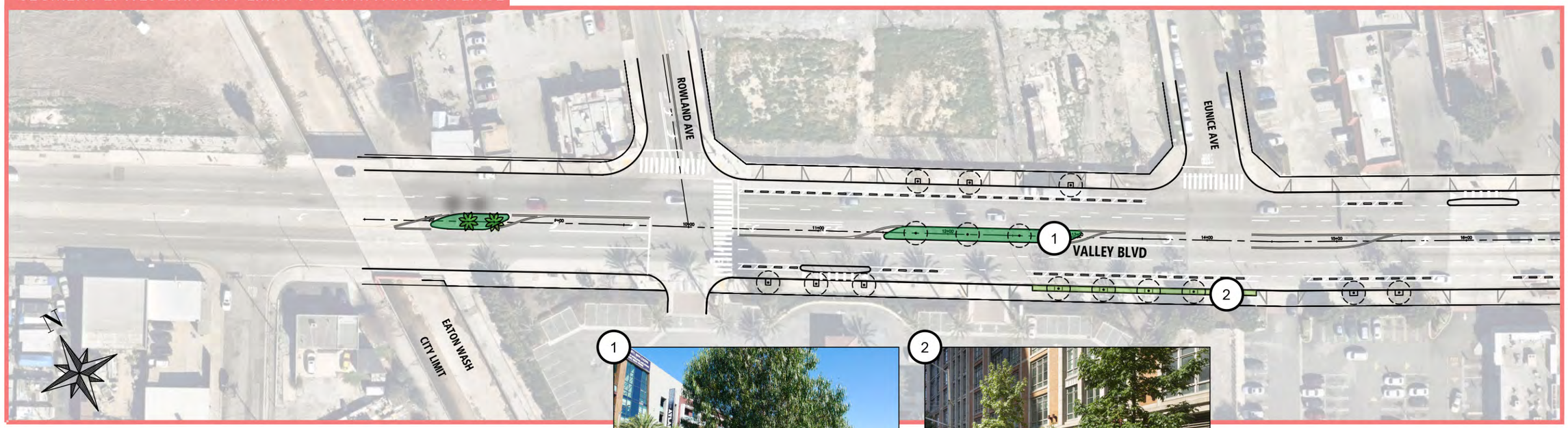
Photo 16:Parkway landscaping example

Trees selected include a mix of canopy trees and palm trees. Canopy trees are proposed along the parkway strips to create shade along the sidewalk and in the medians. Palm trees are limited to the medians and are placed at strategic locations such as gateway locations and major intersections to evoke a profound sense of arrival in the cityscape. **Photo 17** is an example of a median at gateway locations with a mix of palm trees and canopy trees. The Landscape Concept Plan includes three different median concept designs to be intermingled along the corridor. The goals of the Landscape Concept Plan are to reflect the City's commitment to aesthetic enhancement and also advocate for sustainability, practicality and a welcoming ambiance for both residents and visitors. The full Landscape Concept Plan is included in **Figure 35**.



Photo 17: Palm tree median landscaping example

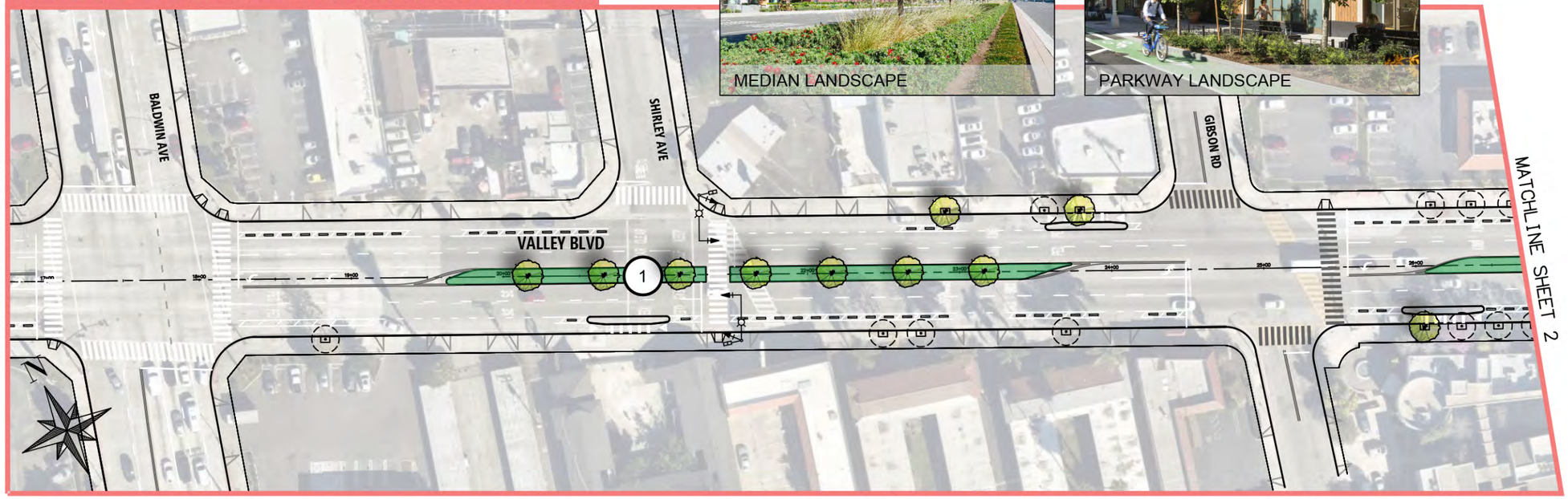
SEGMENT 1: WESTERN CITY LIMIT TO SANTA ANITA AVENUE







SEGMENT 1: WESTERN CITY LIMIT TO SANTA ANITA AVENUE



PLANTING LEGEND

SYMBOL	DESCRIPTION
	EXISTING TREE TO REMAIN
	EXISTING PALM TO REMAIN
	PROPOSED TREE
	PROPOSED PALM
	PROPOSED PLANTINGAREA

0 40' 80' 160'

SCALE: 1" = 80'



Valley Boulevard
Landscape Concept Plan

Sheet 1 of 12

Michael Baker INTERNATIONAL

Figure 35

SEGMENT 1: WESTERN CITY LIMIT TO SANTA ANITA AVENUE

MATCHLINE SEE SHEET 1

MATCHLINE BELOW LEFT

VELMA AVE

DE GARMO AVE

VALLEY BLVD

ROCKWELL AVE

1

1

N

PLANTING LEGEND

SYMBOL	DESCRIPTION
	EXISTING TREE TO REMAIN
	EXISTING PALM TO REMAIN
	PROPOSED TREE
	PROPOSED PALM
	PROPOSED PLANTINGAREA

SEGMENT 1: WESTERN CITY LIMIT TO SANTA ANITA AVENUE

1



MEDIAN LANDSCAPE

2



PARKWAY LANDSCAPE

MATCHLINE ABOVE RIGHT

MATCHLINE SHEET 3

ARDEN DR

ESTO AVE

VALLEY BLVD

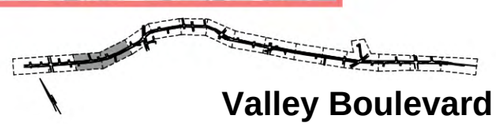
2

1

N

0 40' 80' 160'

SCALE: 1" = 80'



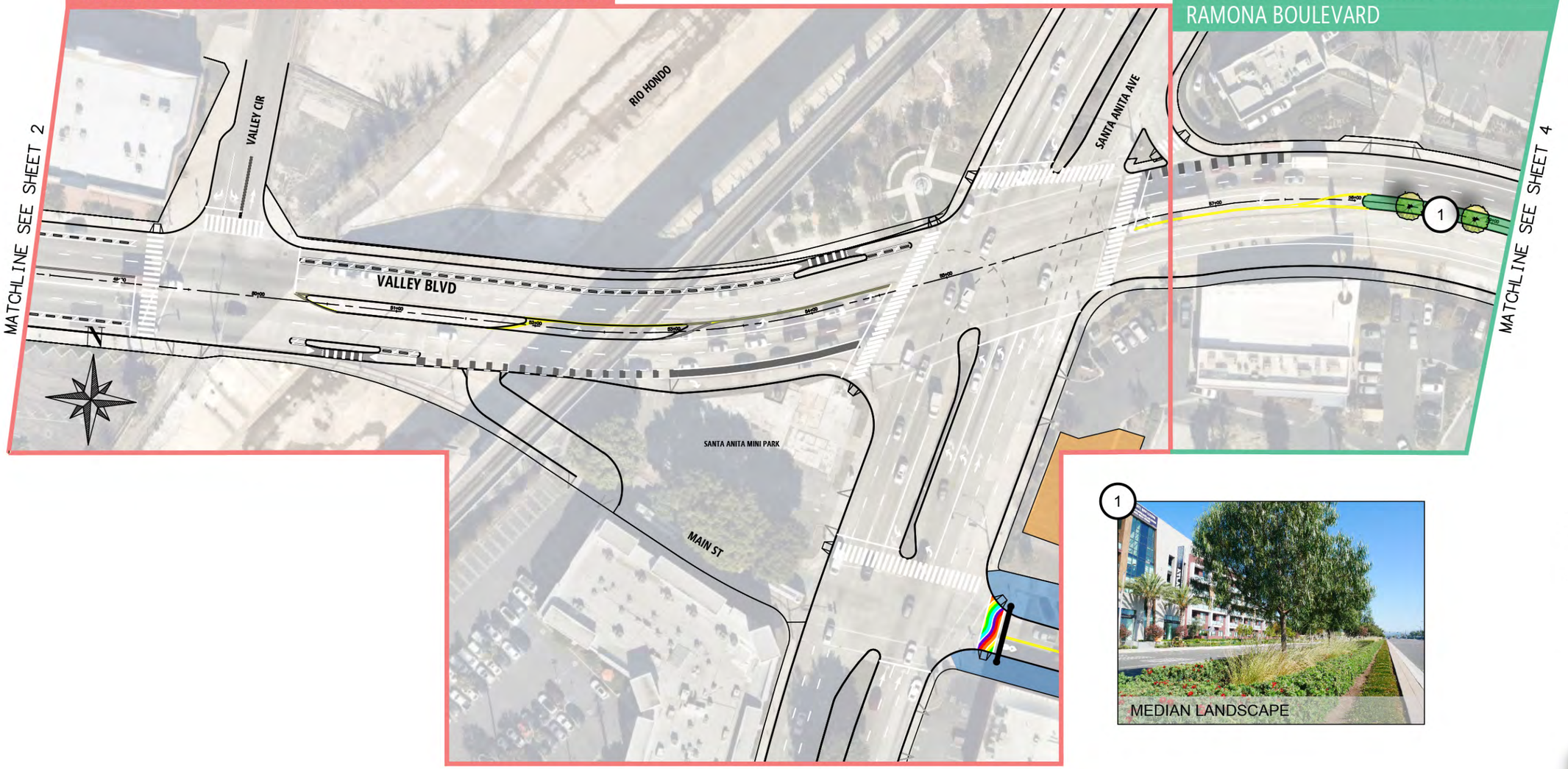
Valley Boulevard Landscape Concept Plan

Michael Baker INTERNATIONAL

Figure 35

SEGMENT 1: WESTERN CITY LIMIT TO SANTA ANITA AVENUE

SEGMENT 2: SANTA ANITA AVENUE TO RAMONA BOULEVARD



PLANTING LEGEND

SYMBOL	DESCRIPTION
	EXISTING TREE TO REMAIN
	EXISTING PALM TO REMAIN
	PROPOSED TREE
	PROPOSED PALM
	PROPOSED PLANTINGAREA

0 40' 80' 160'

SCALE: 1" = 80'

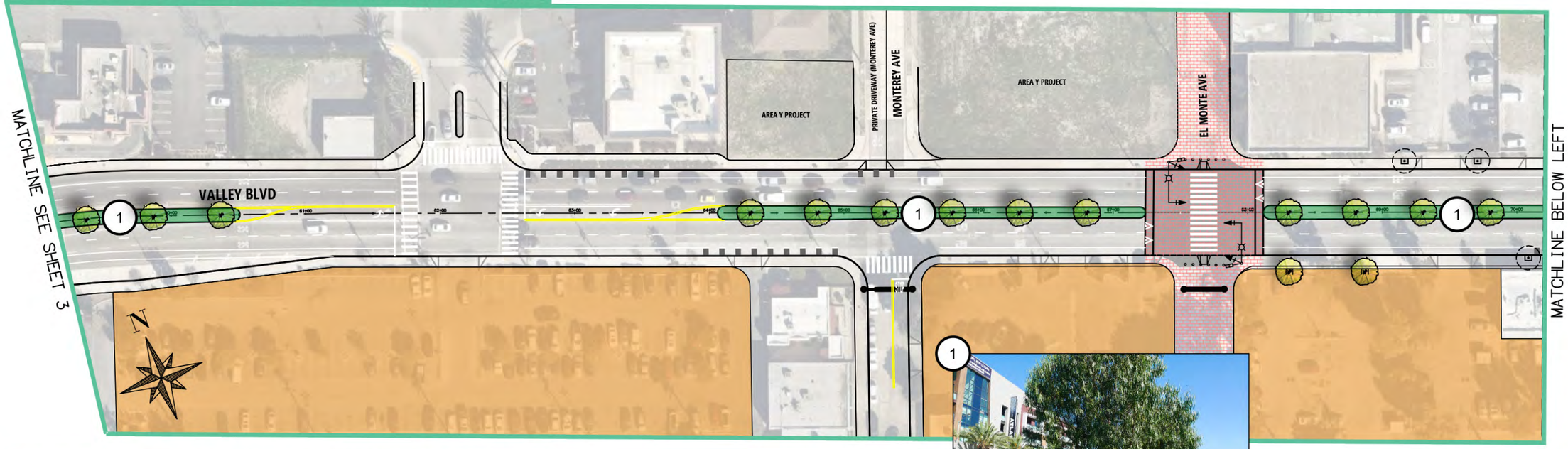
Valley Boulevard Landscape Concept Plan

Sheet 3 of 12

Michael Baker INTERNATIONAL

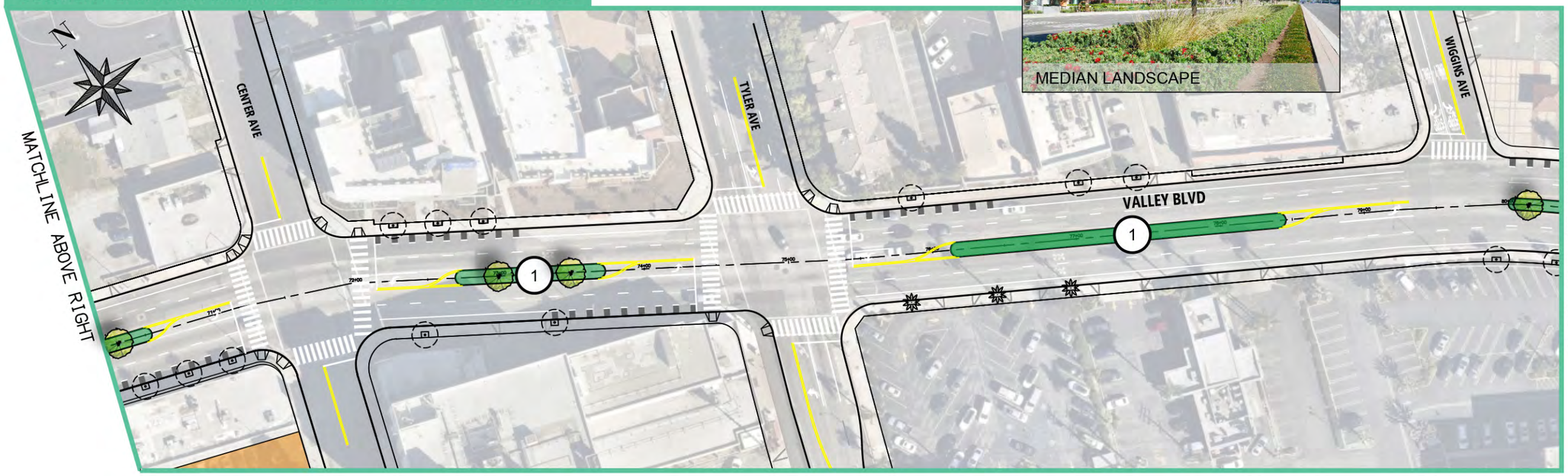
Figure 35

SEGMENT 2: SANTA ANITA AVENUE TO RAMONA BOULEVARD





SEGMENT 2: SANTA ANITA AVENUE TO RAMONA BOULEVARD

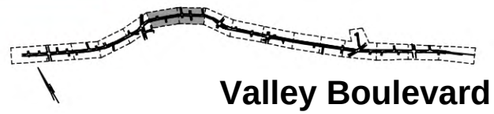


PLANTING LEGEND

SYMBOL	DESCRIPTION
	EXISTING TREE TO REMAIN
	EXISTING PALM TO REMAIN
	PROPOSED TREE
	PROPOSED PALM
	PROPOSED PLANTINGAREA

0 40' 80' 160'

SCALE: 1" = 80'



Valley Boulevard
Landscape Concept Plan

Michael Baker INTERNATIONAL

Figure 35

SEGMENT 2: SANTA ANITA AVENUE TO RAMONA BOULEVARD

SEGMENT 3: RAMONA BOULEVARD TO MOUNTAIN VIEW ROAD

SEGMENT 3: RAMONA BOULEVARD TO MOUNTAIN VIEW ROAD

MATCHLINE SEE SHEET 4

MATCHLINE BELOW LEFT

MATCHLINE ABOVE RIGHT

MATCHLINE SEE SHEET 6

VALLEY BLVD

RAMONA BLVD

JOHNSON AVE

MEEKER AVE

1



MEDIAN LANDSCAPE

2



PARKWAY LANDSCAPE

3



MEDIAN LANDSCAPE

0 40' 80' 160'

SCALE: 1" = 80'

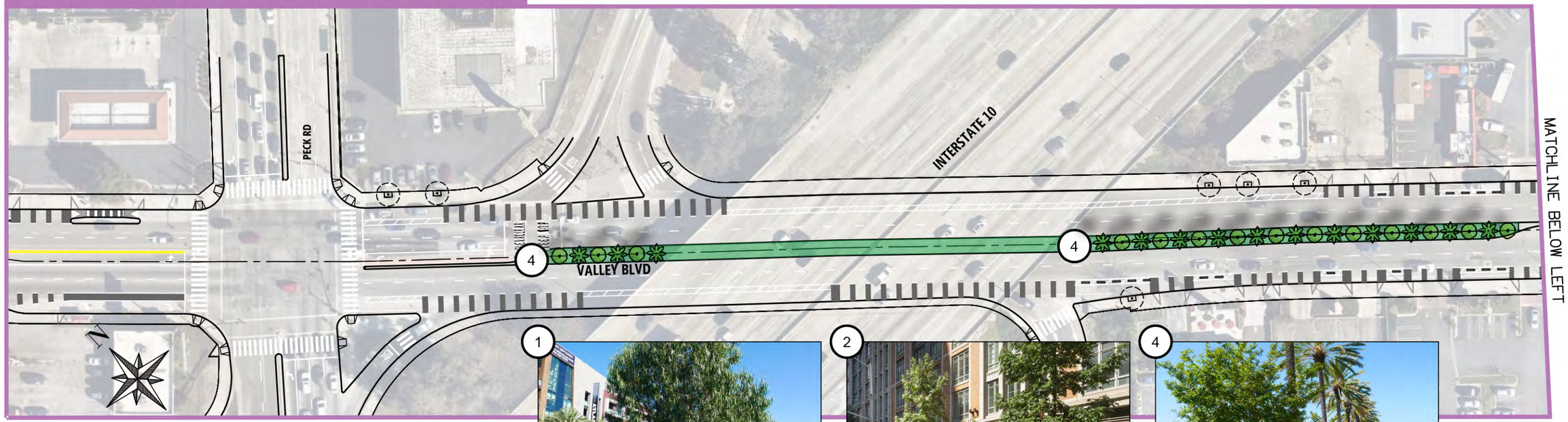
Valley Boulevard
Landscape Concept Plan

Sheet 5 of 12

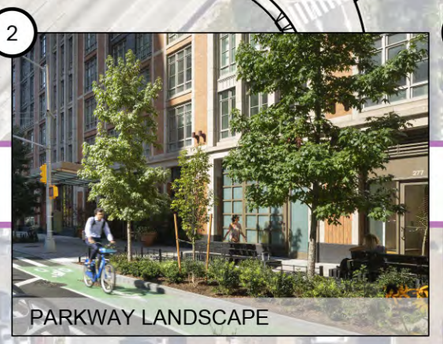
Michael Baker INTERNATIONAL

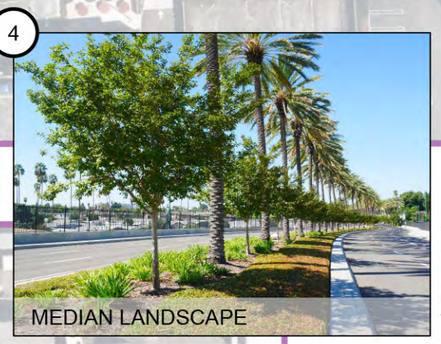
Figure 35

SEGMENT 3: RAMONA BOULEVARD TO MOUNTAIN VIEW ROAD

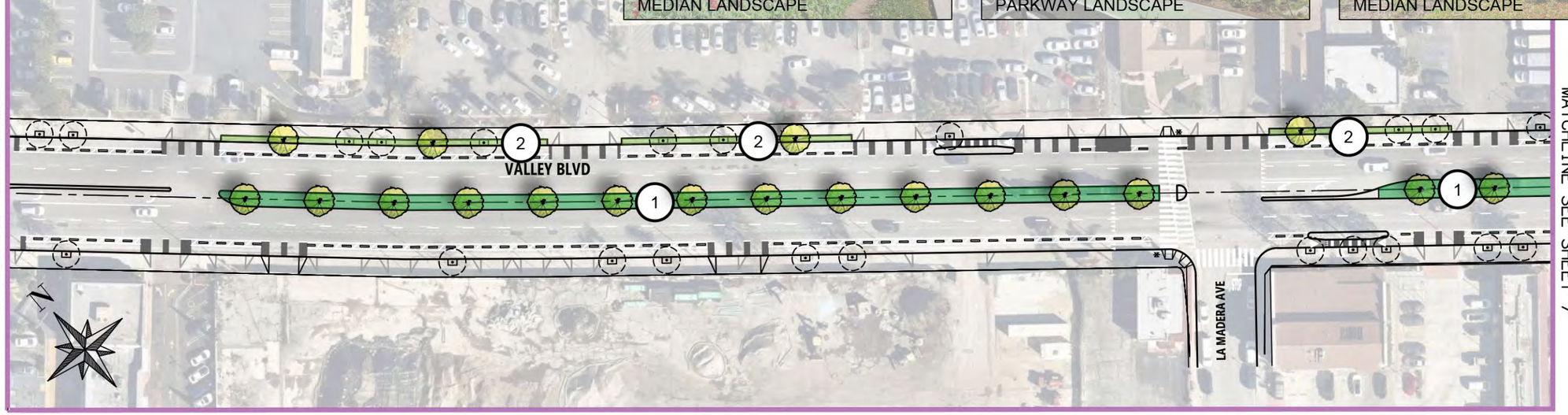








SEGMENT 3: RAMONA BOULEVARD TO MOUNTAIN VIEW ROAD

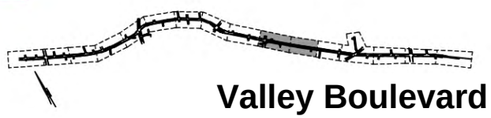


PLANTING LEGEND

SYMBOL	DESCRIPTION
	EXISTING TREE TO REMAIN
	EXISTING PALM TO REMAIN
	PROPOSED TREE
	PROPOSED PALM
	PROPOSED PLANTINGAREA

0 40' 80' 160'

SCALE: 1" = 80'



Valley Boulevard Landscape Concept Plan

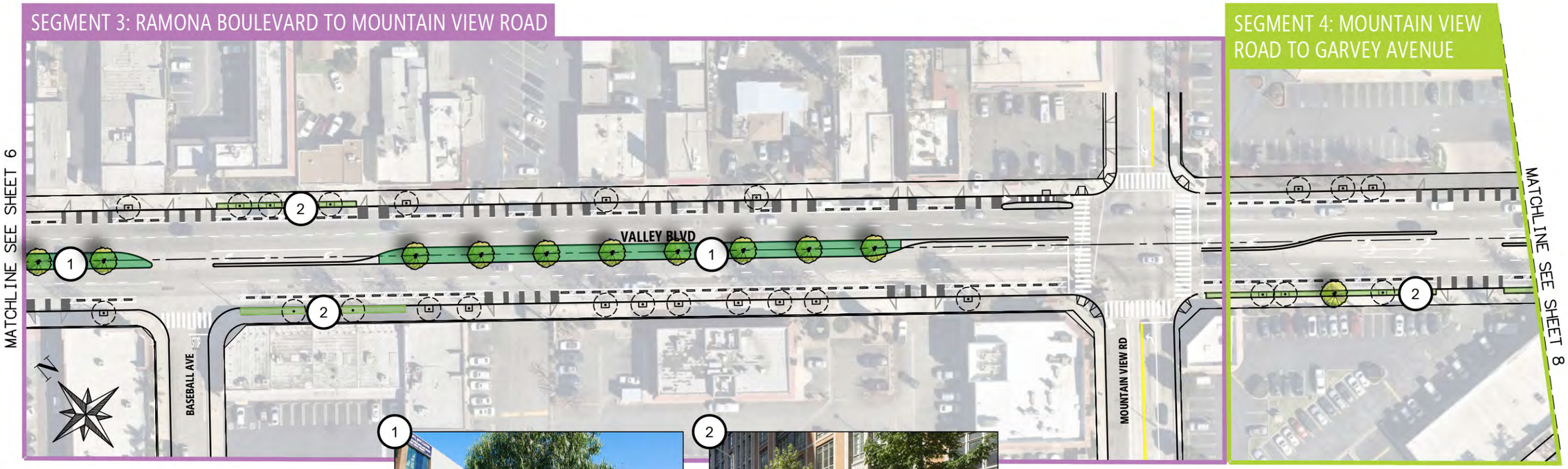
Sheet 6 of 12

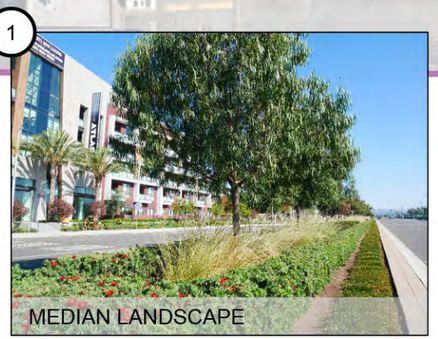
Michael Baker INTERNATIONAL

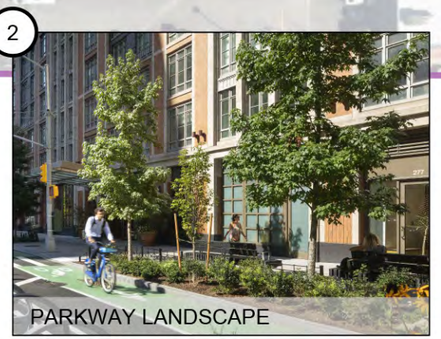
Figure 35

SEGMENT 3: RAMONA BOULEVARD TO MOUNTAIN VIEW ROAD

SEGMENT 4: MOUNTAIN VIEW ROAD TO GARVEY AVENUE





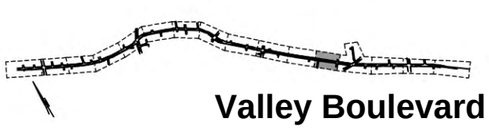


PLANTING LEGEND

SYMBOL	DESCRIPTION
	EXISTING TREE TO REMAIN
	EXISTING PALM TO REMAIN
	PROPOSED TREE
	PROPOSED PALM
	PROPOSED PLANTINGAREA

0 40' 80' 160'

SCALE: 1" = 80'



Valley Boulevard
Landscape Concept Plan

Michael Baker INTERNATIONAL

Figure 35

MATCHLINE SEE RIGHT

SEGMENT 4: MOUNTAIN VIEW ROAD TO GARVEY AVENUE

SEGMENT 5: GARVEY AVENUE TO EASTERN CITY LIMIT

COGSWELL RD

GARVEY AVE

VALLEY BLVD

COGSWELL RD

LANSDALE ST

COGSWELL RD

MATCHLINE SEE LEFT

MATCHLINE SEE SHEET 7

MATCHLINE SEE SHEET 9

N

1

2



MEDIAN LANDSCAPE



PARKWAY LANDSCAPE

PLANTING LEGEND

SYMBOL	DESCRIPTION
	EXISTING TREE TO REMAIN
	EXISTING PALM TO REMAIN
	PROPOSED TREE
	PROPOSED PALM
	PROPOSED PLANTINGAREA

0 40' 80' 160'

SCALE: 1" = 80'

Valley Boulevard Landscape Concept Plan

Sheet 8 of 12

Michael Baker INTERNATIONAL

Figure 35

SEGMENT 5: GARVEY AVENUE TO EASTERN CITY LIMIT

MATCHLINE SEE SHEET 8

MATCHLINE BELOW LEFT

VALLEY BLVD

MAXSON RD

ALLGEYER AVE

MAXSON RD

1

2



MEDIAN LANDSCAPE



PARKWAY LANDSCAPE

SEGMENT 5: GARVEY AVENUE TO EASTERN CITY LIMIT

MATCHLINE ABOVE RIGHT

DURFEE AVE

VALLEY BLVD

RUMFORD AVE

MATCHLINE SEE SHEET 10

0 40' 80' 160'

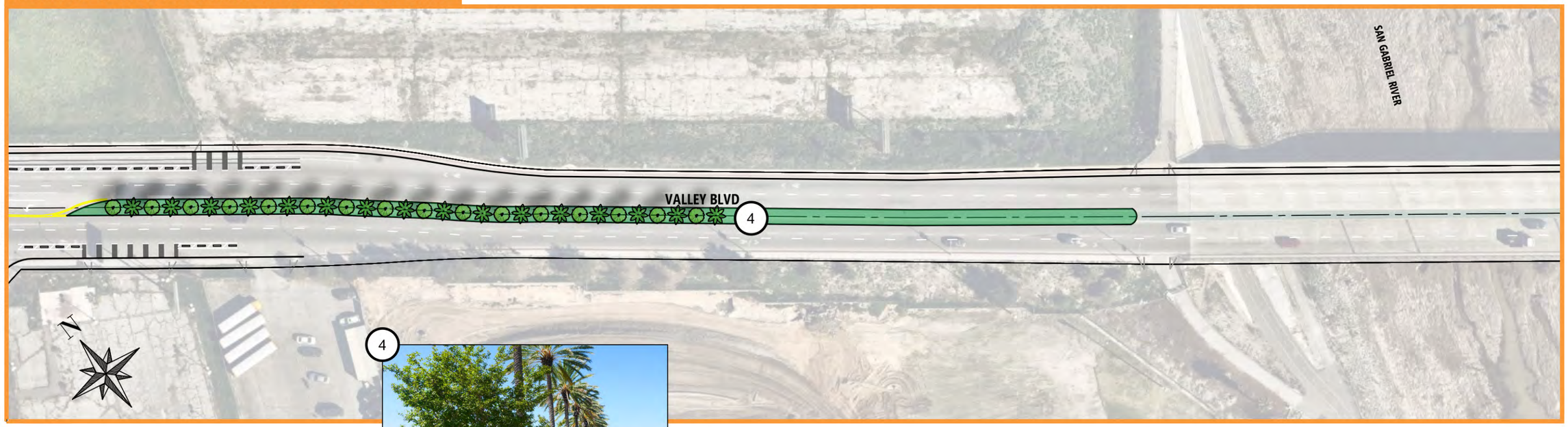
SCALE: 1" = 80'

Valley Boulevard
Landscape Concept Plan

Michael Baker INTERNATIONAL

Figure 35

SEGMENT 5: GARVEY AVENUE TO EASTERN CITY LIMIT





PLANTING LEGEND

SYMBOL	DESCRIPTION
	EXISTING TREE TO REMAIN
	EXISTING PALM TO REMAIN
	PROPOSED TREE
	PROPOSED PALM
	PROPOSED PLANTINGAREA

0 40' 80' 160'

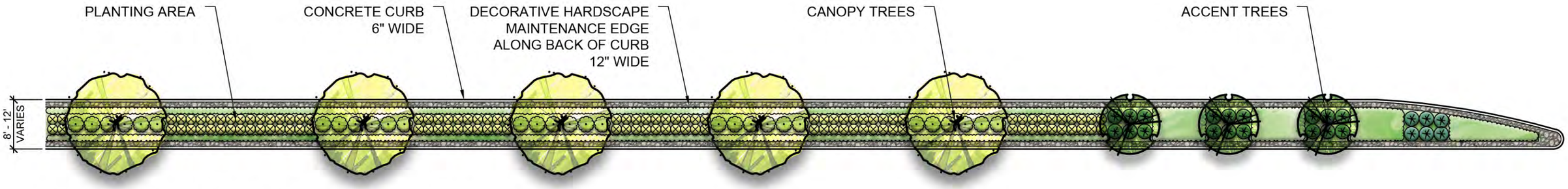
SCALE: 1" = 80'



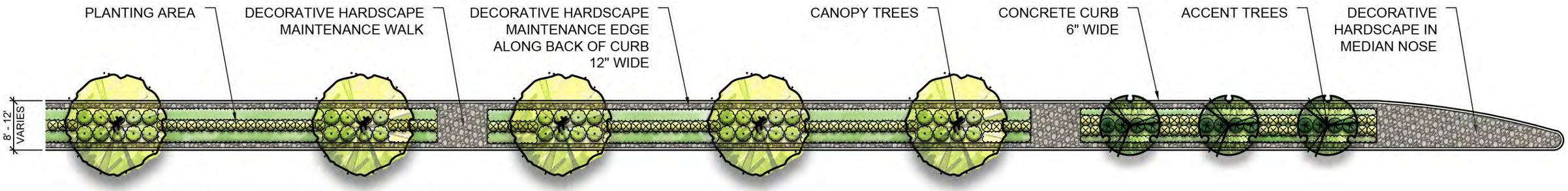
Valley Boulevard
Landscape Concept Plan

Michael Baker INTERNATIONAL

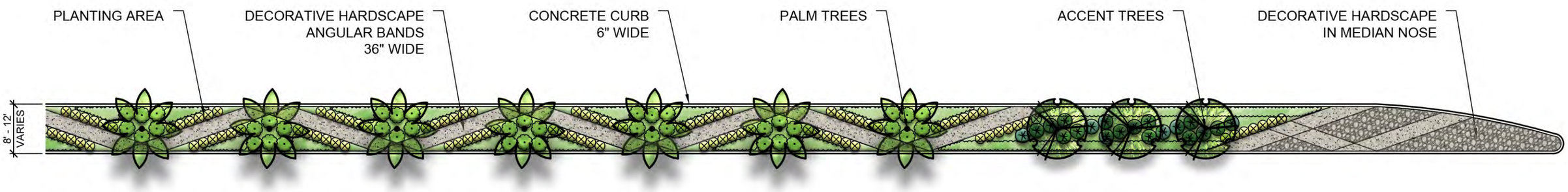
Figure 35



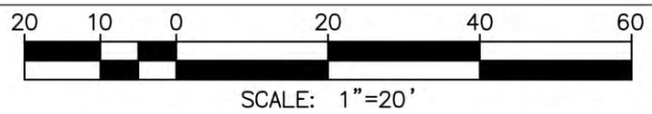
TYPICAL MEDIAN CONCEPT DESIGN - 1



TYPICAL MEDIAN CONCEPT DESIGN - 2



TYPICAL MEDIAN CONCEPT DESIGN - 3



Michael Baker INTERNATIONAL

Valley Boulevard
Landscape Concept Plan

Figure 35

TREES


ARBUTUS X 'MARINA'

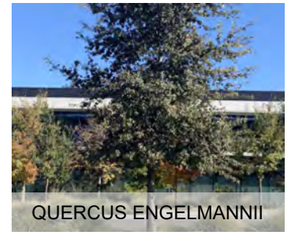

LAGERSTROEMIA INDICA


PHOENIX DACTYLIFERA


PLATANUS RACEMOSA


TABEBUIA IMPETIGINOSA


QUERCUS AGRIFOLIA

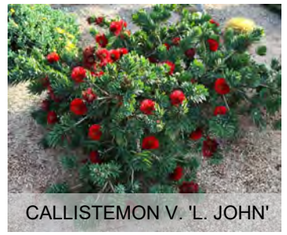

QUERCUS ENGELMANNII

SHRUBS


AGAVE VILMORINIANA


ALOE STRIATA


CALANDRINIA SPECTABILIS


CALLISTEMON V. 'L. JOHN'


DIANELLA R. 'LITTLE REV'


HESPERALOE PARVIFLORA


LANTANA 'NEW GOLD'


MUHLENBERGIA DUBIA


MYOPORUM PARVIFOLIUM


SALVIA CLEVELANDII


SALVIA LEUCANTHA


SENECIO MANDRALISCAE


WESTRINGINA F. 'M. LIGHT'

MATERIALS


GROUTED COBBLE


COLORED CONCRETE


CONCRETE PAVERS


COBBLE MULCH


SHREDDED BARK MULCH

SITE AMENITIES


BENCH


TRASH RECEPTACLE


BIKE RACK

Michael Baker INTERNATIONAL

Valley Boulevard
Landscape Concept Plan

Figure 35

Gateway Features

The Complete Street plan includes gateway features in key locations along the corridor that will help connect the corridor to the surrounding activity centers. Santa Anita Avenue and Main Street, Valley Boulevard and El Monte Avenue, Valley Boulevard and Monterey Avenue, and at both ends of Valley Boulevard at the City limits are the five locations where gateway features are recommended, which may range from small signs along the side of the road to overhead entryways that span the width of the roadway. The intent of the gateway feature is to create a sense of place and alert the driver and visitors that you are near the downtown district (Main Street). A design for the gateway features has not been solidified, however a potential design is shown in **Photo 19** which is a photo rendering developed near El Monte Avenue. This design drew inspiration from the gateway feature that the City recently installed on Ramona Boulevard at the Eastern City limits (shown in **Photo 18**). The design of the gateway features will need to be coordinated in future project phases and should include community input.



Photo 19: Main Street Gateway Feature Potential Design



Photo 18: Gateway Feature at Ramona Boulevard

Santa Anita Mini Park

The City of El Monte, along with its residents, has long expressed the need for urban open space alternatives in the downtown area. While the city boasts several parks, none are currently situated within the downtown vicinity. A mini park, now coined the Santa Anita Mini Park, is proposed on the southwest corner of Valley Boulevard and Santa Anita to address this gap by repurposing underutilized property.

Three distinctive landscape concepts were developed, each focusing on a passive recreational experience, integration with the downtown area, and the inclusion of street trees. All concepts prioritized keeping the existing Ficus trees that create shade within the park area and all introduce new parkway trees along Valley Boulevard and Santa Anita Avenue to create a physical separation from the adjacent roadways. The following summarizes the themes for each of the park options:

Option 1 (Figure 36): The first option adopts a Memorial theme, featuring a fountain and seat wall that matches with the neighboring Veteran's Memorial Park across Valley Boulevard.

Option 2 (Figure 37): The second option embraces a Farmhouse and Community Garden theme, incorporating row patterns reminiscent of traditional farming practices. This design also serves as an extension of the city's existing farmers market program.

Option 3 (Figure 38): The third option draws inspiration from the nearby Rio Hondo River, incorporating patterns reflective of a flowing river.

The Santa Anita Mini Park not only responds to the community's demand for park space in the downtown area but also serves as a catalyst for enhancing the downtown environment, fostering increased community engagement, and connection. In response to feedback from City Council and Planning Commission, a fourth, hybrid option was developed that integrated features of Option 1 and Option 2. Additional amenities were also introduced including bicycle parking and a water filling station. The hybrid option is included in **Figure 39**. A preferred option was not formally selected throughout this study.

RIO HONDO

RAILROAD

VALLEY BLVD

SANTA ANITA AVE

MAIN ST

LEGEND

1. MEMORIAL FOUNTAIN
2. MEMORIAL SEAT WALL
3. DECORATIVE PAVING
4. BENCHES
5. PICNIC TABLE W/ CHESS BOARDS
6. LAWN AREA
7. EXISTING FICUS TREES TO REMAIN

SCALE 1" = 40'

Michael Baker INTERNATIONAL

Santa Anita Mini Park - Concept Plan
Option 1

Figure 36

RIO HONDO

RAILROAD

VALLEY BLVD

SANTA ANITA AVE

MAIN ST

LEGEND

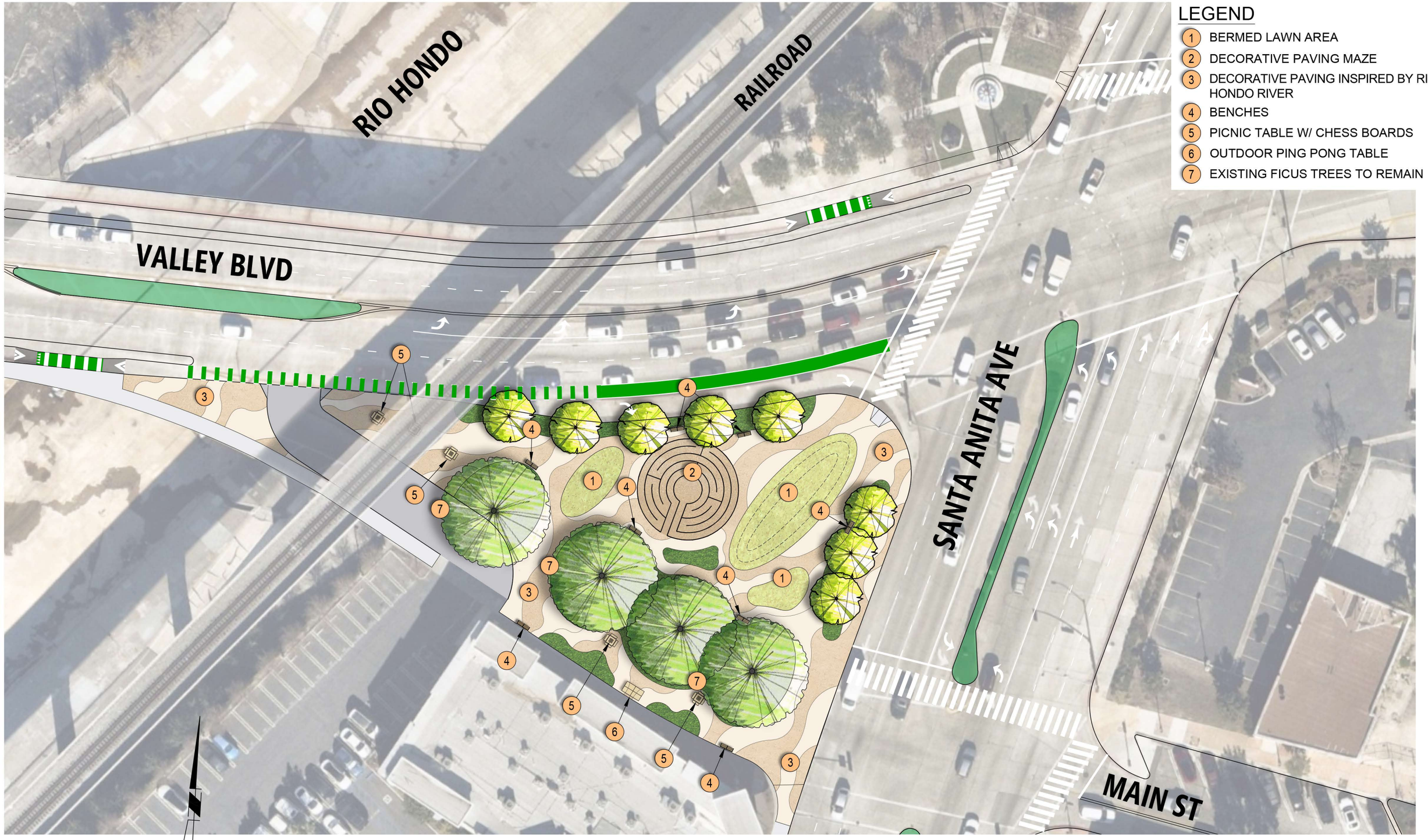
1. FARMHOUSE GAZEBO W/ PICNIC TABLES
2. RAISED GARDEN BEDS WITH FLOWERING PLANTS
3. DECORATIVE PAVING
4. BENCHES
5. PICNIC TABLE W/ CHESS BOARDS
6. LAWN AREA
7. EXISTING FICUS TREES TO REMAIN

SCALE 1" = 40'

Michael Baker INTERNATIONAL

Santa Anita Mini Park - Concept Plan Option 2

Figure 37



SCALE 1" = 40'

Michael Baker INTERNATIONAL

Santa Anita Mini Park - Concept Plan Option 3

Figure 38



LEGEND

1. MEMORIAL FOUNTAIN
2. MEMORIAL SEAT WALL
3. DECORATIVE PAVING
4. BENCHES
5. PICNIC TABLE WITH CHESS BOARDS
6. LAWN AREA
7. BERMED LAWN AREA
8. DECORATIVE PAVING MAZE
9. SHRUB / GROUNDCOVER PLANTING AREA
10. BICYCLE REPAIR AND HYDRATION STATION
11. EXISTING FICUS TREES TO REMAIN

Michael Baker INTERNATIONAL

Santa Anita Mini Park - Concept Plan
Option 4

Figure 39

Utilities

Utility research was conducted along the corridor to establish a comprehensive list of utility owners with facilities within the project limits. **Table 12** below outlines the owners and type of utility. Golden State Water Company, Sprint Communications and So Cal Gas Transmission appeared in the digalert search for Valley Boulevard but these agencies confirmed that they do not have facilities within the project limits.

Research was undertaken to establish prior rights for the utility agencies within the project limits. However, per the Caltrans Right of Way Manual, prior rights determination is the sole responsibility of the utility owner and is typically completed during the final engineering stage. A full prior rights determination cannot be made until a relocation claim letter is submitted to each owner.

With the information made available as part of this study, it was determined that the City was incorporated in 1912. All agencies facility maps and as-builts, besides California American Water Company, post-date the City's incorporation and show utilities within the public right of way which assumes the utilities were installed under franchise with the City. However, California American Water has history of water facilities dating back to 1886, which could mean they have superior rights.

Table 12: Utility Agencies and Facility Type

Utility Owner	Type	Notes
AT&T	Communications/Telecom	Underground facilities
AT&T Transmission	Communications/Telecom	Fiber optic cable in AT&T CA conduit
California American Water Company	Water	Owns fire hydrants on Valley Boulevard
California Domestic Water	Water	54" Mainline on Parkway Drive
Charter Communications	Communications/Telecom	UG and aerial facilities on Valley Boulevard
City of El Monte	Water and Sewer	Water and sewer
City of Rosemead	Sewer	8" sewer on Valley Boulevard
County of Sanitation-San Gabriel Valley	Sewer	Sewer on Valley Boulevard
Crown Castle	Telecom	Underground fiber
Level 3	Telecom	Underground and aerial facilities
MCI	Telecom	Underground facilities on Valley Boulevard and aerial facilities on Peck Road crossing
Metropolitan Water District	Water	73" Middle Feeder
San Gabriel Valley Water Company	Water	Water main and fire hydrants
So Cal Gas	Gas	No transmission lines within project limits
Southern California Edison	Electrical	Underground facilities and street lights

6.0 Mobility Assessment of Preferred Complete Street Plan

VEHICULAR CONDITIONS

The Complete Street plan does not include significant changes to intersection geometrics or roadway capacity along Valley Boulevard. The two existing through lanes will remain in place but will be narrowed to 11' in Segments 1, 3, 4 and 5 and reduced to 11' and 10' in Segment 2. The narrower lanes will not impact capacity or flow in the travel lanes. Left turn and right turn pockets are protected in place for all existing signalized intersections. The medians along the corridor may affect driveway access and some minor stop-controlled side streets. These changes may result in additional u-turns at the nearby signalized intersections.

The following describes the minor modifications to signalized intersections along the corridor:

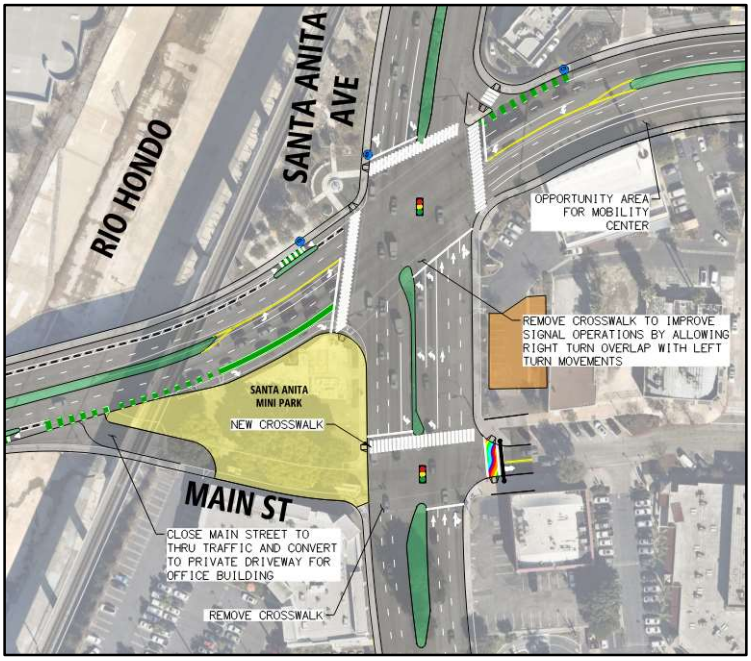
Santa Anita Avenue and Main Street

At the Santa Anita Avenue and Valley Boulevard intersection, the existing bypass lane that connects Valley Boulevard to Main Street is removed. A dedicated eastbound right turn lane is added at the Santa Anita Avenue and Valley Boulevard intersection to accommodate the diverted traffic. The benefits of closing this bypass include dedicating additional space to the Santa Anita Mini Park, reducing through traffic adjacent to the park, and improved traffic flow on Santa Anita Avenue. The improved traffic flow is a result of removing the eastbound signal phase from the Main Street intersection.

Additional striping modifications at this intersection include relocating the existing crosswalk across the south leg to the north leg. This removes the westbound Main Street left turn and crosswalk conflict allowing those movements. Because of the proximity of Main Street and Valley Boulevard, the existing crosswalk on the south leg of the Santa Anita Avenue and Valley Boulevard intersection is removed. This will improve the flow of the diverted traffic from the bypass to the new right turn lane.

Finally, the pork chop island on the northwest corner of the intersection was evaluated to determine if it could be removed. Typically pork chop islands and "free right turn" lanes pose safety concerns for pedestrians. Due to the harsh skew of the intersection, the pork chop island accommodates the large turning radius needed to accommodate large profile vehicles. Therefore, the pork chop island remains in place in the Complete Street Plan. **Figure 40** shows the proposed layout of the Santa Anita Avenue intersections with Valley Boulevard and Main Street.

Figure 40: Proposed Santa Anita Avenue Intersection Layout



Garvey Avenue and Cogswell Road

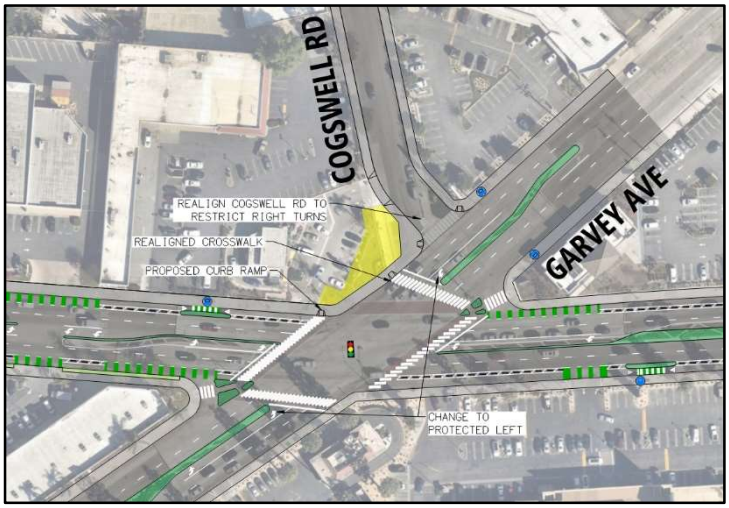
The Garvey Avenue intersection operates like a five-leg intersection with Cogswell Road intersecting Garvey Avenue immediately north of Valley Boulevard. Drivers on Cogswell Road were observed to bypass the median on Garvey Avenue to turn left and head northbound on Garvey Avenue.

The Complete Street plan realigns Cogswell Road to intersect Garvey Avenue at a 90-degree angle. This realignment creates additional space between Cogswell Road and Valley Boulevard, which allows for a longer median that will prevent the illegal left turn movement.

The Valley Boulevard and Garvey Avenue intersection has a harsh skew due to alignment of both roads, leading to long pedestrian crossing distances and large curb return radii. In the Complete Street plan, the crosswalk on the north leg of the intersection is realigned to shorten pedestrian crossing distances and new ADA compliant curb ramps are added where ramps do not currently exist.

Left turns on Garvey Avenue are currently permissive (no left turn arrow). In the Complete Street plan, the permissive lefts are changed to protected left turns to minimize conflicts between turning vehicles and pedestrians and vehicles proceeding straight. **Figure 41** shows the proposed layout of the Garvey Avenue and Valley Boulevard intersection.

Figure 41: Proposed Garvey Avenue Intersection Layout



Complete Street Plan Operational Analysis

To evaluate the effect of the geometric and signal timing changes discussed above, the study intersections were evaluated without and with the intersection modifications for the Horizon Year 2035 conditions. The Horizon Year 2035 traffic volumes were calculated by applying ambient growth to the existing counts collected for the corridor. Based on the socioeconomic data in the *Southern California Association of Governments 2020-2045 Regional Transportation Plan* (SCAG 2045 RTP) a 1.0% linear annual growth rate was used to forecast future volumes. It is assumed the ambient growth captures planned projects in the area. **Appendix E** contains detailed volume development worksheets. **Table 13** shows the results of the intersection operational analysis. **Appendix F** contains the Synchro analysis worksheets.

Under the Horizon Year 2035 No Build condition, the analysis results project the intersection of El Monte Avenue and Valley Boulevard (#3) will operate at unacceptable LOS E during the PM peak hour. The Horizon Year 2035 with Complete Street plan operational analysis shows that the intersection of Garvey Avenue/Cogswell Road and Valley Boulevard (#7) will operate at unacceptable LOS E during the PM peak hour. This change in LOS can be attributed to the change in left turn phasing from permitted to protected along Garvey Avenue.

All other intersections are projected to operate at LOS D or better during the AM and PM peak hours. Notably, the unacceptable LOS at the intersection of El Monte Avenue and Valley Boulevard (#3) under the No Build condition is eliminated with the Complete Street plan. As described previously, El Monte Avenue would be closed to traffic and converted to a pedestrian paseo.



Table 13: Complete Street Plan Operational Analysis Results

Intersection			Existing (2023)				No Build (2035)				With Complete Street Plan (2035)			
			AM		PM		AM		PM		AM		PM	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	Santa Anita Avenue & Valley Boulevard	SIG	D	42.3	D	36.7	D	45.0	D	40.4	D	41.8	D	46.7
2	Santa Anita Avenue & Main Street	SIG	C	22.7	C	25.4	C	22.4	C	26.6	C	20.2	C	30.3
3	El Monte Avenue & Valley Blvd	TWSC / PED SIG	D	26.4	D	31.2	D	28.0	**E**	**42.5**	A	0.9	A	0.9
4	Peck Road & Valley Boulevard	SIG	D	49.7	D	47.0	D	44.6	D	48.7	D	44.6	D	48.7
5	Peck Road & I-10 WB Ramps	OWSC	B	12.7	B	10.8	B	13.1	B	11.2	B	13.1	B	11.2
6	I-10 WB Ramps & Valley Boulevard	OWSC	C	16.7	B	12.8	C	16.3	B	13.6	C	16.3	B	13.6
7	Garvey Avenue/Cogswell Road & Valley Boulevard	SIG	C	28.9	D	35.2	C	28.4	D	42.8	C	34.3	**E**	**55.7**

Notes: 1) LOS = Level of Service.
2) LOS E or LOS F in **red bold font** where applicable.
3) SIG = Signalized Control; TWSC = Two-Way Stop-Controlled; OWSC = One-Way Stop-Controlled.
4) Overall LOS provided for signalized intersection. Worst approach LOS provided for one-way and two-way stop-controlled intersections.
5) Delay shown in seconds per vehicle.

PEDESTRIAN AND BICYCLE ASSESSMENT

PEQI Analysis

Proposed pedestrian conditions along Valley Boulevard were analyzed using the PEQI methodology, as discussed previously. The pedestrian conditions with Complete Street plan worksheets are provided in **Appendix G**. The results of this analysis are shown in **Table 14** (roadway segment analysis) and **Table 15** (intersection analysis).

As shown in the tables below, the roadway segment analysis indicated that the pedestrian conditions along Valley Boulevard are ranked as "basic pedestrian conditions." The intersection analysis indicated that all analyzed intersections along Valley Boulevard were ranked as mostly "reasonable pedestrian condition" and "basic pedestrian conditions", which is a significant improvement over the "poor conditions" identified in the existing conditions assessment.

Bicycle LTS Analysis

Currently, there are no dedicated bicycle facilities along Valley Boulevard. The corridor is primarily compromised of shopping centers and connects to the Rio Hondo Bike Path at Santa Anita Avenue. The San Gabriel Valley Regional Bike Master Plan recommends a Class II bike lane in each direction. The proposed improvements recommend a Class IV bike facility with wheel stops which could address the existing bicycle gaps and increase connectivity along Valley Boulevard.

Table 16 shows the results of the LTS analysis for the proposed conditions. The proposed concepts include the following features that are expected to improve the bicycling environment and the associated LTS for the corridor:

- Addition of a buffered bike lane with wheel stops on both sides of the street.
- Slowing of expected vehicle speed due to a reduction in lane width and the incorporation of traffic calming features including RRFBs in numerous locations along the corridor.

The results of the analysis shows that the proposed features will significantly improve the bicycling conditions along Valley Boulevard, making the roadway more attractive to a wider range of bicyclists.

Table 14: Proposed PEQI Roadway Segment Analysis

Street Name	Cross Street 1	Cross Street 2	Side of Street	Total PEQI Score	Pedestrian Conditions
Valley Boulevard	Rowland Avenue	Santa Anita Avenue	East	48	Basic Pedestrian Conditions
			West	50	Basic Pedestrian Conditions
	Santa Anita Avenue	Ramona Boulevard	East	45	Basic Pedestrian Conditions
			West	47	Basic Pedestrian Conditions
	Ramona Boulevard	Mountain View Road	East	54	Basic Pedestrian Conditions
			West	48	Basic Pedestrian Conditions
	Mountain View Road	Garvey Avenue	East	56	Basic Pedestrian Conditions
			West	54	Basic Pedestrian Conditions
	Garvey Avenue	Rumford Avenue	East	50	Basic Pedestrian Conditions
			West	50	Basic Pedestrian Conditions



Table 15 : Proposed PEQI Intersection Analysis

Street Name 1	Street Name 2	Total PEQI Score	Pedestrian Conditions
Valley Boulevard	Rowland Avenue	61	Reasonable Pedestrian Conditions
	Baldwin Avenue	72	Reasonable Pedestrian Conditions
	Shirley Avenue	41	Basic Pedestrian Conditions
	Gibson Road	66	Reasonable Pedestrian Conditions
	Arden Drive	57	Basic Pedestrian Conditions
	Valley Cir	61	Reasonable Pedestrian Conditions
	Santa Anita Avenue	63	Reasonable Pedestrian Conditions
	(Plaza)	66	Reasonable Pedestrian Conditions
	El Monte Avenue	31	Poor Pedestrian Conditions
	Center Avenue	72	Reasonable Pedestrian Conditions
	Tyler Avenue	72	Reasonable Pedestrian Conditions
	Ramona Boulevard	72	Reasonable Pedestrian Conditions
	Johnson Avenue	57	Basic Pedestrian Conditions
	Meeker Avenue	53	Basic Pedestrian Conditions
	Peck Road	72	Reasonable Pedestrian Conditions
	La Madera Avenue	35	Poor Pedestrian Conditions
	Mountain View Road	72	Reasonable Pedestrian Conditions
	Garvey Avenue	72	Reasonable Pedestrian Conditions
	Allgeyer Avenue	53	Basic Pedestrian Conditions
	Maxson Road	71	Reasonable Pedestrian Conditions
	Durfee Avenue	72	Reasonable Pedestrian Conditions

Table 16: Proposed LTS Analysis

Street Name	Cross Street 1	Cross Street 2	Direction	Presence of Bicycle Facility	Number of Travel Lanes	Observed Speed	Total LTS Score	Suitable for	Existing Conditions Score
Valley Boulevard	Rowland Avenue	Santa Anita Avenue	East	Class IV	2	35+ mph	1	Enthused & Confident	4
			West		2	35+ mph			
	Santa Anita Avenue	Ramona Boulevard	East	Class II	2	35+ mph	3	Interested but Concerned	4
			West		2	35+ mph			
	Ramona Boulevard	Mountain View Road	East	Class IV	2	35+ mph	1	Enthused & Confident	4
			West						
	Mountain View Road	Garvey Avenue	East	Class IV	2	35+ mph	1	Enthused & Confident	4
			West						
	Garvey Avenue	Rumford Avenue	East	Class IV	2	35+ mph	1	Enthused & Confident	4
			West						

7.0 Parking Study and Findings

Field observations along the corridor suggested that most of the on-street parking along Valley Boulevard was unused or underutilized. As part of this feasibility study, a detailed parking utilization survey was conducted to validate the overall need for on-street parking along the corridor.

DATA COLLECTION

The parking study was conducted on Saturday, May 6, 2023 and Wednesday, May 10, 2023 for 10 hours each day (10:00 AM to 8:00 PM). During each observation period, occupied spaces were recorded every hour. To collect this data, the corridor was broken into 18 parking zones. This data was used to document the parking utilization (percent of available spaces occupied) for each of the study segments. **Figure 42** shows the parking survey zones included in the survey and findings for the parking utilization. Detailed parking utilization data is contained in **Appendix H**.

As stated previously, Valley Boulevard was divided into 5 segments. Of those segments, three currently allow on-street parking. The parking zones observed within each of the study segments as summarized below:

- Segment 1: Strang Avenue (western city limit) to Santa Anita Avenue
  - Parking Zone One (PZ-1) through PZ-8
- Segment 2: Santa Anita Avenue to Ramona Boulevard
  - No On-Street Parking
- Segment 3: Ramona Boulevard to Mountain View Road
  - PZ-9 through PZ-14
- Segment 4: Mountain View Road to Garvey Avenue
  - No On-Street Parking
- Segment 5: Garvey Avenue to Durfee Avenue
  - PZ-15 through PZ-18

EXISTING INVENTORY

The parking survey included an inventory of existing parking facilities within the study area and was broken down into types of parking. As shown in **Table 17**, the parking survey indicated a total of 352 on-street public parking spaces within the study area.

Table 17: Valley Boulevard Parking Inventory Summary

Parking Type	Parking Supply			
Type	Segment 1	Segment 3	Segment 5	Total
Regular	25	0	7	32
Time Restricted	0	19	0	19
1 hour	1	0	0	1
2 hour	119	132	42	293
20 minute	0	5	2	7
Total Parking Supply	**145**	**156**	**51**	**352**



Legend

PZ-# Parking Zone ID

On-Street Parking Zone Utilization

- >85%
- 65% – 85%
- 45% – 65%
- <45%

Segment 1 – Strang Ave to Main St

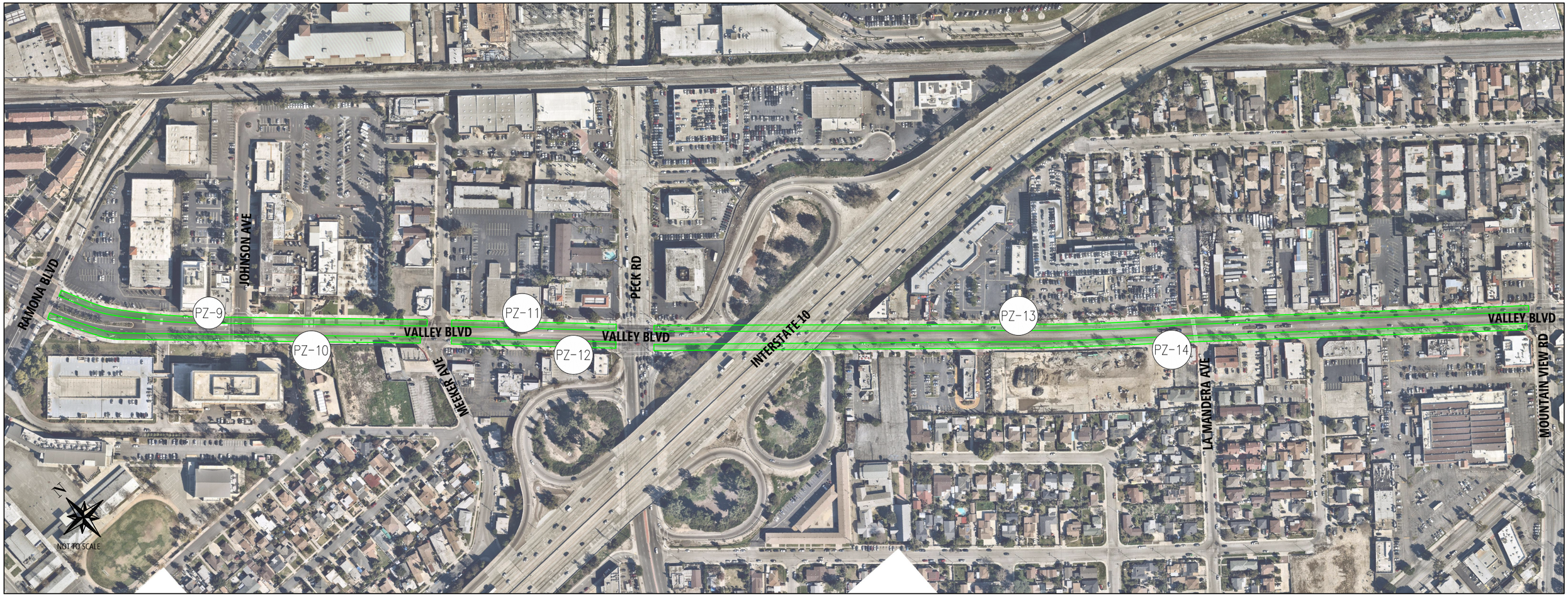
Valley Boulevard
Parking Utilization Study Area - Segment 1

Sheet 1 of 3

Michael Baker INTERNATIONAL

\\CARLCA1FS1.BKR.MBAKERCORP.COM\HROOT\PDATA\194628_VALLEY BLVD COMPLETE ST\TRAFFIC\ANALYSIS\PARKING\VALLEY BLVD CUT SHEETS_PARKING ZONES.DWG MELENDEZ, ANGEL 12/21/2023 3:31 PM

Figure 42



Legend

PZ-# Parking Zone ID

On-Street Parking Zone Utilization

- >85%
- 65% – 85%
- 45% – 65%
- <45%

Segment 3 – Ramona Blvd to Mountain View Rd

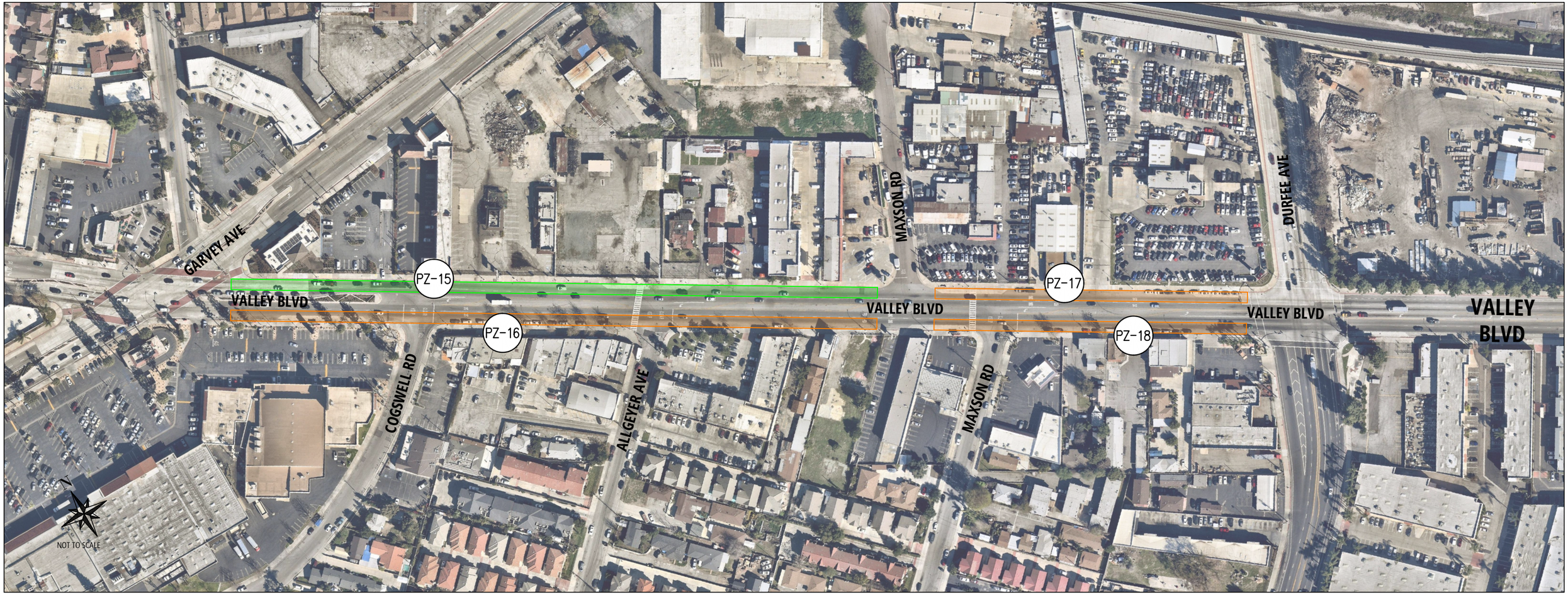
Valley Boulevard
Parking Utilization Study Area - Segment 2

Sheet 2 of 3

Michael Baker INTERNATIONAL

\\CARLCA1FS1.BKR.MBAKERCORP.COM\HROOT\PDATA\194628_VALLEY BLVD COMPLETE ST\TRAFFIC\ANALYSIS\PARKING\VALLEY BLVD CUT SHEETS_PARKING ZONES.DWG MELENDEZ, ANGEL 12/21/2023 3:31 PM

Figure 42



Legend

PZ-# Parking Zone ID

On-Street Parking Zone Utilization

- >85%
- 65% – 85%
- 45% – 65%
- <45%

Segment 5 – Garvey Ave to Durfee Ave

Valley Boulevard
Parking Utilization Study Area - Segment 3

Sheet 3 of 3

Michael Baker INTERNATIONAL

\\CARLCA1FS1.BKR.MBAKERCORP.COM\HROOT\PDATA\194628_VALLEY BLVD COMPLETE ST\TRAFFIC\ANALYSIS\PARKING\VALLEY BLVD CUT SHEETS_PARKING ZONES.DWG MELENDEZ, ANGEL 12/21/2023 3:31 PM

Figure 42

EXISTING PARKING DEMAND

Based on the data collected during the survey, the peak parking demand (i.e. the highest number of parking spaces occupied as a percentage of the total parking supply) for the entire corridor occurred at 3:00 PM during the weekday survey. On Wednesday, 145 of the 352 available on-street parking spaces were occupied which represents a weekday peak parking utilization of 41.2%. During the weekend survey (Saturday), the peak parking demand occurred at 10:00 AM where 78 of the 352 available on-street parking spaces were occupied. This represents a peak weekend parking utilization of 22.2%

Table 18 summarizes the results of the peak parking utilization for the weekend and weekday surveys for the Valley Boulevard corridor.

Table 18: Peak Parking Utilization

Segment	Inventory	Weekend			Weekday		
		Peak Occupancy [1]	Peak Utilization	Remaining Spaces	Peak Occupancy [2]	Peak Utilization	Remaining Spaces
Segment 1	145	26	17.9%	119	54	37.2%	91
Segment 3	156	25	16.0%	131	59	37.8%	97
Segment 5	51	27	52.9%	24	32	62.7%	19
Total	**352**	**78**	**22.2%**	**274**	**145**	**41.2%**	**207**

[1] Peak Weekend Parking Demand based on parking survey data for Saturday, October 6th at 10:00 AM
[2] Peak Weekday Parking Demand based on parking survey data for Wednesday, October 10th at 3:00 PM

The survey shows that the on-street parking zones along the corridor experience a higher occupancy towards the eastern side of the corridor (Segment 5) compared the other zones. Segment 5 reaches a peak utilization demand of approximately 57% during the weekend (3:00-4:00 PM) and almost 65% during the weekday (2:00-3:00 PM).

In comparison, Segment 1 and Segment 3 never exceed 25% utilization on the weekend and 40% on the weekday. This increased demand is primarily due to Parking Zones PZ-17 and PZ-18 which show a utilization greater than 100% due to illegally parked vehicles overlapping red curbs and vehicles encroaching into driveways. These zones are used by the adjacent car dealerships as overflow parking either for their inventory or for employee and customer parking.

PARKING REMOVAL EVALUATION

The standard industry practice parking capacity threshold is typically considered to be when 85% of the parking supply is occupied. Generally, at rates higher than 85% drivers will have a more difficult time finding an empty space and may have to circulate the vicinity of their destination before finding an available space. The parking survey shows that the only area this occurs is Segment 5 between Maxson Road and Durfee Avenue during the Wednesday survey on the north side of the street (PZ-17) from 10:00-12:00 PM and 2:00-5:00 PM and on the south side of the street (PZ-18) from 3:00-4:00 PM.

A review of the land uses in this immediate vicinity show several automotive related (auto-repair, and used-car sales) where a high number of vehicles are stored on-site while being worked on or awaiting pick-up and parking spills over onto the adjacent street. Therefore, it is recommended that parking can be removed in all areas of the corridor where parking utilization is low and off-street parking is avilalbe.

POTENTIAL PARKING IMPACTS

With the Complete Street plan, the on-street parking supply will be reduced from 352 spaces to approximately 33 spaces. This is equivalent to a net decrease in parking spaces of approximately 319 spaces. Changes to the parking supply with the proposed corridor modifications are summarized in **Table 19** and include the following:

- Segment 1: Strang Avenue (western city limit) to Valley Circle
  - All parking is eliminated
- Segment 2: Santa Anita Avenue to Ramona Boulevard
  - No On-Street Parking (no change in parking)
- Segment 3: Ramona Boulevard to Mountain View Road
  - One segment of parking on north side of Valley Boulevard between La Madera Avenue and Mountain View Road will be maintained. This is equivalent to approximately 21 spaces.
- Segment 4: Mountain View Road to Garvey Avenue
  - No On-Street Parking (no change)
- Segment 5: Cogswell Road to Durfee Avenue
  - One segment on south side of Valley Boulevard between Cogswell Road and Allgeyer Avenue will be maintained. This is equivalent to approximately 12 spaces.

Table 19: Valley Boulevard Parking Inventory Summary

Segment	Parking Inventory		Change
	Existing	Proposed [1]	
Segment 1	145	0	-145
Segment 3	156	21	-135
Segment 5	51	12	-39
Total	**352**	**33**	**-319**

[1] Proposed inventory estimated based on Preferred Concepts dated 11-10-2023

It should also be noted, that the estimated parking supply with the proposed corridor improvements do not take into account the required red curb at driveways and alleys, which may reduce the parking supply even further.

With the loss of on-street parking along the main commercial corridor, patrons to these commercial establishments would be required to park on-site, if facilities are provided. Otherwise they would be required to navigate to the adjacent side-streets to find on-street parking. While the overall parking supply that is estimated to be lost with the corridor improvements is approximately 319 spaces along the entire corridor, **Table 19** above indicates that there is available capacity within each segment. Segment 1 had a peak occupancy of 54 vehicles, Segment 3 had a peak occupancy of 59 vehicles and Segment 5 had a peak occupancy of 32 vehicles. Therefore, the estimated parking demand that is forecast to be displaced to on-site facilities or adjacent side streets is less than 54 vehicles in Segment 1, 38 vehicles in Segment 3, and 12 vehicles in Segment 5.

8.0 Cost Estimate

Rough Order of Magnitude (ROM) cost have been developed to provide a general idea of costs to implement the Complete Street plan. While implementation of the Complete Street plan as one project is possible, a more likely scenario (due to overall costs) would involve a phased approach. See Section 9 for additional details on implementation options. Assumptions and methodologies used to develop the ROM costs are described below, and followed by a table with the ROM cost details.

The ROM cost includes general overhead related items such as mobilization, traffic control, stormwater protection plan, monument preservation, and utility relocation/coordination; general construction items including contingency; and project delivery costs such as engineering, right of way coordination and construction engineering.

General lump sum and assumptions included in the cost estimate are as follows:

- Mobilization – 5% of total construction cost rounded to the nearest $1,000
- Traffic control – 4% of total construction cost rounded to the nearest $1,000
- Stormwater protection plan – lump sum of $150,000 based on similar project costs
- Monument preservation and restoration – lump sum of $150,000 based on similar project costs
- Utility relocation coordination – lump sum of $300,000 based on similar project costs
- Contingency – 30% of general and overhead construction items
- Preliminary engineering (environmental studies and permitting) – 5% of general and overhead construction items
- Preliminary engineering (plans, specifications and estimates) – 10% of general and overhead construction items
- Right of way engineering – 2% of general and overhead construction items
- Right of way acquisitions– 2% of general and overhead construction items
- Construction engineering – 10% of general and overhead construction items

General construction assumptions included in the estimates are as follows:

- **Full depth asphalt concrete (AC) pavement removal and replacement:** Assumes approximately 33% of the roadway will be removed and replaced with a full depth AC pavement section. This excludes the areas where new medians would be constructed.
- **Grind and overlay AC pavement:** Assumes remaining approximately 67% of the roadway area will be grind and overlayed. This excludes the areas where new medians would be constructed.
- **New medians:** Assumes all new curb and gutter for medians and that median areas will be landscaped.
- **Curb and gutter:** Assumes approximately 30% of existing curb and gutter requires replacement. All new curb and gutter will be provided at the medians.
- **Curb ramps:** Assumes all curb ramps within project limits will be replaced and at larger signalized intersections, single ramps will be replaced with dual ramps.
- **Sidewalk:** Assumes approximately 50% of sidewalks will need to be replaced to account for damaged or uplifting sidewalks and reconstruction of driveways to provide ADA compliance.
- **Concrete pavement:** Assumes all existing concrete intersections will remain in place and approximately 10% will require installation or repair due to geometric changes at the intersections. Assumes all bus stops require new concrete bus pads.

- **Signing and striping:** This item includes both signing and striping as well as the installation of raised pavement markings. Signage is considered in the unit cost. This also includes green conflict zone striping at approaches/departures to intersections and through driveways.
- **Decorative traffic signals:** Assumes decorative traffic signals will be used at the Santa Anita Avenue, Main Street and Garvey Avenue intersections. Used price from the City for project that was recently constructed.
- **Traffic signal modifications:** Assumes all signalized intersections within the project limits, apart from the three where decorative signals are planned, will require some type of signal modification. Signal modification includes an average of two signal poles modified per intersection. Lump sum per intersection based on past projects.
- **Drainage and water quality treatment:** Assumes lump sum based on past projects. Most curbs will remain in the same location; however, drainage improvements may be required within the sidewalk areas including bioswales, dry wells or new catch basins with filtration systems.
- **Gateway features:** Estimated based on discussion with City staff about cost of recently installed gateway features on Ramona Boulevard. Cost for this could vary widely depending upon the design of the feature.
- **Landscaping and irrigation:** Assumes cost per square foot taken from past projects.
- **Street lighting:** Assumes majority of existing street lighting will remain as curbs are not being relocated for the majority of the project limits.
- **HAWK and RRFB signals:** Lump sums based on past projects. Includes the installation of traffic signal poles, heads, pedestrian push buttons, pedestrian countdown timers, traffic signal controller and other standard features.

Table 20 summarizes the ROM Construction Costs cost estimate and **Table 21** summarized the ROM Support Costs for the Complete Street plan.



Table 20: Rough Order of Magnitude Cost Estimate - Construction Costs

Item No.	Item	Unit	Estimated Quantity	Unit Cost	Cost
1	Mobilization	LS	1	$1,110,000	$1,110,000
2	Monument Preservation And Restoration	LS	1	$150,000	$150,000
3	Utility Relocation Coordination	LS	1	$300,000	$300,000
4	Storm Water Pollution Prevention Plan	LS	1	$150,000	$150,000
5	Traffic Control	LS	1	$854,000	$854,000
6	Construct Full Depth Ac Replacement	SF	419,000	$7	$2,933,000
7	Remove Existing Full Depth Pavement	SF	419,000	$3	$1,257,000
8	Grind And Overlay Hot Mix Asphalt	SF	838,000	$2.25	$1,885,500
9	Construct Curb And Gutter	LF	41,600	$30	$1,248,000
10	Construct Curb Ramp	EA	64	$7,500	$480,000
11	Construct Sidewalk	SF	208,000	$15	$3,120,000
12	Construct Concrete Bus Pads	SF	16,000	$30	$480,000
13	Concrete Intersection Repairs	SF	35,000	$45	$1,575,000
14	Landscaping And Irrigation	SF	110,000	$5	$550,000
15	Drainage And Water Quality Treatment	MI	3.3	$750,000	$2,475,000
16	Street Lighting Upgrades	LS	1	$250,000	$250,000
17	Install RRFBs	EA	3	$10,000	$30,000
18	Install HAWK Signals	EA	3	$150,000	$450,000
19	Install Decorative Traffic Signals	EA	3	$400,000	$1,200,000
20	Standard Traffic Signal Modification	EA	13	$150,000	$1,950,000
21	Install Gateway Features/Monument Sign	EA	4	$100,000	$400,000
22	Signing And Striping	LS	1	$450,000	$450,000
				Subtotal	$23,297,500
				30% Contingency	$6,989,250
				Grand Total	**$30,286,750**



Table 21: Rough Order of Magnitude Cost Estimate- Support Costs

Type of Project Cost		Cost $
Preliminary Engineering		
Environmental Clearance And Support	5%	$1,514,400
Plans, Specifications And Estimate (PS&E)	10%	$3,028,700
	Total Preliminary Engineer	$4,543,100
Right of Way		
Right Of Way Support	2%	$605,800
Right Of Way Acquisitions	2%	$605,800
	Total Right of Way	$1,211,600
Construction Engineering		
Construction Engineering And Management	10%	$3,028,700
	Total Project Delivery	**$8,783,400**
	Total Construction Cost	**$30,286,800**
	Total Project Cost	**$39,070,200**

9.0 Community Engagement

Input from the community was a cornerstone of the concept development for the Valley Boulevard Complete Street plan. A series of community engagement activities were held to spread project awareness and gather community feedback on the concepts, the full Public Outreach Summary Report is included in **Appendix I**. The following section summarizes the engagement strategies for the project and key messaging/feedback from the public:

COMMUNITY ADVISORY COMMITTEE

A Community Advisory Committee (CAC) was developed to provide more guided feedback in small group settings before taking the concepts to the public. The CAC for Valley Boulevard consisted of Active San Gabriel Valley (Active SGV), Downtown El Monte Business Association (DEMBA), El Monte Police Department Traffic Safety Bureau, LA Metro, Metrolink and a small group of engaged residents and business owners. Three CAC meetings were hosted over the course of the project with the following approach for each round:

- **CAC Meeting 1:** Hosted early in the project development to listen to the Community's concerns on Valley Boulevard and understand the barriers to walking and cycling. Also outline the community's objectives for the study. Key themes included: volumes and speeds on Valley Boulevard are not conducive to cycling and there are particular safety concerns for pedestrians at uncontrolled marked crosswalks.
- **CAC Meeting 2:** Presented various treatment options, with the polling feature, for improvements including different bicycle facilities, pedestrian crossing options and the mini park to understand the preferred option. Results from the polling showed a preference towards buffered bike facilities, HAWK signals at uncontrolled marked crosswalks, attendees did not use on-street parking and did not think that it was necessary; and prefer a mix of parking pockets and no parking along the corridor.
- **CAC Meeting 3:** Presented the preferred Complete Street plan including changes made based on feedback from the CAC and the public. The meeting had limited public participation with only one member from Active SGV in attendance. Key themes from the meeting including liking the Class IV bicycle facilities, but requesting larger or taller buffers and requesting that the raised median planting include shade trees instead of palm trees.

PUBLIC MEETINGS

Two rounds of public meetings were planned throughout the project. Meeting information was posted on decals around the project site, fact sheets distributed at pop-up events, the City website, the City's social media pages to promote public awareness of the meeting. Additionally, the outreach team conducted a business corridor walk visiting over 200 businesses along Valley Boulevard to inform owners of upcoming project meetings. The first round included one virtual and one in-person community meeting. The second round included one virtual meeting.

- **Virtual Public Meeting #1:** Hosted early in the project development to listen to the Community's concerns and understand the barriers to walking and cycling. Also included polling to present different treatment options and have the attendees vote on which they prefer. The majority of attendees drive on Valley Boulevard and stated safety concerns or other reasons (did not state) for their barriers to alternative modes of travel. They preferred the Class IV bicycle facility and HAWK signal with curb extensions for pedestrian crossings.
- **In Person Public Meeting #1:** Hosted in person at the El Monte Aquatic Center. Presented two corridor concepts to the public and asked them to vote for a favorite. There was limited attendance from the public at this meeting and those in attendance were split on the preferred option for the Valley Boulevard concepts.

- **Virtual Public Meeting #2:** Presented renderings of the preferred Complete Street plan to gauge public reaction. Overall the public was very supportive of the changes and indicated that they would consider non-motorized modes of travel along Valley Boulevard with the project changes.

Given the limited participation from the in-person public workshop in round 1, the approach towards public outreach was revisited to use more pop-up events in lieu of a second in-person public workshop. The pop-up events reached a wider audience and were more effective at collecting feedback.

POP-UP EVENTS

Pop-up events where the project team hosted an informational booth at a City organized event were used for the project because of the high levels of public attendance and participation at these events. The project team attended the following pop-up events:

- **June Farmer's Market:** Held early in the design process to understand how the public currently used Valley Boulevard and what they view as the main barriers to walking, cycling and transit. The majority of people drive on the corridor and have safety concerns (either personal safety or traveling next to vehicles) or think cycling is inconvenient. Key priorities were reducing speeds on Valley Boulevard, providing physically separated bicycle facilities and addressing ADA/connectivity issues on the sidewalks.
- **August Farmer's Market:** Presented two corridor concepts to the public and asked them to vote for a favorite. The clear favorite was option 2 which included the Class IV bicycle facility along Valley. The public were not in favor of the lane reduction option as discussed in Section 4. There were over 150 booth attendees.
- **Howl-O-Ween Bark Bash Dog Parade:** Presented the preferred Complete Street plan to the public for input. The public was very supportive of the plan but did have some concerns about the loss of on-street parking for local businesses. There were roughly 100 booth attendees.
- **DEMA Day of the Dead:** Presented the preferred Complete Street plan including changes made based on feedback from the CAC and the public. The public was generally supportive of the plans and had positive feedback regarding the transformation along Valley Boulevard. There were roughly 80 booth attendees.

ONLINE SURVEY

An online survey tool was developed to compare two options for Valley Boulevard. The tool was accompanied with a video which explained the rationale between each of the concepts for members of the public who were not able to attend the project meetings. Postings on the City's website and social media pages, as well as paid advertisements, were pushed to raise awareness and encourage public participation. Over 300 survey responses were received with the following feedback:

- Strongly in favor of Class IV facility over Class II facility.
- HAWK signals most preferred, then raised medians; then RRFBs.
- The public is open to the idea of introducing more raised medians on Valley Boulevard.
- Majority of people park in lots off-street when travelling to Valley Boulevard.
- The public is evenly split if parking is necessary.
- Majority of people prefer a mix of no parking and parking pockets.

BUSINESS ENGAGEMENT

Targeted business engagement was undertaken to consult the businesses on Valley Boulevard about the on-street parking removal. The outreach team conducted a corridor walk for the three segments with local businesses that do not have on-site parking available which are between Baldwin Avenue and Gibson Road, La Madera Avenue and Mountain View Road and Cogswell Road and Durfee Avenue. Each business owner was invited to a project workshop held at Norms restaurant on October 17, 2023. The purpose of the meeting was to present the concepts to the owners and hear their feedback.

Some business owners in attendance were supportive of removing on-street parking because they have off-site parking options and discussed that there is poor visibility when trying to turn onto Valley Boulevard when the on-street parking is in use. There were no changes to the Complete Street plan in these areas. Other businesses had concerns about the parking removal and the impacts to their customers. In these locations, 1-hr on-street parking zones were added back into the Complete Street plan as discussed in Section 4.0 of this report.

PHOTO RENDERINGS

Photo renderings were developed for five locations to highlight the changes proposed and demonstrate the transformation along the corridor. These renderings were used as a tool during public outreach to show the changes and gauge the public's reaction. **Figure 43** below includes the photo renderings and a corridor overview map to help the viewer orient themselves in the corridor. The existing conditions photo is shown on the left the proposed photo is shown on the right.



Photo Renderings

Sheet 1 of 6

Michael Baker INTERNATIONAL

Figure 43

Location 1 Santa Anita Intersection

Before



After



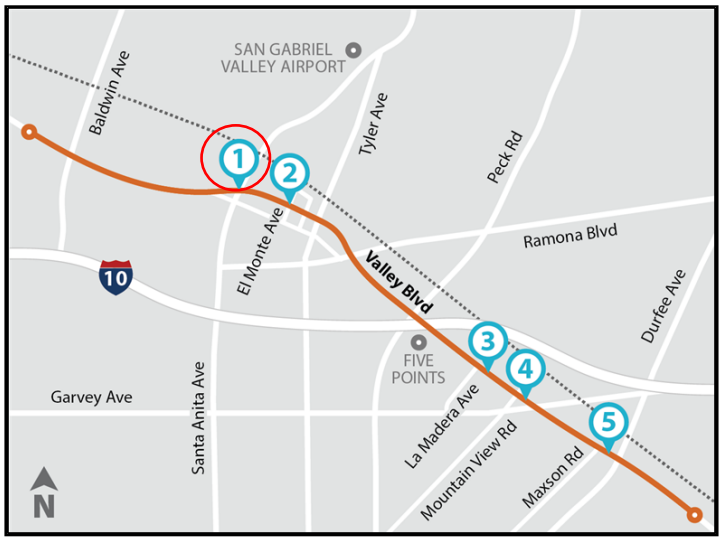


Photo Renderings

Michael Baker INTERNATIONAL

Figure 43

Location 2 El Monte Avenue

Before



After



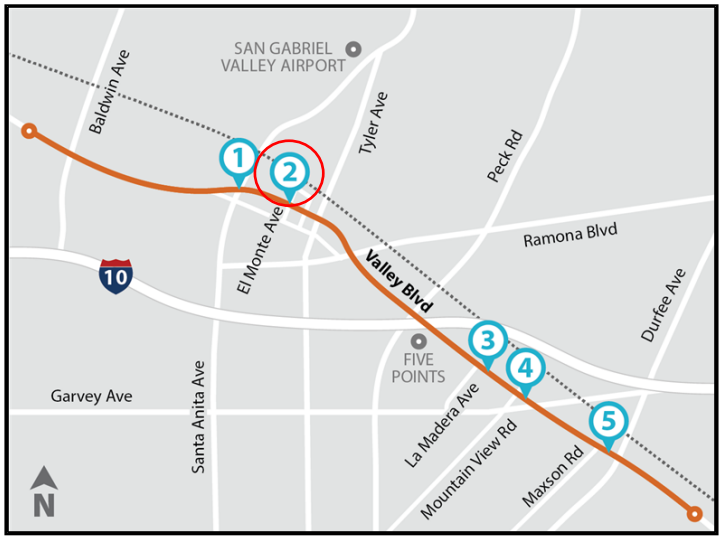


Photo Renderings

Michael Baker INTERNATIONAL

Figure 43

Location 3 La Madera Avenue

Before



After



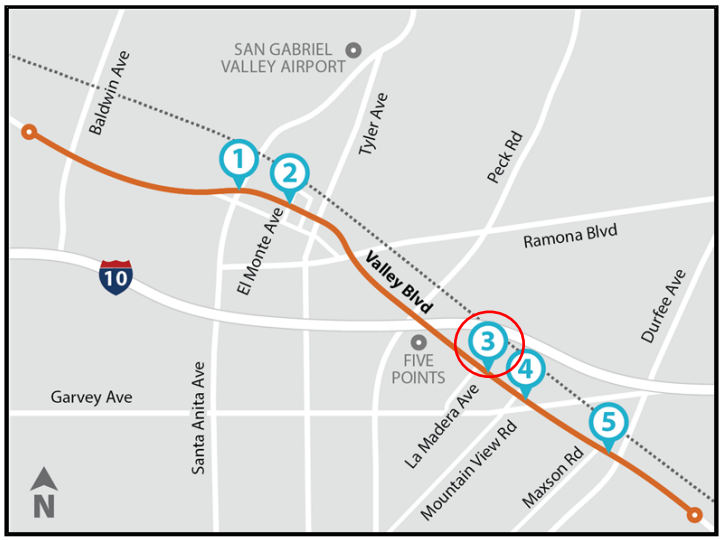


Photo Renderings

Michael Baker INTERNATIONAL

Figure 43

Location 4 Garvey Avenue

Before



After



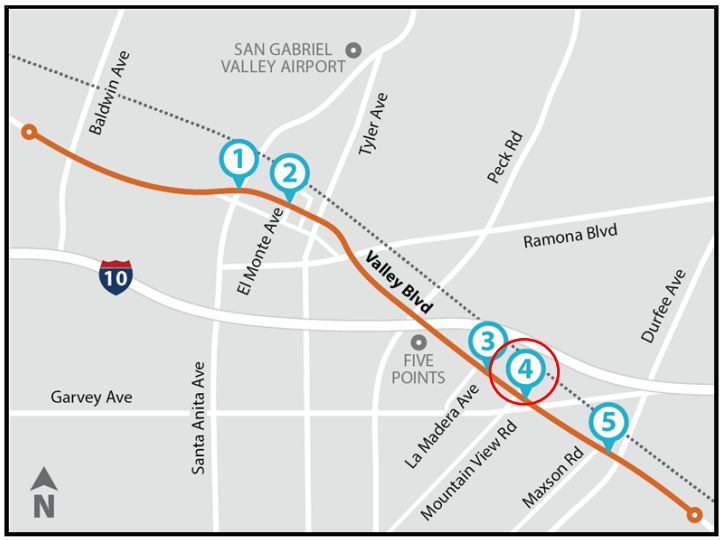


Photo Renderings

Michael Baker INTERNATIONAL

Figure 43

Location 5 Maxson Road

Before



After



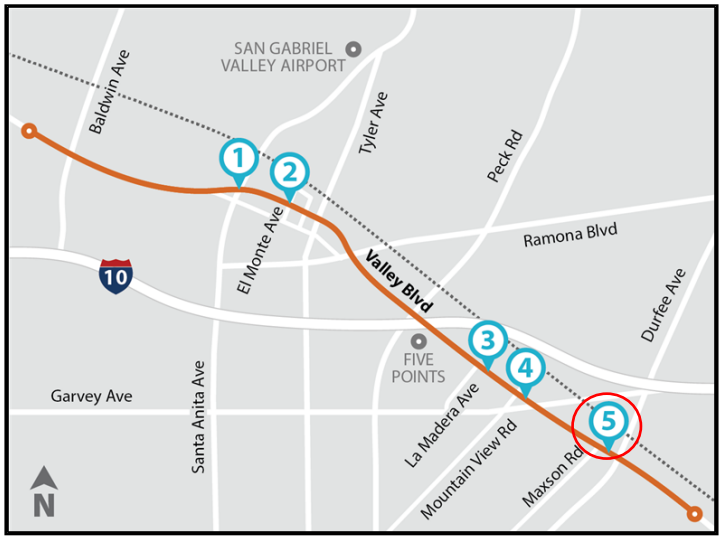


Photo Renderings

Michael Baker INTERNATIONAL

Figure 43

10.0 Implementation Plan

There are various options to be considered for implementing the project. This section provides options for phasing and suggestions for sources of implementation funding. Flexibility will be needed in the implementation process, with the consideration of timing, to maximize available funding, including grant funding. Upon adoption of a Final Complete Street plan by the City, development projects along the corridor could be conditioned for conformance (e.g., projects with frontage on the corridor or that impact intersections and segments of the corridor), including contributing to a proportion share of the buildout.

The implementation plan for the Complete Street plan focuses on two key areas: phasing and funding. Phasing describes the sequencing of the construction of improvements. While it would be ideal to construct all improvements at the same time, this could be both financially infeasible and impractical. This section explores opportunities for immediate or near-term construction and construction of other more complex or costly elements at a later time as funding becomes available.

The second element of this implementation plan is funding. The implementation plan outlines grant funding programs applicable to this corridor study.

PHASING

Provided below is a potential order of phase improvements, based on complexity and cost. Lower complexity items (top of the list) focus on elements such as signing and striping and marked crosswalks that require no physical modifications to the roadway. They are low cost, high impact improvements that provide an immediate benefit to the community. Most can be constructed independent of other improvements.

Some improvements in the list below include physical modifications to the roadway including medians, sidewalks, and a Class IV separated bikeway. In most cases, these improvements are medium cost and address gaps in the bicycle and pedestrian network, resulting in improved access and safety.

The more expensive and complex improvements are found towards the bottom of the list. They may also include improvements that require right of way acquisition such as curb ramp construction and the majority of utility relocation. As a result, these improvements may require a longer time to process the administrative requirements, design and right of way.

Based on the descriptions provide above, the elements of the plan are listed in a potential order of phasing, if implementation is accomplished through a phased approach.

- Restripe roadway to include Class IV separate bikeway with curb stops, narrower travel lanes, and conflict zone striping.
- Install advanced signing and striping at the uncontrolled marked crosswalks.
- Install traffic control at pedestrian crossings.
- Relocate bus stops, construct bus islands and transit stop improvements.
- Install medians with landscaping.
- Reconstruct damaged or uplifted sidewalks, reconstruct driveways and curb ramps to be ADA complaint, install parkway landscaping including utility relocations if required.
- Construct parking pockets, including curb realignment for segments between La Madera Avenue and Mountain View Road and Cogswell Road and Allgeyer Avenue.



- Construct parking lot improvements for lot south of Valley Boulevard between Santa Anita Avenue and Ramona Boulevard, construct pedestrian paseo on El Monte Avenue, add gateway signage for Main Street.
- Reconstruct intersections including upgraded traffic signals and traffic signal modifications .
- Construct improvements at Santa Anita Mini Park.

FUNDING PROGRAMS

Funding for planned improvements could require a combination of grants, fee programs and/or developer mitigation. As discussed in this section, a number of grant programs are available to public agencies in Los Angeles County from local programs, state funded programs and federally funded programs that have been leveraged to construct street improvements projects similar to the scope of this corridor study. Most projects of this magnitude will leverage multiple funding sources to see the project from planning through construction.

Table 22 includes a brief description of potential funding programs that may be applicable for the Valley Boulevard Complete Street plan. The purpose of identifying funding sources is to provide the City of El Monte with a forecast of reasonably available funding from traditional revenue sources for funding transportation improvements along Valley Boulevard. The following table outlines Federal, State, and local sources of revenue for funding transportation improvements. It should be noted that funding programs change after each funding cycle and are depending upon the agency and funding source. Therefore, this list should be reviewed and updated as the corridor study moves from this concept development phase to final engineering design and construction.

Grant Programs

The State of California and the federal government award grants for transportation projects ranging from water conservation to active transportation. Caltrans has developed a California Grants Portal that is an effective tool for researching and planning for grant opportunities. The link can be found here: https://www.grants.ca.gov/

The following grant programs may be applicable to the Complete Street plan for Valley Boulevard.

Measure M

LA County voters approved Measure M with 71.15% support in 2016. The no sunset half-cent sales tax measure funds projects to ease traffic, repair local streets and sidewalks, expand public transportation, earthquake retrofit bridges and subsidize transit fares for students, seniors and persons with disabilities.

Measure R

A two-thirds majority of LA County voters approved the Measure R half-cent sales tax in 2008 to finance new transportation projects and programs, and accelerate those already in the pipeline. The Measure R Expenditure Plan devotes its funds to seven transportation categories: 35% to new rail and bus rapid transit projects; 3% to Metrolink projects; 2% to Metro Rail system improvement projects; 20% to carpool lanes, highways and other highway related improvements; 5% to rail operations; 20% to bus operations; and 15% for Local Return programs.

Safe Streets and Roads for All

The Bipartisan Infrastructure Law (BIL) established the Safe Streets and Roads for All (SS4A) discretionary program with $5 billion in appropriated funds over 5 years, 2022-2026. The SS4A program funds regional, local, and Tribal initiatives through grants to prevent roadway deaths and serious injuries. Over $3 billion is still available for future funding rounds.



The SS4A program supports the U.S. Department of Transportation's National Roadway Safety Strategy and our goal of zero roadway deaths using a Safe System Approach. With the latest award announcement in December 2023, SS4A has provided $1.7 billion in Federal funding to over 1,000 communities in all 50 States and Puerto Rico. SS4A funding awarded to date will improve roadway safety planning for about 70 percent of the nation's population.

Urban Greening Programs

The California Natural Resources Agency has awarded four rounds of grants that fund projects that reduce greenhouse gases by sequestering carbon, decreasing energy consumption and reducing vehicle miles traveled, while also transforming the built environment into places that are more sustainable, enjoyable, and effective in creating healthy and vibrant communities. In 2021, $28.5 million in grants were awarded for projects across California. Projects in this grant program must either acquire, create, enhance, or expand community parks and green spaces, and/or use natural systems or systems that mimic natural systems to achieve multiple benefits. Parkways, median improvements and the Santa Anita Mini Park may be funded by this program. Future funding will be determined annually based on funds available through the Greenhouse Gas Reduction Fund (GGRF).

Stormwater Improvement Grants

The California Water Board has issued two rounds of grant programs that fund planning and implementation of multi-benefit stormwater management projects which may include, but shall not be limited to, green infrastructure, rainwater and stormwater capture projects and stormwater treatment facilities. Round 2 grants were funded in 2019. Future grants through this program are uncertain, however parkway and median improvements may be funded through grants in this program as long as improvements aim to capture and treat stormwater or improve existing stormwater treatment infrastructure.

Highway Safety Improvement Program

The Highway Safety Improvement Program (HSIP) is a federal funding program aimed at reducing traffic fatalities and serious injuries on public roads. HSIP project selection is data-driven based on crash data with improvements focused on the benefits associated with crash reductions. Lighting, access control, pedestrian and bicycle improvements and other roadway improvements may be funded along the corridor at high crash locations or locations where fatalities or severe injury collisions have occurred. A Local Roadway Safety Plan (LRSP) is required to apply for HSIP grants beginning in 2022.

Rebuilding American Infrastructure with Sustainability and Grant Program

The Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program is the latest US Department of Transportation funding program aimed at improving safety, environmental sustainability, quality of life, economic competitiveness, state of good repair, innovation, and partnership. Previously known as TIGER and BUILD grant programs, the latest grant program focuses on projects that demonstrate improvements to racial equity, reduce impacts of climate change, and create good-paying jobs. Over $1 billion in funding was issued with a maximum of $100 million per the state. Grants through the TIGER, BUILD and RAISE programs have been issued annually since 2010. This is a highly competitive program but many of the improvements proposed within the Valley Boulevard Complete Street plan meet the objectives of the grant requirements.

Solutions for Congested Corridors

Issued by the State's Transportation Commission, this grant program requires projects to be included in an adopted regional transportation plan or a comprehensive corridor plan. The projects through this program will focus

improvements to state highways, local streets and roads, rail facilities, public transit facilities, bicycle and pedestrian facilities, and restoration or preservation work that protects critical local habitat or open space. Program funding cited is SB-1 and the grant program will be issued in 2022. The Complete Street plan may need to be co-sponsored by other local agencies such as SCAG, LA Metro or Caltrans to be competitive.

Active Transportation Grant Program:

The California Transportation Commission (state) issues Active Transportation Program (ATP-CA) grant funding opportunities on an annual basis. The objective of the corridor study is to increase the proportion of trips accomplished by walking and biking, increasing the safety and mobility of non-motorized users, advancing efforts of regional agencies to achieve greenhouse gas reduction goals, enhancing public health, and providing a broad spectrum of projects to benefit many types of users including disadvantaged communities. Pursuant to statute, the purpose of the program is to encourage increased use of active modes of transportation, such as biking and walking. The goal of the ATP includes advancing the active transportation efforts of regional agencies to achieve greenhouse gas reduction goals as established pursuant to Senate Bill 375 (Chapter 728, Statutes of 2008) and Senate Bill 391 (Chapter 585, Statutes of 2009). Successful grant applications through this program tend to focus on disadvantaged communities and safe routes to school at the state level. Bicycle facilities, sidewalk and curb ramps improvements and transit improvements of the Complete Street plan may be eligible.

Development Fee Programs

A development impact fee is a monetary exaction other than a tax or special assessment that is charged by a local governmental agency to an applicant in connection with approval of a development project for the purpose of defraying all or a portion of the cost of public facilities related to the development project. A development impact fee is not a tax or special assessment and must be reasonably related to the cost of the service provided by the local agency. If a development impact fee does not relate to the impact created by development or exceeds the reasonable cost of providing the public service, then the fee may be declared a special tax. For this Complete Street plan, impacts associated with future development may be mitigated by improving pedestrian, bicycle and transit connections along the corridor and in the community.

Development Frontage Improvements

Based on the intended adoption process for this Complete Street plan, the City will be able to condition future private development projects along the corridor, for conformance with the Final Complete Street plan as adopted by the City Council (later in the process). Either through developer contribution programs (described in fee programs above) or through physical improvements, projects may be responsible for constructing improvements such as signal modifications, sidewalk and driveway improvements, striping and multimodal improvements.

Public Works Projects

Roadway improvements along the corridor to repair or slurry seal pavement, replace or repair utilities or other roadway repairs may result in resurfacing the roadway, which provides an opportunity to couple the restriping to Class IV separated bikeway with a public works project. As projects are identified and planned for the corridor, opportunities should be identified to integrate curb modifications and striping to align with the corridor study.

Table 22: Potential Funding Sources

Funding Source	Title	Description	Grant Type	Next Cycle Opens/ Due Date
US Department of Transportation (US DOT)	Safe Streets and Roads for All	$5 billion in appropriated funds over 5 years, 2022-2026. The program funds regional, local, and Tribal initiatives through grants to prevent roadway deaths and serious injuries involving all roadway users, including pedestrians, bicycles, public transit, and micromobility	Competitive	July 2024
	Strengthening Mobility and Revolutionizing Transportation (SMART) Grant Programs	The SMART program was established to provide grants to eligible public sector agencies to conduct demonstration projects focused on advanced smart community technologies and systems in order to improve transportation efficiency and safety,	Competitive	Summer 2024
	Rebuilding American Infrastructure with Sustainability and Equity (RAISE)	Funds for the FY 2023 RAISE grant program. will be awarded on a competitive basis, per statute, for surface transportation infrastructure projects that will improve: safety; environmental sustainability; quality of life; mobility and community connectivity; economic competitiveness and opportunity including tourism; state of good repair; partnership and collaboration; and innovation.	Competitive	Fall 2024
Federal Highway Administration (FHWA)	Promoting Resilient Operations for Transformative Efficient, and Cost Saving Transportation (PROTECT) Program	The vision of the PROTECT Discretionary Grant Program is to fund projects that address the climate crisis by improving the resilience of the surface transportation system, including highways, public transportation, ports, and intercity passenger rail.	Competitive	Summer 2024
US Department of Housing and Urban Development (HUD Exchange)	Community Development Block Grant	The Community Development Block Grant (CDBG) Program supports community development activities to build stronger and more resilient communities. To support community development, activities are identified through an ongoing process. Activities may address needs such as infrastructure, economic development projects, public facilities installation, community centers, housing rehabilitation, public services, clearance/acquisition, microenterprise assistance, code enforcement, homeowner assistance, etc.	Formula	January 2024
National Endowment for the Arts	Our Town	Our Town is the National Endowment for the Arts' creative placemaking grants program. These grants support projects that integrate arts, culture, and design activities into efforts that strengthen communities by advancing local economic, physical, and/or social outcomes	Competitive	Summer 2024
Federal Transportation Administration (FTA)	Accelerating Innovative Mobility (AIM)	AIM will highlight FTA's commitment to support and advance innovation in the transit industry	Competitive	NA
	Advanced Driver Assistance Systems (ADAS) for Transit Buses Demonstration and Automated Transit Bus Maintenance and Yard Operations Demonstration Program	Part of FTA's Bus Automation Research program, the Advanced Driver Assistance Systems (ADAS) for Transit Buses Demonstration and Automated Transit Bus Maintenance and Yard Operations Demonstration program provides funding to help improve transit bus safety and efficiency, including in bus yards	Competitive	Fall 2024
	All Stations Accessibility Program	The All Stations Accessibility Program provides competitive funding to assist in the financing of capital projects to repair, improve, modify, retrofit, or relocate infrastructure of stations or facilities for passenger use, including load-bearing members that are an essential part of the structural frame; or (2) for planning projects to develop or modify a plan for pursuing public transportation accessibility projects, assessments of accessibility, or assessments of planned modifications to stations or facilities for passenger use.	Competitive	January 30, 2024
	Better Utilizing Investments to Leverage Development (BUILD)	US DOT's Better Utilizing Investments to Leverage Development (BUILD) Transportation Discretionary Grants program funds investments in transportation infrastructure, including transit.	Competitive	February 2024
	Enhancing Mobility Innovation	FTA's Enhancing Mobility Innovation program advances a vision of mobility for all – safe, reliable, equitable, and accessible services that support complete trips for all travelers. The program promotes technology projects that center the passenger experience and encourage people to get on board, such as integrated fare payment systems and user-friendly software for demand-response public transportation.	Competitive	Early 2024

Funding Source	Title	Description	Grant Type	Next Cycle Opens/ Due Date
Federal Transportation Administration (FTA)	Surface Transportation Block Grant Program	Provides funding that may be used by states and localities for a wide range of projects to preserve and improve the conditions and performance of surface transportation, including highway, transit, intercity bus, bicycle, and pedestrian projects.	Formula	
	Access and Mobility Partnership Grants	This program provides competitive funding to support innovative capital projects for the transportation disadvantaged that will improve the coordination of transportation services and non-emergency medical transportation services	Competitive	February 2024
	Integrated Mobility Innovation	FTA's Integrated Mobility Innovation (IMI) Program funds projects that demonstrate innovative and effective practices, partnerships, and technologies to enhance public transportation effectiveness, increase efficiency, expand quality, promote safety and improve the traveler experience.	Competitive	
	Mobility, Access & Transportation Insecurity: Creating Links to Opportunity Research and Demonstration Program	Funds a research and demonstration effort to improve people's access to affordable transportation, especially in areas that currently lack efficient and convenient transit options and measure the effect of reducing transportation insecurity through improved mobility access on people and their communities.	Competitive	Fall 2024
	Enhanced Mobility of Seniors and Individuals with Disabilities	The goal of this program is to improve mobility for seniors and individuals with disabilities by removing barriers to transportation service and expanding transportation mobility options.	Competitive	Exp. August 2024
	Congestion Mitigation and Air Quality Program (CMAQ)	CMAQ provides funding to areas in nonattainment or maintenance for ozone, carbon monoxide, and/or particulate matter. States that have no nonattainment or maintenance areas still receive a minimum apportionment of CMAQ funding for either air quality projects or other elements of flexible spending. Funds may be used for any transit capital expenditures otherwise eligible for FTA funding as long as they have an air quality benefit.	Formula	
	Pilot Program for Transit Oriented-Development Planning – Section 20005 (b)	The Pilot Program for TOD Planning helps support FTA's mission of improving America's communities through public transportation by providing funding to local communities to integrate land use and transportation planning with a new fixed guideway or core capacity transit capital investment. Comprehensive planning funded through the program must examine ways to improve economic development and ridership, foster multimodal connectivity and accessibility, improve transit access for pedestrian and bicycle traffic, engage the private sector, identify infrastructure needs, and enable mixed-use development near transit stations.	Competitive	Exp. Fall 2024
Air Resources Board	Sustainable Transportation Equity Project (STEP)	Provides financial support for projects intended to help low-income and disadvantaged communities identify residents' transportation needs and prepare to implement clean transportation and land use projects. (California Climate Investments)	Competitive	September 2024
	Clean Mobility Options	The Program makes $20 million available for zero-emissions shared mobility projects (such as car sharing, Bicycle sharing, and on-demand sharing) in disadvantaged and low-income communities, including some tribal and affordable housing communities (California Climate Investments)	Formula	July 2024
Office of Traffic Safety	Office of Traffic Safety Grant Program	The Program provides annual funds to prevent serious injury and death resulting from motor vehicle crashes so that all roadway users arrive at their destination safely. Funds can be used for bicycle and pedestrian safety	Competitive	January 2024
National Association of Realtors	Placemaking Grants	Placemaking means many things to different people, but NAR looks as placemaking as a way to make communities better places to live by transforming unused and underused sites and "eyesores" into welcoming destinations accessible to everyone in a community	Competitive	October 2024
California Transportation Commission (CTC)	Local Streets and Roads (LSR) Program	The purpose is to provide approximately $1.5 billion per year to cities and counties for basic road maintenance, rehabilitation, and critical safety projects on the local streets and road systems.	Formula	NA
	Solutions for Congested Corridors (SCCP)	Provide funding to achieve a balanced set of transportation, environmental and community access improvements to reduce congestions throughout the state.	Competitive	

Funding Source	Title	Description	Grant Type	Next Cycle Opens/ Due Date
California Transportation Commission (CTC)	State Transportation Improvement Program (STIP)	The STIP is the biennial five-year plan adopted by the Commission for Future Allocations of certain state transportation funds, state highway improvements, intercity rail, and regional highway and transit improvements.	Competitive	
California Department of Transportation (Caltrans)	Active Transportation Planning Grants (ATP)	Funding for sidewalks, bike lanes, trails, Safe Routes to School programs, and bicycle and pedestrian plans.	Competitive	June 17, 2024
	Sustainable Transportation Planning Grants (STP)	Intended to support and implement Regional Transportation Plans, Sustainable Communities Strategies/Alternative Planning Strategies, and to ultimately achieve the State's GHG reduction target.	Competitive	March 2024
	Highway Safety Improvement Program (HSIP)	The HSIP is a core federal-aid program to States for the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads. California's Local HSIP focuses on infrastructure projects with nationally recognized crash reduction factors.	Competitive	
	Cooperative Implementation Agreement (CIA)	Provide capital funding and support for planning, design, environmental studies, right of way acquisition and construction of stormwater treatment facilities for drainage areas that capture Caltrans right of way runoff. Project details must be submitted for consideration prior to March and funding determinations are made by June annually.	Formula	March 2024
	Financial Contribution Only (FCO)	Provide capital funding for construction costs only of stormwater treatment facilities. Funds are available two years after the project initiation report (PIR) approval and projects must be federalized unless an exceptions is obtained from Caltrans. Project details must be submitted by May of even years to reserve funds and additional project details must be submitted by March of the odd years for Caltrans to develop a PIR.	Formula	May 2024
California Public Utilities Commission	Access for All Program	The California Public Utilities Commission created the TNC Access for All Program to implement Senate Bill (SB) 1376 (Hill: 2018) which directed the Commission to establish a program relating to accessibility for persons with disabilities, including wheelchair users who need a wheelchair accessible vehicle (WAV).	Competitive	Early 2024
California Natural Resource Agency	Urban Greening	The program supports the development of green infrastructure projects that reduce GHG emissions and provide multiple benefits. (California Climate Investments)	Competitive	November 2024
Strategic Growth Council and Department of Housing and Community Development	Affordable Housing and Sustainable Communities Program	The Program funds land-use, housing, transportation, and land preservation projects to support infill and compact development that reduce greenhouse gas emissions. The Program included $550M in its latest round. (California Climate Investments)	Competitive	Est. April 2024
Southern California Association of Governments (SCAG)	Sustainable Communities Program	Technical assistance program that strengthens partnerships with local agencies and strategic partners who are responsible for land use and transportation decisions. The SCP provides opportunities to secure resources to meet diverse planning needs of local communities.	NA	June 2024
	Local Communities Engagement and Safety Mini Grants	The Go Human Mini Grants Program has provided funding to non-profits and community based organizations to implement local traffic safety projects since 2018. It is aimed to build street-level community resiliency and increase the safety of people most harmed by traffic injuries	NA	February 2024
Los Angeles County	Measure A	Drafted to meet current and future park access and needs address inequities. An initiative to replace much-needed funding to build, maintain, and improve our local parks, access to parks, beaches, and open space	NA	Annual
	Measure M	Authorizes a new one-half cent sales tax starting in 2017 that will help fund major highway and transit projects and bicycle and pedestrian connections, Bicycle share and greenways.	NA	Annual
	Measure M Subregional Program	Measure M subregional funds are programmed by the subregions' respective governing/planning entities. San Gabriel Valley COG administers MSP funds through the development of five-year subregional fund programming plans in the San Gabriel Valley.	NA	Annual
	Measure R	A two-thirds majority of LA County voters approved the Measure R half-cent sales tax in 2008 to finance new transportation projects and programs and accelerate those already in the pipeline.	NA	Annual

Funding Source	Title	Description	Grant Type	Next Cycle Opens/ Due Date
	Measure W (LA County Safe Clean Water Program)	A parcel tax that would increase L.A. County's local water supply, improve water quality, and invest in making communities greener and more livable. Focus on communities that are the most vulnerable to create green streets and complete streets. Prioritizes projects that assist in achieving MS4 permit compliance, utilize Nature Based Solutions and/or provide benefits to Disadvantaged Communities with funds up to $285 Million per year. Upon approval of Stormwater Investment Plans, project developers enter into Fund Transfer Agreements with the district and receive funds.	NA	April 2024

11.0 Recommendations

Based on the corridor needs, alternatives analysis, mobility assessment, and community engagement, the Valley Boulevard Complete Street Concept plan was developed. It is recommended that the final Complete Street plan (**Figure 32** included in **Section 5**) is carried forward for funding allocation, design and construction. The elements of this plan are described in detail in Section 5 but key aspects are described below:

- A mix of Class IV and Class II bicycle facilities,
- Pedestrian crossing improvements including refuge islands, HAWK signals, RRFBs and additional signing and striping where suitable,
- Intersection improvements including crosswalk realignments, curb ramp upgrades, and signal timing improvements,
- Transit improvements including bus islands, bus stop relocations and upgrades to bus stop amenities,
- Closure of the Main Street bypass and installation of the Santa Anita Mini Park,
- Conversion of El Monte Avenue into a pedestrian paseo from Main Street until the Metrolink station,
- Sidewalk and pavement repairs for accessibility and rideability improvements,
- Cohesive and enhanced streetscape design including new planted medians and new planting on parkway strips with a cohesive plant palette,
- Introduction of gateway features at key locations that will help connect the corridor to the surrounding activity centers,
- Sustainable solutions including drainage infrastructure to capture and treat street run off from wet or dry weather conditions, integration of new street lighting (solar where feasible), and creating more permeable surfaces.

ADDITIONAL CONSIDERATIONS

Before finalizing the designs for the Valley Boulevard Concept Plan, some elements require additional considerations as follows:

- **Streetscape design:** The Complete Street plan includes recommendations for the streetscape design such as a proposed planting palette, street furniture designs, and gateway features. Although these concepts considered and are aligned with the City's Beautification Master Plan, additional outreach should be undertaken in future project phases to obtain community input on the specific elements chosen. Elements such as the gateway signs and street furniture can vary greatly in style and pieces should be selected that align with the community's vision.
- **Santa Anita Mini Park:** Four options were developed for the Santa Anita Mini Park but no formal option was selected as the preferred concept as part of this study. Additional targeted outreach with the City's Planning Commission and City Council should be undertaken to select a preferred alternative for the Mini Park.
- **Main Street Bypass:** Consider the closure of the Main Street bypass with the future Santa Anita Mini Park. Additional coordination should be undertaken with the fire department and business located at the Santa Anita Office Center to ensure emergency access is maintained and the changes to their access do not negatively impact circulation of the private parking lot.
- **El Monte Avenue Pedestrian Paseo:** Additional coordination should be undertaken with the emergency services and nearby businesses to discuss the impacts of closing El Monte Avenue to create a permanent pedestrian paseo.

12.0 Next Steps

The Complete Street plan was presented to City Council in January 2024 for consideration and comment. The next steps for the Valley Boulevard Complete Street plan are as follows:

- City Council to adopt a resolution of this Feasibility Study Report and Final Complete Street plan in March 2024,
- Condition development projects to implement the elements of the Final Complete Street plan where applicable,
- Pursue grant funding to funding the preliminary engineering and construction costs, and
- Final design of the corridor.

The timeline for the next phases of the project are contingent upon receipt of funding.

Appendix A: Count Data

National Data & Surveying Services Intersection Turning Movement Count

Location: Santa Anita Ave & Valley Blvd
City: El Monte
Control: Signalized

Project ID: 23-020163-002
Date: 4/25/2023

Data - Totals

NS/EW Streets:	Santa Anita Ave				Santa Anita Ave				Valley Blvd				Valley Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	2.5	0.5	0	1	2.5	0.5	0	1	2	0	0	2	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	46	70	5	0	5	108	26	0	20	42	0	0	10	119	4	0	455
7:15 AM	66	75	8	1	3	141	43	0	20	45	0	0	10	168	2	0	582
7:30 AM	93	124	5	0	4	166	83	0	33	94	1	0	13	230	7	0	853
7:45 AM	113	146	4	0	4	130	88	0	30	105	0	0	7	196	3	0	826
8:00 AM	106	127	9	0	9	202	88	0	35	130	0	0	6	230	5	0	947
8:15 AM	82	97	8	0	5	173	48	0	26	117	0	0	7	202	7	0	772
8:30 AM	83	92	5	1	7	167	70	0	25	118	2	0	8	193	7	0	778
8:45 AM	107	122	14	0	8	138	63	1	29	111	2	0	18	195	7	0	815
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	696	853	58	2	45	1225	509	1	218	762	5	0	79	1533	42	0	6028
APPROACH %'s :	43.26%	53.01%	3.60%	0.12%	2.53%	68.82%	28.60%	0.06%	22.13%	77.36%	0.51%	0.00%	4.78%	92.68%	2.54%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	394	494	26	0	22	671	307	0	124	446	1	0	33	858	22	0	3398
PEAK HR FACTOR :	0.872	0.846	0.722	0.000	0.611	0.830	0.872	0.000	0.886	0.858	0.250	0.000	0.635	0.933	0.786	0.000	0.897
	0.869				0.836				0.865				0.913				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	2.5	0.5	0	1	2.5	0.5	0	1	2	0	0	2	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	90	206	20	1	8	99	28	0	55	204	0	0	13	103	16	0	843
4:15 PM	69	180	16	0	9	128	37	0	52	167	0	0	21	137	10	0	826
4:30 PM	79	168	16	2	9	130	48	0	70	188	2	0	25	133	21	0	891
4:45 PM	107	185	21	0	10	136	29	0	90	197	3	0	24	125	12	0	939
5:00 PM	92	189	15	0	5	123	30	0	71	177	0	0	21	154	12	0	889
5:15 PM	79	187	13	0	15	103	44	0	80	205	0	0	18	159	9	0	912
5:30 PM	90	173	11	1	10	115	31	0	83	210	1	0	20	139	10	0	894
5:45 PM	74	193	18	0	18	147	27	0	63	192	0	0	17	159	8	0	916
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	680	1481	130	4	84	981	274	0	564	1540	6	0	159	1109	98	0	7110
APPROACH %'s :	29.63%	64.53%	5.66%	0.17%	6.27%	73.26%	20.46%	0.00%	26.73%	72.99%	0.28%	0.00%	11.64%	81.19%	7.17%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	368	734	60	1	40	477	134	0	324	789	4	0	83	577	43	0	3634
PEAK HR FACTOR :	0.860	0.971	0.714	0.250	0.667	0.877	0.761	0.000	0.900	0.939	0.333	0.000	0.865	0.907	0.896	0.000	0.968
	0.929				0.930				0.950				0.940				

Prepared by National Data & Surveying Services

Santa Anita Ave & Valley Blvd

Peak Hour Turning Movement Count

ID: 23-020163-002
City: El Monte

Day: Tuesday
Date: 4/25/2023

PEAK HOURS		COUNT PERIODS
07:30 AM - 08:30 AM	AM	7:00 AM - 09:00 AM
NONE	NOON	NONE
04:45 PM - 05:45 PM	PM	4:00 PM - 06:00 PM

SOUTHBOUND

Santa Anita Ave

AM	307	671	22	0	640	AM
NOON	0	0	0	0	0	NOON
PM	134	477	40	0	1101	PM
	0.5	2.5	1	0		

EASTBOUND

Valley Blvd

AM	NOON	PM	
1559	0	1079	
0	0	0	0
124	0	324	1
446	0	789	2
1	0	4	0
AM	NOON	PM	

WESTBOUND

Valley Blvd

	PM	NOON	AM
1	43	0	22
2	577	0	858
2	83	0	33
0	0	0	0
	889	0	494
	PM	NOON	AM

CONTROL

Signalized

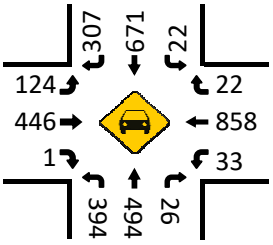
TEV	3398	0	3634
	AM	NOON	PM
PHF	0.90		0.97

NORTHBOUND

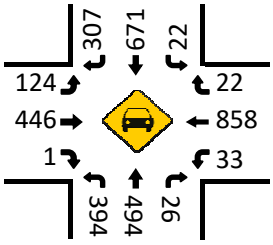
Santa Anita Ave

		0	2	2.5	0.5	
PM	565	1	368	734	60	PM
NOON	0	0	0	0	0	NOON
AM	705	0	394	494	26	AM

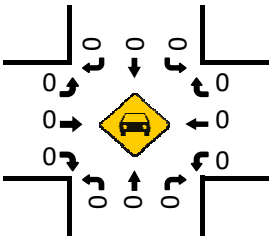
Totals (AM)



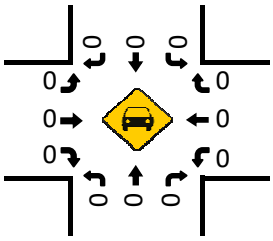
Totals (AM)



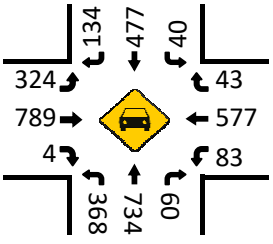
Totals (NOON)



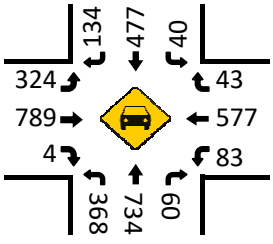
Totals (NOON)



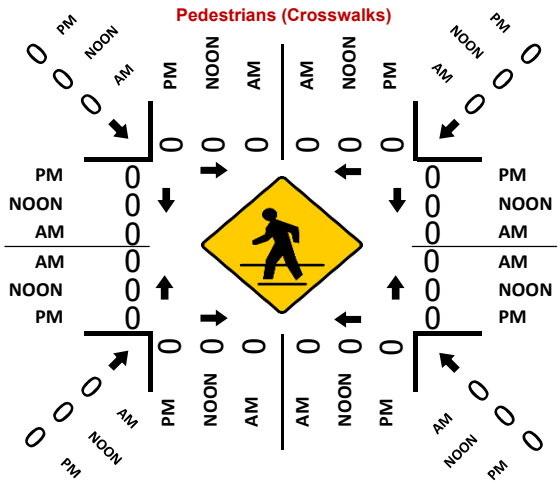
Totals (PM)



Totals (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Santa Anita Ave & Main St
City: El Monte
Control: Signalized

Project ID: 23-020163-003
Date: 4/25/2023

Data - Totals

NS/EW Streets:	Santa Anita Ave				Santa Anita Ave				Main St				Main St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2.5	0.5	0	1	3	0	0	0.5	0.5	1	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	113	2	0	1	109	0	0	1	3	66	0	2	0	3	0	300
7:15 AM	0	138	0	0	3	155	0	0	1	9	48	0	0	0	10	0	364
7:30 AM	0	223	1	0	7	175	0	1	0	9	78	0	0	0	5	0	499
7:45 AM	0	246	6	0	7	124	0	0	0	22	119	0	6	0	20	0	550
8:00 AM	0	223	6	0	9	198	0	0	0	27	85	0	5	0	15	0	568
8:15 AM	0	181	7	0	7	168	0	0	0	32	72	0	4	0	7	0	478
8:30 AM	0	164	5	1	5	176	0	0	1	26	83	0	1	0	5	0	467
8:45 AM	0	246	6	0	7	146	0	0	0	14	67	0	6	0	3	0	495
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1534	33	1	46	1251	0	1	3	142	618	0	24	0	68	0	3721
APPROACH %'s :	0.00%	97.83%	2.10%	0.06%	3.54%	96.38%	0.00%	0.08%	0.39%	18.61%	81.00%	0.00%	26.09%	0.00%	73.91%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	873	20	0	30	665	0	1	0	90	354	0	15	0	47	0	2095
PEAK HR FACTOR :	0.000	0.887	0.714	0.000	0.833	0.840	0.000	0.250	0.000	0.703	0.744	0.000	0.625	0.000	0.588	0.000	0.922
		0.886				0.841				0.787				0.596			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2.5	0.5	0	1	3	0	0	0.5	0.5	1	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	280	14	0	3	104	0	0	2	27	89	0	8	0	28	0	555
4:15 PM	0	246	6	0	5	147	0	0	2	27	81	0	7	0	18	0	539
4:30 PM	0	238	4	0	5	148	0	0	3	39	103	0	6	0	24	0	570
4:45 PM	0	282	16	0	5	152	0	0	3	38	68	0	7	0	20	0	591
5:00 PM	0	257	8	0	4	139	0	0	4	31	119	0	9	0	25	0	596
5:15 PM	0	264	12	0	4	124	0	0	2	36	75	0	6	0	18	0	541
5:30 PM	0	243	12	0	6	132	0	1	3	35	100	0	10	0	27	0	569
5:45 PM	0	258	9	0	9	155	0	0	4	44	86	0	0	0	14	0	579
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2068	81	0	41	1101	0	1	23	277	721	0	53	0	174	0	4540
APPROACH %'s :	0.00%	96.23%	3.77%	0.00%	3.59%	96.33%	0.00%	0.09%	2.25%	27.13%	70.62%	0.00%	23.35%	0.00%	76.65%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	1041	40	0	18	563	0	0	12	144	365	0	28	0	87	0	2298
PEAK HR FACTOR :	0.000	0.923	0.625	0.000	0.900	0.926	0.000	0.000	0.750	0.923	0.767	0.000	0.778	0.000	0.870	0.000	0.964
		0.907				0.925				0.846				0.846			

Prepared by National Data & Surveying Services

Santa Anita Ave & Main St

Peak Hour Turning Movement Count

ID: 23-020163-003
City: El Monte

Day: Tuesday
Date: 4/25/2023

PEAK HOURS		COUNT PERIODS
07:30 AM - 08:30 AM	AM	7:00 AM - 09:00 AM
NONE	NOON	NONE
04:30 PM - 05:30 PM	PM	4:00 PM - 06:00 PM

SOUTHBOUND

Santa Anita Ave

AM	0	665	30	1	921	AM
NOON	0	0	0	0	0	NOON
PM	0	563	18	0	1140	PM
	0	3	1	0		

EASTBOUND

Main St

AM	NOON	PM	
0	0	0	
0	0	0	0
0	0	12	0.5
90	0	144	0.5
354	0	365	1
AM	NOON	PM	

WESTBOUND

Main St

	PM	NOON	AM
0	87	0	47
1	0	0	0
0	28	0	15
0	0	0	0
	202	0	140
	PM	NOON	AM

CONTROL

Signalized

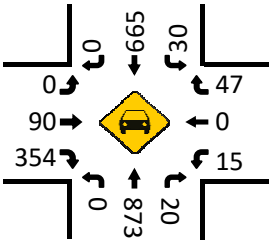
TEV	2095	0	2298
	AM	NOON	PM
PHF	0.92		0.96

NORTHBOUND

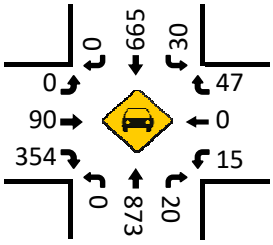
Santa Anita Ave

		0	0	2.5	0.5	
PM	956	0	0	1041	40	PM
NOON	0	0	0	0	0	NOON
AM	1034	0	0	873	20	AM

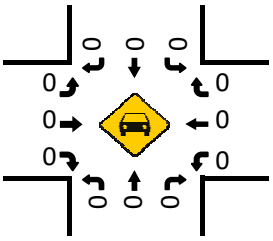
Totals (AM)



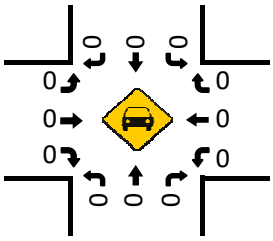
Totals (AM)



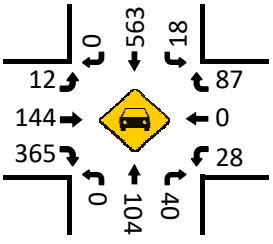
Totals (NOON)



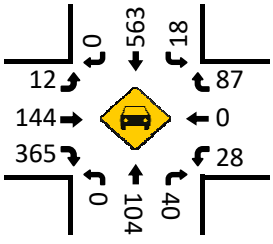
Totals (NOON)



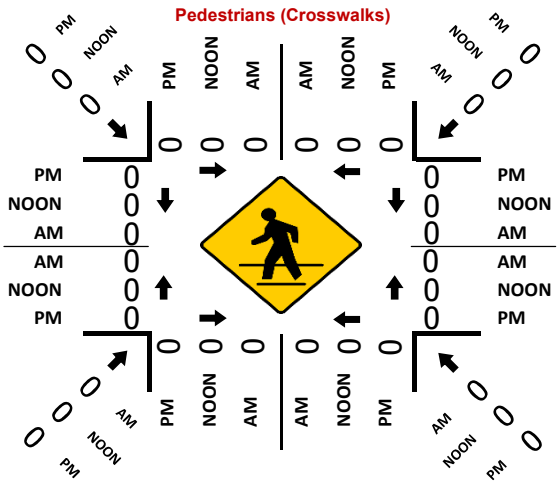
Totals (PM)



Totals (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Peck Rd & Valley Blvd
City: El Monte
Control: Signalized

Project ID: 23-020163-004
Date: 4/25/2023

Data - Totals

NS/EW Streets:	Peck Rd				Peck Rd				Valley Blvd				Valley Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	1	0	1	2	1	0	1	2	1	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	14	110	39	25	29	153	18	0	5	67	16	0	7	117	32	0	632
7:15 AM	23	119	57	26	34	177	25	0	11	65	18	0	5	196	33	0	789
7:30 AM	22	147	70	20	52	282	22	1	12	91	22	0	4	189	32	1	967
7:45 AM	17	201	85	21	41	248	33	0	15	116	33	0	6	223	56	1	1096
8:00 AM	18	188	72	23	53	225	31	0	19	112	29	1	10	173	44	2	1000
8:15 AM	18	145	82	16	57	256	31	0	19	114	25	0	11	160	48	3	985
8:30 AM	25	177	77	16	51	198	30	0	20	140	26	0	7	175	54	7	1003
8:45 AM	22	163	70	16	35	219	30	0	19	103	30	0	16	217	53	6	999
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	159	1250	552	163	352	1758	220	1	120	808	199	1	66	1450	352	20	7471
APPROACH %'s :	7.49%	58.85%	25.99%	7.67%	15.10%	75.42%	9.44%	0.04%	10.64%	71.63%	17.64%	0.09%	3.50%	76.80%	18.64%	1.06%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	78	711	316	76	202	927	125	0	73	482	113	1	34	731	202	13	4084
PEAK HR FACTOR :	0.780	0.884	0.929	0.826	0.886	0.905	0.947	0.000	0.913	0.861	0.856	0.250	0.773	0.820	0.902	0.464	0.932
		0.911				0.911				0.899				0.857			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	1	0	1	2	1	0	1	2	1	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	22	220	93	28	55	226	29	0	30	175	42	1	14	122	64	2	1123
4:15 PM	27	230	93	15	51	225	28	0	44	201	48	1	9	133	52	3	1160
4:30 PM	28	258	81	23	45	198	33	0	26	189	45	1	7	153	69	0	1156
4:45 PM	25	264	74	21	69	216	21	1	24	146	46	1	24	137	49	2	1120
5:00 PM	23	280	96	21	56	227	28	0	40	228	50	0	15	129	56	2	1251
5:15 PM	20	259	96	30	54	226	31	1	36	210	29	1	6	127	68	2	1196
5:30 PM	13	256	80	21	51	219	23	0	31	183	42	0	8	136	63	0	1126
5:45 PM	23	222	93	19	57	191	32	0	23	199	43	0	7	132	57	1	1099
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	181	1989	706	178	438	1728	225	2	254	1531	345	5	90	1069	478	12	9231
APPROACH %'s :	5.93%	65.13%	23.12%	5.83%	18.30%	72.21%	9.40%	0.08%	11.90%	71.71%	16.16%	0.23%	5.46%	64.83%	28.99%	0.73%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	96	1061	347	95	224	867	113	2	126	773	170	3	52	546	242	6	4723
PEAK HR FACTOR :	0.857	0.947	0.904	0.792	0.812	0.955	0.856	0.500	0.788	0.848	0.850	0.750	0.542	0.892	0.877	0.750	0.944
		0.952				0.966				0.843				0.924			

Prepared by National Data & Surveying Services

Peck Rd & Valley Blvd

Peak Hour Turning Movement Count

ID: 23-020163-004
City: El Monte

Day: Tuesday
Date: 4/25/2023

PEAK HOURS	COUNT PERIODS
07:45 AM - 08:45 AM	7:00 AM - 09:00 AM
NONE	NONE
04:30 PM - 05:30 PM	4:00 PM - 06:00 PM

SOUTHBOUND (Peck Rd)

AM	125	927	202	0	986	AM
NOON	0	0	0	0	0	NOON
PM	113	867	224	2	1431	PM
	1	2	1	0		

EASTBOUND (Valley Blvd)

AM	NOON	PM	
935	0	758	
1	0	3	0
73	0	126	1
482	0	773	2
113	0	170	1
AM	NOON	PM	

WESTBOUND (Valley Blvd)

PM	NOON	AM	
242	0	202	0
546	0	731	2
52	0	34	1
6	0	13	0
1350	0	1013	
PM	NOON	AM	

CONTROL

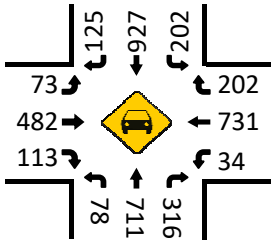
Signalized

TEV	4084 AM	0 NOON	4723 PM
PHF	0.93		0.94

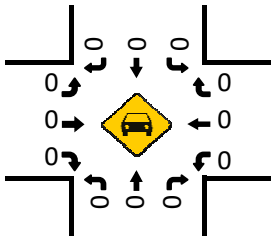
NORTHBOUND (Peck Rd)

	0	1	3	1		
PM	1184	95	96	1061	347	PM
NOON	0	0	0	0	0	NOON
AM	1150	76	78	711	316	AM

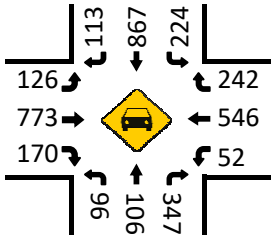
Totals (AM)



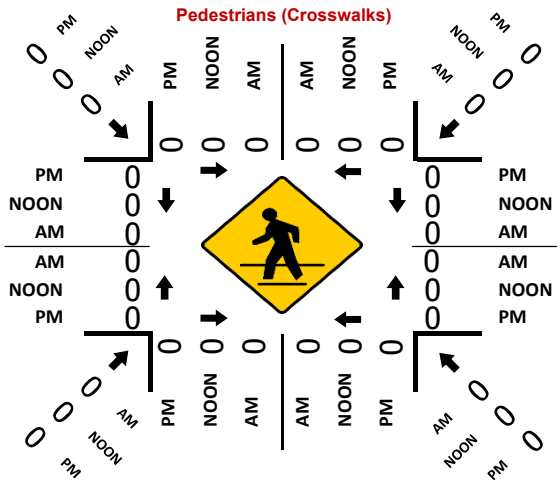
Totals (NOON)



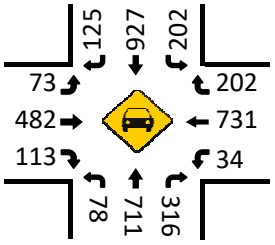
Totals (PM)



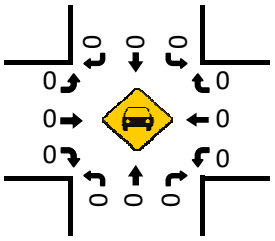
Pedestrians (Crosswalks)



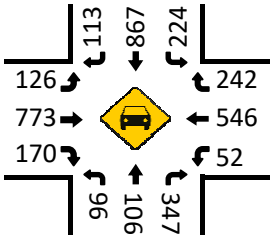
Totals (AM)



Totals (NOON)



Totals (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: El Monte Ave & Valley Blvd
City: El Monte
Control: 2-Way Stop (NB/SB)

Project ID: 23-020163-005
Date: 4/25/2023

Data - Totals

NS/EW Streets:	El Monte Ave				El Monte Ave				Valley Blvd				Valley Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	1	0	1	51	0	0	1	123	0	0	177
7:15 AM	0	0	1	0	0	0	0	0	0	62	0	0	2	205	2	0	272
7:30 AM	0	0	0	0	0	1	5	0	0	106	0	0	1	250	2	0	365
7:45 AM	0	0	0	0	1	0	1	0	0	109	1	0	3	205	0	0	320
8:00 AM	1	0	0	0	0	0	1	0	1	142	0	0	3	257	1	0	406
8:15 AM	0	0	0	0	0	1	3	0	1	132	0	0	4	203	2	0	346
8:30 AM	1	0	1	0	0	0	2	0	1	123	0	0	3	228	0	0	359
8:45 AM	1	0	0	0	1	0	2	0	3	138	2	0	4	237	0	0	388
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	3	0	2	0	2	2	15	0	7	863	3	0	21	1708	7	0	2633
APPROACH %'s :	60.00%	0.00%	40.00%	0.00%	10.53%	10.53%	78.95%	0.00%	0.80%	98.85%	0.34%	0.00%	1.21%	98.39%	0.40%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	3	0	1	0	1	1	8	0	6	535	2	0	14	925	3	0	1499
PEAK HR FACTOR :	0.750	0.000	0.250	0.000	0.250	0.250	0.667	0.000	0.500	0.942	0.250	0.000	0.875	0.900	0.375	0.000	0.923
	0.500				0.625				0.949				0.902				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	3	0	5	0	0	0	0	0	2	256	1	1	3	163	0	1	435
4:15 PM	1	0	5	0	0	0	4	0	1	222	3	1	4	168	1	0	410
4:30 PM	3	0	6	0	0	0	2	0	1	215	1	0	6	174	2	0	410
4:45 PM	2	0	3	0	0	1	2	0	0	249	3	0	4	175	1	0	440
5:00 PM	4	0	4	0	0	0	7	0	4	221	2	0	4	164	0	0	410
5:15 PM	4	0	9	0	0	0	5	0	1	242	0	0	6	179	0	0	446
5:30 PM	1	0	0	0	0	0	1	0	1	252	1	0	1	189	0	0	446
5:45 PM	4	0	8	0	0	0	1	0	1	253	2	0	3	195	1	1	469
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	22	0	40	0	0	1	22	0	11	1910	13	2	31	1407	5	2	3466
APPROACH %'s :	35.48%	0.00%	64.52%	0.00%	0.00%	4.35%	95.65%	0.00%	0.57%	98.66%	0.67%	0.10%	2.15%	97.37%	0.35%	0.14%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	13	0	21	0	0	0	14	0	7	968	5	0	14	727	1	1	1771
PEAK HR FACTOR :	0.813	0.000	0.583	0.000	0.000	0.000	0.500	0.000	0.438	0.957	0.625	0.000	0.583	0.932	0.250	0.250	0.944
	0.654				0.500				0.957				0.929				

Prepared by National Data & Surveying Services

El Monte Ave & Valley Blvd

Peak Hour Turning Movement Count

ID: 23-020163-005
City: El Monte

Day: Tuesday
Date: 4/25/2023

PEAK HOURS

AM	08:00 AM - 09:00 AM
NOON	NONE
PM	05:00 PM - 06:00 PM

COUNT PERIODS

AM	7:00 AM - 09:00 AM
NOON	NONE
PM	4:00 PM - 06:00 PM

SOUTHBOUND (El Monte Ave)

AM	8	1	1	0	9	AM
NOON	0	0	0	0	0	NOON
PM	14	0	0	0	8	PM
	0	1	0	0		

EASTBOUND (Valley Blvd)

AM	NOON	PM	
936	0	754	
0	0	0	0
6	0	7	0
535	0	968	2
2	0	5	0

WESTBOUND (Valley Blvd)

PM	NOON	AM	
1	0	3	0
727	0	925	2
14	0	14	1
1	0	0	0
990	0	537	

NORTHBOUND (El Monte Ave)

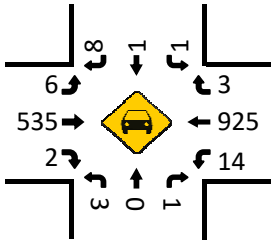
PM	19	0	13	0	21	PM
NOON	0	0	0	0	0	NOON
AM	17	0	3	0	1	AM
	0	0	1	0		

CONTROL

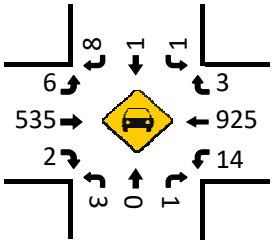
2-Way Stop (NB/SB)

TEV	1499	0	1771
	AM	NOON	PM
PHF	0.92		0.94

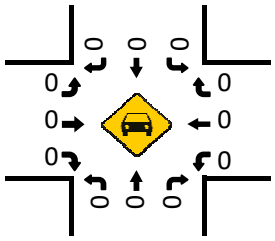
Totals (AM)



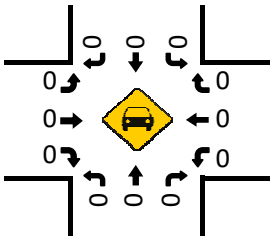
Totals (AM)



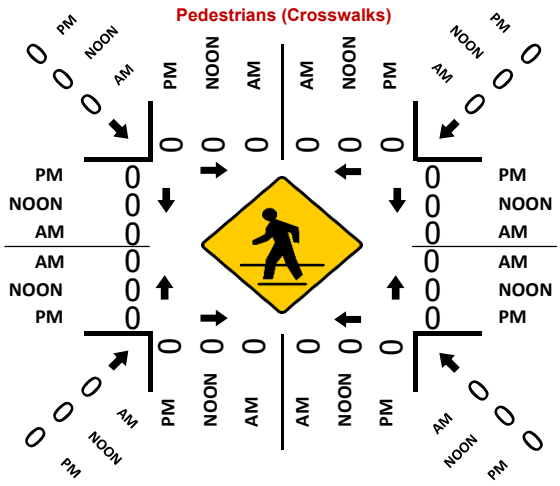
Totals (NOON)



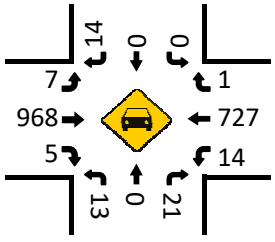
Totals (NOON)



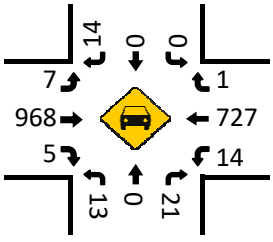
Pedestrians (Crosswalks)



Totals (PM)



Totals (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: I-10 WB Ramps & Valley Blvd
City: El Monte
Control: 1-Way Stop (SB)

Project ID: 23-020163-006
Date: 4/25/2023

Data - Totals

NS/EW Streets:	I-10 WB Ramps				I-10 WB Ramps				Valley Blvd				Valley Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	1	0	0	0	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	49	0	0	0	0	0	0	115	124	0	288
7:15 AM	0	0	0	0	0	0	35	0	0	0	0	0	0	191	159	0	385
7:30 AM	0	0	0	0	0	0	37	0	0	0	0	0	0	190	181	0	408
7:45 AM	0	0	0	0	0	0	64	0	0	0	0	0	0	221	134	0	419
8:00 AM	0	0	0	0	0	0	36	0	0	0	0	0	0	195	134	0	365
8:15 AM	0	0	0	0	0	0	38	0	0	0	0	0	0	193	118	0	349
8:30 AM	0	0	0	0	0	0	49	0	0	0	0	0	0	196	70	0	315
8:45 AM	0	0	0	0	0	0	56	0	0	0	0	0	0	223	72	0	351
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	364	0	0	0	0	0	0	1524	992	0	2880
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%					0.00%	60.57%	39.43%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	172	0	0	0	0	0	0	797	608	0	1577
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.672	0.000	0.000	0.000	0.000	0.000	0.000	0.902	0.840	0.000	0.941
					0.672								0.947				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	1	0	0	0	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	35	0	0	0	0	0	0	170	82	0	287
4:15 PM	0	0	0	0	0	0	37	0	0	0	0	0	0	161	96	0	294
4:30 PM	0	0	0	0	0	0	42	0	0	0	0	0	0	183	87	0	312
4:45 PM	0	0	0	0	0	0	45	0	0	0	0	0	0	175	73	0	293
5:00 PM	0	0	0	0	0	0	31	0	0	0	0	0	0	170	83	0	284
5:15 PM	0	0	0	0	0	0	31	0	0	0	0	0	0	165	93	0	289
5:30 PM	0	0	0	0	0	0	23	0	0	0	0	0	0	186	81	0	290
5:45 PM	0	0	0	0	0	0	36	0	0	0	0	0	0	159	82	0	277
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	280	0	0	0	0	0	0	1369	677	0	2326
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%					0.00%	66.91%	33.09%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	159	0	0	0	0	0	0	689	338	0	1186
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.883	0.000	0.000	0.000	0.000	0.000	0.000	0.941	0.880	0.000	0.950
					0.883								0.951				

Prepared by National Data & Surveying Services

I-10 WB Ramps & Valley Blvd

Peak Hour Turning Movement Count

ID: 23-020163-006
City: El Monte

Day: Tuesday
Date: 4/25/2023

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	7:00 AM - 09:00 AM
NONE	NONE
04:00 PM - 05:00 PM	4:00 PM - 06:00 PM

SOUTHBOUND (I-10 WB Ramps)

AM	172	0	0	0	608	AM
NOON	0	0	0	0	0	NOON
PM	159	0	0	0	338	PM

EASTBOUND (Valley Blvd)

AM	NOON	PM		
969	0	848		
0	0	0	0	
0	0	0	0	
0	0	0	0	
0	0	0	0	
AM	NOON	PM		

WESTBOUND (Valley Blvd)

	PM	NOON	AM
1	338	0	608
2	689	0	797
0	0	0	0
0	0	0	0
	0	0	0
	PM	NOON	AM

NORTHBOUND (I-10 WB Ramps)

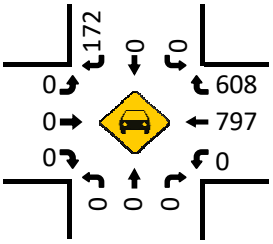
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

CONTROL

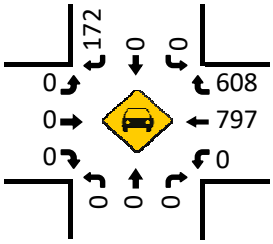
1-Way Stop (SB)

TEV	1577 AM	0 NOON	1186 PM
PHF	0.94		0.95

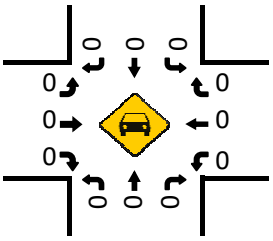
Totals (AM)



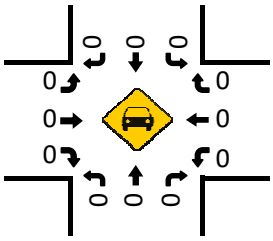
Totals (AM)



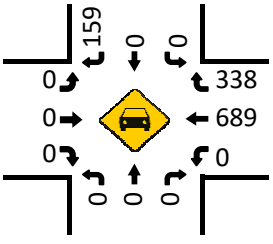
Totals (NOON)



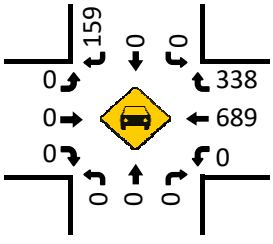
Totals (NOON)



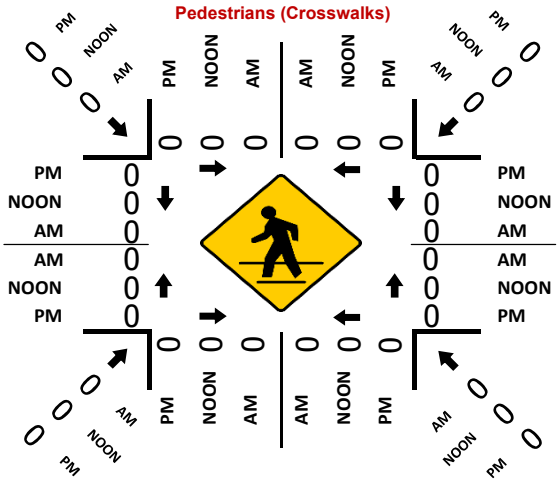
Totals (PM)



Totals (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services Intersection Turning Movement Count

Location: Peck Rd & I-10 WB Ramps
City: El Monte
Control: 1-Way Stop (EB)

Project ID: 23-020163-007
Date: 4/25/2023

Data - Totals

NS/EW Streets:	Peck Rd				Peck Rd				I-10 WB Ramps				I-10 WB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	2	1	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	81	116	0	0	0	23	0	0	0	0	0	220
7:15 AM	0	0	0	0	0	103	122	0	0	0	28	0	0	0	0	0	253
7:30 AM	0	0	0	0	0	192	141	0	0	0	38	0	0	0	0	0	371
7:45 AM	0	0	0	0	0	182	126	0	0	0	56	0	0	0	0	0	364
8:00 AM	0	0	0	0	0	175	108	0	0	0	64	0	0	0	0	0	347
8:15 AM	0	0	0	0	0	197	115	0	0	0	75	0	0	0	0	0	387
8:30 AM	0	0	0	0	0	154	93	0	0	0	79	0	0	0	0	0	326
8:45 AM	0	0	0	0	0	195	86	0	0	0	99	0	0	0	0	0	380
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	1279	907	0	0	0	462	0	0	0	0	0	2648
APPROACH %'s :					0.00%	58.51%	41.49%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	746	490	0	0	0	233	0	0	0	0	0	1469
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.947	0.869	0.000	0.000	0.000	0.777	0.000	0.000	0.000	0.000	0.000	0.949
						0.928					0.777						

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	2	1	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	176	134	0	0	0	36	0	0	0	0	0	346
4:15 PM	0	0	0	0	0	159	135	0	0	0	51	0	0	0	0	0	345
4:30 PM	0	0	0	0	0	159	117	0	0	0	38	0	0	0	0	0	314
4:45 PM	0	0	0	0	0	166	141	0	0	0	34	0	0	0	0	0	341
5:00 PM	0	0	0	0	0	166	136	0	0	0	39	0	0	0	0	0	341
5:15 PM	0	0	0	0	0	148	144	0	0	0	52	0	0	0	0	0	344
5:30 PM	0	0	0	0	0	179	121	0	0	0	40	0	0	0	0	0	340
5:45 PM	0	0	0	0	0	135	125	0	0	0	33	0	0	0	0	0	293
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	1288	1053	0	0	0	323	0	0	0	0	0	2664
APPROACH %'s :					0.00%	55.02%	44.98%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	659	542	0	0	0	165	0	0	0	0	0	1366
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.920	0.941	0.000	0.000	0.000	0.793	0.000	0.000	0.000	0.000	0.000	0.993
						0.978					0.793						

Prepared by National Data & Surveying Services

Peck Rd & I-10 WB Ramps

Peak Hour Turning Movement Count

ID: 23-020163-007
City: El Monte

Day: Tuesday
Date: 4/25/2023

PEAK HOURS		COUNT PERIODS
AM	07:30 AM - 08:30 AM	7:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:45 PM - 05:45 PM	4:00 PM - 06:00 PM

SOUTHBOUND (Peck Rd)

AM	490	746	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	542	659	0	0	0	PM
	1	2	0	0		

EASTBOUND (I-10 WB Ramps)

AM	NOON	PM	
490	0	542	⇦
0	0	0	↶ 0
0	0	0	↱ 0
0	0	0	→ 0
233	0	165	↴ 1
AM	NOON	PM	

WESTBOUND (I-10 WB Ramps)

PM	NOON	AM	
0	0	0	↰ 0
0	0	0	← 0
0	0	0	↩ 0
0	0	0	⇨
PM	NOON	AM	

CONTROL

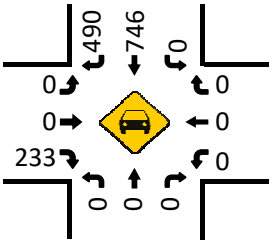
1-Way Stop (EB)

TEV	1469 AM	0 NOON	1366 PM
PHF	0.95		0.99

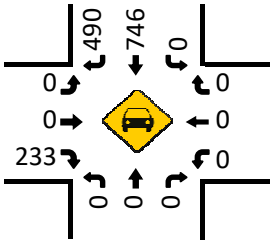
NORTHBOUND (Peck Rd)

	0	0	0	0		
PM	824	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	979	0	0	0	0	AM

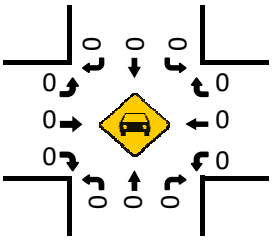
Totals (AM)



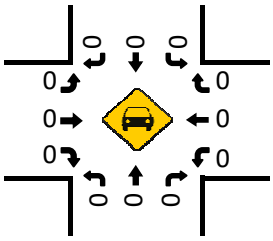
Totals (AM)



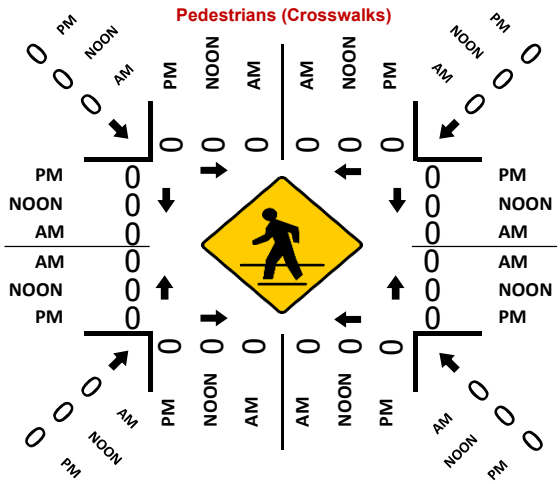
Totals (NOON)



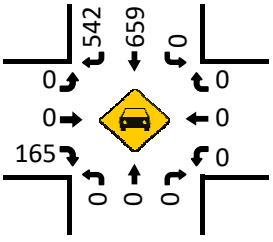
Totals (NOON)



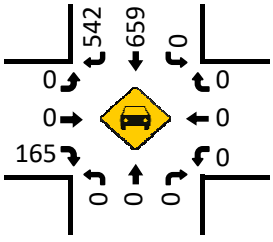
Pedestrians (Crosswalks)



Totals (PM)



Totals (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Garvey Ave/Cogswell Rd & Valley Blvd
City: El Monte
Control: Signalized

Project ID: 23-020163-001
Date: 4/25/2023

Data - Totals

NS/EW Streets:	Garvey Ave/Cogswell Rd					Garvey Ave/Cogswell Rd					Valley Blvd				Valley Blvd							
AM	NORTHBOUND					SOUTHBOUND					EASTBOUND				WESTBOUND				SOUTHBOUND2			
	1	2	1	0	0	1	2	1	0	0	1	2	0	0	1	2	0	0	0	0	0	
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	SU2	EL	ET	ER	EU	WL	WT	WR	WU	S2L2	S2T2	S2R2	TOTAL
7:00 AM	6	39	37	0	0	7	43	34	0	8	10	60	0	0	38	191	2	0	5	4	4	488
7:15 AM	4	50	49	0	0	5	55	37	0	11	13	97	2	2	48	264	2	0	3	11	4	657
7:30 AM	2	61	67	0	0	10	65	41	0	11	9	111	2	2	62	286	1	0	10	18	3	761
7:45 AM	7	62	67	0	0	12	97	49	0	13	13	132	0	3	69	246	2	0	8	20	3	803
8:00 AM	6	64	72	0	0	18	92	41	0	10	22	127	0	3	60	220	4	0	7	21	6	773
8:15 AM	10	73	67	0	0	11	81	32	0	9	23	141	0	0	65	225	9	0	11	20	4	781
8:30 AM	8	56	59	0	0	9	63	19	0	11	24	144	3	2	71	199	7	0	6	14	6	701
8:45 AM	3	42	52	0	0	13	72	36	0	7	17	121	2	2	64	206	10	0	3	19	4	673
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	SU2	EL	ET	ER	EU	WL	WT	WR	WU	S2L2	S2T2	S2R2	TOTAL
TOTAL VOLUMES :	46	447	470	0	0	85	568	289	0	80	131	933	9	14	477	1837	37	0	53	127	34	5637
APPROACH %'s :	4.78%	46.42%	48.81%	0.00%	0.00%	8.32%	55.58%	28.28%	0.00%	7.83%	12.05%	85.83%	0.83%	1.29%	20.29%	78.14%	1.57%	0.00%	24.77%	59.35%	15.89%	
PEAK HR :	07:30 AM - 08:30 AM																					TOTAL
PEAK HR VOL :	25	260	273	0	0	51	335	163	0	43	67	511	2	8	256	977	16	0	36	79	16	3118
PEAK HR FACTOR :	0.625	0.890	0.948	0.000	0.000	0.708	0.863	0.832	0.000	0.827	0.728	0.906	0.250	0.667	0.928	0.854	0.444	0.000	0.818	0.940	0.667	0.971
			0.930					0.865					0.896				0.895				0.936		

PM	NORTHBOUND					SOUTHBOUND					EASTBOUND				WESTBOUND							
	1	2	1	0	0	1	2	1	0	0	1	2	0	0	1	2	0	0	0	0	0	
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	SU2	EL	ET	ER	EU	WL	WT	WR	WU	S2L2	S2T2	S2R2	TOTAL
4:00 PM	8	168	82	0	0	17	72	35	0	16	42	159	8	0	51	164	5	0	2	17	6	852
4:15 PM	8	149	83	0	1	7	50	37	0	12	38	229	4	1	54	161	10	0	3	10	1	858
4:30 PM	7	172	72	0	0	5	61	29	0	11	33	194	4	2	47	169	9	0	0	17	7	839
4:45 PM	8	173	84	0	0	13	55	34	0	14	45	169	2	1	62	152	11	0	0	11	4	838
5:00 PM	6	166	76	0	0	11	58	30	0	13	51	197	5	1	41	151	9	0	3	14	6	838
5:15 PM	5	175	89	0	0	10	65	26	0	9	44	201	4	1	51	171	7	0	5	15	3	881
5:30 PM	7	158	78	0	0	14	61	29	0	10	34	187	7	2	55	164	7	0	3	16	7	839
5:45 PM	6	159	88	0	0	11	45	29	0	14	59	209	5	1	53	147	5	0	3	11	5	850
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	SU2	EL	ET	ER	EU	WL	WT	WR	WU	S2L2	S2T2	S2R2	TOTAL
TOTAL VOLUMES :	55	1320	652	0	1	88	467	249	0	99	346	1545	39	9	414	1279	63	0	19	111	39	6795
APPROACH %'s :	2.71%	65.09%	32.15%	0.00%	0.05%	9.75%	51.72%	27.57%	0.00%	10.96%	17.84%	79.68%	2.01%	0.46%	23.58%	72.84%	3.59%	0.00%	11.24%	65.68%	23.08%	
PEAK HR :	05:00 PM - 06:00 PM																					TOTAL
PEAK HR VOL :	24	658	331	0	0	46	229	114	0	46	188	794	21	5	200	633	28	0	14	56	21	3408
PEAK HR FACTOR :	0.857	0.940	0.930	0.000	0.000	0.821	0.881	0.950	0.000	0.821	0.797	0.950	0.750	0.625	0.909	0.925	0.778	0.000	0.700	0.875	0.750	0.967
			0.941					0.954					0.920				0.940				0.875	

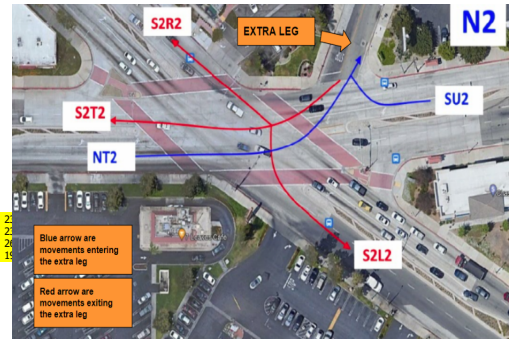
Explanation for extra leg movements

Movements entering the extra leg

NT2	Movements coming from EB on Garvey Ave entering into the extra leg (Cogswell Rd)
SU2	Movements coming from WB on Garvey Ave entering into the extra leg (Cogswell Rd)

Movements exiting the extra leg

S2L2	Movements exiting from extra leg (Cogswell Rd) entering into Valley Blvd heading SB
S2T2	Movements exiting from extra leg (Cogswell Rd) entering into Valley Blvd heading WB
S2R2	Movements exiting from extra leg (Cogswell Rd) entering into Garvey Ave heading NB



Prepared by National Data & Surveying Services

Garvey Ave/Cogswell Rd & Valley Blvd

Peak Hour Turning Movement Count

ID: 23-020163-001
City: El Monte

Day: Tuesday
Date: 4/25/2023

PEAK HOURS

AM	07:30 AM - 08:30 AM
NOON	NONE
PM	05:00 PM - 06:00 PM

COUNT PERIODS

AM	7:00 AM - 09:00 AM
NOON	NONE
PM	4:00 PM - 06:00 PM

SOUTHBOUND — Garvey Ave/Cogswell Rd

AM	163	335	51	0	343	AM
NOON	0	0	0	0	0	NOON
PM	114	229	46	0	874	PM
	1	2	1	0		

EASTBOUND — Valley Blvd

AM	NOON	PM	
1173	0	776	
8	0	5	0
67	0	188	1
511	0	794	2
2	0	21	0
AM	NOON	PM	

WESTBOUND — Valley Blvd

PM	NOON	AM	
28	0	16	0
633	0	977	2
200	0	256	1
0	0	0	0
1171	0	835	
PM	NOON	AM	

CONTROL

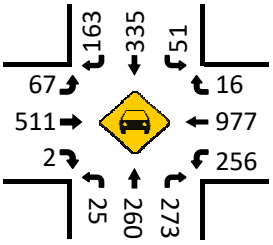
Signalized

TEV	2944	0	3271
	AM	NOON	PM
PHF	0.97		0.97

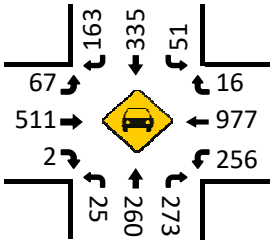
PM	450	0	24	658	331	PM
NOON	0	0	0	0	0	NOON
AM	593	0	25	260	273	AM
		0	1	2	1	

NORTHBOUND — Garvey Ave/Cogswell Rd

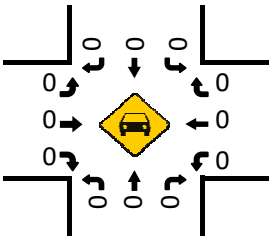
Totals (AM)



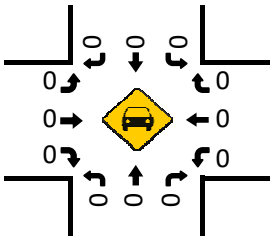
Totals (AM)



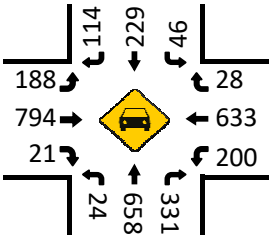
Totals (NOON)



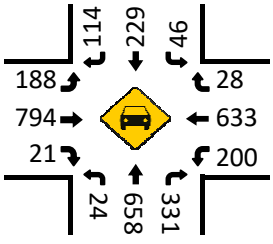
Totals (NOON)



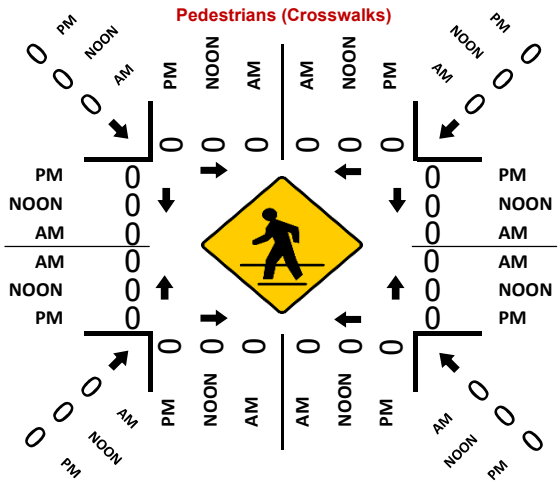
Totals (PM)



Totals (PM)



Pedestrians (Crosswalks)



Appendix B: PEQI Scoring Criteria



Pedestrian Environmental Quality Index (P.E.Q.I.)

The PEQI is a quantitative observational tool that was originally developed in 2008 by the San Francisco Department of Public Health to assess the quality and safety of the physical pedestrian environment and inform pedestrian planning needs. Beyond assisting planning, PEQI campaigns can help build social capital and political visibility for neighborhoods and communities. The PEQI has two survey forms and gathers data in six categories: intersection safety, traffic, street design, land use, perceived safety and perceived walkability.

Since the urban fabric of San Francisco differs greatly from Los Angeles, UCLA COEH needed to adapt the original PEQI to better fit Los Angeles street conditions. The survey has also been translated into Spanish. To date, UCLA has implemented the PEQI with four Los Angeles community groups. Two of these groups have already lobbied for and received the safety improvements they sought; the other two groups are currently creating their advocacy campaigns using the findings from their PEQI data. See below for a summary of our work with an East Los Angeles community group, Proyecto Pastoral.

The **paper version** offers a low-tech option to the smart phone application. Everything needed to implement the **paper version** of the PEQI is below.

1. PEQI Full Protocol UCLA v2 (pdf)
2. Training Slides in English
2. Training Slides in Spanish
3. Intersection Form in English (pdf)
3. Intersection Form in Spanish (pdf)
4. Segment Form in English (pdf)
4. Segment Form in Spanish (pdf)
5. Intersection Form Coder's Version (pdf)
6. Segment Form Coder's Version (pdf)
7. Data Entry Spreadsheet with examples
8. Intersection Training Quiz
8. Intersection Training Quiz
9. Cheatsheet Field Guide in English
9. Cheatsheet Field Guide in Spanish

Please direct any questions about the UCLA PEQI to:
Christina Batteate cbatteate@ucla.edu
Photo credits: Christina Batteate and Elina Nasser

WALKABILITY

& PEDESTRIAN SAFETY IN BOYLE HEIGHTS

Using the Pedestrian Environmental Quality Index (PEQI)

History of Camino Seguro

In February 1999, residents of the Pico-Aliso community in Boyle Heights joined together with Proyecto Pastoral to create Camino Seguro ("Safe-Passage" in Spanish) to protect the safety of their children. Camino Seguro arose to combat the gang-violence crisis in Boyle Heights. People were afraid to go out on the street as shootings victimized adults, youth and children alike. The community came together to stand at street corners, schools and churches, held Peace Walks, met with elected officials and law enforcement asking for a response to the crisis. Today, gang-violence has subsided in Boyle Heights but residents are aware that if they don't maintain their efforts, violence can break out again. Camino Seguro has evolved with the community and in addition to providing escorts to children



Piloting the PEQI with community-members

WALKABILITY

Using the Pedestrian Environmental Quality Index (PEQI) for walkability and pedestrian safety in Boyle Heights

on their way to school and to cross dangerous streets, the program has expanded to address issues of environmental health, youth drug and alcohol abuse, preventing gang-activity and relieving post-traumatic stress from living with the many years of violence.

Community-Based Partcipatory Research

In 2009 Proyecto Pastoral teamed up with UCLA's Center for Occupational and Environmental Health (UCLA COEH) with support from The California Endowment to create the academic-community partnership ACCION. This partnership allowed UCLA COEH to fulfill its mandate to provide technical assistance to Los Angeles-area communities and offered Proyecto Pastoral the opportunity to develop their capacity to organize for positive environmental change in their service area.

At the outset of the partnership, focus groups determined that pedestrian safety and walkability were a priority for Proyecto Pastoral members. Walkability is a term used to describe how well a neighborhood lends itself to walking as a means of transportation for residents. It is often expressed as a function of sidewalk and roadway design and presence of pedestrian amenities such as crosswalks, lights and signs. Walkability is an important factor of the built environment that can have long-term impacts on health depending on its presence or absence. Walkable communities promote physical activity and lower-risk for obesity and other chronic diseases and also confer protection to pedestrians from physical harm.

Camino Seguro members' perceptions about the poor pedestrian safety and walkability conditions in their neighborhood were supported by statistical data collected by UCLA COEH. Boyle Heights' (10%) exceeds the Los Angeles City average (7%) for percent of collisions that involved pedestrians. Seventy-five percent of those collisions occurred in the daytime and thirty-nine percent injured a child or minor under 19 years of age. Furthermore, the intersection at 4th St and Gless St, identified by members as very dangerous, was found to be the third most dangerous intersection in Boyle Heights.



Community members collecting PEQI data

To assist Camingo Seguro in addressing walkability, UCLA COEH introduced and trained the members in how to implement the Pedestrian Environmental Quality Index (PEQI). The PEQI is a quantitative observational tool that allows users to assess pedestrian safety and needs, prioritize planning for future improvements and build social capital. The PEQI has distinct survey forms for intersections and street segments and gathers data in six categories: intersection safety, traffic, street design, land use, perceived safety and perceived walkability. All categories evaluated in the PEQI are based in current scientific research and have been reviewed by international experts on walkability. UCLA COEH adapted this tool specifically for use in Boyle Heights.

To implement the PEQI involved a time-consuming process and strong commitment from Camino Seguro members. Members chose the geographic area to be evaluated (see Figure 1). Members then were trained how to collect data using the survey forms. Following the

Collision Statistics	LA City	Boyle Heights
Total collisions	364,029	5,600
Pedestrian/vehicle collisions	25,565	562
% of pedestrians in collisions	7%	10%
# pedestrians in collisions	28,724	634
# pedestrians per collision	1.12	1.13
Pedestrian fatalities	664	12

Source: Los Angeles Department of Transportation 1994-2000

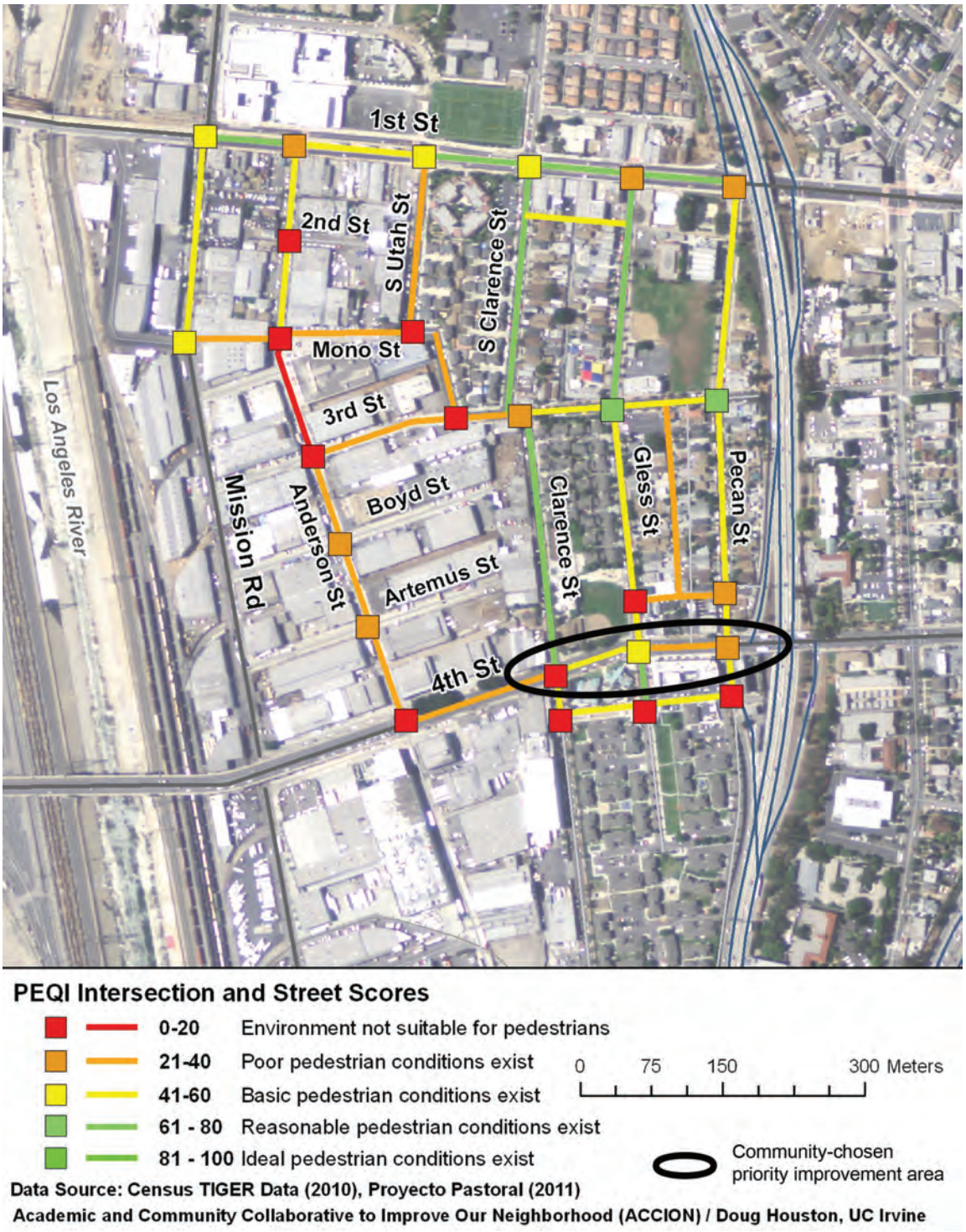


Figure 1 **Proyecto Pastoral PEQI results with priority area for improvement circled in black**

trainings, members took to the streets filling out surveys until their area was covered. Once the street surveys were complete, UCLA COEH calculated the street and intersection scores. Each category in the PEQI receives weighted scores based on their contribution to pedestrian safety and walkability. The final scores of the streets and are reflected in Figure 1.

The Path Forward

Once all the PEQI results were in, UCLA COEH and Proyecto members met to discuss the data and to decide where to focus initial improvements. Members were encouraged that the scientific data reflected their perceptions of problem areas and were proud to see their hard work validated in the maps. Using members on-the-ground experience,

Categories evaluated by the PEQI

Intersection Safety
- Crosswalks
- Countdown Signal
- Traffic Signal
- Crossing Speed
- No Turn on Red
- Traffic Calming Features
- Pedestrian Signs

Traffic
- Number of Lanes
- Two-Way Traffic
- Vehicle Speed
- Traffic Volume
- Traffic Calming Feature

Street Design
- Sidewalk Width
- Sidewalk surface
- Sidewalk obstructions
- Presence of Curb
- Driveway Cuts
- Trees, Gardens
- Public Seating
- Buffers

Perceived Safety
- Illegal Graffiti
- Litter
- Pedestrian-Scale Light
- Construction Sites
- Abandoned Buildings

Land Use
- Public Art
- Historic Site
- Retail

Perceived Walkability
- Visual Attractiveness
- Feeling of Safety
- Smells
- Noise
- Overall Walkability



Community members reviewing pedestrian statistics maps

Proyecto Pastoral member recommendations for improvement on 4th Street segment

1. Lights embedded in the crosswalk for increased pedestrian visibility
2. Installation of a crosswalk mid-block at 4th Street and Clarence street
3. Give more time to cross at crosswalk at 4th Street and Gless street
4. Enforce speed limit at 25 mph

UCLA COEH research and the community-collected PEQI results, members decided that 4th Street between the 101 freeway and Clarence street were in the most dire need of immediate improvement (see black circle in Figure 1). Through a consensus building and voting process members decided on the design recommendations in the chart below to make the 4th St segment safer for pedestrians.

Due to nearby Dolores Mission Church, School and Youth Technology Center an ideal means of funding these improvements is through collaboration with the local City Council District 14 office and Safe Routes to School funding. While Proyecto Pastoral will take the lead in applying for the Safe Routes to School funds, they recognize that longer-term changes will need to occur in their area to improve safety. Longer term change will focus on cleaning up the area's alleyways that are hot-spots for gang-activity and advocating for land use policy change that would mitigate pollution from industrial uses adjacent to homes and schools. With the continued commitment of Camino Seguro members, Boyle Heights is on its way to achieving a more healthy and safe environment for all.

This work was made possible by:



The California Endowment

Proyecto Pastoral at Dolores Mission

COEH Center for Occupational & Environmental Health

The University of California Let There Be Light UCLA

For more information visit www.coeh.ucla.edu or www.proyectopastoral.org

Pedestrian Environmental Quality Index: Los Angeles
Toolkit for Implementation

PEQI Full Protocol UCLA v2 Table of Contents

Glossary of key terms	This lists the terminology used in the PEQI assessment and training, along with definitions.	Pg 2-5
Data collection protocol	This explains how to use the PEQI instrument in a new study area. It includes a complete step-by-step description of how to scope and plan a new project.	Pg 5-13
PEQI data collection Intersection Form	This is the form used to actually perform data collection. (available in English & Spanish and should be downloaded individually from the website below)	Pg 14
PEQI data collection Segment Form	Same as above	Pg 15-17
PEQI Intersection form—coder's versions	These versions of the forms include the numeric values that are entered during data entry. They are a guide for the person performing data entry.	Pg 18
PEQI Segment form—coder's versions	Same as above	Pg 19-21
Formulas to calculate PEQI scores	This lists the formulas we have used to calculate the PEQI index. It also includes the weights you need to calculate the scores.	Pg 22-26
PEQI sample Min and Max scores	These show you how to get the Minimum and Maximum scores to be used to calculate final scores. If you do not modify the PEQI in any way you can use these Min and Max scores as your own.	Pg 27-33

Additional Items Needed for the PEQI

can be downloaded from: http://www.coeh.ucla.edu/node/127

Data entry sheet	This MS Excel spreadsheet can be used to enter data from a PEQI data collection, so it can be analyzed.	see website
Training slides	This PowerPoint presentation can be used to train new PEQI data collection volunteers. (English & Spanish)	see website
Illustrated Guide —Cheatsheet"	This handout is useful during the training and for users while collecting data. (English & Spanish)	see website
Training Quizzes	These PowerPoint Intersection & Segment quizzes can help to refresh or reinforce your trainings.	see website
Original S.F. PEQI training guide & documentation	Document originally produced by the San Francisco Dept of Public Health to accompany the original PEQI.	See website
S.F. PEQI Summary	This is a brief description of the PEQI, from the San Francisco Department of Public Health, that can be useful for outreach.	See website

Glossary of Terms

Term	Definition
abandoned buildings	A building which appears to be uninhabited and uncared for, often with boarded windows and/or a temporary chain-link fence surrounding its lot.
additional pedestrian signage	any sign about pedestrians
bike lanes	A designated place for bikes to ride on the street.
bike racks	A designated place for bikes to park, usually a metal U-shaped object bolted to the sidewalk.
buffer	A distance of 2-3 feet between the pedestrian sidewalk and moving motor vehicle traffic. Often this is a grassy median, parallel street parking, and/or a bike lane.
bulbouts	Where the curb and sidewalk are extended into the street at an intersection in order to reduce the distance pedestrians have to cross (see picture).
chicanes	A type of traffic calming feature which creates a serpentine path down the street, slowing traffic (see photo).
construction sites	Anywhere that construction is impacting the quality of being a pedestrian on the street. May be on the street or sidewalk itself, or a nearby building/lot.
crossing speed	How fast a pedestrian must be moving in order to cross the intersection in the allowed time.
crossing time	The time pedestrians are allowed to cross the intersection by the signal.
Crosswalk	a designated place for pedestrians to safely cross the street, usually marked on the street surface in using paint
crosswalk scramble	A special type of signal where motor traffic stops in every direction while pedestrian traffic is allowed to go in every direction at once.
curb cuts	Where pedestrians exit the sidewalk to cross the street at an intersection, a curb cut is a part of the curb shaped like a ramp that allows wheelchair access.
curbs	A part of the street hardscape preventing cars from driving from the street onto the pedestrian areas.
drains & dips	In this case, any imperfection in the street surface which forces motor traffic to slow down. Particularly storm drains.
driveway cuts	Where the curb is broken in order to allow traffic to pass into and out of driveways

illegal graffiti	Graffiti is distinct from art (usually) because of its aesthetic qualities; it is informal and illegal.
Intersection	place where two streets come together.
Intersection identifiers	Unique identification numbers (or letters) used to identify each intersection in this PEQI study.
intersection length	The distance from one curb to the other across an intersection.
ladder crosswalks (aka zebra-stripe crosswalks)	Crosswalks with large stripes painted in them.
litter	Trash on the street and sidewalk.
major graffiti	Major graffiti includes large illegal graffiti, either mural-style or gang-style or otherwise.
margin	The part of the street hardscape in between the sidewalk and the motor vehicle area.
medians	A strip of land, usually landscaped, in between the two directions of traffic on a street.
mini-circles	A type of intersection where motor traffic moves around a small circle.
minor graffiti	Minor graffiti includes very small "tagging" on signs, posts, walls, and newspaper stands. It also includes graffiti stickers and small pieces of spray-painted graffiti.
no turn on red signs	A sign indicating that it is not legal to make a right-turn on a red stoplight at this intersection.
partial closures	Where motor traffic is prohibited from driving on part of the street segment.
pavement treatments	A different texture or color or material in the pavement at pedestrian crossing areas, designed to be aesthetically pleasing and hilight the safe area for crossing.
pedestrian	a person who is on foot or is using a wheelchair to move down the street.
pedestrian refuges	A place where pedestrians can safely wait to cross all or part of a street. Often these are place on medians at large streets.
pedestrian signal	part of a stop light that tells pedestrians when they have the right-of-way
pedestrian-scale street lighting	Street lighting that illuminates the pedestrian areas of the street (does not include the large overhead lights that are intended to illuminate the motor vehicle part of the street).
perceived walkability	Your overall impression of how much the physical environment supports and encourages walking on this street segment.

permanent sidwalk obstruction	Any obstruction which cannot be removed readily, such as a large pole or fence.
planters/gardens	In this case, any well-tended landscaping should be counted as a garden or planter.
public art/historical sites	Any attractive public artwork, fountain, historical site, or historic building on this street segment.
public seating	A bench or other seating designed to be used by the public, including bus stop benches.
right-of-way	Laws and conventions governing who has precidence, or the right to proceed first through traffic lights and other traffic settings.
roundabouts	A type of intersection where motor traffic moves around a large circle.
rumble strips	A pavement treatment which makes noise when it's driven upon, alerting motorists to be aware.
Segment, or street segment -	this is the part of a street in between two intersections.
semi-diverters	Barriers preventing the movement of motor traffic in certain directions only; for example bollards which prevent a right turn at an intersection.
sidewalk	The part of the street hardscape that is designed for pedestrian use.
sidewalk impedement	Anything in the surface of the sidewalk that might obstruct a pedestrian's smooth motion down a sidewalk or pose a tripping hazard.
sidewalk obstruction or large sidwalk obstruction	any object which reduces the width of the sidewalk so that two people could not walk side-by-side past it, or that reduces the overhead clearance so that someone would have to duck to pass under it.
sidewalk surface condition	The smoothness of the surface of the sidewalk.
signal	traffic light
speed enforcements	Any sign or other special reminder/enforcement of the speed limit.
speed humps	A bump or hump in the street designed to slow motor vehicles down.
speed limit	The maximum allowed speed on this street.
speed tables	A sidewalk which is built on top of a wide speed bump.
stop light	The electronic signal directing traffic at an intersection; always includes signals for motor traffic. May also include signals directing pedestrian traffic.

stop signs	A sign indicating that motor traffic must come to a stop at an intersection.
storefront/retail use	Any retail establishment whose entrance is on the street segment.
Street segment identifiers	Unique identification numbers (or letters) used to identify each street segments in this PEQI study.
stride length	The number of feet in each of a person's steps.
temporary sidewalk obstruction	Any obstruction which could be removed easily, such as a car, trees and shrubs, or temporary construction.
traffic calming feature	any street feature which slows the speed of traffic, increases dirver awearenes, increases pedestrian visibility, or provides extra safety for pedestrians.
two-way traffic	Traffic that moves in two directions on the street (as opposed to one-way traffic)
vehicle lanes	Lanes are designated to keep motor traffic orderly. They do not need to be painted on the street to be counted. Do not count dedicated turning lanes.
visually attractive	Your overall impression of how visually attractive the street segment is.
Walkability	the physical environment's ability to support and encourage walking.
width of sidewalk	The measured width of the sidewalk in feet and inches. It should be measured at the middle of the block, not at the intersections where it is often much wider.

Data collection protocol

This document explains how to collect the PEQI instrument in a new study area. It includes a complete step-by-step description of how to scope and plan a new project.

Introduction to the PEQI instrument
What it is and what it can do for your community.

The Pedestrian Environmental Quality Index (or "PEQI") is a survey of the street environment from the perspective of pedestrians. This survey allows a community to collect specific data about the elements of the physical environment that determine "walkability" of their neighborhood. It's based on trained observers who fill out a set of specific questions about the elements they see on each block and intersection in your study.

This information can be aggregated to produce an index of walkability, known as the PEQI. Some examples of the data that are captured are displayed on a map and shown below.

Data about walkability can be used to identify priority areas for improving the walkability of an area. Either the individual data elements or the index, or both together, can be used to show what elements and what specific streets/intersections need the most help.

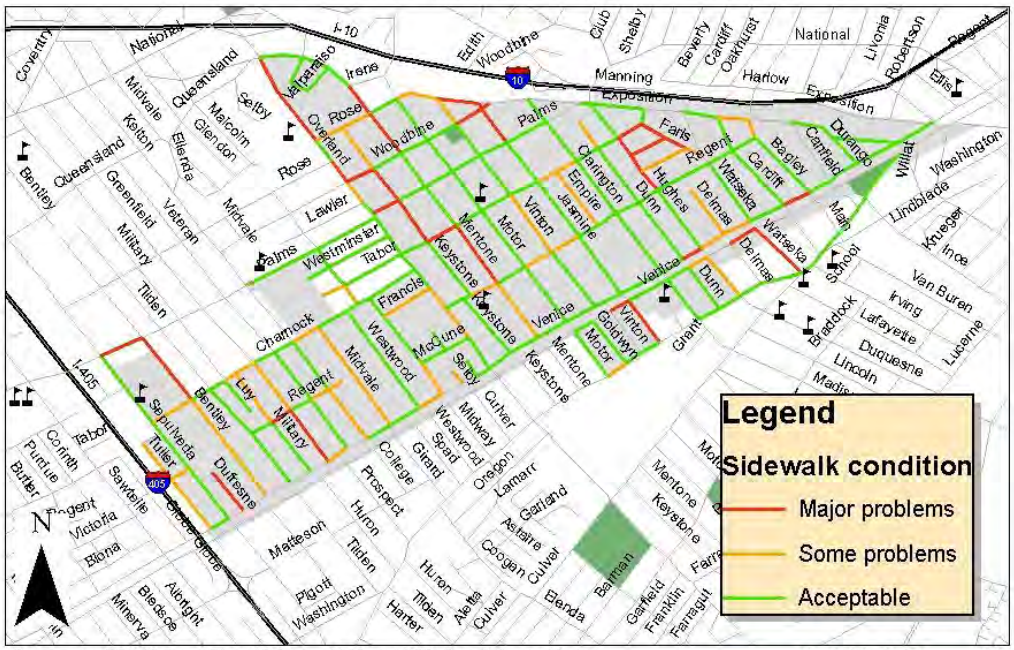
The PEQI is designed to be collected by volunteer data collectors. This toolkit includes a training to instruct data collectors in how to fill out each of the items on the form on each block and intersection in your study area. It also includes the form itself.

PEQI was developed in 2008 by the San Francisco Department of Public Health. The original survey instrument and materials about its development are available at their website: http://www.sfphes.org/HIA_Tools_PEQI.htm

The PEQI was modified for use in Los Angeles by Malia Jones, MPH. Key changes were made to the original instrument in order to make it applicable to the Los Angeles Environment.

Sidewalk Condition

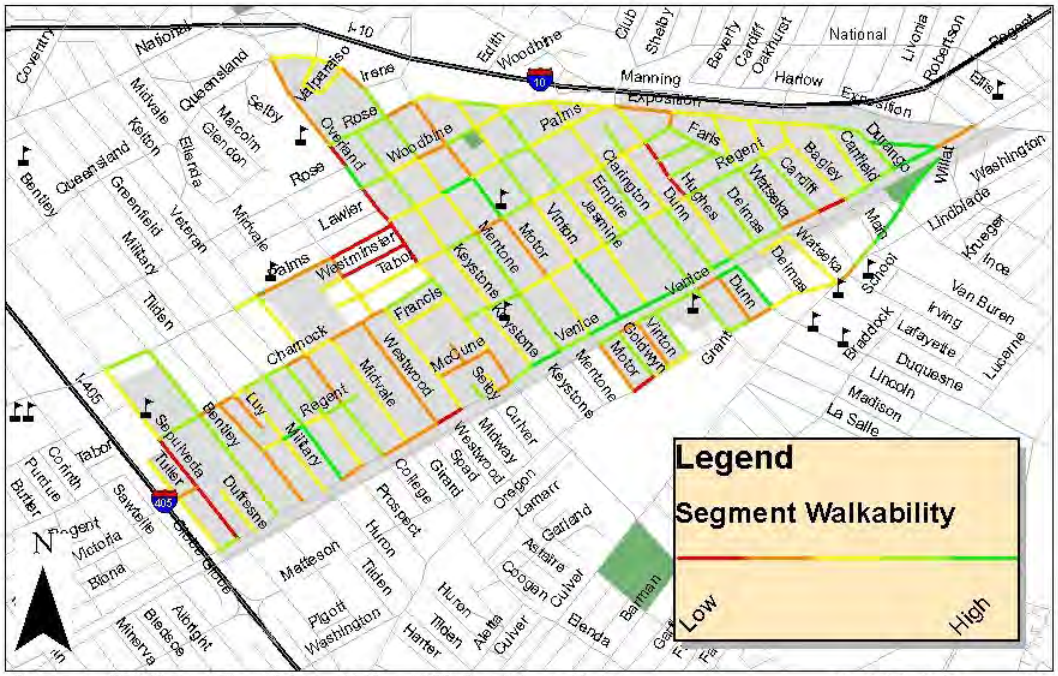
Pedestrian Environmental Quality Assessment, 2009



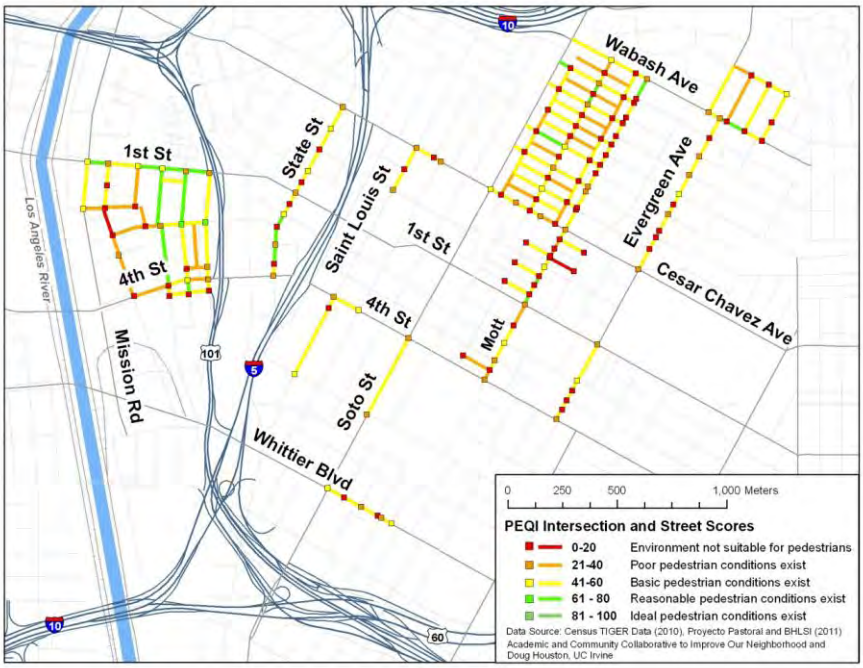
Data source: ESRI Tigerline Files, US Census 2000, and PEQI Data Collection Project
Map created by Malia Jones

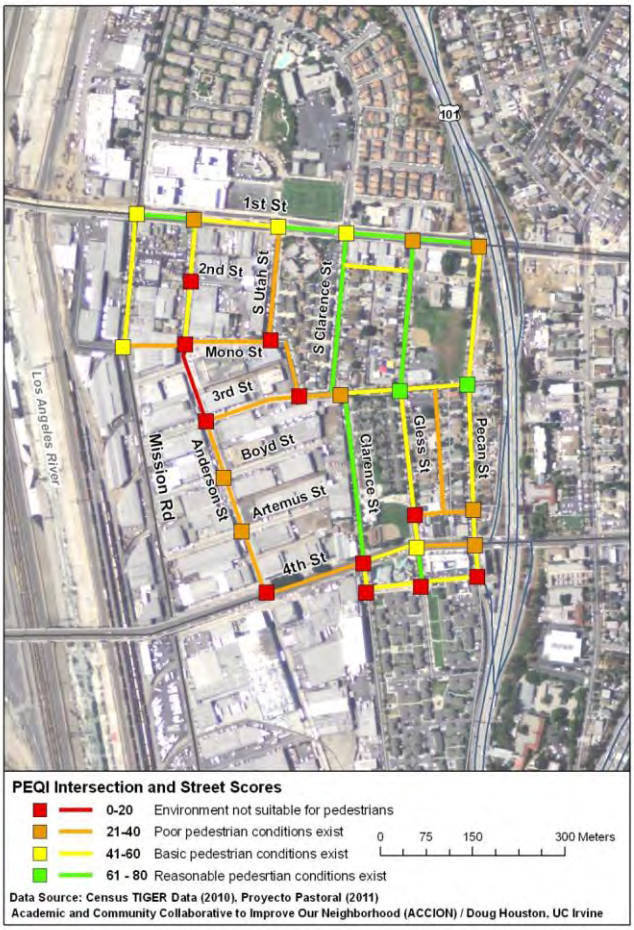
CJ Walkability Index--Segments

Pedestrian Environmental Quality Assessment, 2009



Data source: ESRI Tigerline Files, US Census 2000, and PEQI Data Collection Project
Map created by Malia Jones


Wabash Ave
1st St
State St
Saint Louis St
1st St
Evergreen Ave
4th St
Cesar Chavez Ave
4th St
Mott
Mission Rd
Soto St
Whittier Blvd
Los Angeles River
10
101
5
60
0 250 500 1,000 Meters
PEQI Intersection and Street Scores
0-20 Environment not suitable for pedestrians
21-40 Poor pedestrian conditions exist
41-60 Basic pedestrian conditions exist
61 - 80 Reasonable pedestrian conditions exist
81 - 100 Ideal pedestrian conditions exist
Data Source: Census TIGER Data (2010), Proyecto Pastoral and BHLSI (2011)
Academic and Community Collaborative to Improve Our Neighborhood and Doug Houston, UC Irvine


101
1st St
2nd St
S Utah St
S Clarence St
Mono St
3rd St
Boyd St
Anderson St
Mission Rd
Los Angeles River
Artemus St
4th St
Clarence St
Gless St
Pecan St
PEQI Intersection and Street Scores
0-20 Environment not suitable for pedestrians
21-40 Poor pedestrian conditions exist
41-60 Basic pedestrian conditions exist
61 - 80 Reasonable pedesrtian conditions exist
0 75 150 300 Meters
Data Source: Census TIGER Data (2010), Proyecto Pastoral (2011)
Academic and Community Collaborative to Improve Our Neighborhood (ACCION) / Doug Houston, UC Irvine

Step 1. Scoping
What is the area we will study?

First thing, you should go out onto a nearby block with the PEQI form and a pencil and try to complete it. This will give you a very good sense of what is involved with the form and what you will need.

Once you have a sense of what is on the form, the first step in performing a PEQI assessment in your neighborhood is to identify the area of study—that is, what blocks and intersections will we need to capture data about? When deciding what area to include in your assessment, think about the following:

- What areas do key stakeholders want data about? What are our priority areas? What areas are most amenable to change?
- How many volunteers will I have? How much time will they have to give?
- How much time do I have to spend organizing the project?

The PEQI is best collected by teams of at least 2 volunteers working together. Each team can probably collect about 1/2 linear miles of street in one data collection session, lasting between 2 and 4 hours. So if you decide to capture 3 linear miles of street, you will need to have 12 volunteers at your data collection event.

3 miles / ½ miles per team = 6 teams of at least 2 people = 12 people

Mark out the study area on a map. It can be helpful to draw on the map what areas you will assign to each data collection team to give you a sense of how many volunteers to recruit.

Step 2. Tailoring the survey
What is unique to my area?

In this step, talk with your stakeholders to learn what walkability means to them in your study area. Are there specific problems they are concerned about? For example, in a recent project in Carson, CA, residents were concerned about whether pedestrians had enough time to cross wide streets.

Read through the PEQI forms to see if these important areas are captured. If they are not, you may want to modify the form to include new elements. Ask additional questions of your volunteers. For example, in Boyle Heights, we asked volunteers to note the number of idling trucks they passed as they walked down each block. Each new question should ask about ONLY ONE thing—don't bunch multiple ideas into one question. It should have specific, well-defined answers printed on the form to make it as simple as possible for your data collectors to answer. It's well worth pilot testing your new questions on a few people to make sure they are easy to understand and answer.

Don't add too many items or your data collectors will get tired and be unable to finish.

We do not recommend deleting items. This could lead to a situation where you can't use the formulas for calculating the indexes because you did not collect some parts of the formulas.

Step 3. Planning the data collection

Next you will need to plan your volunteer training and data collection event.

Logistics
You will need to print enough PEQI forms to have one for every intersection and segment in your study. The PEQI form is divided into two parts. There is one part for each intersection and a second part for each street segment. The segment form can be completed once for *each side* of the street *OR* once for the *worse side* of the segment. We recommend that you print the forms on different colored paper to help your volunteers keep them separated. Note that you will need twice as many street segment forms as you have street segments, if you choose to evaluate *both sides* of the segment.

In addition to forms, each team will also need:

- 1 clipboard
- Pencils
- 1 tape measure, at least 12 feet long
- 1 stop watch
- Nametags

Training takes two hours. Data collection usually takes between 2-4 hours for each ½ mile segment (including the intersections). We have performed training from 10 am – 12pm, followed by a break and lunch, followed by the data collection event in the afternoon. This works fairly well. We have also conducted an evening training, followed by morning data collection. It is important to conduct data collection soon after your training, to make sure your volunteers remember how to fill out the forms.

You may want to consider the liability situation of your study. When the first Neighborhood Council (NC) project was completed in 2009, NC events were covered by the City of Los Angeles' liability policy. Your situation might be different.

Assigning your study area to teams
It is extremely important that your data collectors accurately identify the street segment or intersection they are assessing on each and every form they fill out. In fact this is the most important thing they will do. If they don't identify them well, you'll get a pile of forms back that cannot be attached to individual streets. This is useless.

How do you identify segments and intersections? Label each street segment in your study area with its own unique number, and each intersection with its own unique letter. It is helpful to write them on a map.

Assign a set of segments and intersections to each team. You should do this in advance of the training, because it takes some time to complete. Try to divide the study area evenly across your teams according to how much distance they will have to cover. For example:

Team #	Intersections	Segments
1	a, b, c, d	1, 2, 3, 4, 5
2	e, f, g, h	6, 7, 8
3	i, j, k	9, 10
4	l, m, n, o, p	11, 12, 13, 14, 15

Prepare a map for each team indicating which street segments and intersections they will be responsible for. You may even want to fill in the segment and intersection ID's on the forms they will use, and include these in a packet that you will give to the team.

Step 4. Training your volunteers

Use the included PowerPoint presentation to train your volunteers. The first section is about walkability and why it is important for health. The second section, which is much longer, goes through each item on the PEQI form one at a time, providing instructions about how to answer the questions. At the end of training, you should lead your volunteers to a nearby block and have them complete one full set of practice forms. Stand nearby to answer questions as they come up.

Training and practice should take about 2 hours in total. This may vary depending on your volunteers' comfort with the training materials.

You should practice the training and practice completing the entire form to make sure you understand how to collect each item in advance of your training event. It is recommended to practice with your volunteers on the street. However, if group size or other factors do not allow, a set of quizzes are included in the toolkit.

If you have made modifications to the PEQI survey form, you will need to add these to the training slides. Explain exactly how you want your data collectors to handle your new items.

For training, you will need:

- A projector and computer to run the presentation
- Practice PEQI forms (1 per person)
- Pencils, tape measures, stopwatches to use for practice
- Supplies to mark out a stride length measuring range, at least 25 feet long. We have used tape applied to a carpeted floor and marked with a marker, and chalk applied to a sidewalk.

Before training begins, mark out a stride length measuring range on the ground. Place a line across the beginning of the range and mark it with the word "Start". Then use a tape measure to measure in a straight line across the floor. Mark the following distances:

At this distance…	mark this number
120 inches	1 feet
130	1.1
140	1.2
150	1.3
160	1.4
170	1.5
180	1.6
190	1.7
200	1.8
210	1.9
220	2.0
230	2.1
240	2.2
250	2.3
260	2.4
270	2.5
280	2.6
290	2.7
300	2.8

During the training, you will have each of your volunteers stand with her heels at the "start" line. Then she will take 10 natural steps and stop. The place where she stops will be marked with her stride length in feet. Round to the nearest marker.

Step 5. Collecting Data

After your volunteers have been trained, assign them to teams and give them their materials—forms, pencils, clipboards, tape measures, stop watches, name tags, and area assignments. Tell them to complete each of their team's assigned segments and intersections, and return their completed forms at a specific time and location.

Step 6. Data entry and cleaning

Now that you have the data about walkability, enter it into an MS Excel spreadsheet so you can use it. The included data entry sheet can be used for this purpose. There is one tab for each of the two kinds of forms. Within each tab, there is one row for each intersection or side of each street segment. An example has been provided at the top of each form, which shows how we set up the scoring sheets and calculated the weighted values and final scores.

The person doing your data entry should use the –coder's version" forms to understand how to convert the checks and boxes to numeric data.

If you have modified the PEQI forms you will need to modify this sheet and give your data entry person instructions about how to code the responses, turning them from checkboxes to numeric data.

Step 7. Data analysis and mapping

First, your data analyst should condense your data so that there is only one row per intersection and one row per street segment. Because you have separate information on the two sides of each street segment, you need to consolidate these rows to create an overall score for each street segment. You may also find that two or more teams surveyed the same parts of the neighborhood, resulting in having more than one record for each street/intersection. You should use the average (or mean) value for each item between the two sides of the street segment.

Now that your data are entered, you can look at them in aggregate or individually.

To calculate overall PEQI scores for each segment and intersection in your study area, first create weighted items according to the weights listed on the formula sheet included in the toolkit. Then add the items according to the formulas.

You can sort the data from lowest to highest to see what streets perform the worst on specific elements or overall. You can adjust the weights on the items that go into the PEQI score to emphasize the concerns of your community.

An expert in GIS software can help you show your results on a map by attaching the individual data elements or the index scores to the map. You may also use an image editing software, like Adobe Photoshop, to draw in lines on a map over the streets with colors reflecting each intersection and segments' final score.

Step 8. Presenting your results

Once you know exactly what the walkability situation of your neighborhood is, present your results to your stakeholders! Be sure to highlight the elements they identified as being most important to them, and suggest approaches to fixing the problems. For example you might notice that almost every segment had some graffiti. A graffiti cleanup program might be a good approach to improving the physical environment in this case. Or, you might notice that many of the intersections did not allow enough time for pedestrians to safely cross the street. You can use this information to ask the City to make them safer.

PEQI: Intersection Form *(sample only- download original form from website)*

Team (names): | **Date:**

Intersection ID: _____

This is the intersection of : _____ and _____
Street 1 **Street 2**

		0 directions	1 directions	2 directions	3 directions	4+ directions
1. Crosswalks						
2. Ladder crosswalks						
3. Pedestrian signals	**a. WITH countdowns**					
	b. NO countdowns					
4. Stop signs						
5. No Turn On Red signals/signs						
6. Curb cuts at pedestrian crossings						

7. Signal at intersection ☐ **yes** ☐ **no → if no, skip to item 8**

Cross street <u>ONLY</u> with a green light or walk signal. Measure across larger street.

a. Crossing time: Measure crossing time (in seconds): _____ seconds

b. Crossing distance: Measure crossing distance (in paces): _____ paces

Length of my stride: _____ feet in my stride

8. Crosswalk scramble ☐ **yes** ☐ **no**

9. Intersection Traffic Calming Features

Indicate if any of the following are present

Yes	No	
☐	☐	**pavement treatments**
☐	☐	**median or middle-divider**
☐	☐	**mini-circles or roundabouts**
☐	☐	**speed tables, speed humps or speed bumps**
☐	☐	**bike lane at intersection**
☐	☐	**partial closures**
☐	☐	**drains, dips or other unintentional features that slow traffic**
☐	☐	**curb extensions/bulb-outs**
☐	☐	**lights set in crosswalk**
☐ other (explain: _____)		

10. Additional signs for pedestrians ☐ **yes** ☐ **no**

PEQI: Segment Form *(sample only- download original form from website)*

Team (names): | **Date:**

Segment ID: _____

This street is _____
Name of this street

Between: _____ **and** _____
Cross Street 1 **Cross Street 2**

Vehicle Traffic

11. Number of lanes *Do not include turn only lanes*	☐ 4 or more lanes ☐ 3 lanes ☐ 2 lanes ☐ 1 lane ☐ no lanes		
12. Two-way traffic	☐ yes ☐ no		
13. Vehicle Speed / Posted Speed Limit	☐ not posted	☐ 10 mph ☐ 15 mph ☐ 20 mph ☐ 25 mph ☐ 30 mph	☐ 35 mph ☐ 40 mph ☐ 45 mph ☐ 50 mph ☐ 55+ mph

14. Street Traffic Calming Features

Indicate if any of the following are present

Yes	No	
☐	☐	street median
☐	☐	speed tables, speed humps or speed bumps
☐	☐	drains, dips or other unintentional features that slow traffic
☐	☐	chicanes
☐	☐	rumble strips
☐	☐	speed limit enforcements
☐		other (explain: _____)

Sidewalks

15. Width of sidewalk	☐ no sidewalk ☐ less than 5 feet ☐ 5 feet – 7 feet 11 inches ☐ 8 feet – 11 feet 11 inches ☐ 12 feet or more

16. Sidewalk *surface* condition-- *An impediment is anything which poses a tripping hazard or interrupts the smooth surface of the sidewalk.* *Choose only one option from the right*	☐ **no sidewalk** ☐ **significant impediments in surface** ☐ **few impediments in surface** ☐ **no impediments in surface**
17. Large sidewalk *obstructions* *An obstruction is any object which reduces the width of the sidewalk or hangs low so that people must duck to pass under while on the sidewalk.* *Choose only one option from the right.*	☐ **no sidewalk** ☐ **permanent obstructions** ☐ **temporary obstructions** ☐ **both permanent and temporary obstructions** ☐ **no obstructions**
18. Presence of curb	☐ **yes** ☐ **no**
19. Driveway cuts *how many present*	_____ **driveway cuts**
20. Trees *Choose the one that best describes this street*	☐ **continuously lined** ☐ **a few trees; sporadically lined** ☐ **no trees**
21. Planters/gardens *public and private*	☐ **yes** ☐ **no**
22. Public seating *including bus stops*	☐ **yes** ☐ **no**
23. Presence of buffers *Indicate if any of the following are present*	**Yes No** ☐ ☐ **bike lane** ☐ ☐ **parallel street parking—not time-restricted** ☐ ☐ **parallel street parking—time-restricted** ☐ ☐ **grassy or paved margin**

Land Use	
24. Storefront/retail use *Count the number of stores*	_____ **shops or businesses of any type**
25. Public art/historical sites	☐ **yes** ☐ **no**

Safety and aesthetic qualities	
26. Illegal graffiti	☐ **Major graffiti** ☐ **Little or no graffiti**
27. Litter	☐ **yes** ☐ **no**

28. Pedestrian-scale street lighting *Choose only one option from the right.*	☐ **yes, private** ☐ **yes, public** ☐ **yes, both private and public** ☐ **no pedestrian-scale street lighting**
29. Construction Sites	☐ **yes** ☐ **no**
30. Abandoned/boarded up buildings	☐ **yes** ☐ **no**
31. Vacant Lots	☐ **yes** ☐ **no**
32. Bike rack(s) present on this street segment	☐ **yes** ☐ **no**
Perceived Walkability: Please circle the number that your team thinks best describe this street segment.	
33. Street segment is visually attractive for walking.	**Strongly Agree 1 Agree 2 Disagree 3 Strongly Disagree 4**
34. Street segment feels safe for walking.	**Strongly Agree 1 Agree 2 Disagree 3 Strongly Disagree 4**
35. Are there obvious strong odors anywhere on this street segment (e.g., vehicle exhaust, urine stench, rotting garbage, etc)?	**No Odors 1 A Little Odor 2 Some Odors 3 A lot of Odors 4**
36. How noisy do you find this street segment?	**No Noise 1 Little Noise 2 Some Noise 3 A lot of Noise 4**
37 . On a scale of 1 to 10, how walkable do you find this street segment?	**Not Walkable 1 2 3 4 5 6 7 8 9 10 Very Walkable**

Pedestrian Environmental Quality Index (PEQI)—CODER'S VERSION

Neighborhood:	Team Number:	Date:

Intersection Form

Intersection ID: _____

This is the intersection of: _____ and _____
Street 1 Street 2

		0 directions	1 directions	2 directions	3 directions	4+ directions
1. Crosswalks		0	1	2	3	4
2. Ladder crosswalks		0	1	2	3	4
3. Pedestrian signals	a. WITH countdowns	0	1	2	3	4
	b. NO countdowns	0	1	2	3	4
4. Stop signs		0	1	2	3	4
5. No Turn On Red signals/signs		0	1	2	3	4
6. Curb cuts at pedestrian crossings		0	1	2	3	4

7a. Signal at intersection		☐ 1 yes ☐ 0 no → if no, skip to item 8
See weights and measures sheet for how to calculate 7b, 7c and 7d.	Cross street <u>ONLY</u> with a green light or walk signal. Measure across larger street.	7b. Crossing time: Measure crossing time (in seconds): _____ seconds 7c. Crossing distance: Measure crossing distance (in paces): _____ paces 7d. Length of my stride: _____ feet in my stride
8. Crosswalk scramble		☐ 1 yes ☐ 0 no
9. Intersection Traffic Calming Features None = 0 1-2 features = 1 3-4 features = 2 5+ features = 3		☐ none ☐ curb extensions/bulbouts ☐ pavement treatments or lights set in crosswalk ☐ mini-circles or roundabouts ☐ speed tables, speed humps or speed bumps ☐ bike lane at intersection ☐ partial closures ☐ dips, drains, or bumps in street ☐ other (explain: _____)
10. Additional signs for pedestrians		☐ 1 yes ☐ 0 no

Street Segment Form - CODER'S VERSION		
Fill out this form once for each side of the street.		
Neighborhood:	**Team Number:**	**Date:**
Segment ID: _____ **This street is**_____ Name of this street **Between:** _____ **and** _____ Cross Street 1 Cross Street 2 **Side of street: N S E W**		

Vehicle Traffic			
11. Number of lanes **(do not include turning-only lanes)**	☐ **4** 4 or more lanes ☐ **3** 3 lanes ☐ **2** 2 lanes ☐ **1** 1 lane ☐ **0** no lanes		
12. Two-way traffic	☐ **1** yes ☐ **0** no		
13. Vehicle Speed / Posted Speed Limit	☐ **0** not posted	☐ **10** 10 mph ☐ **15** 15 mph ☐ **20** 20 mph ☐ **25** 25 mph ☐ **30** 30 mph	☐ **35** 35 mph ☐ **40** 40 mph ☐ **45** 45 mph ☐ **50** 50 mph ☐ **55** 55+ mph
14. Street Traffic Calming Features **None = 0** **1 or more = 1**	☐ none ☐ chicanes ☐ street medians ☐ speed tables, speed humps or speed bumps ☐ rumble strips ☐ speed limit enforcements ☐ dips, drains, or other unintentional features that slow traffic ☐ other (explain: - _____)		

Sidewalks	
15. Width of sidewalk	☐ **0 no sidewalk** ☐ **1 less than 5 feet**

	☐ 2 5 feet – 7 feet 11 inches ☐ 3 8 feet – 11 feet 11 inches ☐ 4 12 feet or more
16. Sidewalk surface condition-- **An impediment is anything which poses a tripping hazard or interrupts the smooth surface of the sidewalk.**	☐ 0 no sidewalk ☐ 1 significant impediments in surface ☐ 2 few impediments in surface ☐ 3 no impediments in surface
17. Large sidewalk obstructions **An obstruction is any object which reduces the width of the sidewalk or hangs low so that people must duck to pass under while on the sidewalk.**	☐ 0 no sidewalk ☐ 1 permanent obstructions ☐ 2 temporary obstructions ☐ 3 both permanent and temporary obstructions ☐ 4 no obstructions in sidewalk
18. Presence of curb	☐ 1 yes ☐ 0 no
19. Driveway cuts	_____ driveway cuts
20. Trees	☐ 1 continuously lined ☐ 2 a few trees; sporadically lined ☐ 3 no trees
21. Planters/gardens	☐ 1 yes ☐ 0 no
22. Public seating **(including bus stops)**	☐ 1 yes ☐ 0 no
23. Presence of buffers **(check all that apply)**	☐ 1 bike lane ☐ 1 parallel street parking—not time-restricted ☐ 1 parallel street parking—time-restricted ☐ 1 grassy or paved margin ☐ 1 none
Land Use	
24. Storefront/retail use	_____ shops or businesses of any type
25. Public art/historical sites	☐ 1 yes ☐ 0 no
Safety and aesthetic qualities	
26. Illegal graffiti	☐ 1 Major graffiti

	☐ 0 Little or no graffiti
27. Litter	☐ 1 yes ☐ 0 no
28. Pedestrian-scale street lighting	☐ 1 yes, private ☐ 2 yes, public ☐ 3 yes, both private and public ☐ 0 no
29. Construction Sites	☐ 1 yes ☐ 0 no
30. Abandoned/boarded up buildings	☐ 1 yes ☐ 0 no
31. Vacant Lots	☐ 1 yes ☐ 0 no
32. Bike rack(s) present on this street segment	☐ 1 yes ☐ 0 no
Perceived Walkability: Please circle the number that your team thinks best describe this street segment.	
33. Street segment is visually attractive for walking.	Strongly Agree 1 Agree 2 Disagree 3 Strongly Disagree 4
34. Street segment feels safe for walking.	Strongly Agree 1 Agree 2 Disagree 3 Strongly Disagree 4
35. Are there obvious strong odors anywhere on this street segment (e.g., vehicle exhaust, urine stench, rotting garbage, etc)?	No Odors 1 A Little Odor 2 Some Odors 3 A lot of Odors 4
36. How noisy do you find this street segment?	No Noise 1 Little Noise 2 Some Noise 3 A lot of Noise 4
37. On a scale of 1 to 10, how walkable do you find this street segment?	Not Walkable 1 2 3 4 5 6 7 8 9 10 Very Walkable

Weights and Formulas

Weights for creating PEQI overall score--INTERSECTION

Item	Original Value	Weighted Value
1. Crosswalks	0	8
	1	11
	2	15
	3	18
	4+	21
2. Ladder Crosswalks	0	8
	1	11
	2	16
	3	20
	4+	24
3a. Pedestrian signals	4 with countdowns	21
WITH coutdown	3 with countdowns	17
	2 with countdowns	13
	1 with countdown	9
3b. Pedestrian signals	4 without countdowns	19
WITHOUT countdown	3 without countdowns	15
	2 without countdowns	11
	1 without countdown	7
3a *or* 3b.	None	5
4. Stop signs	0	8
	1	11
	2	16
	3	20
	4+	24
5. No turn on red signs	0	5
	1	8
	2	11
	3	15
	4	19
6. Curb cuts	0	5
	1	8
	2	11
	3	15
	4+	19
7a. Signal at Intersection	0	See Step 1 below
	1	See Step 1 below
7b,c. crossing speed = ((paces*stride)/crossing time)	<=3.5	9
	>3.5	20

8. Scramble	0	5
	1	19
9. Count of intersection TCF's	0	9
	1 or 2	15
	3 or 4	17
	5+	20
10. Additional pedestrian signs	0	7
	1	17

Intersection formula:
How you calculate the score will depend on whether or not there was a traffic signal at the intersection.

TRAFFIC SIGNAL **Step 1.** IF traffic_signal==1, then add: (pedestrian_signals + no_turn_on_red + crossingspeed+scramble)	**NO TRAFFIC SIGNAL** **Step 1.** IF traffic_signal==0, then take: (stop_signs * 2)
TRAFFIC SIGNAL **Step 2.** Add above to: (crosswalks + ladder_crosswalks + curb_cuts + TCF_count + addl_ped_signs)	**NO TRAFFIC SIGNAL** **Step 2.** Add above to: (crosswalks + ladder_crosswalks + curb_cuts + TCF_count + addl_ped_signs)
TRAFFIC SIGNAL **Step 3.** Adjust the score so that it's range is 0-100 using this formula: (unadjusted score – minimum score) * (100/(max score-min score))	**NO TRAFFIC SIGNAL** **Step 3.** Adjust the score so that it's range is 0-100 using this formula: (unadjusted score – minimum score) * (100/(max score-min score))

Weights for creating PEQI overall score—SEGMENTS

Item	Original Value	Weighted Value
lanes	0	24
	1	22
	2	19
	3	9
	4+	4
two-way traffic	0	7
	1	10
speed limit	<20	27
	0 (not posted)	22
	20-25	22
	26-35	12
	35+	2
Count of TCF's in segment	1+	20
	0	7
Sidewalk width	0	4
	1	7
	2	13
	3	19
	4	22
Sidewalk surface condition	3	24
	2	17
	1	7
	0	4
Sidewalk obstructions	4 (no obstructions)	15
	2 (temp obstructions)	10
	1 (perm obstructions)	9
	3 (both temp and perm)	8
	0 (no sidewalk)	5
Curb	1	17
	0	7
Driveway cuts	0	17
	1-5	15
	5+	5
Trees	1	16
	2	11
	3	7
Planters	1	9
	0	4
Public seating	1	13
	0	7

Buffers	bike and parking and margin (all three)	24
	two of the above (any two)	21
	bike only	13
	parking only	13
	margin only	13
	none	4
Retail use	3+	19
	1-2	11
	0	9
Public art	1	14
	0	6
Graffiti	1	5
	0	9
Litter	0	10
	1	5
Ped-scale lighting	3 (both pub and priv)	25
	2 (public only)	20
	1 (private only)	15
	0 (none)	7
Construction	0	13
	1	7
Abandoned buildings	0	13
	1	7
Bike racks	1	10
	0	5
Vacant lots	0	13
	1	7
Visually attractive	1	20
	2	15
	3	10
	4	5
Feels Safe	1	20
	2	15
	3	10
	4	5
Strong Odors	1	20
	2	15
	3	10
	4	5

Noise	1	20
	2	15
	3	10
	4	5
Overall subjective walkability	1	1
	2	3
	3	5
	4	7
	5	9
	6	11
	7	13
	8	15
	9	17
	10	19

Segment formula:

Step 1. Add up the weighted values using this formula: Segment PEQI = (number_lanes + two_way + speed_limit + tcf_count + sidewalk_width + surface + obstructions + curb + curb_cuts + trees + planters + seating + buffers + retail + public_art + graffiti + litter + ped-scale_lights + construction + abandoned_bldgs + bike_racks + vacant_lots + attractive + feels_safe + strong_odors + noisy + walkable)
Step 2. Adjust the score so that it's range is 0-100 using this formula: (unadjusted score – minimum score) * (100/(max score-min score))

Sample Minimum and Maximum Scores: INTERSECTION FORM

			With a Traffic Signal(s)		Stop sign(s) only	
Item	**Original Value (from Coder's version)**	**Weighted Value**	**MIN With signals**	**MAX With signals**	**Min Score**	**Max Score**
Crosswalks	0	8	8		8	
	1	11				
	2	15				
	3	18				
	4+	21		21		21
Ladder Crosswalks	0	8	8		8	
	1	11				
	2	16				
	3	20				
	4+	24		24		24
Pedestrian signals	4 with countdowns	21		21		
	4 without countdowns	19				
	3 with countdowns	17				
	3 without countdowns	15				
	2 with countdowns	13				
	2 without countdowns	11				
	1 with countdown	9				
	1 without countdown	7				

	None	5	5			
Stop signs	0	8			16	
	1	11				
	2	16				
	3	20				
	4+	24				48
No turn on red signs	0	5	5			
	1	8				
	2	11				
	3	15				
	4	19		19		
Curb cuts	0	5	5		5	
	1	8				
	2	11				
	3	15				
	4+	19		19		19
crossing speed = ((paces*stride)/crossing time)	<=3.5	9	9			
	>3.5	20		20		
Scramble	0	5	5			
	1	19		19		

Count of intersection TCF's	0	9	9		9	
	1 or 2	15				
	3 or 4	17				
	5+	20		20		20
Additional pedestrian signs	0	7	7		7	
	1	17		17		17
			61	**180**	**53**	**149**
			Min Score: with signal	**Max Score : with signal**	**Min Score : stop sign only**	**Max Score: stop sign only**

Sample Minimum and Maximum Scores: SEGMENT FORM

Item	Original Value	Weighted Value	Min Score	Max Score
lanes	0	24		24
	1	22		
	2	19		
	3	9		
	4+	4	4	
two-way traffic	0	7	7	
	1	10		10
speed limit	<20	27		27
	0 (not posted)	22		
	20-25	22		
	26-35	12		
	35+	2	2	
Count of TCF's in segment	1+	20		20
	0	7	7	
Sidewalk width	0	4	4	
	1	7		
	2	13		
	3	19		
	4	22		22
Sidewalk surface condition	3	24		24
	2	17		
	1	7		
	0	4	4	

Sidewalk obstructions	none (4)	15		15
	temporary only (2)	10		
	permanent only (1)	9		
	both temp and permanent (3)	8		
	no sidewalk (0)	5	5	
Curb	1	17		17
	0	7	7	
Driveway cuts	0	17		17
	1-5	15		
	5+	5	5	
Trees	1	16		16
	2	11		
	3	7	7	
Planters	1	9		9
	0	4	4	
Public seating	1	13		13
	0	7	7	
Buffers	bike and parking and margin (all three)	24		24
	two of the above (any two)	21		
	bike only	13		
	parking only	13		
	margin only	13		
	none	4	4	
Retail use	3+	19		19
	1-2	11		

	0	9	9	
Public art	1	14		14
	0	6	6	
Litter	0	10		10
	1	5	5	
Graffiti	1	5	5	
	0	9		9
Ped-scale lighting	Private and public	25		25
	public only	20		
	private only	15		
	None	7	7	
Construction	0	13		13
	1	7	7	
Abandoned buildings	0	13		13
	1	7	7	
Bike racks	1	10		10
	0	5	5	
Vacant lots	0	13		13
	1	7	7	
Visually attractive	1	20		20
	2	15		
	3	10		
	4	5	5	
Feels Safe	1	20		20
	2	15		
	3	10		
	4	5	5	

Strong Odors	1	20		20
	2	15		
	3	10		
	4	5	5	
Noise	1	20		20
	2	15		
	3	10		
	4	5	5	
Overall subjective walkability	1	1	1	
	2	3		
	3	5		
	4	7		
	5	9		
	6	11		
	7	13		
	8	15		
	9	17		
	10	19		19
			146	**463**
			Min Score Segment	**Max Score Segment**

Pedestrian Environmental Quality Index Training Program



The PEQI was developed by the San Francisco Department of Public Health and modified for the Los Angeles street environment by Malia Jones, MPH of UCLA

Last modified April 1, 2010

Agenda

1. What is walkability and what does it have to do with health?
2. Street and intersection identification
3. PEQI assessment instructions
4. Practice using the PEQI

What is "walkability"?

- Walkability means the physical environment's ability to support and encourage walking
- The *quality* and *safety* of the environment from the perspective of pedestrians
- Includes:
  - Safety features
  - Traffic conditions
  - Aesthetic conditions



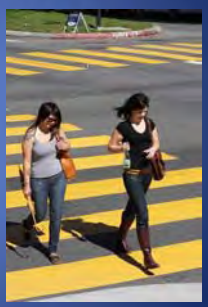
"Walkability" and your health: 1

1. Walking reduces our dependence on cars
   - This reduces air pollution, noise pollution, traffic accidents



"Walkability" and your health: 2

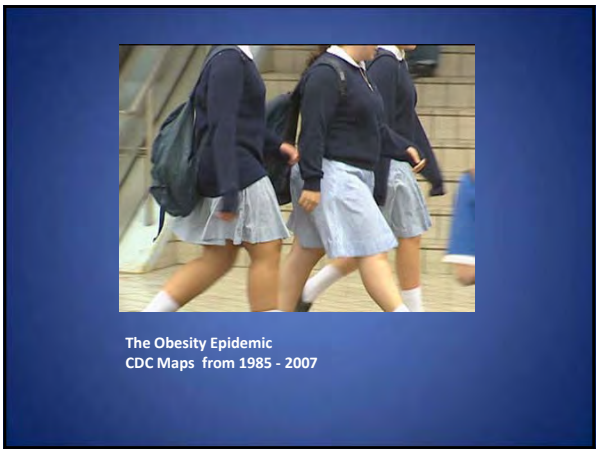
2. Increases physical activity
   - Regular moderate physical activity (such as walking or cycling) reduces the risk of serious disease and obesity



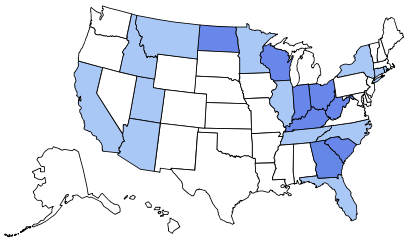
What is obesity?

- 30-40 lbs or more above healthy weight
- Depends on height
- For people who are still growing, depends on age & gender



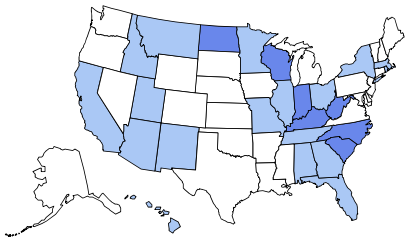


Obesity Trends* Among U.S. Adults
BRFSS, 1985
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



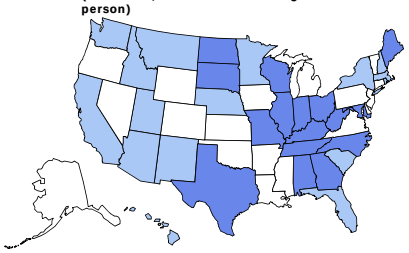
No Data <10% 10%–14%

Obesity Trends* Among U.S. Adults
BRFSS, 1986
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



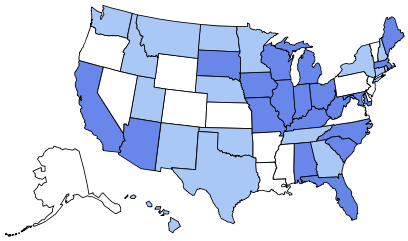
No Data <10% 10%–14%

Obesity Trends* Among U.S. Adults
BRFSS, 1987
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



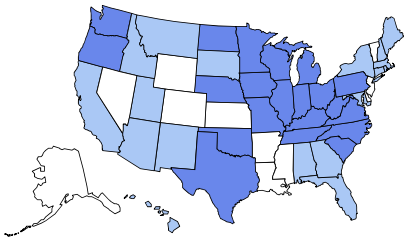
No Data <10% 10%–14%

Obesity Trends* Among U.S. Adults
BRFSS, 1988
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



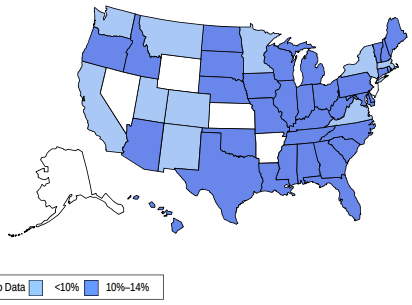
No Data <10% 10%–14%

Obesity Trends* Among U.S. Adults
BRFSS, 1989
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)

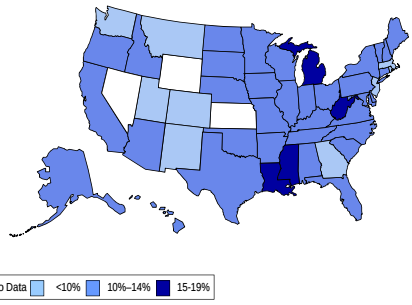


No Data <10% 10%–14%

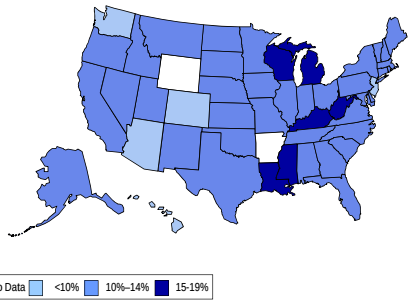
Obesity Trends* Among U.S. Adults
BRFSS, 1990
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



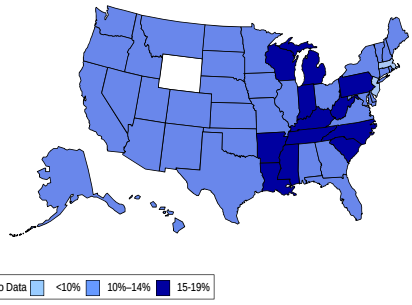
Obesity Trends* Among U.S. Adults
BRFSS, 1991
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



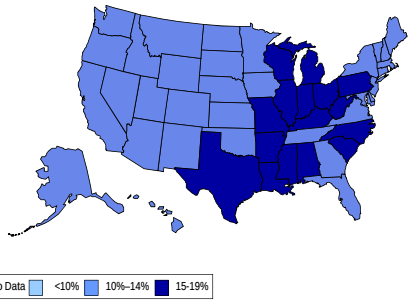
Obesity Trends* Among U.S. Adults
BRFSS, 1992
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



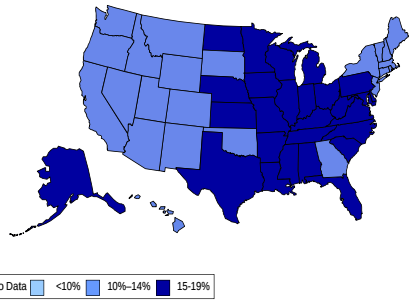
Obesity Trends* Among U.S. Adults
BRFSS, 1993
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



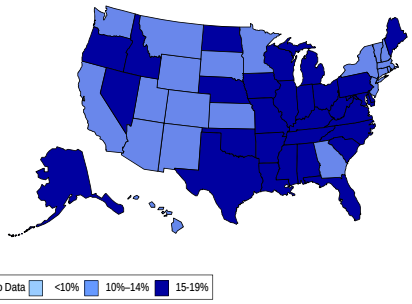
Obesity Trends* Among U.S. Adults
BRFSS, 1994
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults
BRFSS, 1995
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)

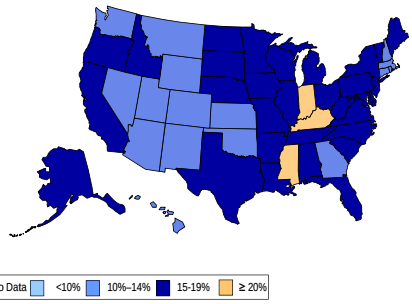


Obesity Trends* Among U.S. Adults
BRFSS, 1996
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



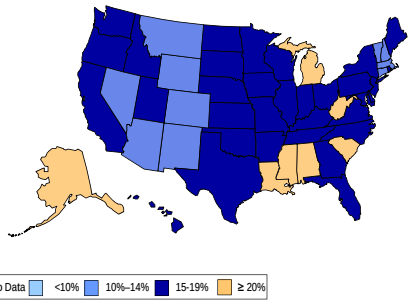
No Data | <10% | 10%–14% | 15-19%

Obesity Trends* Among U.S. Adults
BRFSS, 1997
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



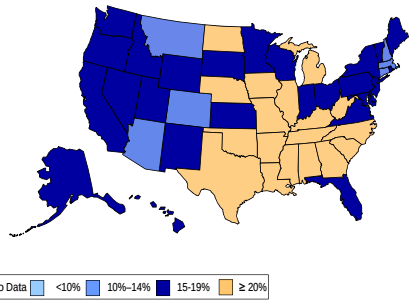
No Data | <10% | 10%–14% | 15-19% | ≥ 20%

Obesity Trends* Among U.S. Adults
BRFSS, 1998
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



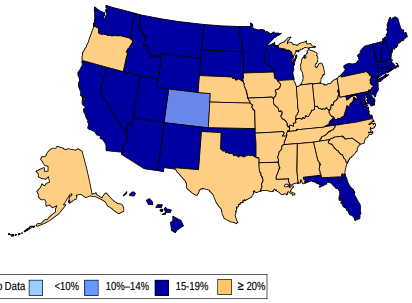
No Data | <10% | 10%–14% | 15-19% | ≥ 20%

Obesity Trends* Among U.S. Adults
BRFSS, 1999
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



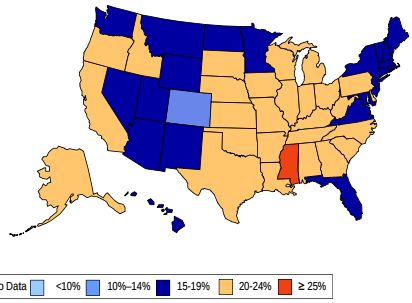
No Data | <10% | 10%–14% | 15-19% | ≥ 20%

Obesity Trends* Among U.S. Adults
BRFSS, 2000
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



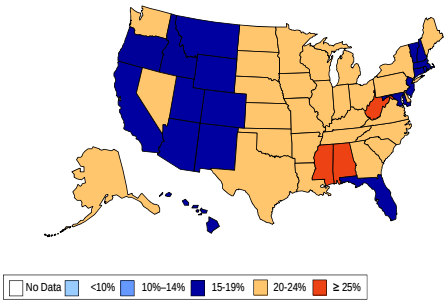
No Data | <10% | 10%–14% | 15-19% | ≥ 20%

Obesity Trends* Among U.S. Adults
BRFSS, 2001
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)

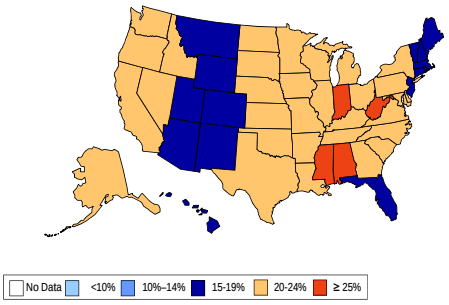


No Data | <10% | 10%–14% | 15-19% | 20-24% | ≥ 25%

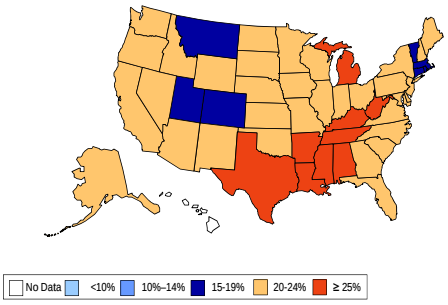
Obesity Trends* Among U.S. Adults
BRFSS, 2002
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



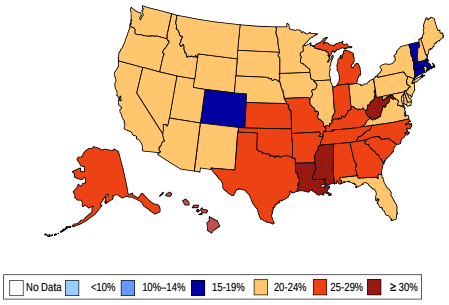
Obesity Trends* Among U.S. Adults
BRFSS, 2003
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



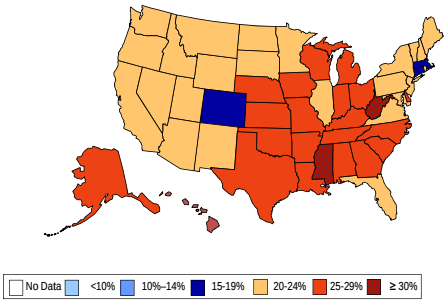
Obesity Trends* Among U.S. Adults
BRFSS, 2004
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



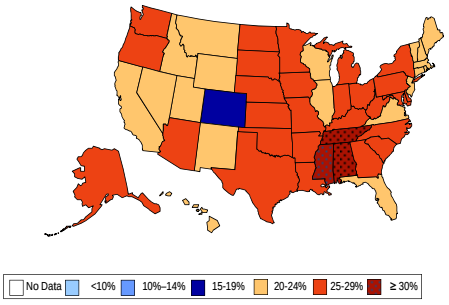
Obesity Trends* Among U.S. Adults
BRFSS, 2005
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



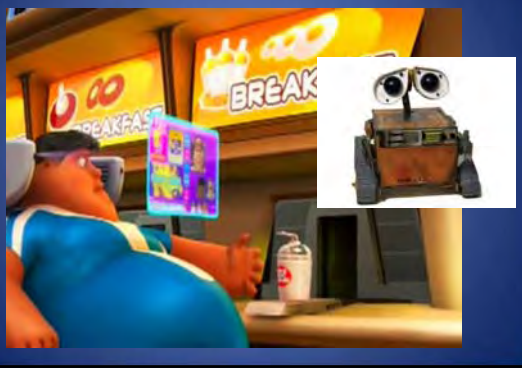
Obesity Trends* Among U.S. Adults
BRFSS, 2006
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults
BRFSS, 2007
(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



2050?



Walkability and your health 4:
The Health Belief Model and Physical Activity

Why are people getting more overweight?

Personal factors
- Traditional or family foods/eating habits
- Other demands on time
- Obese parents
- Financial situation

Constraints on behavior
- Barriers in the environment prevent healthy eating
- Barriers in the environment prevent physical activity

Adapted from Northern Territory Government Australia. "Health Belief Model." Available at: http://www.nt.gov.au/health/healthdev/health_promotion/bushbook/images/model.gif. Accessed March 2009.

32

Barriers to walking in the environment

- **Danger** from motor vehicles, crime & violence
- Lack of **sidewalks** or poor repair/design of sidewalks
- **Aesthetic qualities** of the area (shade, noise, attractiveness of paths)
- Existence and quality of **facilities** for exercise (e.g., parks, sports fields/courts, walking paths, etc)
- **Distance** to destinations

33

How Assessment Helps

- When we assess the pedestrian environment, we can:
  - Identify problem areas
  - Identify priorities
  - Ask the city to focus on our priorities
- When we do an on-the-ground assessment we also get to:
  - Meet our neighbors
  - Get to know our neighborhood as pedestirans
  - Eat free food and have a fun day!

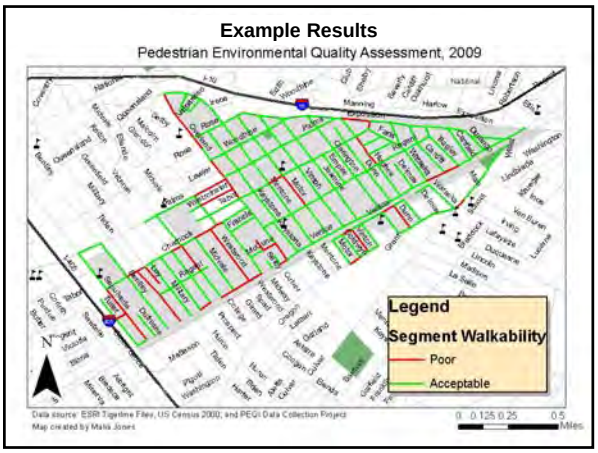
The PEQI Form

PEQI Form: overview

- Developed by the SF Dept of Public Health
- Street segment + intersection items
- Grouped into 5 Domains:
  - Intersection safety
  - Traffic
  - Street Design
  - Land Use
  - Perceived safety

How it works

- You complete the PEQI form on every street segment and intersection
- We enter the data and use them to compute a PEQI score

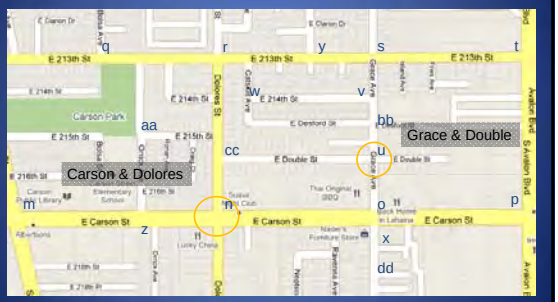




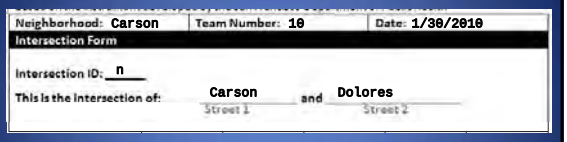
Identifying your location

DO THIS RIGHT.

Intersection Identifiers



Intersection Identifiers



Street Segment Identifiers



Segment Identifiers

Neighborhood: Carson	Team Number: 10	Date: 1/30/2010

Segment ID: 32

This street is Carson (Name of this street)

Between: Grace (Cross Street 1) and Ravenna (Cross Street 2)

Side of street: N (S) E W

Part 1: Measuring Intersection Quality



1. Crosswalks

- Designated places for pedestrians to cross the street
- Heighten driver & pedestrian awareness
- X in the box indicating the number of crosswalks



1. Crosswalks

		0 directions	1 directions	2 directions	3 directions	4+ directions
1. Crosswalks						X
2. Ladder crosswalks						
3. Pedestrian signals	a. WITH countdowns					
	b. NO countdowns					
4. Stop signs						
5. No Turn On Red signals/signs						
6. Curb cuts at pedestrian crossings						

2. Ladder Crosswalks

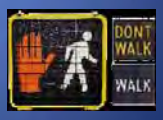
- Crosswalks with large stripes.
- Encourage pedestrians to stay within the safer locations
- More visible to motorists
- X the number of ladder crosswalks present



3a and b. Pedestrian Signal

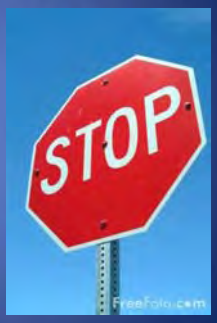
- Tell pedestrians how much time they have to cross, making it easier for them to make smart choices
- Count the number of directions that have pedestrian signals WITH countdowns
- Count the number of directions that have pedestrian signals WITHOUT countdowns
- X the appropriate boxes
- Mark both items





4. Stop Signs

- Force motorists to slow down
- Allow pedestrians more time to cross
- Count the number of directions this intersection has stop signs



5. No Turn on Red Sign

- Motorists often look to the left when making a right turn, but forget to look to the right for pedestrians
- Count the number of directions for which a "no turn on red" sign is posted and X the appropriate box



6. Curb cuts at pedestrian crossings

- Necessary for people in wheelchairs
- Handy for people using strollers and carts
- Count the # of *directions* where there are curb cuts



6. Curb cutouts at pedestrian crossings

- NOT the number of curb cuts!



6. Curb cutouts at pedestrian crossings



7. Traffic signal at Intersection

- Signal = traffic light
- Check yes or no
- IF YES, then continue to measure the crossing distance and time allowed in 7a & 7b
- IF NO SIGNAL, DO NOT ATTEMPT TO MEASURE.

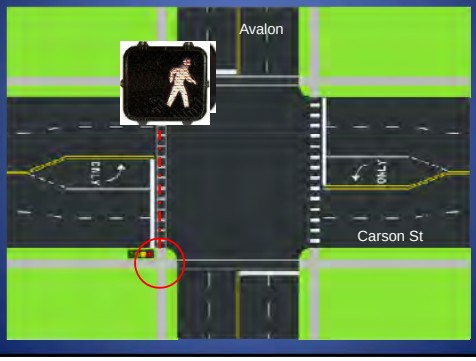


DO NOT CROSS WHERE THERE IS NO TRAFFIC LIGHT.

7a. Crossing Time

- DO NOT COMPLETE if there is no traffic light
- Use your stopwatch to measure how much time pedestrians are given to cross
  - Time how long is given to cross the **larger** street
  - Use your stopwatch
  - Start when the light turns green OR the walk sign comes on
  - Stop when the light turns red OR the walk sign turns solid red
  - Record the time in seconds

7a. Time to cross: practice scenario



7b. Intersection Length in Paces

- DO NOT COMPLETE if there is no pedestrian signal.
- Cross the larger street
- Count the number of your steps that it takes to cross the street
  - Count from curb to curb
  - Follow the crosswalk if there is one
- Record the number of steps you took
- Write down your stride length in feet

7b. Estimate your stride length now

- Go to the stride length measuring range!
- Start with heels at line
- Take 10 steps in a straight line
- Mark where your heel landed on the 10th step
- WRITE DOWN YOUR STRIDE LENGTH NOW
- You'll have to enter it on every intersection form

7a & 7b. The real story is Crossing Speed

- For a street to be safe for pedestrians, there must be enough time to cross



8. Crosswalk Scramble

- A scramble stops all traffic in all directions while pedestrians cross in all directions.



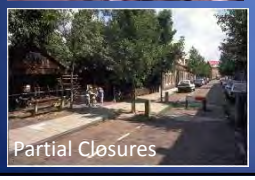
9. Intersection Traffic Calming Features

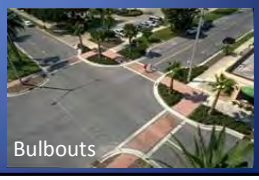
- Traffic calming features slow the speed of traffic, increase driver awareness and pedestrian visibility, or provide extra safety for pedestrians
- Check for the presence of each one on the form and others you see that are not listed
  - Check all that apply
  - If the same one appears twice, just check it once
  - If you see one not listed, write it down under "other"

9. Traffic Calming Features


Bike Lanes

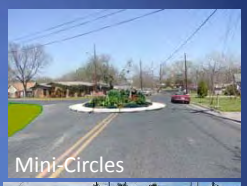

Pavement Treatments

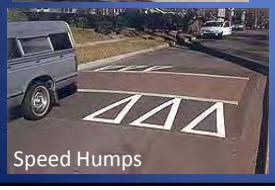

Partial Closures


Bulbouts

9. MORE Traffic Calming Features

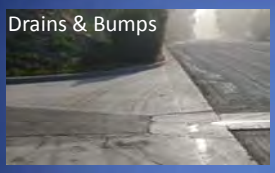

Speed Tables


Mini-Circles


Speed Humps

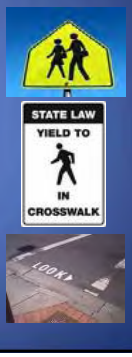

Median

9. MORE Traffic Calming Features


Drains & Bumps

10. Additional Pedestrian Signage

- Signs can increase driver and pedestrian awareness
- Mark 'yes' if there are any signs related to pedestrians at the intersection (other than the walk signal)



Appendix C: PEQI Existing Conditions Worksheets

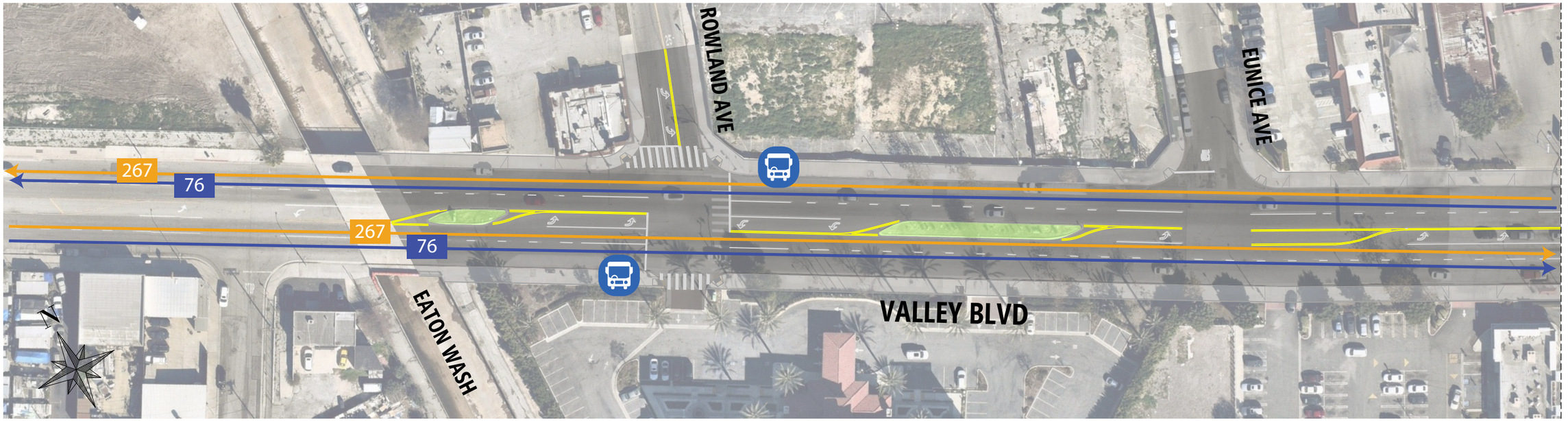
Valley Blvd Complete Streets
Pedestrian Environmental Quality Index (PEQI) - Existing Roadway Segments

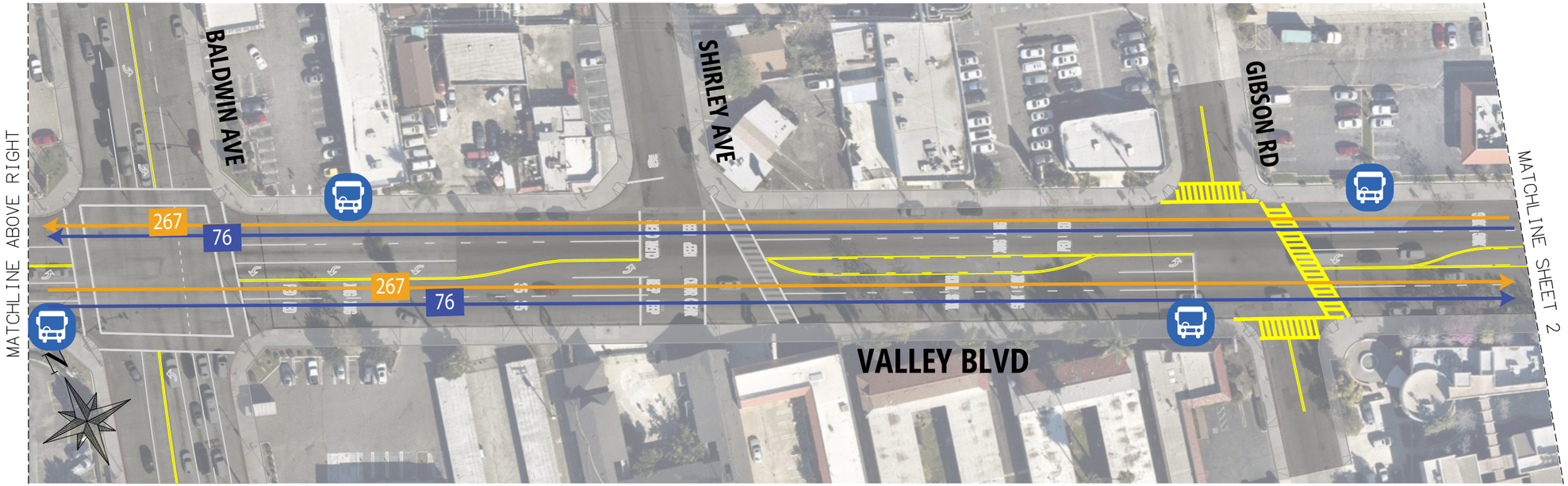
Item name	Segment ID	Street Name	Cross street 1	Cross street 2	Side of Street	# lanes	two-way traffic	posted speed lim	TCFs Code	width of sidewalk	surface condition	obstructions--no sidewalk	curb	driveway cuts (#)	trees	planters/ gardens	public seating	buffer--bike lane	buffer--parallel park no time restrict	buffer--parallel park time restrict	buffer--grassy/ paved margin	buffer--none	store/ retail use (#)	public art	graffiti	litter	ped-scale lights--private	construct'n	abandoned buildings	vacant lots	bike racks	Distance between controlled xwalks	Sum	Final Score
	A1	Valley Blvd	Rowland Ave	Santa Anita Ave	N	4	1	35	1	4	2	1	1	5+	2	1	1	0	0	1	0	0	3+	0	0	0	0	1	0	0	0	4476		
						4	10	12	20	22	17	9	17	5	11	9	13					13	19	6	9	10	7	7	13	13	5		251	48
	A2	Valley Blvd	Rowland Ave	Santa Anita Ave	S	4	1	35	1	4	2	1	1	5+	2	1	1	0	0	1	0	0	3+	0	0	0	0	0	0	0	0	4402		
						4	10	12	20	22	17	9	17	5	11	9	13					13	19	6	9	10	7	13	13	13	5		257	50
	B1	Valley Blvd	Santa Anita	Ramona Blvd	N	4	1	35	1	3	2	1	1	5+	2	1	1	0	0	0	0	0	3+	0	0	0	0	0	0	1	0	3025		
						4	10	12	20	19	17	9	17	5	11	9	13					4	19	6	9	10	7	13	13	7	5		239	43
	B2	Valley Blvd	Santa Anita	Ramona Blvd	S	4	1	35	1	3	2	1	1	5+	2	1	1	0	0	0	0	0	3+	0	0	0	0	0	0	0	0	2953		
						4	10	12	20	19	17	9	17	5	11	9	13					4	19	6	9	10	7	13	13	13	5		245	45
	C1	Valley Blvd	Ramona Blvd	Mountain View F	N	4	1	35	1	4	3	1	1	5+	2	1	1	0	0	1	0	0	3+	1	0	0	0	0	1	1	0	4678		
						4	10	12	20	22	24	9	17	5	11	9	13					13	19	14	9	10	7	13	7	7	5		260	51
	C2	Valley Blvd	Ramona Blvd	Mountain View F	S	4	1	35	1	4	3	1	1	5+	2	1	1	0	0	1	0	0	3+	0	0	0	0	0	1	1	0	4716		
						4	10	12	20	22	24	9	17	5	11	9	13					13	19	6	9	10	7	13	7	7	5		252	48
	D1	Valley Blvd	Mountain View F	Garvey Ave	N	4	1	35	1	4	3	1	1	3	2	1	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0	526		
						4	10	12	20	22	24	9	17	15	11	9	13					4	19	6	9	10	7	13	13	13	5		265	53
	D2	Valley Blvd	Mountain View F	Garvey Ave	S	4	1	35	1	4	3	4	1	1	2	1	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	394		
						4	10	12	20	22	24	15	17	15	11	9	7					4	19	6	9	10	7	13	13	13	5		265	53
	F1	Valley Blvd	Garvey Ave	Rumford Ave	N	4	1	35	1	3	3	1	1	5+	2	1	1	1	0	1	0	0	3+	0	0	0	0	0	1	1	0	2889		
						4	10	12	20	19	24	9	17	5	11	9	13					21	19	6	9	10	7	13	7	7	5		257	50
	F2	Valley Blvd	Garvey Ave	Rumford Ave	S	4	1	35	1	3	3	1	1	5+	2	1	1	1	0	1	0	0	3+	0	0	0	0	0	1	1	0	3066		
						4	10	12	20	19	24	9	17	5	11	9	13					21	19	6	9	10	7	13	7	7	5		257	50

Valley Blvd Complete Streets
Pedestrian Environmental Quality Index (PEQI) - Existing Intersections

Item name	Int ID	Street name 1	Street name 2	Crosswalks	ladder xwalks	ped signal countdn	ped signal no countdn	stop signs	no turn on red	curb cuts	traffic signal	crossing time	crossing distance-ft	weighted crossing speed	crosswalk scramble	TCFs - code	add'l ped signs	Sum	Final Score	
	A	Valley Blvd	Rowland Ave	3	3	3		0	0	4	1		76		0	0	1			Signalized
				18	20	17		8	5	19				20	5	9	17	130	58	
	B	Valley Blvd	Baldwin Ave	4	0	4		0	0	4	4		100		0	0	0			Signalized
				21	8	21		8	5	19				20	5	9	7	115	45	
	C	Valley Blvd	Shirley Ave	1	1	0		1	0	3	0		89		0	1	1			2 way stop
				11	11	5		11	5	15				20	5	15	17	91	40	
	D	Valley Blvd	Gibson Road	3	3	3		0	0	4	3		122		0	0	1			Signalized
				18	20	17		8	5	19				20	5	9	17	130	58	
	E	Valley Blvd	Arden Dr	2	0	2		0	0	3	4		82		0	0	1			Signalized
				15	8	13		8	5	15				20	5	9	17	107	39	
	F	Valley Blvd	Valley Cir	2	0	2		0	0	3	3		88		0	0	0			Signalized
				15	8	13		8	5	15				20	5	9	7	97	30	
	G	Valley Blvd	Santa Anita Ave	4	0	4		0	0	4	4		173		0	0	0			Signalized
				21	8	21		8	5	19				9	5	9	7	104	36	
	H	Valley Blvd	(Plaza)	3	0	4		0	0	4	4		72		0	0	0			Signalized
				18	8	21		8	5	19				20	5	9	7	112	43	
	I	Valley Blvd	El Monte Ave	2	1	0		2	0	4	0		74		0	0	1			2 way stop
				15	11	5		16	5	19				20	5	9	17	103	52	
	J	Valley Blvd	Center Ave	4	0	4		0	0	4	4		77		0	0	0			Signalized
				21	8	21		8	5	19				20	5	9	7	115	45	
	K	Valley Blvd	Tyler Ave	4	0	4		0	0	4	4		87		0	0	0			Signalized
				21	8	21		8	5	19				20	5	9	7	115	45	
	L	Valley Blvd	Ramona Blvd	4	0	4		0	0	4	4		124		0	0	1			Signalized
				21	8	21		8	5	19				20	5	9	17	125	54	
	M	Valley Blvd	Johnson Ave	2	0	2		0	0	3	2		84		0	0	1			Signalized
				15	8	13		8	5	15				20	5	9	17	107	39	
	N	Valley Blvd	Meeker Ave	1	0	0		2	0	4	0		99		0	1	1			Signalized
				11	8	5		16	5	19				20	5	15	17	105	37	
	O	Valley Blvd	Peck Rd	4	0	4		0	0	4	4		100		0	0	0			Signalized
				21	8	21		8	5	19				20	5	9	7	115	45	
	P	Valley Blvd	La Madera Ave	1	1	0		1	0	3	0		80		0	1	1			2 way stop
				11	11	5		11	5	15				20	5	15	17	91	40	
	Q	Valley Blvd	Mountain View Rd	4	0	4		0	0	4	4		90		0	0	0			Signalized
				21	8	21		8	5	19				20	5	9	7	115	45	
	R	Valley Blvd	Garvey Ave	4	0	4		0	0	4	4		147		0	1	0			Signalized
				21	8	21		8	5	19				20	5	15	7	121	50	
	S	Valley Blvd	Allgeyer Ave	1	1	0		1	0	3	0		88		0	1	1			2 way stop
				11	11	5		11	5	15				20	5	15	17	91	40	
	T	Valley Blvd	Maxson Rd	1	1	0		1	0	2	0		80		0	0	1			2 way stop
				11	11	5		11	5	11				20	5	9	17	81	29	
	U	Valley Blvd	Durfee Ave	4	0	4		0	0	4	4		128		0	1	0			Signalized
				21	8	21		8	5	19				20	5	15	7	121	50	

Appendix D: Bus Stops Route Overview Map





267 Metro

76 Metro

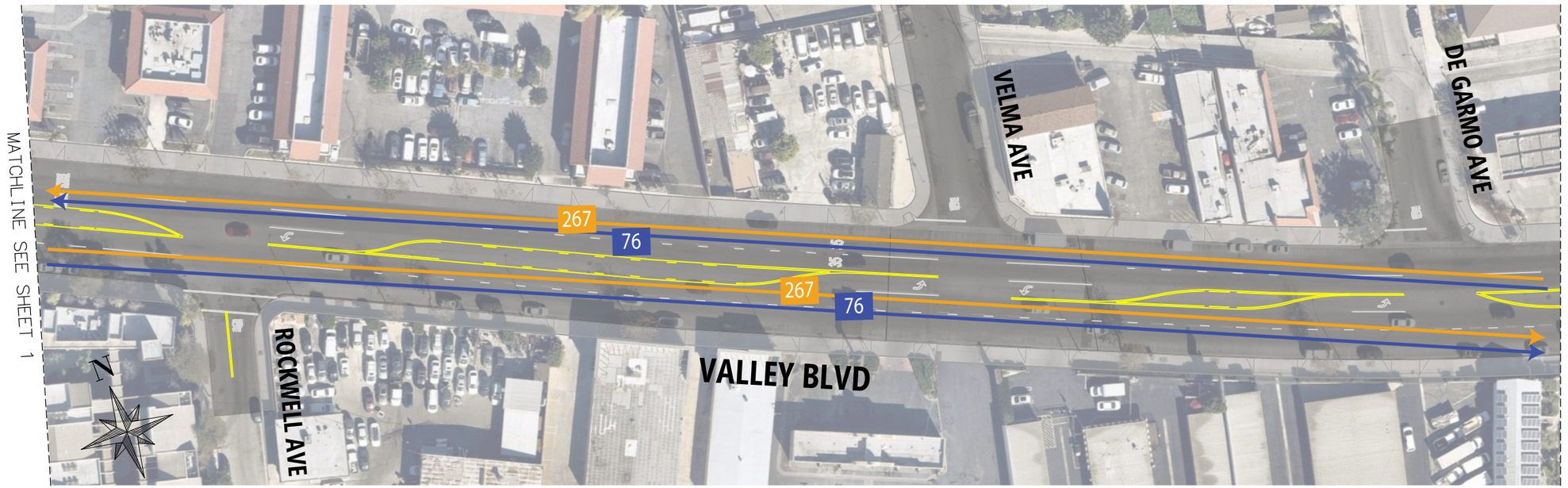
80 40 0

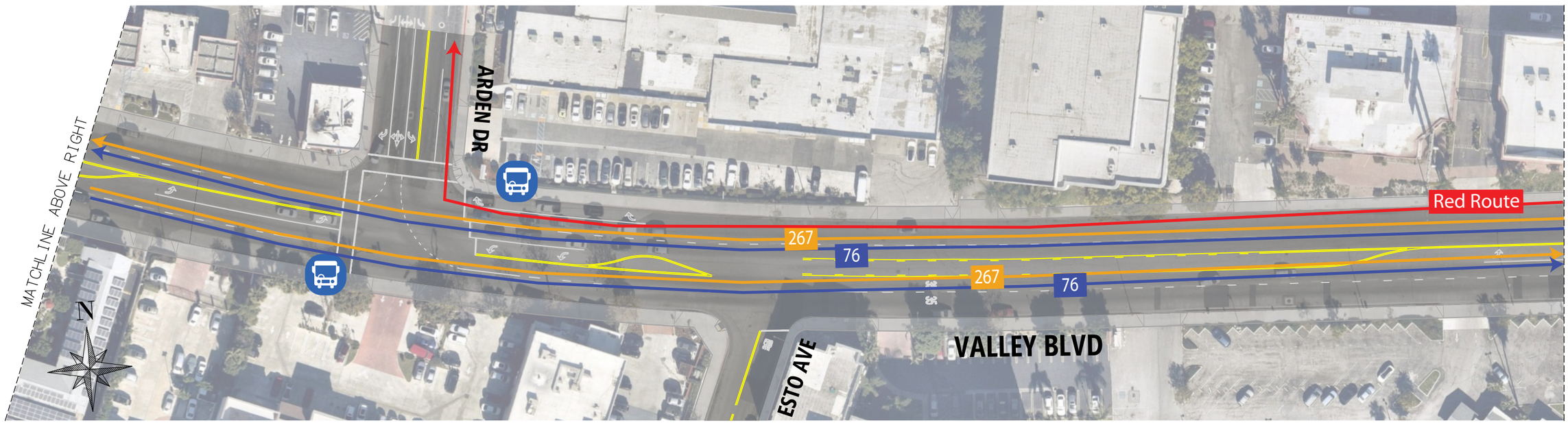
SCALE: 1”=80’

Valley Boulevard
Bus Route Overview Map

SHEET 1 OF 8

Michael Baker INTERNATIONAL





267 Metro

76 Metro

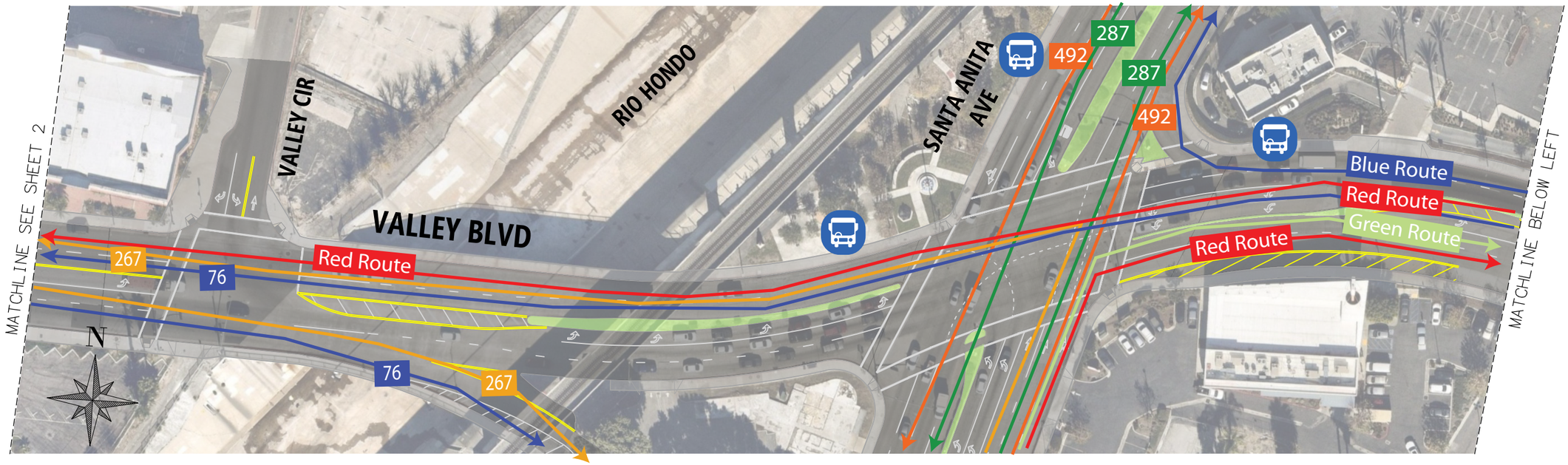
Red Route El Monte Fixed Route (Trolley)

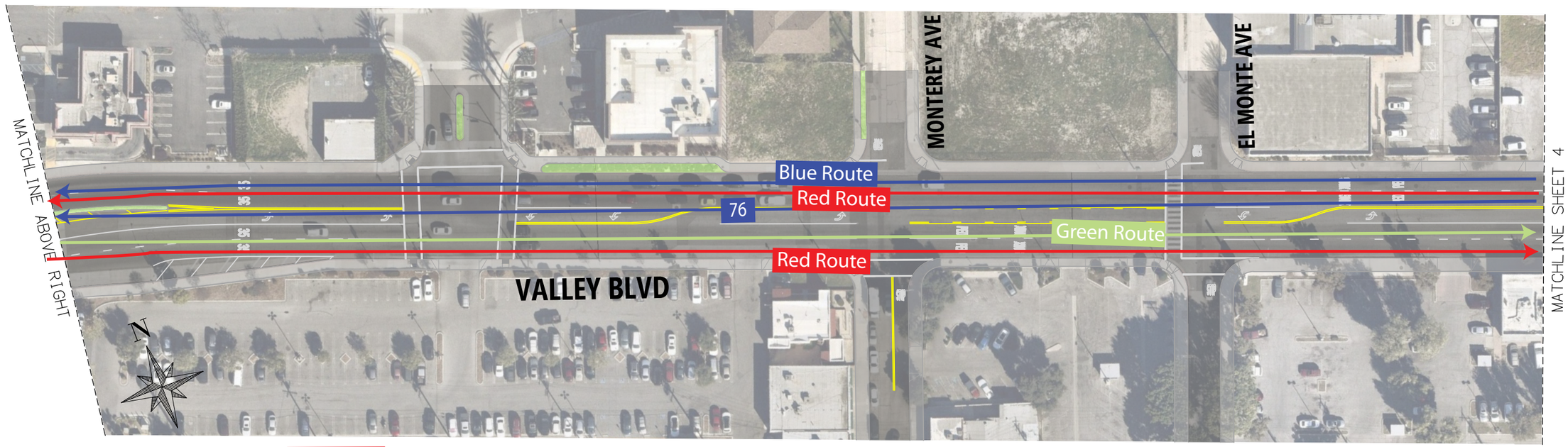
80 40 0

SCALE: 1”=80’

Valley Boulevard
Bus Route Overview Map

Michael Baker INTERNATIONAL





267	Metro	Red Route	El Monte Fixed Route (Trolley)
76	Metro	Blue Route	
287	Metro	Green Route	
492	Foothill Transit		

80 40 0

SCALE: 1”=80’

Valley Boulevard
Bus Route Overview Map

SHEET 3 OF 8

Michael Baker INTERNATIONAL

MATCHLINE SEE SHEET 3

CENTER AVE

TYLER AVE

WIGGINS AVE

268

268

Red Route

Orange Route

Blue Route

76

Orange Route

Red Route

Yellow Route

Green Route

Orange Route

VALLEY BLVD

MATCHLINE BELOW LEFT

MATCHLINE ABOVE RIGHT

76

Yellow Route

Orange Route

VALLEY BLVD

488

Blue Route

488

190

190

RAMONA BLVD

282

270

194

178

7

Green Route

178

270

7

194

282

MATCHLINE SHEET 5

76	Metro	7	Norwalk Transit	Red Route
268	Metro	194	Foothill Transit	Blue Route
190	Foothill Transit	178	Foothill Transit	Green Route
488	Foothill Transit	270	Foothill Transit	Orange Route
		282	Foothill Transit	Yellow Route

El Monte
Fixed Route (Trolley)

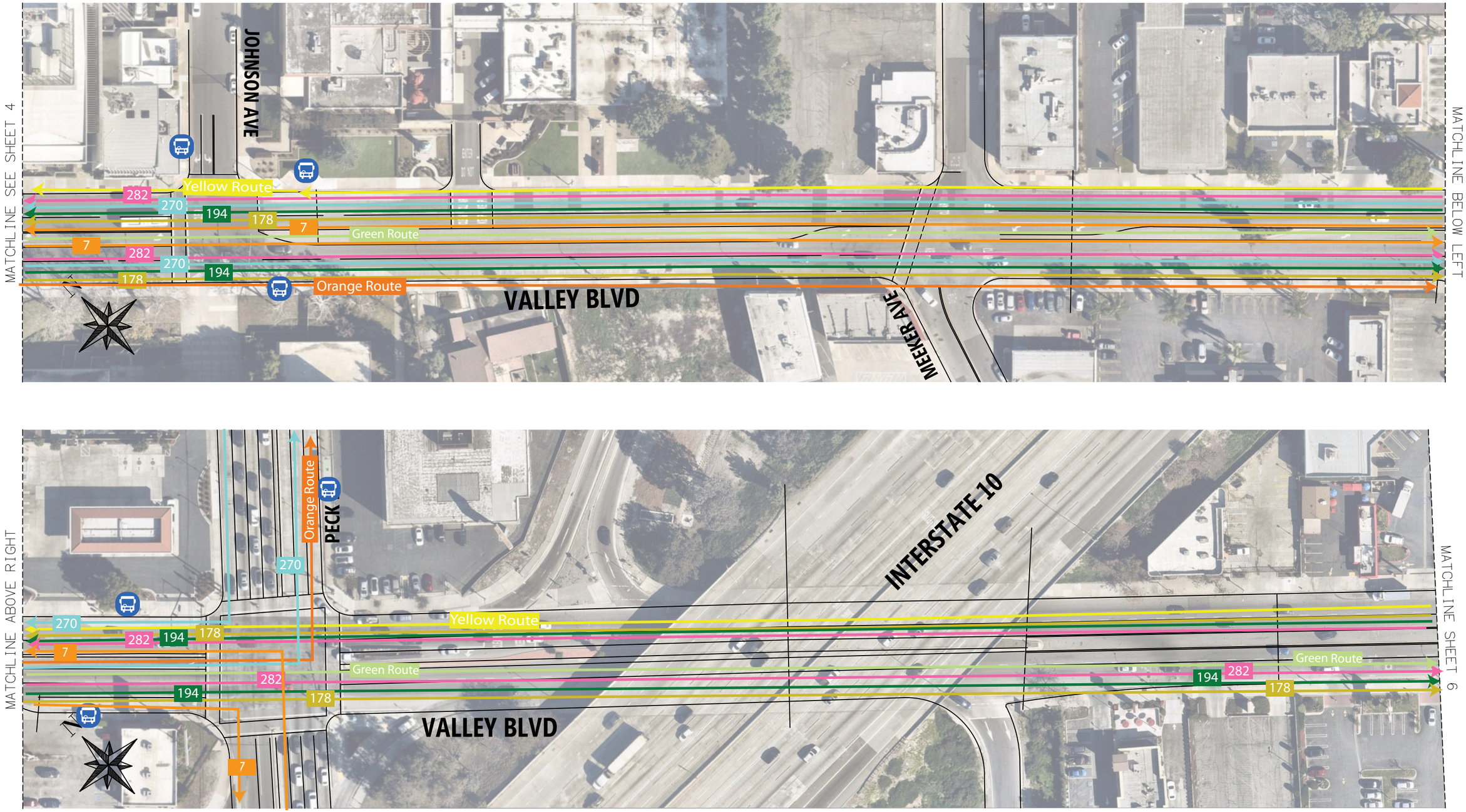
80 40 0

SCALE: 1”=80’

Michael Baker INTERNATIONAL

Valley Boulevard
Bus Route Overview Map

SHEET 4 OF 8



7	Norwalk Transit
194	Foothill Transit
178	Foothill Transit
270	Foothill Transit
282	Foothill Transit

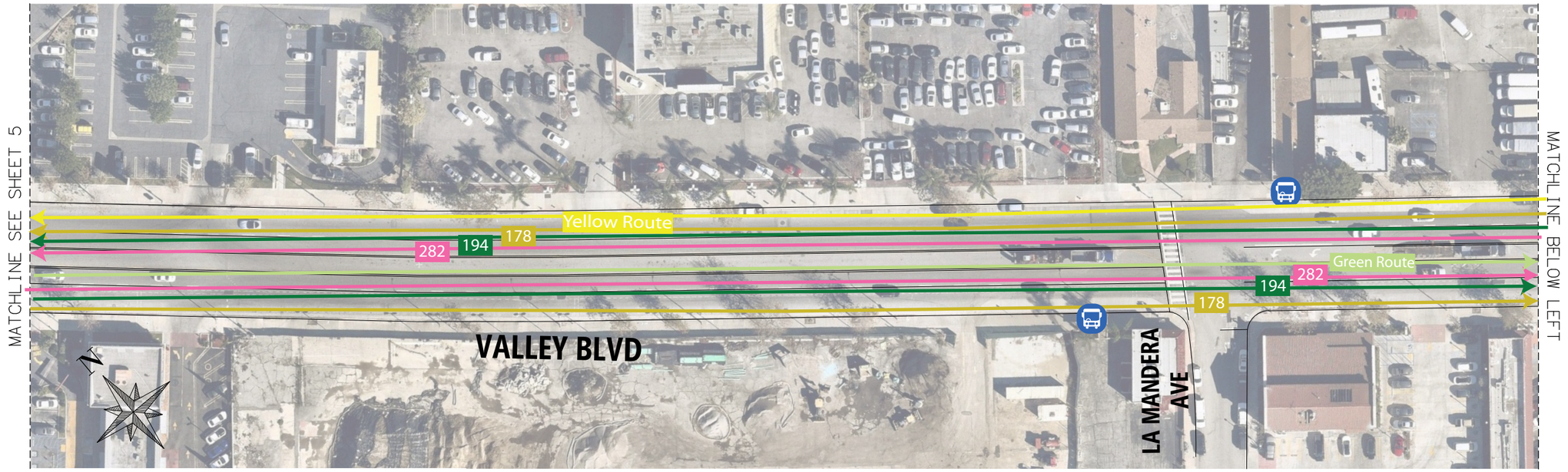
El Monte Fixed Route (Trolley): Green Route, Orange Route, Yellow Route

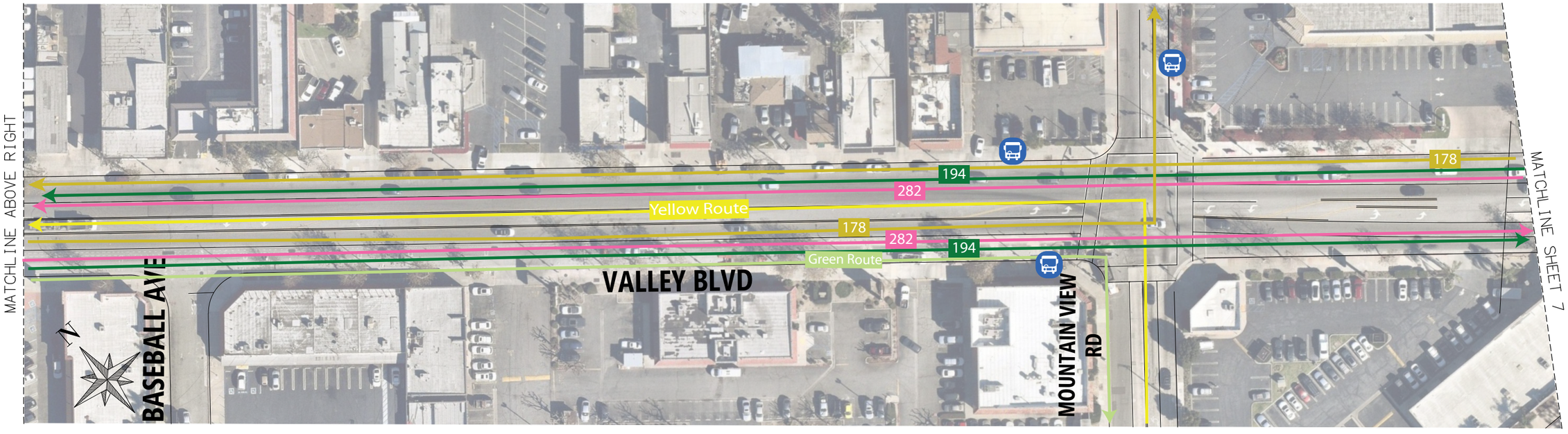
80 40 0

SCALE: 1”=80’

Valley Boulevard
Bus Route Overview Map

Michael Baker INTERNATIONAL





194 Foothill Transit

178 Foothill Transit

282 Foothill Transit

Green Route
Yellow Route
El Monte
Fixed Route (Trolley)

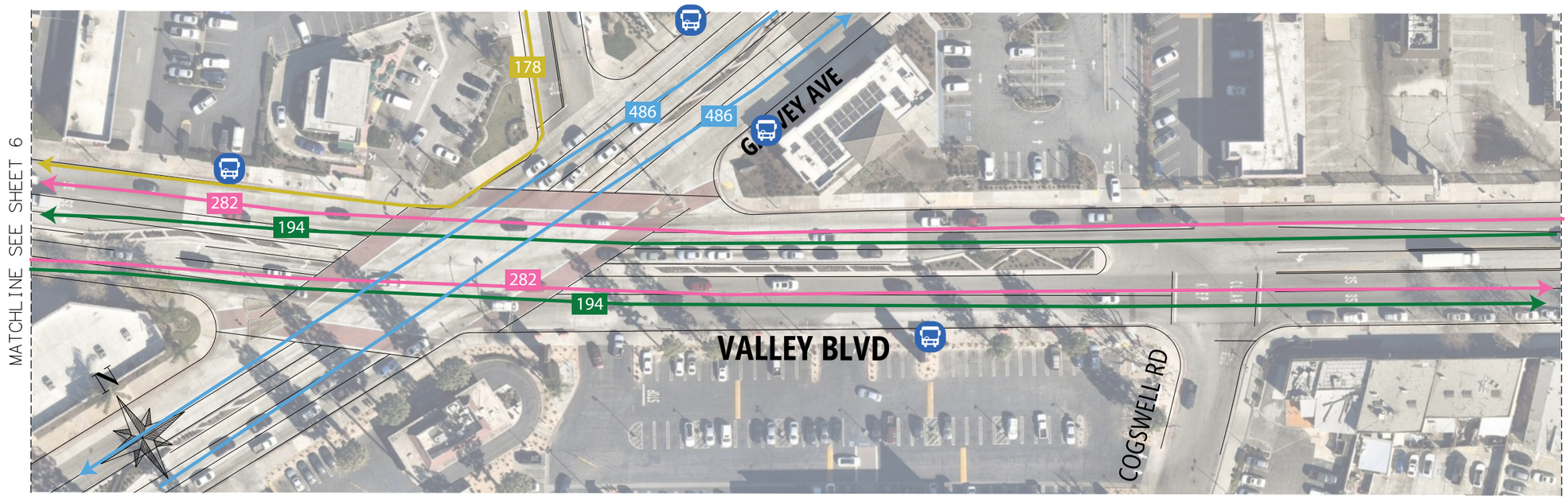
80 40 0

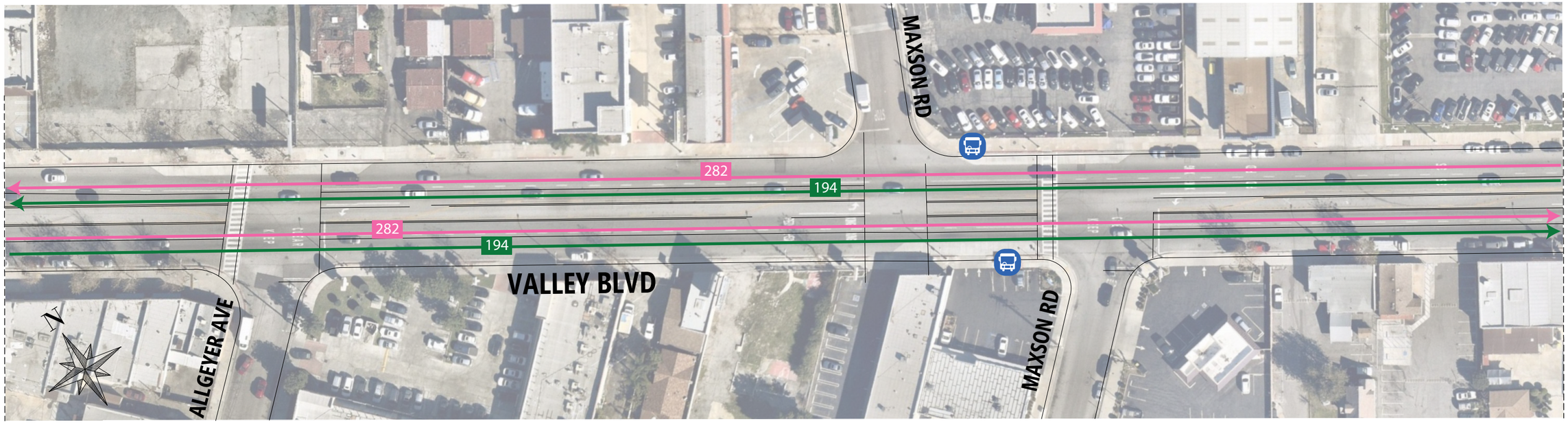
SCALE: 1”=80’

Valley Boulevard
Bus Route Overview Map

SHEET 6 OF 8

Michael Baker INTERNATIONAL





194 Foothill Transit

178 Foothill Transit

282 Foothill Transit

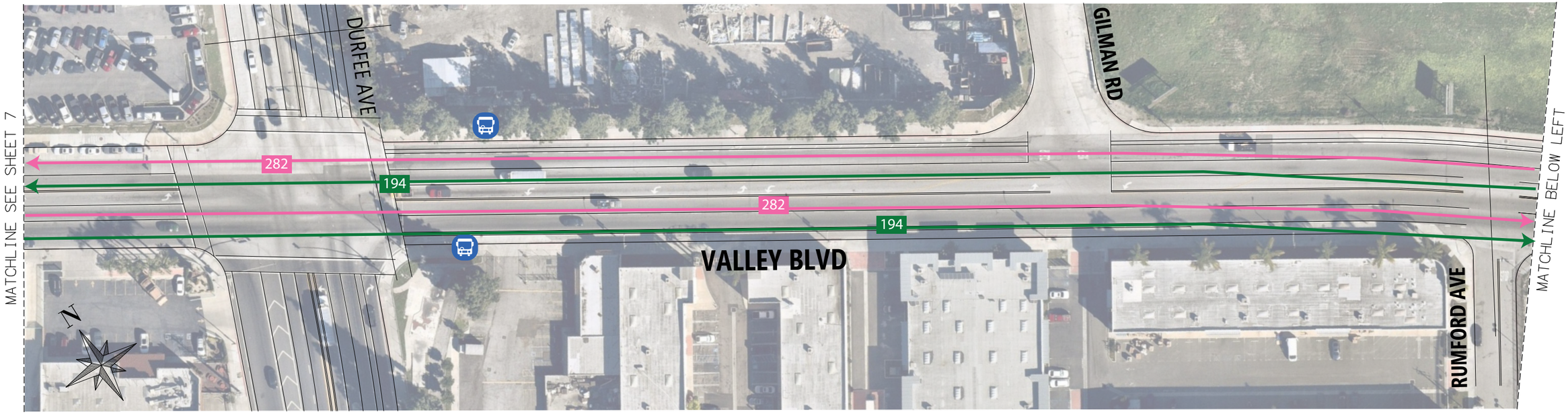
486 Foothill Transit

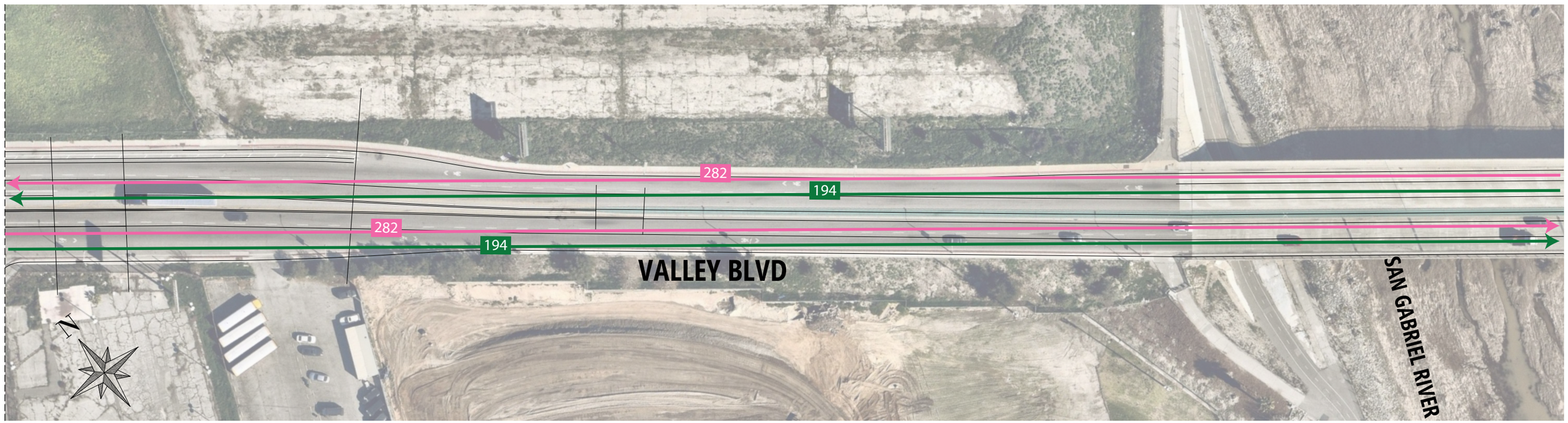
80 40 0

SCALE: 1”=80’

Valley Boulevard
Bus Route Overview Map

Michael Baker INTERNATIONAL





194 Foothill Transit

282 Foothill Transit

80 40 0

SCALE: 1”=80’

Valley Boulevard
Bus Route Overview Map

SHEET 8 OF 8

Michael Baker INTERNATIONAL

Appendix E: Volume Development Worksheets

1

Study Intersection: Santa Anita Ave / Valley Blvd
North/South: Santa Anita Ave
East/West: Valley Blvd

BO Year: 2035
Ambient Growth: 1%
Years till opening: 12

Trip Gen						
ADT	AM Peak Hour			PM Peak Hour		
	Total	In	Out	Total	In	Out

Straightline Growth: ROUND((1+$K$4*$K$3)*D10,0)
Compound Growth: ROUND(((1+$K$3)^$K$4)*D10,0)

	Existing		Project Only				Existing With Project		Cum. Proj. Only		NT		NT With Proj		BO		Alt 1 Adjustments		BO + Alt 1		BO With Proj.	
	AM	PM	Dist. % IN	Dist. % OUT	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
NBL	394	369			0	0			0	0	441	413	441	413	441	413			441	413		
NBT	494	734			0	0			0	0	553	822	553	822	553	822			553	822		
NBR	26	60			0	0			0	0	29	67	29	67	29	67			29	67		
SBL	22	40			0	0			0	0	25	45	25	45	25	45			25	45		
SBT	671	477			0	0			0	0	752	534	752	534	752	534			752	534		
SBR	307	134			0	0			0	0	344	150	344	150	344	150			344	150		
EBL	124	324			0	0			0	0	139	363	139	363	139	363	0	13	139	376		
EBT	446	789			0	0			0	0	500	884	500	884	500	884	101	161	601	1,045		
EBR	1	4			0	0			0	0	1	4	1	4	1	4	396	409	397	413		
WBL	33	83			0	0			0	0	37	93	37	93	37	93			37	93		
WBT	858	577			0	0			0	0	961	646	961	646	961	646			961	646		
WBR	22	43			0	0			0	0	25	48	25	48	25	48			25	48		

2 Study Intersection: Santa Anita Ave / Main St
North/South: Santa Anita Ave
East/West: Main St

OY Year: 2035
Ambient Growth: 1%
Years till opening: 12

Trip Gen						
	AM Peak Hour			PM Peak Hour		
ADT	Total	In	Out	Total	In	Out

Straightline Growth: ROUND((1+$K$4*$K$3)*D10,0)
Compound Growth: ROUND(((1+$K$3)^$K$4)*D10,0)

	Existing		Project Only				Existing With Proj.		Cum. Proj. Only		NT		NT With Proj		BO		Alt 1 Adjustments		BO + Alt 1		BO With Proj.	
			Dist. %																			
	AM	PM	IN	OUT	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
NBL	0	0			0	0			0	0	0	0	0	0	0	0			0	0		
NBT	873	1,041			0	0			0	0	978	1,166	978	1,166	978	1,166			978	1,166		
NBR	20	40			0	0			0	0	22	45	22	45	22	45			22	45		
SBL	31	18			0	0			0	0	35	20	35	20	35	20			35	20		
SBT	665	563			0	0			0	0	745	631	745	631	745	631			745	631		
SBR	0	0			0	0			0	0	0	0	0	0	0	0			0	0		
EBL	0	12			0	0			0	0	0	13	0	13	0	13	0	-13	0	0		
EBT	90	144			0	0			0	0	101	161	101	161	101	161	-101	-161	0	0		
EBR	354	365			0	0			0	0	396	409	396	409	396	409	-396	-409	0	0		
WBL	15	28			0	0			0	0	17	31	17	31	17	31			17	31		
WBT	0	0			0	0			0	0	0	0	0	0	0	0			0	0		
WBR	47	87			0	0			0	0	53	97	53	97	53	97			53	97		

3 Study Intersection: El Monte Ave / Valley Blvd
North/South: El Monte Ave
East/West: Valley Blvd

OY Year: 2035
Ambient Growth: 1%
Years till opening: 12

Trip Gen						
	AM Peak Hour			PM Peak Hour		
ADT	Total	In	Out	Total	In	Out

Straightline Growth: ROUND((1+$K$4*$K$3)*D10,0)
Compound Growth: ROUND(((1+$K$3)^$K$4)*D10,0)

	Existing		Project Only				Existing With Proj.		Cum. Proj. Only		NT		NT With Proj		BO		Alt 1 Adjustments		BO + Alt 1		BO With Proj.	
			Dist. %																			
	AM	PM	IN	OUT	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
NBL	3	13			0	0			0	0	3	15	3	15	3	15	-3	-15	0	0		
NBT	0	0			0	0			0	0	0	0	0	0	0	0	0	0	0	0		
NBR	1	21			0	0			0	0	1	24	1	24	1	24	-1	-24	0	0		
SBL	1	0			0	0			0	0	1	0	1	0	1	0	-1	0	0	0		
SBT	1	0			0	0			0	0	1	0	1	0	1	0	-1	0	0	0		
SBR	8	14			0	0			0	0	9	16	9	16	9	16	-9	-16	0	0		
EBL	6	7			0	0			0	0	7	8	7	8	7	8	-7	-8	0	0		
EBT	535	968			0	0			0	0	599	1,084	599	1,084	599	1,084	7	8	606	1,092		
EBR	2	5			0	0			0	0	2	6	2	6	2	6	-2	-6	0	0		
WBL	14	15			0	0			0	0	16	17	16	17	16	17	-16	-17	0	0		
WBT	925	727			0	0			0	0	1,036	814	1,036	814	1,036	814	12	31	1,048	845		
WBR	3	1			0	0			0	0	3	1	3	1	3	1	-3	-1	0	0		

Movements moved to Center Ave Intersection

4 Study Intersection: Peck Rd / Valley Blvd
North/South: Peck Rd
East/West: Valley Blvd

OY Year: 2035
Ambient Growth: 1%
Years till opening: 12

Trip Gen						
	AM Peak Hour			PM Peak Hour		
ADT	Total	In	Out	Total	In	Out

Straightline Growth: ROUND((1+$K$4*$K$3)*D10,0)
Compound Growth: ROUND(((1+$K$3)^$K$4)*D10,0)

	Existing		Project Only				Existing With Proj.		Cum. Proj. Only		NT		NT With Proj		BO		Alt 1 Adjustments		BO + Alt 1		BO With Proj.	
	AM	PM	Dist. % IN	Dist. % OUT	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
NBU	76	95			0	0			0	0	85	106	85	106	85	106			85	106		
NBL	78	96			0	0			0	0	87	108	87	108	87	108			87	108		
NBT	711	1,061			0	0			0	0	796	1,188	796	1,188	796	1,188			796	1,188		
NBR	316	347			0	0			0	0	354	389	354	389	354	389			354	389		
SBL	202	226			0	0			0	0	226	253	226	253	226	253			226	253		
SBT	927	867			0	0			0	0	1,038	971	1,038	971	1,038	971			1,038	971		
SBR	125	113			0	0			0	0	140	127	140	127	140	127			140	127		
EBL	74	129			0	0			0	0	83	144	83	144	83	144			83	144		
EBT	482	773			0	0			0	0	540	866	540	866	540	866			540	866		
EBR	113	170			0	0			0	0	127	190	127	190	127	190			127	190		
WBU	13	6			0	0			0	0	15	7	15	7	15	7			15	7		
WBL	34	52			0	0			0	0	38	58	38	58	38	58			38	58		
WBT	731	546			0	0			0	0	819	612	819	612	819	612			819	612		
WBR	202	242			0	0			0	0	226	271	226	271	226	271			226	271		

5 Study Intersection: Peck Rd / I-10 WB Ramps
North/South: Peck Rd
East/West: I-10 WB Ramps

OY Year: 2035
Ambient Growth: 1%
Years till opening: 12

Trip Gen						
	AM Peak Hour			PM Peak Hour		
ADT	Total	In	Out	Total	In	Out
					115	77

Straightline Growth: ROUND((1+$K$4*$K$3)*D10,0)
Compound Growth: ROUND(((1+$K$3)^$K$4)*D10,0)

	Existing		Project Only				Existing With Proj.		Cum. Proj. Only		NT		NT With Proj		BO		Alt 1 Adjustments		BO + Alt 1		BO With Proj.	
	AM	PM	Dist. % IN	Dist. % OUT	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
NBL	0	0			0	0			0	0	0	0	0	0	0	0			0	0		
NBT	1,181	1,599			0	0			0	0	1,323	1,791	1,323	1,791	1,323	1,791			1,323	1,791		
NBR	0	0			0	0			0	0	0	0	0	0	0	0			0	0		
SBL	0	0			0	0			0	0	0	0	0	0	0	0			0	0		
SBT	708	639			0	0			0	0	793	716	793	716	793	716			793	716		
SBR	442	538			0	0			0	0	495	603	495	603	495	603			495	603		
EBL	0	0			0	0			0	0	0	0	0	0	0	0			0	0		
EBT	0	0			0	0			0	0	0	0	0	0	0	0			0	0		
EBR	274	163			0	0			0	0	307	183	307	183	307	183			307	183		
WBL	0	0			0	0			0	0	0	0	0	0	0	0			0	0		
WBT	0	0			0	0			0	0	0	0	0	0	0	0			0	0		
WBR	0	0			0	0			0	0	0	0	0	0	0	0			0	0		

EXISTING VOLUMES
CHANGED TO PEAK HOUR
OF INT. PECK & VALLEY
(7:45AM & 4:30 PM)

6 Study Intersection: I-10 WB Ramps / Valley Blvd
North/South: I-10 WB Ramps
East/West: Valley Blvd

OY Year: 2035
Ambient Growth: 1%
Years till opening: 12

Trip Gen						
	AM Peak Hour			PM Peak Hour		
ADT	Total	In	Out	Total	In	Out
					115	77

Straightline Growth: ROUND((1+$K$4*$K$3)*D10,0)
Compound Growth: ROUND(((1+$K$3)^$K$4)*D10,0)

	Existing		Project Only				Existing With Proj.		Cum. Proj. Only		NT		NT With Proj		BO		Alt 1 Adjustments		BO + Alt 1		BO With Proj.	
	AM	PM	Dist. % IN	Dist. % OUT	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
NBL	0	0			0	0			0	0	0	0	0	0	0	0			0	0		
NBT	0	0			0	0			0	0	0	0	0	0	0	0			0	0		
NBR	0	0			0	0			0	0	0	0	0	0	0	0			0	0		
SBL	0	0			0	0			0	0	0	0	0	0	0	0			0	0		
SBT	0	0			0	0			0	0	0	0	0	0	0	0			0	0		
SBR	187	149			0	0			0	0	209	167	209	167	209	167			209	167		
EBL	0	0			0	0			0	0	0	0	0	0	0	0			0	0		
EBT	1,013	1,352			0	0			0	0	1,135	1,514	1,135	1,514	1,135	1,514			1,135	1,514		
EBR	0	0			0	0			0	0	0	0	0	0	0	0			0	0		
WBL	0	0			0	0			0	0	0	0	0	0	0	0			0	0		
WBT	805	693			0	0			0	0	902	776	902	776	902	776			902	776		
WBR	456	336			0	0			0	0	511	376	511	376	511	376			511	376		

EXISTING VOLUMES CHANGED TO PEAK HOUR OF INT. PECK & VALLEY (7:45AM & 4:30 PM)

7

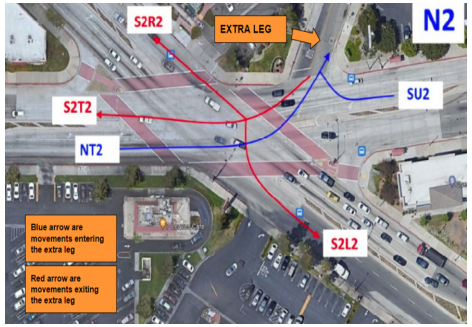
Study Intersection: Garvey Ave/Cogswell Rd / Valley Blvd
North/South: Garvey Ave/Cogswell Rd
East/West: Valley Blvd

OY Year: 2035
Ambient Growth: 1%
Years till opening: 12

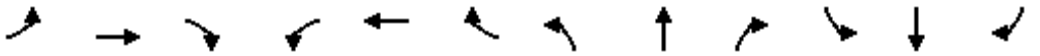
Trip Gen						
	AM Peak Hour			PM Peak Hour		
ADT	Total	In	Out	Total	In	Out

Straightline Growth: ROUND((1+$K$4*$K$3)*D10,0)
Compound Growth: ROUND(((1+$K$3)^$K$4)*D10,0)

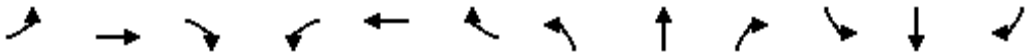
	Existing		Project Only				Existing With Proj.		Cum. Proj. Only		NT		NT With Proj		BO		Alt 1 Adjustments		BO + Alt 1		BO With Proj.	
			Dist. %																			
	AM	PM	IN	OUT	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
NBL	25	24			0	0			0	0	28	27	28	27	28	27			28	27		
NBT	260	658			0	0			0	0	291	737	291	737	291	737			291	737		
NBR	273	331			0	0			0	0	306	371	306	371	306	371			306	371		
SBL	87	60			0	0			0	0	97	67	97	67	97	67			97	67		
SBT	414	285			0	0			0	0	464	319	464	319	464	319			464	319		
SBR	179	135			0	0			0	0	200	151	200	151	200	151			200	151		
EBL	75	193			0	0			0	0	84	216	84	216	84	216			84	216		
EBT	511	794			0	0			0	0	572	889	572	889	572	889			572	889		
EBR	2	21			0	0			0	0	2	24	2	24	2	24			2	24		
WBL	256	200			0	0			0	0	287	224	287	224	287	224			287	224		
WBT	977	633			0	0			0	0	1,094	709	1,094	709	1,094	709			1,094	709		
WBR	16	28			0	0			0	0	18	31	18	31	18	31			18	31		
NT2	0	0			0	0			0	0	0	0	0	0	0	0			0	0		
S2L2	36	14			0	0			0	0	40	16	40	16	40	16			40	16		
S2T2	79	56			0	0			0	0	88	63	88	63	88	63			88	63		
S2R2	16	21			0	0			0	0	18	24	18	24	18	24			18	24		
SU2	43	46									48	52	48	52	48	52			48	52		



Appendix F: Synchro Worksheets



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	124	446	1	33	858	22	394	494	26	22	671	307
Future Volume (vph)	124	446	1	33	858	22	394	494	26	22	671	307
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	260		0	130		0	140		0	260		0
Storage Lanes	1		0	2		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	0.97	0.91	0.91	1.00	0.91	0.91
Ped Bike Factor												
Frt		0.999			0.996			0.991			0.954	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3536	0	3433	3525	0	3433	5040	0	1770	4851	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3536	0	3433	3525	0	3433	5040	0	1770	4851	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			3			10			107	
Link Speed (mph)		35			35			35			40	
Link Distance (ft)		548			579			278			585	
Travel Time (s)		10.7			11.3			5.4			10.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.86	0.25	0.64	0.93	0.79	0.87	0.85	0.72	0.61	0.83	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	139	519	4	52	923	28	453	581	36	36	808	353
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	523	0	52	951	0	453	617	0	36	1161	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases												
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												

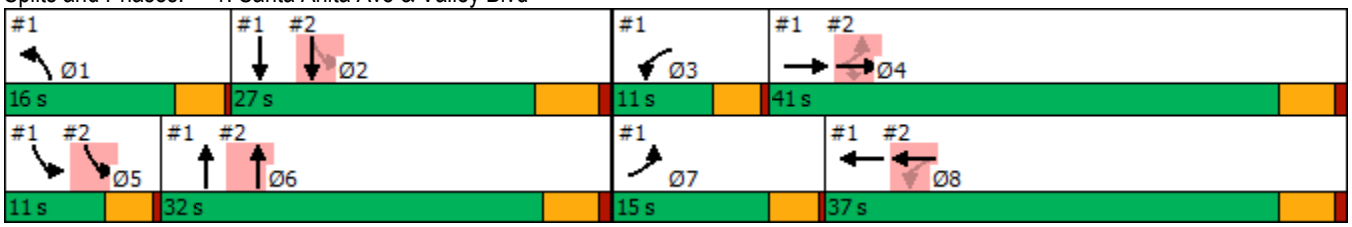


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0		7.0	10.0		10.0	10.0		7.0	10.0	
Minimum Split (s)	11.0	41.0		11.0	28.0		14.0	18.0		11.0	25.5	
Total Split (s)	15.0	41.0		11.0	37.0		16.0	32.0		11.0	27.0	
Total Split (%)	15.8%	43.2%		11.6%	38.9%		16.8%	33.7%		11.6%	28.4%	
Maximum Green (s)	11.0	36.0		7.0	32.0		12.0	27.0		7.0	21.5	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.5	
All-Red Time (s)	0.5	1.0		0.5	1.0		0.5	1.0		0.5	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		29.0			16.0			6.0			13.0	
Pedestrian Calls (#/hr)		10			10			10			10	
Act Effct Green (s)	10.3	35.6		7.0	29.8		12.0	29.5		7.0	21.6	
Actuated g/C Ratio	0.11	0.39		0.08	0.32		0.13	0.32		0.08	0.23	
v/c Ratio	0.70	0.38		0.20	0.83		1.01	0.38		0.27	0.96	
Control Delay	60.2	21.9		43.3	36.4		105.1	6.0		47.0	50.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.1		0.0	0.0	
Total Delay	60.2	21.9		43.3	36.4		105.1	6.1		47.0	50.2	
LOS	E	C		D	D		F	A		D	D	
Approach Delay		30.0			36.7			48.0			50.1	
Approach LOS		C			D			D			D	
90th %ile Green (s)	11.0	36.0		7.0	32.0		12.0	27.0		7.0	21.5	
90th %ile Term Code	Max	Ped		Max	Max		Max	Max		Max	Max	
70th %ile Green (s)	11.0	36.0		7.0	32.0		12.0	27.0		7.0	21.5	
70th %ile Term Code	Max	Hold		Max	Max		Max	Max		Max	Max	
50th %ile Green (s)	11.0	36.0		7.0	32.0		12.0	27.0		7.0	21.5	
50th %ile Term Code	Max	Hold		Max	Max		Max	Max		Max	Max	
30th %ile Green (s)	11.0	34.3		7.0	30.3		12.0	27.0		7.0	21.5	
30th %ile Term Code	Max	Hold		Max	Gap		Max	Max		Max	Max	
10th %ile Green (s)	7.9	35.1		0.0	23.2		12.0	38.0		0.0	21.5	
10th %ile Term Code	Gap	Hold		Skip	Gap		Max	Hold		Skip	Max	
Stops (vph)	112	309		30	781		324	55		22	794	
Fuel Used(gal)	3	6		1	16		12	2		1	22	
CO Emissions (g/hr)	199	426		46	1124		815	146		36	1515	
NOx Emissions (g/hr)	39	83		9	219		159	28		7	295	
VOC Emissions (g/hr)	46	99		11	261		189	34		8	351	
Dilemma Vehicles (#)	0	19		0	43		0	38		0	50	
Queue Length 50th (ft)	82	118		15	270		~160	14		21	235	
Queue Length 95th (ft)	#161	153		24	348		#248	22		35	#286	
Internal Link Dist (ft)		468			499			198			505	
Turn Bay Length (ft)	260			130			140			260		
Base Capacity (vph)	211	1383		260	1227		447	1618		134	1215	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0		0	267		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.66	0.38		0.20	0.78		1.01	0.46		0.27	0.96	

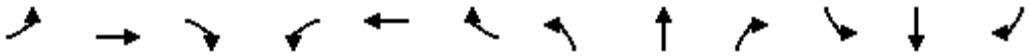
Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 92.3			
Natural Cycle: 95			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay: 42.7		Intersection LOS: D	
Intersection Capacity Utilization 77.8%		ICU Level of Service D	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 95			
70th %ile Actuated Cycle: 95			
50th %ile Actuated Cycle: 95			
30th %ile Actuated Cycle: 93.3			
10th %ile Actuated Cycle: 83.1			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Santa Anita Ave & Valley Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	90	354	15	0	47	0	873	20	31	665	0
Future Volume (vph)	0	90	354	15	0	47	0	873	20	31	665	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	145		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor												
Frt			0.850		0.896			0.996				
Flt Protected					0.989					0.950		
Satd. Flow (prot)	0	1863	1583	0	1651	0	0	5065	0	1770	5085	0
Flt Permitted					0.925					0.209		
Satd. Flow (perm)	0	1863	1583	0	1544	0	0	5065	0	389	5085	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			453		167			4				
Link Speed (mph)		30			30			35			40	
Link Distance (ft)		276			326			445			278	
Travel Time (s)		6.3			7.4			8.7			4.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.70	0.74	0.63	0.92	0.59	0.92	0.89	0.71	0.83	0.84	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	129	478	24	0	80	0	981	28	37	792	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	129	478	0	104	0	0	1009	0	37	792	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			10			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2			2		1	2	
Detector Template	Left	Thru	Right	Left	Thru			Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100			100		20	100	
Trailing Detector (ft)	0	0	0	0	0			0		0	0	
Turn Type		NA	Perm	Perm	NA			NA		pm+pt	NA	
Protected Phases		4			8			6		5	2	
Permitted Phases	4		4	8						2		
Detector Phase	4	4	4	8	8			6		5	2	
Switch Phase												

Lane Group	Ø1	Ø3	Ø7
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Growth Factor			
Heavy Vehicles (%)			
Bus Blockages (#/hr)			
Parking (#/hr)			
Mid-Block Traffic (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Turn Type			
Protected Phases	1	3	7
Permitted Phases			
Detector Phase			
Switch Phase			



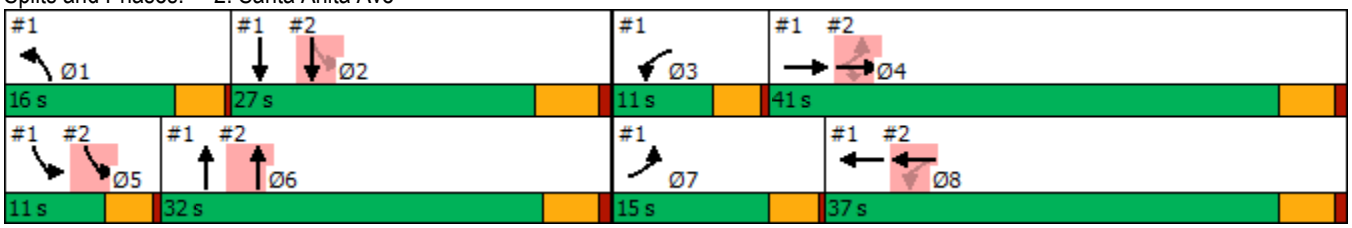
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0			10.0		7.0	10.0	
Minimum Split (s)	41.0	41.0	41.0	28.0	28.0			18.0		11.0	25.5	
Total Split (s)	41.0	41.0	41.0	37.0	37.0			32.0		11.0	27.0	
Total Split (%)	43.2%	43.2%	43.2%	38.9%	38.9%			33.7%		11.6%	28.4%	
Maximum Green (s)	36.0	36.0	36.0	32.0	32.0			27.0		7.0	21.5	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0			4.0		3.5	4.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0			1.0		0.5	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0			0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0			5.0		4.0	5.5	
Lead/Lag	Lag	Lag	Lag	Lag	Lag			Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes			Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0			3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0			0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0			0.0		0.0	0.0	
Recall Mode	None	None	None	None	None			Min		None	Min	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	
Flash Dont Walk (s)	29.0	29.0	29.0	16.0	16.0			6.0			13.0	
Pedestrian Calls (#/hr)	10	10	10	10	10			10			10	
Act Effct Green (s)		35.6	35.6		29.8			29.5		30.1	21.6	
Actuated g/C Ratio		0.39	0.39		0.32			0.32		0.33	0.23	
v/c Ratio		0.18	0.54		0.17			0.62		0.16	0.67	
Control Delay		20.4	5.2		1.3			30.0		11.4	18.1	
Queue Delay		0.0	0.0		0.0			0.0		0.0	0.6	
Total Delay		20.4	5.2		1.3			30.0		11.4	18.7	
LOS		C	A		A			C		B	B	
Approach Delay		8.4			1.3			30.0			18.4	
Approach LOS		A			A			C			B	
90th %ile Green (s)	36.0	36.0	36.0	32.0	32.0			27.0		7.0	21.5	
90th %ile Term Code	Ped	Ped	Ped	Max	Max			Max		Max	Max	
70th %ile Green (s)	36.0	36.0	36.0	32.0	32.0			27.0		7.0	21.5	
70th %ile Term Code	Hold	Hold	Hold	Max	Max			Max		Max	Max	
50th %ile Green (s)	36.0	36.0	36.0	32.0	32.0			27.0		7.0	21.5	
50th %ile Term Code	Hold	Hold	Hold	Max	Max			Max		Max	Max	
30th %ile Green (s)	34.3	34.3	34.3	30.3	30.3			27.0		7.0	21.5	
30th %ile Term Code	Hold	Hold	Hold	Gap	Gap			Max		Max	Max	
10th %ile Green (s)	35.1	35.1	35.1	23.2	23.2			38.0		0.0	21.5	
10th %ile Term Code	Hold	Hold	Hold	Gap	Gap			Hold		Skip	Max	
Stops (vph)		58	39		1			737		8	190	
Fuel Used(gal)		1	2		0			14		0	6	
CO Emissions (g/hr)		74	140		13			970		15	390	
NOx Emissions (g/hr)		14	27		2			189		3	76	
VOC Emissions (g/hr)		17	32		3			225		3	90	
Dilemma Vehicles (#)		0	0		0			46		0	117	
Queue Length 50th (ft)		51	9		0			197		5	57	
Queue Length 95th (ft)		69	25		8			242		m6	m63	
Internal Link Dist (ft)		196			246			365			198	
Turn Bay Length (ft)										145		
Base Capacity (vph)		728	895		645			1622		231	1187	

Lane Group	Ø1	Ø3	Ø7
Minimum Initial (s)	10.0	7.0	7.0
Minimum Split (s)	14.0	11.0	11.0
Total Split (s)	16.0	11.0	15.0
Total Split (%)	17%	12%	16%
Maximum Green (s)	12.0	7.0	11.0
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0
Recall Mode	None	None	None
Walk Time (s)			
Flash Dont Walk (s)			
Pedestrian Calls (#/hr)			
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
90th %ile Green (s)	12.0	7.0	11.0
90th %ile Term Code	Max	Max	Max
70th %ile Green (s)	12.0	7.0	11.0
70th %ile Term Code	Max	Max	Max
50th %ile Green (s)	12.0	7.0	11.0
50th %ile Term Code	Max	Max	Max
30th %ile Green (s)	12.0	7.0	11.0
30th %ile Term Code	Max	Max	Max
10th %ile Green (s)	12.0	0.0	7.9
10th %ile Term Code	Max	Skip	Gap
Stops (vph)			
Fuel Used(gal)			
CO Emissions (g/hr)			
NOx Emissions (g/hr)			
VOC Emissions (g/hr)			
Dilemma Vehicles (#)			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0	0		0			0		0	135	
Spillback Cap Reductn		0	0		0			0		0	0	
Storage Cap Reductn		0	0		0			0		0	0	
Reduced v/c Ratio		0.18	0.53		0.16			0.62		0.16	0.75	

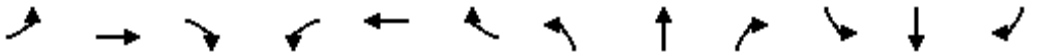
Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 92.3			
Natural Cycle: 95			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay: 19.9		Intersection LOS: B	
Intersection Capacity Utilization 56.0%		ICU Level of Service B	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 95			
70th %ile Actuated Cycle: 95			
50th %ile Actuated Cycle: 95			
30th %ile Actuated Cycle: 93.3			
10th %ile Actuated Cycle: 83.1			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Santa Anita Ave



Lane Group	Ø1	Ø3	Ø7
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	535	2	14	925	3	3	0	1	1	1	8
Future Volume (vph)	6	535	2	14	925	3	3	0	1	1	1	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	50		0	50		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.999			0.932			0.919	
Flt Protected	0.950			0.950				0.976			0.990	
Satd. Flow (prot)	1770	3532	0	1770	3536	0	0	1694	0	0	1695	0
Flt Permitted	0.950			0.950				0.976			0.990	
Satd. Flow (perm)	1770	3532	0	1770	3536	0	0	1694	0	0	1695	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		339			384			394			368	
Travel Time (s)		6.6			7.5			9.0			8.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.50	0.94	0.25	0.88	0.90	0.38	0.75	0.92	0.25	0.25	0.25	0.67
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	12	569	8	16	1028	8	4	0	4	4	4	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	12	577	0	16	1036	0	0	8	0	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 35.7%		ICU Level of Service A	
Analysis Period (min) 15			

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	74	482	113	13	34	731	202	76	78	711	316	202
Future Volume (vph)	74	482	113	13	34	731	202	76	78	711	316	202
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%				0%		
Storage Length (ft)	270		140		120		0		0		0	270
Storage Lanes	1		1		1		0		1		0	1
Taper Length (ft)	25				25				25			25
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	0.95	0.91	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt			0.850			0.970				0.956		
Flt Protected	0.950				0.950				0.950			0.950
Satd. Flow (prot)	1770	3539	1583	0	1770	3433	0	0	1770	4862	0	1770
Flt Permitted	0.950				0.950				0.950			0.950
Satd. Flow (perm)	1770	3539	1583	0	1770	3433	0	0	1770	4862	0	1770
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)			131			33				114		
Link Speed (mph)		35				35				35		
Link Distance (ft)		598				230				180		
Travel Time (s)		11.6				4.5				3.5		
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.86	0.86	0.46	0.77	0.82	0.90	0.83	0.78	0.88	0.93	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%				0%		
Adj. Flow (vph)	81	560	131	28	44	891	224	92	100	808	340	227
Shared Lane Traffic (%)												
Lane Group Flow (vph)	81	560	131	0	72	1115	0	0	192	1148	0	227
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	R NA	Left	Left	Right	R NA	Left	Left	Right	Left
Median Width(ft)		12				12				12		
Link Offset(ft)		0				0				0		
Crosswalk Width(ft)		16				16				16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15		9	9	15		9	15
Number of Detectors	1	2	1	1	1	2		1	1	2		1
Detector Template	Left	Thru	Right	Left	Left	Thru		Left	Left	Thru		Left
Leading Detector (ft)	20	100	20	20	20	100		20	20	100		20
Trailing Detector (ft)	0	0	0	0	0	0		0	0	0		0
Turn Type	Prot	NA	Perm	Prot	Prot	NA		Prot	Prot	NA		Prot
Protected Phases	7	4		3	3	8		5	5	2		1
Permitted Phases			4									
Detector Phase	7	4	4	3	3	8		5	5	2		1
Switch Phase												

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	927	125
Future Volume (vph)	927	125
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		132
Link Speed (mph)	35	
Link Distance (ft)	837	
Travel Time (s)	16.3	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.91	0.95
Growth Factor	100%	100%
Heavy Vehicles (%)	2%	2%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Adj. Flow (vph)	1019	132
Shared Lane Traffic (%)		
Lane Group Flow (vph)	1019	132
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Detector Phase	6	6
Switch Phase		

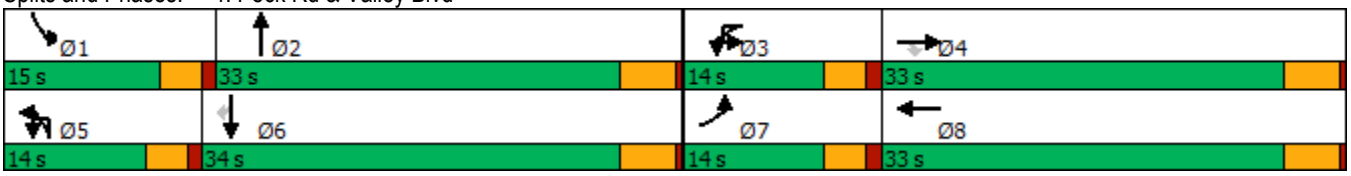
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Minimum Initial (s)	10.0	9.0	9.0	10.0	10.0	9.0		10.0	10.0	9.0		10.0
Minimum Split (s)	14.0	32.5	32.5	14.0	14.0	32.5		14.0	14.0	32.5		14.0
Total Split (s)	14.0	33.0	33.0	14.0	14.0	33.0		14.0	14.0	33.0		15.0
Total Split (%)	14.7%	34.7%	34.7%	14.7%	14.7%	34.7%		14.7%	14.7%	34.7%		15.8%
Maximum Green (s)	10.0	28.5	28.5	10.0	10.0	28.5		10.0	10.0	28.5		11.0
Yellow Time (s)	3.0	4.0	4.0	3.0	3.0	4.0		3.0	3.0	4.0		3.0
All-Red Time (s)	1.0	0.5	0.5	1.0	1.0	0.5		1.0	1.0	0.5		1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		0.0
Total Lost Time (s)	4.0	4.5	4.5		4.0	4.5			4.0	4.5		4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag		Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes		Yes
Vehicle Extension (s)	1.5	4.0	4.0	1.5	1.5	4.0		1.5	1.5	4.0		1.5
Minimum Gap (s)	1.5	3.0	3.0	1.5	1.5	3.0		1.5	1.5	3.0		1.5
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Time To Reduce (s)	0.0	15.0	15.0	0.0	0.0	15.0		0.0	0.0	15.0		0.0
Recall Mode	None	None	None	None	None	None		None	None	Min		None
Walk Time (s)		7.0	7.0			7.0				7.0		
Flash Dont Walk (s)		21.0	21.0			21.0				21.0		
Pedestrian Calls (#/hr)		10	10			10				10		
Act Effct Green (s)	10.1	28.7	28.7		10.1	28.7			10.1	27.8		11.1
Actuated g/C Ratio	0.11	0.31	0.31		0.11	0.31			0.11	0.30		0.12
v/c Ratio	0.42	0.50	0.22		0.37	1.01			0.98	0.74		1.06
Control Delay	47.0	28.5	5.7		45.7	63.0			105.7	29.4		121.1
Queue Delay	0.0	0.0	0.0		0.0	0.0			0.0	0.0		0.0
Total Delay	47.0	28.5	5.7		45.7	63.0			105.7	29.4		121.1
LOS	D	C	A		D	E			F	C		F
Approach Delay		26.5				62.0				40.3		
Approach LOS		C				E				D		
90th %ile Green (s)	10.0	28.5	28.5	10.0	10.0	28.5		10.0	10.0	28.5		11.0
90th %ile Term Code	Max	Hold	Hold	Max	Max	Max		Max	Max	Max		Max
70th %ile Green (s)	10.0	28.5	28.5	10.0	10.0	28.5		10.0	10.0	28.5		11.0
70th %ile Term Code	Max	Hold	Hold	Max	Max	Max		Max	Max	Max		Max
50th %ile Green (s)	10.0	28.5	28.5	10.0	10.0	28.5		10.0	10.0	28.5		11.0
50th %ile Term Code	Max	Hold	Hold	Max	Max	Max		Max	Max	Max		Max
30th %ile Green (s)	10.0	28.5	28.5	10.0	10.0	28.5		10.0	10.0	28.5		11.0
30th %ile Term Code	Max	Hold	Hold	Max	Max	Max		Max	Max	Hold		Max
10th %ile Green (s)	0.0	28.5	28.5	0.0	0.0	28.5		10.0	10.0	24.6		11.0
10th %ile Term Code	Skip	Hold	Hold	Skip	Skip	Max		Max	Max	Hold		Max
Stops (vph)	67	380	16		42	765			124	807		158
Fuel Used(gal)	2	8	1		1	19			4	14		7
CO Emissions (g/hr)	107	540	52		58	1346			311	947		517
NOx Emissions (g/hr)	21	105	10		11	262			60	184		101
VOC Emissions (g/hr)	25	125	12		13	312			72	220		120
Dilemma Vehicles (#)	0	19	0		0	46			0	50		0
Queue Length 50th (ft)	47	147	0		41	~384			~125	205		~158
Queue Length 95th (ft)	93	188	36		72	#436			#210	250		#298
Internal Link Dist (ft)		518				150				100		
Turn Bay Length (ft)	270		140		120							270
Base Capacity (vph)	195	1110	586		195	1100			195	1604		214

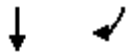
Lane Group	SBT	SBR
Minimum Initial (s)	9.0	9.0
Minimum Split (s)	32.5	32.5
Total Split (s)	34.0	34.0
Total Split (%)	35.8%	35.8%
Maximum Green (s)	29.5	29.5
Yellow Time (s)	4.0	4.0
All-Red Time (s)	0.5	0.5
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	4.5	4.5
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	4.0	4.0
Minimum Gap (s)	3.0	3.0
Time Before Reduce (s)	0.0	0.0
Time To Reduce (s)	15.0	15.0
Recall Mode	Min	Min
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	21.0	21.0
Pedestrian Calls (#/hr)	10	10
Act Effct Green (s)	28.8	28.8
Actuated g/C Ratio	0.32	0.32
v/c Ratio	0.92	0.22
Control Delay	44.6	5.6
Queue Delay	0.0	0.0
Total Delay	44.6	5.6
LOS	D	A
Approach Delay	53.4	
Approach LOS	D	
90th %ile Green (s)	29.5	29.5
90th %ile Term Code	Max	Max
70th %ile Green (s)	29.5	29.5
70th %ile Term Code	Max	Max
50th %ile Green (s)	29.5	29.5
50th %ile Term Code	Max	Max
30th %ile Green (s)	29.5	29.5
30th %ile Term Code	Max	Max
10th %ile Green (s)	25.6	25.6
10th %ile Term Code	Gap	Gap
Stops (vph)	815	17
Fuel Used(gal)	20	1
CO Emissions (g/hr)	1408	72
NOx Emissions (g/hr)	274	14
VOC Emissions (g/hr)	326	17
Dilemma Vehicles (#)	46	0
Queue Length 50th (ft)	311	0
Queue Length 95th (ft)	#438	40
Internal Link Dist (ft)	757	
Turn Bay Length (ft)		400
Base Capacity (vph)	1149	603

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Starvation Cap Reductn	0	0	0		0	0			0	0		0
Spillback Cap Reductn	0	0	0		0	0			0	0		0
Storage Cap Reductn	0	0	0		0	0			0	0		0
Reduced v/c Ratio	0.42	0.50	0.22		0.37	1.01			0.98	0.72		1.06

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 91.4			
Natural Cycle: 95			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.06			
Intersection Signal Delay: 47.4		Intersection LOS: D	
Intersection Capacity Utilization 83.3%		ICU Level of Service E	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 95			
70th %ile Actuated Cycle: 95			
50th %ile Actuated Cycle: 95			
30th %ile Actuated Cycle: 95			
10th %ile Actuated Cycle: 77.1			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

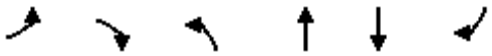
Splits and Phases: 4: Peck Rd & Valley Blvd





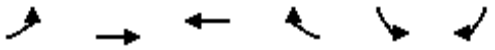
Lane Group	SBT	SBR
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.89	0.22

Intersection Summary



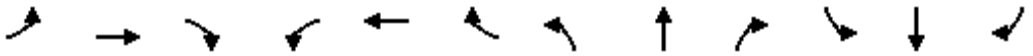
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	274	0	1181	708	442
Future Volume (vph)	0	274	0	1181	708	442
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	70			0
Storage Lanes	0	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.86	0.95	0.95
Ped Bike Factor						
Frt		0.865			0.942	
Flt Protected						
Satd. Flow (prot)	0	1611	0	6408	3334	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	6408	3334	0
Link Speed (mph)	45			35	35	
Link Distance (ft)	244			506	180	
Travel Time (s)	3.7			9.9	3.5	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.87	0.92	0.91	0.90	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	315	0	1298	787	502
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	315	0	1298	1289	0
Enter Blocked Intersection	No	No	No	Yes	Yes	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 57.4%		ICU Level of Service B	
Analysis Period (min) 15			

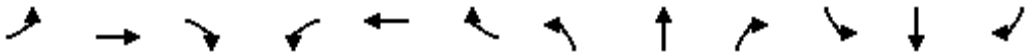


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1013	805	456	0	187
Future Volume (vph)	0	1013	805	456	0	187
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	0	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.943			0.865
Flt Protected						
Satd. Flow (prot)	0	3539	3337	0	0	1611
Flt Permitted						
Satd. Flow (perm)	0	3539	3337	0	0	1611
Link Speed (mph)		35	35		45	
Link Distance (ft)		230	799		215	
Travel Time (s)		4.5	15.6		3.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.91	0.85	0.92	0.73
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	1101	885	536	0	256
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1101	1421	0	0	256
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 55.1%		ICU Level of Service B	
Analysis Period (min) 15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	511	2	256	977	16	25	260	273	87	414	179
Future Volume (vph)	75	511	2	256	977	16	25	260	273	87	414	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	90		0	190		0	150		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.998			0.995			0.926			0.954	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3532	0	1770	3522	0	1770	3277	0	1770	3376	0
Flt Permitted	0.950			0.950			0.242			0.321		
Satd. Flow (perm)	1770	3532	0	1770	3522	0	451	3277	0	598	3376	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			3			230			66	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		561			970			736			158	
Travel Time (s)		10.9			18.9			14.3			3.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.73	0.91	0.25	0.93	0.85	0.44	0.63	0.89	0.95	0.71	0.86	0.83
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	103	562	8	275	1149	36	40	292	287	123	481	216
Shared Lane Traffic (%)												
Lane Group Flow (vph)	103	570	0	275	1185	0	40	579	0	123	697	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		-10			20			0			0	
Crosswalk Width(ft)		20			20			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	4.0	6.0		4.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	8.0	34.0		8.0	39.0		39.5	39.5		42.5	42.5	
Total Split (s)	15.0	39.0		33.0	57.0		48.0	48.0		48.0	48.0	
Total Split (%)	12.5%	32.5%		27.5%	47.5%		40.0%	40.0%		40.0%	40.0%	
Maximum Green (s)	11.0	34.0		29.0	52.0		42.5	42.5		42.5	42.5	
Yellow Time (s)	3.5	4.0		3.5	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.5	1.0		0.5	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0		4.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	4.0		2.0	4.0		4.5	4.5		4.5	4.5	
Minimum Gap (s)	2.0	3.0		2.0	3.0		3.5	3.5		3.5	3.5	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	15.0		0.0	15.0		0.0	0.0		15.0	15.0	
Recall Mode	None	Min		None	Min		None	None		None	None	
Walk Time (s)		7.0			7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		22.0			27.0		27.0	27.0		30.0	30.0	
Pedestrian Calls (#/hr)		10			10		10	10		10	10	
Act Effct Green (s)	9.4	30.1		19.6	40.3		29.2	29.2		29.2	29.2	
Actuated g/C Ratio	0.10	0.32		0.21	0.43		0.31	0.31		0.31	0.31	
v/c Ratio	0.59	0.50		0.75	0.79		0.29	0.49		0.66	0.64	
Control Delay	60.5	30.0		50.8	28.5		33.5	17.4		49.7	28.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	60.5	30.0		50.8	28.5		33.5	17.4		49.7	28.7	
LOS	E	C		D	C		C	B		D	C	
Approach Delay		34.6			32.7			18.5			31.9	
Approach LOS		C			C			B			C	
90th %ile Green (s)	11.0	34.0		29.0	52.0		42.5	42.5		42.5	42.5	
90th %ile Term Code	Max	Hold		Max	Max		Hold	Hold		Max	Max	
70th %ile Green (s)	11.0	37.1		25.1	51.2		38.0	38.0		38.0	38.0	
70th %ile Term Code	Max	Hold		Gap	Gap		Hold	Hold		Gap	Gap	
50th %ile Green (s)	10.5	31.5		19.8	40.8		28.8	28.8		28.8	28.8	
50th %ile Term Code	Gap	Hold		Gap	Gap		Hold	Hold		Gap	Gap	
30th %ile Green (s)	8.3	26.2		15.5	33.4		22.7	22.7		22.7	22.7	
30th %ile Term Code	Gap	Hold		Gap	Gap		Hold	Hold		Gap	Gap	
10th %ile Green (s)	6.0	20.6		10.9	25.5		17.1	17.1		17.1	17.1	
10th %ile Term Code	Gap	Hold		Gap	Gap		Hold	Hold		Gap	Gap	
Stops (vph)	66	392		225	799		19	239		72	431	
Fuel Used(gal)	2	8		6	19		0	7		2	7	
CO Emissions (g/hr)	121	570		429	1308		31	456		106	517	
NOx Emissions (g/hr)	23	111		83	254		6	89		21	100	
VOC Emissions (g/hr)	28	132		99	303		7	106		25	120	
Dilemma Vehicles (#)	0	19		0	41		0	20		0	25	
Queue Length 50th (ft)	59	141		156	311		18	86		64	172	
Queue Length 95th (ft)	111	257		288	449		35	153		107	251	
Internal Link Dist (ft)		481			890			656			78	
Turn Bay Length (ft)	90			190			150					
Base Capacity (vph)	218	1368		576	2057		215	1684		285	1645	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.47	0.42		0.48	0.58		0.19	0.34		0.43	0.42	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 94.3			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 30.4		Intersection LOS: C	
Intersection Capacity Utilization 70.5%		ICU Level of Service C	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 120			
70th %ile Actuated Cycle: 114.7			
50th %ile Actuated Cycle: 94.6			
30th %ile Actuated Cycle: 78.9			
10th %ile Actuated Cycle: 63.1			

Splits and Phases: 7: Garvey Ave & Valley Blvd



Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	535	2	14	925	3	3	0	1	1	1	8
Future Vol, veh/h	6	535	2	14	925	3	3	0	1	1	1	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	94	25	88	90	38	75	92	25	25	25	67
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	569	8	16	1028	8	4	0	4	4	4	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1036	0	0	577	0	0	1145	1665	289	1373	1665	518
Stage 1	-	-	-	-	-	-	597	597	-	1064	1064	-
Stage 2	-	-	-	-	-	-	548	1068	-	309	601	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	667	-	-	993	-	-	154	96	708	105	96	502
Stage 1	-	-	-	-	-	-	456	490	-	238	298	-
Stage 2	-	-	-	-	-	-	488	296	-	676	488	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	667	-	-	993	-	-	142	93	708	102	93	502
Mov Cap-2 Maneuver	-	-	-	-	-	-	142	93	-	102	93	-
Stage 1	-	-	-	-	-	-	448	481	-	234	293	-
Stage 2	-	-	-	-	-	-	462	291	-	660	479	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	20.7	26.4
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	237	667	-	-	993	-	-	188
HCM Lane V/C Ratio	0.034	0.018	-	-	0.016	-	-	0.106
HCM Control Delay (s)	20.7	10.5	-	-	8.7	-	-	26.4
HCM Lane LOS	C	B	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1013	805	456	0	187
Future Vol, veh/h	0	1013	805	456	0	187
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	91	85	92	73
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1101	885	536	0	256

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	443
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	562
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	562
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.7
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	562
HCM Lane V/C Ratio	-	-	0.456
HCM Control Delay (s)	-	-	16.7
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	2.4

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (veh/h)	74	482	113	13	34	731	202	76	78	711	316	202
Future Volume (veh/h)	74	482	113	13	34	731	202	76	78	711	316	202
Initial Q (Qb), veh	0	0	0		0	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00		1.00		1.00	1.00
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1870	1870	1870		1870	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	81	560	131		44	891	224		100	808	0	227
Peak Hour Factor	0.91	0.86	0.86		0.77	0.82	0.90		0.78	0.88	0.93	0.89
Percent Heavy Veh, %	2	2	2		2	2	2		2	2	2	2
Cap, veh/h	169	1171	522		130	867	218		178	1504		212
Arrive On Green	0.09	0.33	0.33		0.07	0.31	0.31		0.10	0.29	0.00	0.12
Sat Flow, veh/h	1781	3554	1585		1781	2813	707		1781	5274	0	1781
Grp Volume(v), veh/h	81	560	131		44	562	553		100	808	0	227
Grp Sat Flow(s),veh/h/ln	1781	1777	1585		1781	1777	1743		1781	1702	0	1781
Q Serve(g_s), s	4.0	11.6	5.6		2.2	28.5	28.5		5.0	12.3	0.0	11.0
Cycle Q Clear(g_c), s	4.0	11.6	5.6		2.2	28.5	28.5		5.0	12.3	0.0	11.0
Prop In Lane	1.00		1.00		1.00		0.41		1.00		0.00	1.00
Lane Grp Cap(c), veh/h	169	1171	522		130	547	537		178	1504		212
V/C Ratio(X)	0.48	0.48	0.25		0.34	1.03	1.03		0.56	0.54		1.07
Avail Cap(c_a), veh/h	193	1171	522		193	547	537		193	1573		212
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.7	24.7	22.7		40.7	32.0	32.0		39.7	27.3	0.0	40.8
Incr Delay (d2), s/veh	0.8	0.4	0.4		0.6	45.7	46.4		1.5	0.5	0.0	82.2
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
%ile BackOfQ(50%),veh/ln	1.7	4.8	2.1		1.0	18.6	18.3		2.2	4.9	0.0	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.5	25.1	23.0		41.3	77.7	78.4		41.2	27.8	0.0	122.9
LnGrp LOS	D	C	C		D	F	F		D	C		F
Approach Vol, veh/h		772				1159				908		
Approach Delay, s/veh		26.4				76.7				29.3		
Approach LOS		C				E				C		

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	31.8	10.8	35.0	13.2	33.5	12.8	33.0
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.0	4.5	4.0	4.5
Max Green Setting (Gmax), s	11.0	28.5	10.0	28.5	10.0	29.5	10.0	28.5
Max Q Clear Time (g_c+I1), s	13.0	14.3	4.2	13.6	7.0	27.5	6.0	30.5
Green Ext Time (p_c), s	0.0	6.0	0.0	4.9	0.0	1.5	0.0	0.0

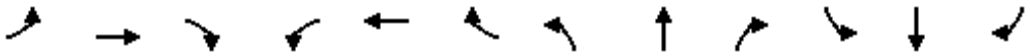
Intersection Summary	
HCM 6th Ctrl Delay	49.7
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	927	125
Future Volume (veh/h)	927	125
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1870
Adj Flow Rate, veh/h	1019	132
Peak Hour Factor	0.91	0.95
Percent Heavy Veh, %	2	2
Cap, veh/h	1115	497
Arrive On Green	0.31	0.31
Sat Flow, veh/h	3554	1585
Grp Volume(v), veh/h	1019	132
Grp Sat Flow(s),veh/h/ln	1777	1585
Q Serve(g_s), s	25.5	5.8
Cycle Q Clear(g_c), s	25.5	5.8
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	1115	497
V/C Ratio(X)	0.91	0.27
Avail Cap(c_a), veh/h	1133	505
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	30.5	23.8
Incr Delay (d2), s/veh	11.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.1	2.1
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	41.9	24.2
LnGrp LOS	D	C
Approach Vol, veh/h	1378	
Approach Delay, s/veh	53.6	
Approach LOS	D	
Timer - Assigned Phs		



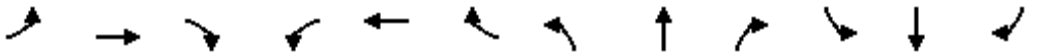
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	511	2	256	977	16	25	260	273	87	414	179
Future Volume (veh/h)	75	511	2	256	977	16	25	260	273	87	414	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	103	562	0	275	1149	0	40	292	287	123	481	216
Peak Hour Factor	0.73	0.91	0.25	0.93	0.85	0.44	0.63	0.89	0.95	0.71	0.86	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	1125		310	1485		222	641	572	257	862	385
Arrive On Green	0.07	0.32	0.00	0.17	0.42	0.00	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1781	3647	0	1781	3647	0	748	1777	1585	835	2389	1066
Grp Volume(v), veh/h	103	562	0	275	1149	0	40	292	287	123	357	340
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1777	0	748	1777	1585	835	1777	1678
Q Serve(g_s), s	5.6	12.6	0.0	14.8	27.2	0.0	4.4	12.3	13.8	13.2	15.7	15.9
Cycle Q Clear(g_c), s	5.6	12.6	0.0	14.8	27.2	0.0	20.3	12.3	13.8	27.0	15.7	15.9
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		0.64
Lane Grp Cap(c), veh/h	130	1125		310	1485		222	641	572	257	641	606
V/C Ratio(X)	0.79	0.50		0.89	0.77		0.18	0.46	0.50	0.48	0.56	0.56
Avail Cap(c_a), veh/h	200	1235		528	1888		277	772	688	318	772	729
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	27.1	0.0	39.5	24.5	0.0	33.2	23.9	24.4	34.9	25.0	25.1
Incr Delay (d2), s/veh	5.3	0.5	0.0	4.9	1.9	0.0	0.7	0.9	1.2	2.4	1.3	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	5.2	0.0	6.7	11.2	0.0	0.8	5.1	5.2	2.8	6.6	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.0	27.6	0.0	44.3	26.4	0.0	33.9	24.8	25.6	37.3	26.3	26.5
LnGrp LOS	D	C		D	C		C	C	C	D	C	C
Approach Vol, veh/h		665			1424			619			820	
Approach Delay, s/veh		31.1			29.8			25.7			28.0	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.1	36.0		40.8	11.1	45.9		40.8				
Change Period (Y+Rc), s	4.0	5.0		5.5	4.0	5.0		5.5				
Max Green Setting (Gmax), s	29.0	34.0		42.5	11.0	52.0		42.5				
Max Q Clear Time (g_c+I1), s	16.8	14.6		29.0	7.6	29.2		22.3				
Green Ext Time (p_c), s	0.3	4.8		6.3	0.0	11.7		6.0				

Intersection Summary			
HCM 6th Ctrl Delay		28.9	
HCM 6th LOS		C	

Notes

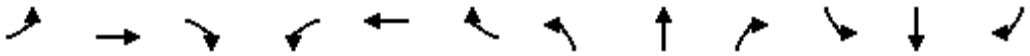
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	124	446	1	33	858	22	394	494	26	22	671	307
Future Volume (vph)	124	446	1	33	858	22	394	494	26	22	671	307
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.5	
Lane Util. Factor	1.00	0.95		0.97	0.95		0.97	0.91		1.00	0.91	
Frt	1.00	1.00		1.00	1.00		1.00	0.99		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3535		3433	3524		3433	5041		1770	4853	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3535		3433	3524		3433	5041		1770	4853	
Peak-hour factor, PHF	0.89	0.86	0.25	0.64	0.93	0.79	0.87	0.85	0.72	0.61	0.83	0.87
Adj. Flow (vph)	139	519	4	52	923	28	453	581	36	36	808	353
RTOR Reduction (vph)	0	1	0	0	2	0	0	7	0	0	81	0
Lane Group Flow (vph)	139	522	0	52	949	0	453	610	0	36	1080	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	10.3	35.6		5.5	30.8		12.0	29.5		5.5	22.5	
Effective Green, g (s)	10.3	35.6		5.5	30.8		12.0	29.5		5.5	22.5	
Actuated g/C Ratio	0.11	0.38		0.06	0.33		0.13	0.31		0.06	0.24	
Clearance Time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	193	1337		200	1153		437	1580		103	1160	
v/s Ratio Prot	c0.08	0.15		0.02	c0.27		c0.13	0.12		0.02	c0.22	
v/s Ratio Perm												
v/c Ratio	0.72	0.39		0.26	0.82		1.04	0.39		0.35	0.93	
Uniform Delay, d1	40.5	21.3		42.4	29.1		41.0	25.2		42.6	35.0	
Progression Factor	1.00	1.00		1.00	1.00		1.62	0.21		1.00	1.00	
Incremental Delay, d2	12.4	0.2		0.7	4.9		48.6	0.1		2.1	13.0	
Delay (s)	52.9	21.5		43.0	34.0		115.1	5.4		44.6	48.1	
Level of Service	D	C		D	C		F	A		D	D	
Approach Delay (s)		28.1			34.5			51.9			48.0	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	42.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	94.1	Sum of lost time (s)	18.5
Intersection Capacity Utilization	77.8%	ICU Level of Service	D
Analysis Period (min)	15		

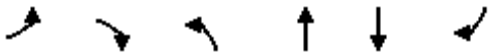
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	90	354	15	0	47	0	873	20	31	665	0
Future Volume (vph)	0	90	354	15	0	47	0	873	20	31	665	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		5.0			5.0		4.0	5.5	
Lane Util. Factor		1.00	1.00		1.00			0.91		1.00	0.91	
Frt		1.00	0.85		0.90			1.00		1.00	1.00	
Flt Protected		1.00	1.00		0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1863	1583		1650			5064		1770	5085	
Flt Permitted		1.00	1.00		0.93			1.00		0.21	1.00	
Satd. Flow (perm)		1863	1583		1545			5064		389	5085	
Peak-hour factor, PHF	0.92	0.70	0.74	0.63	0.92	0.59	0.92	0.89	0.71	0.83	0.84	0.92
Adj. Flow (vph)	0	129	478	24	0	80	0	981	28	37	792	0
RTOR Reduction (vph)	0	0	282	0	70	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	129	196	0	34	0	0	1006	0	37	792	0
Turn Type		NA	Perm	Perm	NA			NA		pm+pt	NA	
Protected Phases		4			8			6		5	2	
Permitted Phases	4		4	8						2		
Actuated Green, G (s)		35.6	35.6		30.8			29.5		28.0	22.5	
Effective Green, g (s)		35.6	35.6		30.8			29.5		28.0	22.5	
Actuated g/C Ratio		0.38	0.38		0.33			0.31		0.30	0.24	
Clearance Time (s)		5.0	5.0		5.0			5.0		4.0	5.5	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		704	598		505			1587		196	1215	
v/s Ratio Prot		0.07						c0.20		c0.01	0.16	
v/s Ratio Perm			c0.12		0.02					0.04		
v/c Ratio		0.18	0.33		0.07			0.63		0.19	0.65	
Uniform Delay, d1		19.5	20.8		21.8			27.7		23.9	32.3	
Progression Factor		1.00	1.00		1.00			1.00		0.61	0.51	
Incremental Delay, d2		0.1	0.3		0.1			0.8		0.2	0.5	
Delay (s)		19.7	21.1		21.8			28.5		14.8	17.1	
Level of Service		B	C		C			C		B	B	
Approach Delay (s)		20.8			21.8			28.5			17.0	
Approach LOS		C			C			C			B	

Intersection Summary			
HCM 2000 Control Delay	22.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	94.1	Sum of lost time (s)	18.5
Intersection Capacity Utilization	56.0%	ICU Level of Service	B
Analysis Period (min)	15		

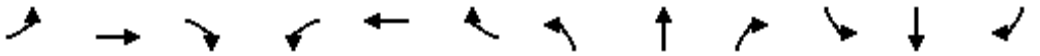
c Critical Lane Group



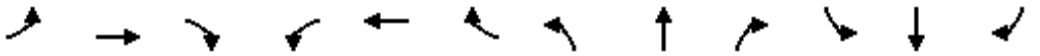
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	274	0	1181	708	442
Future Volume (Veh/h)	0	274	0	1181	708	442
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.87	0.92	0.91	0.90	0.88
Hourly flow rate (vph)	0	315	0	1298	787	502
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					180	
pX, platoon unblocked	0.72	0.72	0.72			
vC, conflicting volume	1362	644	787			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	726	0	0			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	60	100			
cM capacity (veh/h)	259	781	1168			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	315	324	324	324	324	525	764
Volume Left	0	0	0	0	0	0	0
Volume Right	315	0	0	0	0	0	502
cSH	781	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.40	0.19	0.19	0.19	0.19	0.31	0.45
Queue Length 95th (ft)	49	0	0	0	0	0	0
Control Delay (s)	12.7	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B						
Approach Delay (s)	12.7	0.0				0.0	
Approach LOS	B						

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	57.4%	ICU Level of Service	B
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	324	789	4	83	577	43	369	734	369	40	477	134
Future Volume (vph)	324	789	4	83	577	43	369	734	369	40	477	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	260		0	130		0	140		0	260		0
Storage Lanes	1		0	2		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	0.97	0.91	0.91	1.00	0.91	0.91
Ped Bike Factor												
Frt		0.998			0.989			0.939			0.963	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3532	0	3433	3500	0	3433	4775	0	1770	4897	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3532	0	3433	3500	0	3433	4775	0	1770	4897	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			8			182			80	
Link Speed (mph)		35			35			35			40	
Link Distance (ft)		548			579			278			585	
Travel Time (s)		10.7			11.3			5.4			10.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.94	0.33	0.87	0.91	0.90	0.86	0.97	0.71	0.67	0.88	0.76
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	360	839	12	95	634	48	429	757	520	60	542	176
Shared Lane Traffic (%)												
Lane Group Flow (vph)	360	851	0	95	682	0	429	1277	0	60	718	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases												
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												

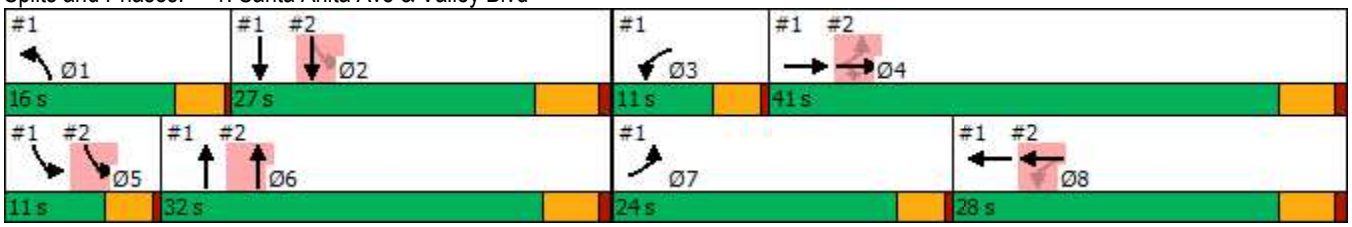


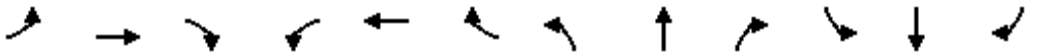
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0		7.0	10.0		10.0	10.0		7.0	10.0	
Minimum Split (s)	11.0	41.0		11.0	28.0		14.0	18.0		11.0	25.5	
Total Split (s)	24.0	41.0		11.0	28.0		16.0	32.0		11.0	27.0	
Total Split (%)	25.3%	43.2%		11.6%	29.5%		16.8%	33.7%		11.6%	28.4%	
Maximum Green (s)	20.0	36.0		7.0	23.0		12.0	27.0		7.0	21.5	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.5	
All-Red Time (s)	0.5	1.0		0.5	1.0		0.5	1.0		0.5	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		29.0			16.0			6.0			13.0	
Pedestrian Calls (#/hr)		10			10			10			10	
Act Effct Green (s)	20.0	37.3		7.0	21.8		12.0	28.2		7.0	20.2	
Actuated g/C Ratio	0.22	0.40		0.08	0.24		0.13	0.30		0.08	0.22	
v/c Ratio	0.94	0.60		0.37	0.82		0.96	0.86dr		0.45	0.64	
Control Delay	71.6	24.9		46.1	42.8		89.7	14.5		53.4	32.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.7		0.0	0.0	
Total Delay	71.6	24.9		46.1	42.8		89.7	15.2		53.4	32.0	
LOS	E	C		D	D		F	B		D	C	
Approach Delay		38.8			43.2			34.0			33.6	
Approach LOS		D			D			C			C	
90th %ile Green (s)	20.0	36.0		7.0	23.0		12.0	27.0		7.0	21.5	
90th %ile Term Code	Max	Max		Max	Max		Max	Max		Max	Max	
70th %ile Green (s)	20.0	36.0		7.0	23.0		12.0	27.0		7.0	21.5	
70th %ile Term Code	Max	Max		Max	Max		Max	Max		Max	Max	
50th %ile Green (s)	20.0	36.0		7.0	23.0		12.0	27.0		7.0	21.5	
50th %ile Term Code	Max	Max		Max	Max		Max	Max		Max	Max	
30th %ile Green (s)	20.0	35.9		7.0	22.9		12.0	27.0		7.0	21.5	
30th %ile Term Code	Max	Hold		Max	Gap		Max	Max		Max	Hold	
10th %ile Green (s)	20.0	41.4		0.0	17.4		12.0	31.9		0.0	15.4	
10th %ile Term Code	Max	Hold		Skip	Gap		Max	Hold		Skip	Gap	
Stops (vph)	276	607		75	555		317	307		37	476	
Fuel Used(gal)	8	12		2	12		10	8		1	11	
CO Emissions (g/hr)	565	820		118	851		690	544		67	774	
NOx Emissions (g/hr)	110	159		23	165		134	106		13	151	
VOC Emissions (g/hr)	131	190		27	197		160	126		16	179	
Dilemma Vehicles (#)	0	39		0	30		0	104		0	30	
Queue Length 50th (ft)	217	216		28	202		142	54		35	127	
Queue Length 95th (ft)	#393	281		52	268		m#223	105		55	163	
Internal Link Dist (ft)		468			499			198			505	
Turn Bay Length (ft)	260			130			140			260		
Base Capacity (vph)	383	1423		259	877		445	1578		134	1201	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0		0	90		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.94	0.60		0.37	0.78		0.96	0.86		0.45	0.60	

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 92.6			
Natural Cycle: 95			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 36.8		Intersection LOS: D	
Intersection Capacity Utilization 78.5%		ICU Level of Service D	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 95			
70th %ile Actuated Cycle: 95			
50th %ile Actuated Cycle: 95			
30th %ile Actuated Cycle: 94.9			
10th %ile Actuated Cycle: 83.3			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			

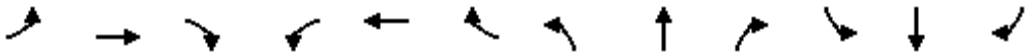
Splits and Phases: 1: Santa Anita Ave & Valley Blvd





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	144	365	28	0	87	0	1041	40	18	563	0
Future Volume (vph)	12	144	365	28	0	87	0	1041	40	18	563	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	145		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor												
Frt			0.850		0.901			0.992				
Flt Protected		0.995			0.987					0.950		
Satd. Flow (prot)	0	1853	1583	0	1657	0	0	5045	0	1770	5085	0
Flt Permitted		0.976			0.885					0.189		
Satd. Flow (perm)	0	1818	1583	0	1485	0	0	5045	0	352	5085	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			466		212			9				
Link Speed (mph)		30			30			35			40	
Link Distance (ft)		276			326			445			278	
Travel Time (s)		6.3			7.4			8.7			4.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.75	0.92	0.77	0.78	0.92	0.87	0.92	0.92	0.63	0.90	0.93	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	16	157	474	36	0	100	0	1132	63	20	605	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	173	474	0	136	0	0	1195	0	20	605	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			10			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2			2		1	2	
Detector Template	Left	Thru	Right	Left	Thru			Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100			100		20	100	
Trailing Detector (ft)	0	0	0	0	0			0		0	0	
Turn Type	Perm	NA	Perm	Perm	NA			NA		pm+pt	NA	
Protected Phases		4			8			6		5	2	
Permitted Phases	4		4	8						2		
Detector Phase	4	4	4	8	8			6		5	2	
Switch Phase												

Lane Group	Ø1	Ø3	Ø7
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Growth Factor			
Heavy Vehicles (%)			
Bus Blockages (#/hr)			
Parking (#/hr)			
Mid-Block Traffic (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Turn Type			
Protected Phases	1	3	7
Permitted Phases			
Detector Phase			
Switch Phase			



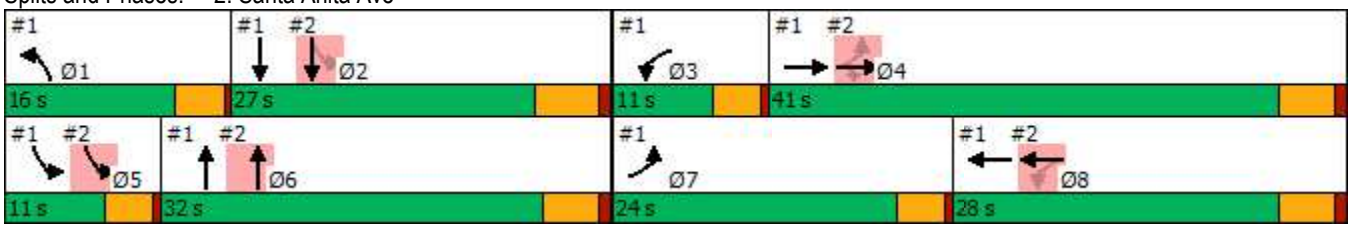
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0			10.0		7.0	10.0	
Minimum Split (s)	41.0	41.0	41.0	28.0	28.0			18.0		11.0	25.5	
Total Split (s)	41.0	41.0	41.0	28.0	28.0			32.0		11.0	27.0	
Total Split (%)	43.2%	43.2%	43.2%	29.5%	29.5%			33.7%		11.6%	28.4%	
Maximum Green (s)	36.0	36.0	36.0	23.0	23.0			27.0		7.0	21.5	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0			4.0		3.5	4.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0			1.0		0.5	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0			0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0			5.0		4.0	5.5	
Lead/Lag	Lag	Lag	Lag	Lag	Lag			Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes			Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0			3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0			0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0			0.0		0.0	0.0	
Recall Mode	None	None	None	None	None			Min		None	Min	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	
Flash Dont Walk (s)	29.0	29.0	29.0	16.0	16.0			6.0			13.0	
Pedestrian Calls (#/hr)	10	10	10	10	10			10			10	
Act Effct Green (s)		37.3	37.3		21.8			28.2		28.7	20.2	
Actuated g/C Ratio		0.40	0.40		0.24			0.30		0.31	0.22	
v/c Ratio		0.24	0.52		0.27			0.78		0.09	0.55	
Control Delay		20.8	4.5		1.9			34.3		10.7	17.0	
Queue Delay		0.0	0.0		0.0			0.2		0.0	0.2	
Total Delay		20.8	4.5		1.9			34.5		10.7	17.2	
LOS		C	A		A			C		B	B	
Approach Delay		8.8			1.9			34.5			17.0	
Approach LOS		A			A			C			B	
90th %ile Green (s)	36.0	36.0	36.0	23.0	23.0			27.0		7.0	21.5	
90th %ile Term Code	Max	Max	Max	Max	Max			Max		Max	Max	
70th %ile Green (s)	36.0	36.0	36.0	23.0	23.0			27.0		7.0	21.5	
70th %ile Term Code	Max	Max	Max	Max	Max			Max		Max	Max	
50th %ile Green (s)	36.0	36.0	36.0	23.0	23.0			27.0		7.0	21.5	
50th %ile Term Code	Max	Max	Max	Max	Max			Max		Max	Max	
30th %ile Green (s)	35.9	35.9	35.9	22.9	22.9			27.0		7.0	21.5	
30th %ile Term Code	Hold	Hold	Hold	Gap	Gap			Max		Max	Hold	
10th %ile Green (s)	41.4	41.4	41.4	17.4	17.4			31.9		0.0	15.4	
10th %ile Term Code	Hold	Hold	Hold	Gap	Gap			Hold		Skip	Gap	
Stops (vph)		103	33		2			944		5	155	
Fuel Used(gal)		2	2		0			18		0	5	
CO Emissions (g/hr)		129	138		24			1267		9	317	
NOx Emissions (g/hr)		25	27		5			246		2	62	
VOC Emissions (g/hr)		30	32		6			294		2	74	
Dilemma Vehicles (#)		0	0		0			55		0	28	
Queue Length 50th (ft)		70	3		0			245		3	39	
Queue Length 95th (ft)		119	26		8			300		m6	47	
Internal Link Dist (ft)		196			246			365			198	
Turn Bay Length (ft)										145		
Base Capacity (vph)		731	915		529			1540		216	1183	

Lane Group	Ø1	Ø3	Ø7
Minimum Initial (s)	10.0	7.0	7.0
Minimum Split (s)	14.0	11.0	11.0
Total Split (s)	16.0	11.0	24.0
Total Split (%)	17%	12%	25%
Maximum Green (s)	12.0	7.0	20.0
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0
Recall Mode	None	None	None
Walk Time (s)			
Flash Dont Walk (s)			
Pedestrian Calls (#/hr)			
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
90th %ile Green (s)	12.0	7.0	20.0
90th %ile Term Code	Max	Max	Max
70th %ile Green (s)	12.0	7.0	20.0
70th %ile Term Code	Max	Max	Max
50th %ile Green (s)	12.0	7.0	20.0
50th %ile Term Code	Max	Max	Max
30th %ile Green (s)	12.0	7.0	20.0
30th %ile Term Code	Max	Max	Max
10th %ile Green (s)	12.0	0.0	20.0
10th %ile Term Code	Max	Skip	Max
Stops (vph)			
Fuel Used(gal)			
CO Emissions (g/hr)			
NOx Emissions (g/hr)			
VOC Emissions (g/hr)			
Dilemma Vehicles (#)			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0	0		0			0		0	112	
Spillback Cap Reductn		0	0		1			43		0	0	
Storage Cap Reductn		0	0		0			0		0	0	
Reduced v/c Ratio		0.24	0.52		0.26			0.80		0.09	0.56	

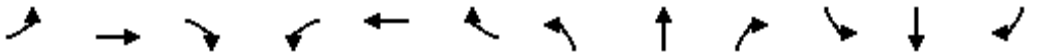
Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 92.6			
Natural Cycle: 95			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 22.2		Intersection LOS: C	
Intersection Capacity Utilization 54.7%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 95			
70th %ile Actuated Cycle: 95			
50th %ile Actuated Cycle: 95			
30th %ile Actuated Cycle: 94.9			
10th %ile Actuated Cycle: 83.3			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Santa Anita Ave



Lane Group	Ø1	Ø3	Ø7
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	968	5	15	727	1	13	0	21	0	0	14
Future Volume (vph)	7	968	5	15	727	1	13	0	21	0	0	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	50		0	50		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.999			0.907			0.865	
Flt Protected	0.950			0.950				0.985				
Satd. Flow (prot)	1770	3536	0	1770	3536	0	0	1664	0	0	1611	0
Flt Permitted	0.950			0.950				0.985				
Satd. Flow (perm)	1770	3536	0	1770	3536	0	0	1664	0	0	1611	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		339			384			394			368	
Travel Time (s)		6.6			7.5			9.0			8.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.44	0.96	0.63	0.58	0.93	0.25	0.81	0.92	0.58	0.92	0.92	0.50
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	16	1008	8	26	782	4	16	0	36	0	0	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	1016	0	26	786	0	0	52	0	0	28	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

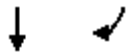
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	42.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	129	773	170	6	52	546	242	95	96	1061	347	226
Future Volume (vph)	129	773	170	6	52	546	242	95	96	1061	347	226
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%				0%		
Storage Length (ft)	270		140		120		0		0		0	270
Storage Lanes	1		1		1		0		1		0	1
Taper Length (ft)	25				25				25			25
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	0.95	0.91	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt			0.850			0.954				0.961		
Flt Protected	0.950				0.950				0.950			0.950
Satd. Flow (prot)	1770	3539	1583	0	1770	3376	0	0	1770	4887	0	1770
Flt Permitted	0.950				0.381				0.381			0.950
Satd. Flow (perm)	1770	3539	1583	0	710	3376	0	0	710	4887	0	1770
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)			141			78				94		
Link Speed (mph)		35				35				35		
Link Distance (ft)		598				230				180		
Travel Time (s)		11.6				4.5				3.5		
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.85	0.85	0.75	0.54	0.89	0.88	0.79	0.86	0.95	0.90	0.81
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%				0%		
Adj. Flow (vph)	163	909	200	8	96	613	275	120	112	1117	386	279
Shared Lane Traffic (%)												
Lane Group Flow (vph)	163	909	200	0	104	888	0	0	232	1503	0	279
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	R NA	Left	Left	Right	R NA	Left	Left	Right	Left
Median Width(ft)		12				12				12		
Link Offset(ft)		0				0				0		
Crosswalk Width(ft)		16				16				16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15		9	9	15		9	15
Number of Detectors	1	2	1	1	1	2		1	1	2		1
Detector Template	Left	Thru	Right	Left	Left	Thru		Left	Left	Thru		Left
Leading Detector (ft)	20	100	20	20	20	100		20	20	100		20
Trailing Detector (ft)	0	0	0	0	0	0		0	0	0		0
Turn Type	Prot	NA	Perm	custom	Prot	NA		custom	Prot	NA		Prot
Protected Phases	7	4			3	8			5	2		1
Permitted Phases			4	3				5				
Detector Phase	7	4	4	3	3	8		5	5	2		1
Switch Phase												

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	867	113
Future Volume (vph)	867	113
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		131
Link Speed (mph)	35	
Link Distance (ft)	837	
Travel Time (s)	16.3	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.96	0.86
Growth Factor	100%	100%
Heavy Vehicles (%)	2%	2%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Adj. Flow (vph)	903	131
Shared Lane Traffic (%)		
Lane Group Flow (vph)	903	131
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Detector Phase	6	6
Switch Phase		



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Minimum Initial (s)	10.0	9.0	9.0	10.0	10.0	9.0		10.0	10.0	9.0		10.0
Minimum Split (s)	14.5	33.0	33.0	14.5	14.5	33.0		14.5	14.5	33.0		14.5
Total Split (s)	14.5	33.0	33.0	14.5	14.5	33.0		14.5	14.5	33.0		14.5
Total Split (%)	15.3%	34.7%	34.7%	15.3%	15.3%	34.7%		15.3%	15.3%	34.7%		15.3%
Maximum Green (s)	10.5	28.5	28.5	10.5	10.5	28.5		10.5	10.5	28.5		10.5
Yellow Time (s)	3.0	4.0	4.0	3.0	3.0	4.0		3.0	3.0	4.0		3.0
All-Red Time (s)	1.0	0.5	0.5	1.0	1.0	0.5		1.0	1.0	0.5		1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		0.0
Total Lost Time (s)	4.0	4.5	4.5		4.0	4.5			4.0	4.5		4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag		Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes		Yes
Vehicle Extension (s)	1.5	4.0	4.0	1.5	1.5	4.0		1.5	1.5	4.0		1.5
Minimum Gap (s)	1.5	3.0	3.0	1.5	1.5	3.0		1.5	1.5	3.0		1.5
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Time To Reduce (s)	0.0	15.0	15.0	0.0	0.0	15.0		0.0	0.0	15.0		0.0
Recall Mode	None	None	None	None	None	None		None	None	Min		None
Walk Time (s)		7.0	7.0			7.0				7.0		
Flash Dont Walk (s)		21.0	21.0			21.0				21.0		
Pedestrian Calls (#/hr)		10	10			10				10		
Act Effct Green (s)	10.4	27.9	27.9		10.5	28.0			10.5	28.5		10.5
Actuated g/C Ratio	0.11	0.30	0.30		0.11	0.30			0.11	0.30		0.11
v/c Ratio	0.84	0.87	0.35		1.32	0.84			2.94	0.98		1.42
Control Delay	76.2	42.1	10.6		246.9	37.0			929.9	49.2		250.0
Queue Delay	0.0	0.0	0.0		0.0	0.0			0.0	0.0		0.0
Total Delay	76.2	42.1	10.6		246.9	37.0			929.9	49.2		250.0
LOS	E	D	B		F	D			F	D		F
Approach Delay		41.5				59.0				167.0		
Approach LOS		D				E				F		
90th %ile Green (s)	10.5	28.5	28.5	10.5	10.5	28.5		10.5	10.5	28.5		10.5
90th %ile Term Code	Max	Max	Max	Max	Max	Max		Max	Max	Max		Max
70th %ile Green (s)	10.5	28.5	28.5	10.5	10.5	28.5		10.5	10.5	28.5		10.5
70th %ile Term Code	Max	Max	Max	Max	Max	Max		Max	Max	Max		Max
50th %ile Green (s)	10.5	28.5	28.5	10.5	10.5	28.5		10.5	10.5	28.5		10.5
50th %ile Term Code	Max	Max	Max	Max	Max	Max		Max	Max	Max		Max
30th %ile Green (s)	10.5	28.5	28.5	10.5	10.5	28.5		10.5	10.5	28.5		10.5
30th %ile Term Code	Max	Max	Max	Max	Max	Hold		Max	Max	Max		Max
10th %ile Green (s)	10.0	25.3	25.3	10.5	10.5	25.8		10.5	10.5	28.5		10.5
10th %ile Term Code	Min	Gap	Gap	Max	Max	Hold		Max	Max	Max		Max
Stops (vph)	113	692	45		41	650			147	1192		168
Fuel Used(gal)	3	15	1		3	12			38	25		14
CO Emissions (g/hr)	238	1060	101		232	848			2622	1741		988
NOx Emissions (g/hr)	46	206	20		45	165			510	339		192
VOC Emissions (g/hr)	55	246	23		54	197			608	404		229
Dilemma Vehicles (#)	0	38	0		0	37			0	71		0
Queue Length 50th (ft)	98	270	26		~82	241			~244	310		~229
Queue Length 95th (ft)	#168	322	71		#92	313			#370	#421		#335
Internal Link Dist (ft)		518				150				100		
Turn Bay Length (ft)	270		140		120							270
Base Capacity (vph)	196	1068	576		79	1074			79	1541		196

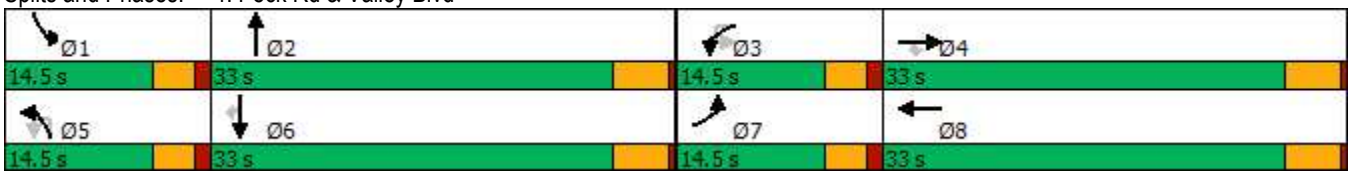


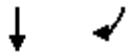
Lane Group	SBT	SBR
Minimum Initial (s)	9.0	9.0
Minimum Split (s)	33.0	33.0
Total Split (s)	33.0	33.0
Total Split (%)	34.7%	34.7%
Maximum Green (s)	28.5	28.5
Yellow Time (s)	4.0	4.0
All-Red Time (s)	0.5	0.5
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	4.5	4.5
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	4.0	4.0
Minimum Gap (s)	3.0	3.0
Time Before Reduce (s)	0.0	0.0
Time To Reduce (s)	15.0	15.0
Recall Mode	Min	Min
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	21.0	21.0
Pedestrian Calls (#/hr)	10	10
Act Effct Green (s)	28.5	28.5
Actuated g/C Ratio	0.30	0.30
v/c Ratio	0.85	0.23
Control Delay	39.8	5.7
Queue Delay	0.0	0.0
Total Delay	39.8	5.7
LOS	D	A
Approach Delay	81.1	
Approach LOS	F	
90th %ile Green (s)	28.5	28.5
90th %ile Term Code	Max	Max
70th %ile Green (s)	28.5	28.5
70th %ile Term Code	Max	Max
50th %ile Green (s)	28.5	28.5
50th %ile Term Code	Max	Max
30th %ile Green (s)	28.5	28.5
30th %ile Term Code	Max	Max
10th %ile Green (s)	28.5	28.5
10th %ile Term Code	Hold	Hold
Stops (vph)	770	16
Fuel Used(gal)	18	1
CO Emissions (g/hr)	1263	65
NOx Emissions (g/hr)	246	13
VOC Emissions (g/hr)	293	15
Dilemma Vehicles (#)	43	0
Queue Length 50th (ft)	268	0
Queue Length 95th (ft)	#369	36
Internal Link Dist (ft)	757	
Turn Bay Length (ft)		400
Base Capacity (vph)	1068	569

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Starvation Cap Reductn	0	0	0		0	0			0	0		0
Spillback Cap Reductn	0	0	0		0	0			0	0		0
Storage Cap Reductn	0	0	0		0	0			0	0		0
Reduced v/c Ratio	0.83	0.85	0.35		1.32	0.83			2.94	0.98		1.42

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 94.4			
Natural Cycle: 95			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 2.94			
Intersection Signal Delay: 95.5		Intersection LOS: F	
Intersection Capacity Utilization 86.1%		ICU Level of Service E	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 95			
70th %ile Actuated Cycle: 95			
50th %ile Actuated Cycle: 95			
30th %ile Actuated Cycle: 95			
10th %ile Actuated Cycle: 91.8			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

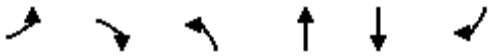
Splits and Phases: 4: Peck Rd & Valley Blvd





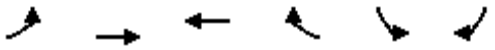
Lane Group	SBT	SBR
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.85	0.23

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	163	0	1599	639	538
Future Volume (vph)	0	163	0	1599	639	538
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	70			0
Storage Lanes	0	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.86	0.95	0.95
Ped Bike Factor						
Frt		0.865			0.932	
Flt Protected						
Satd. Flow (prot)	0	1611	0	6408	3299	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	6408	3299	0
Link Speed (mph)	45			35	35	
Link Distance (ft)	244			506	180	
Travel Time (s)	3.7			9.9	3.5	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.79	0.92	0.95	0.92	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	206	0	1683	695	572
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	206	0	1683	1267	0
Enter Blocked Intersection	No	No	No	Yes	Yes	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

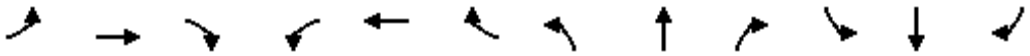
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1352	693	336	0	149
Future Volume (vph)	0	1352	693	336	0	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	0	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.949			0.865
Flt Protected						
Satd. Flow (prot)	0	3539	3359	0	0	1611
Flt Permitted						
Satd. Flow (perm)	0	3539	3359	0	0	1611
Link Speed (mph)		35	35		45	
Link Distance (ft)		230	799		215	
Travel Time (s)		4.5	15.6		3.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.94	0.88	0.92	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	1470	737	382	0	169
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1470	1119	0	0	169
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	794	21	200	633	28	24	658	331	60	285	135
Future Volume (vph)	193	794	21	200	633	28	24	658	331	60	285	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	90		0	190		0	150		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.995			0.992			0.949			0.954	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3522	0	1770	3511	0	1770	3359	0	1770	3376	0
Flt Permitted	0.950			0.950			0.434			0.127		
Satd. Flow (perm)	1770	3522	0	1770	3511	0	808	3359	0	237	3376	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			4			92			71	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		561			970			736			158	
Travel Time (s)		10.9			18.9			14.3			3.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.95	0.75	0.91	0.93	0.78	0.86	0.94	0.93	0.82	0.88	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	241	836	28	220	681	36	28	700	356	73	324	142
Shared Lane Traffic (%)												
Lane Group Flow (vph)	241	864	0	220	717	0	28	1056	0	73	466	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		-10			20			0			0	
Crosswalk Width(ft)		20			20			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	4.0	6.0		4.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	8.0	34.0		8.0	39.0		39.5	39.5		42.5	42.5	
Total Split (s)	24.0	41.0		23.0	40.0		56.0	56.0		56.0	56.0	
Total Split (%)	20.0%	34.2%		19.2%	33.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	20.0	36.0		19.0	35.0		50.5	50.5		50.5	50.5	
Yellow Time (s)	3.5	4.0		3.5	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.5	1.0		0.5	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0		4.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	4.0		2.0	4.0		4.5	4.5		4.5	4.5	
Minimum Gap (s)	2.0	3.0		2.0	3.0		3.5	3.5		3.5	3.5	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	15.0		0.0	15.0		0.0	0.0		15.0	15.0	
Recall Mode	None	Min		None	Min		None	None		None	None	
Walk Time (s)		7.0			7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		22.0			27.0		27.0	27.0		30.0	30.0	
Pedestrian Calls (#/hr)		10			10		10	10		10	10	
Act Effct Green (s)	17.6	31.8		16.5	30.6		42.5	42.5		42.5	42.5	
Actuated g/C Ratio	0.17	0.30		0.16	0.29		0.40	0.40		0.40	0.40	
v/c Ratio	0.82	0.82		0.80	0.70		0.09	0.75		0.77	0.33	
Control Delay	67.4	42.5		67.2	38.7		21.9	28.9		78.9	19.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	67.4	42.5		67.2	38.7		21.9	28.9		78.9	19.4	
LOS	E	D		E	D		C	C		E	B	
Approach Delay		47.9			45.4			28.8			27.5	
Approach LOS		D			D			C			C	
90th %ile Green (s)	20.0	36.0		19.0	35.0		50.5	50.5		50.5	50.5	
90th %ile Term Code	Max	Max		Max	Max		Max	Max		Max	Max	
70th %ile Green (s)	20.0	36.0		19.0	35.0		50.5	50.5		50.5	50.5	
70th %ile Term Code	Max	Max		Max	Hold		Max	Max		Max	Max	
50th %ile Green (s)	20.0	36.0		19.0	35.0		46.1	46.1		46.1	46.1	
50th %ile Term Code	Max	Max		Max	Hold		Gap	Gap		Hold	Hold	
30th %ile Green (s)	16.7	29.5		15.3	28.1		38.3	38.3		38.3	38.3	
30th %ile Term Code	Gap	Gap		Gap	Hold		Gap	Gap		Hold	Hold	
10th %ile Green (s)	11.7	21.8		10.7	20.8		28.5	28.5		28.5	28.5	
10th %ile Term Code	Gap	Gap		Gap	Hold		Gap	Gap		Hold	Hold	
Stops (vph)	169	719		175	560		15	743		48	229	
Fuel Used(gal)	5	16		5	14		0	17		1	4	
CO Emissions (g/hr)	329	1101		381	982		24	1165		97	270	
NOx Emissions (g/hr)	64	214		74	191		5	227		19	53	
VOC Emissions (g/hr)	76	255		88	228		6	270		23	63	
Dilemma Vehicles (#)	0	34		0	24		0	39		0	17	
Queue Length 50th (ft)	174	306		158	244		13	323		47	104	
Queue Length 95th (ft)	#254	405		#288	328		31	405		#118	141	
Internal Link Dist (ft)		481			890			656			78	
Turn Bay Length (ft)	90			190			150					
Base Capacity (vph)	345	1239		328	1201		398	1702		116	1700	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.70	0.70		0.67	0.60		0.07	0.62		0.63	0.27	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 105.7			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 38.6		Intersection LOS: D	
Intersection Capacity Utilization 84.1%		ICU Level of Service E	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 120			
70th %ile Actuated Cycle: 120			
50th %ile Actuated Cycle: 115.6			
30th %ile Actuated Cycle: 97.6			
10th %ile Actuated Cycle: 75.5			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 7: Garvey Ave & Valley Blvd



Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	968	5	15	727	1	13	0	21	0	0	14
Future Vol, veh/h	7	968	5	15	727	1	13	0	21	0	0	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	44	96	63	58	93	25	81	92	58	92	92	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	1008	8	26	782	4	16	0	36	0	0	28

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	786	0	0	1016	0	0	1487	1882	508	1372	1884	393
Stage 1	-	-	-	-	-	-	1044	1044	-	836	836	-
Stage 2	-	-	-	-	-	-	443	838	-	536	1048	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	829	-	-	678	-	-	86	70	510	105	70	606
Stage 1	-	-	-	-	-	-	245	304	-	328	381	-
Stage 2	-	-	-	-	-	-	564	380	-	496	303	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	829	-	-	678	-	-	78	66	510	93	66	606
Mov Cap-2 Maneuver	-	-	-	-	-	-	78	66	-	93	66	-
Stage 1	-	-	-	-	-	-	240	298	-	322	367	-
Stage 2	-	-	-	-	-	-	517	366	-	452	297	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	31.2	11.2
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	189	829	-	-	678	-	-	606
HCM Lane V/C Ratio	0.276	0.019	-	-	0.038	-	-	0.046
HCM Control Delay (s)	31.2	9.4	-	-	10.5	-	-	11.2
HCM Lane LOS	D	A	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1352	693	336	0	149
Future Vol, veh/h	0	1352	693	336	0	149
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	94	88	92	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1470	737	382	0	169

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	369
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	628
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	628
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.8
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	628
HCM Lane V/C Ratio	-	-	0.27
HCM Control Delay (s)	-	-	12.8
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	1.1

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (veh/h)	129	773	170	6	52	546	242	95	96	1061	347	226
Future Volume (veh/h)	129	773	170	6	52	546	242	95	96	1061	347	226
Initial Q (Qb), veh	0	0	0		0	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00		1.00		1.00	1.00
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1870	1870	1870		1870	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	163	909	200		96	613	275		112	1117	0	279
Peak Hour Factor	0.79	0.85	0.85		0.54	0.89	0.88		0.86	0.95	0.90	0.81
Percent Heavy Veh, %	2	2	2		2	2	2		2	2	2	2
Cap, veh/h	196	1086	484		181	708	317		187	1460		209
Arrive On Green	0.11	0.31	0.31		0.10	0.30	0.30		0.10	0.29	0.00	0.12
Sat Flow, veh/h	1781	3554	1585		1781	2385	1069		1781	5274	0	1781
Grp Volume(v), veh/h	163	909	200		96	457	431		112	1117	0	279
Grp Sat Flow(s),veh/h/ln	1781	1777	1585		1781	1777	1678		1781	1702	0	1781
Q Serve(g_s), s	8.0	21.4	9.0		4.6	21.8	21.8		5.4	17.9	0.0	10.5
Cycle Q Clear(g_c), s	8.0	21.4	9.0		4.6	21.8	21.8		5.4	17.9	0.0	10.5
Prop In Lane	1.00		1.00		1.00		0.64		1.00		0.00	1.00
Lane Grp Cap(c), veh/h	196	1086	484		181	527	498		187	1460		209
V/C Ratio(X)	0.83	0.84	0.41		0.53	0.87	0.87		0.60	0.77		1.34
Avail Cap(c_a), veh/h	209	1131	504		209	566	534		209	1625		209
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.0	29.0	24.7		38.2	29.8	29.8		38.3	29.2	0.0	39.5
Incr Delay (d2), s/veh	21.1	5.8	0.8		0.9	13.2	13.9		2.1	2.2	0.0	179.9
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
%ile BackOfQ(50%),veh/ln	4.6	9.5	3.3		2.0	10.8	10.3		2.4	7.3	0.0	14.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.1	34.8	25.5		39.1	43.0	43.7		40.4	31.5	0.0	219.4
LnGrp LOS	E	C	C		D	D	D		D	C		F
Approach Vol, veh/h		1272				984				1229		
Approach Delay, s/veh		36.6				43.0				32.3		
Approach LOS		D				D				C		

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.5	30.1	13.1	31.9	13.4	31.2	13.9	31.1
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.0	4.5	4.0	4.5
Max Green Setting (Gmax), s	10.5	28.5	10.5	28.5	10.5	28.5	10.5	28.5
Max Q Clear Time (g_c+I1), s	12.5	19.9	6.6	23.4	7.4	23.4	10.0	23.8
Green Ext Time (p_c), s	0.0	5.6	0.0	3.5	0.0	3.3	0.0	2.8

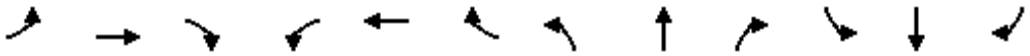
Intersection Summary	
HCM 6th Ctrl Delay	47.0
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Movement	SBT	SBR
Lane Configurations	↑↑	↱
Traffic Volume (veh/h)	867	113
Future Volume (veh/h)	867	113
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1870
Adj Flow Rate, veh/h	903	131
Peak Hour Factor	0.96	0.86
Percent Heavy Veh, %	2	2
Cap, veh/h	1060	473
Arrive On Green	0.30	0.30
Sat Flow, veh/h	3554	1585
Grp Volume(v), veh/h	903	131
Grp Sat Flow(s),veh/h/ln	1777	1585
Q Serve(g_s), s	21.4	5.7
Cycle Q Clear(g_c), s	21.4	5.7
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	1060	473
V/C Ratio(X)	0.85	0.28
Avail Cap(c_a), veh/h	1131	504
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	29.5	24.0
Incr Delay (d2), s/veh	6.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	2.1
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	36.0	24.5
LnGrp LOS	D	C
Approach Vol, veh/h	1313	
Approach Delay, s/veh	73.8	
Approach LOS	E	
Timer - Assigned Phs		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	794	21	200	633	28	24	658	331	60	285	135
Future Volume (veh/h)	193	794	21	200	633	28	24	658	331	60	285	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	241	836	0	220	681	0	28	700	356	73	324	142
Peak Hour Factor	0.80	0.95	0.75	0.91	0.93	0.78	0.86	0.94	0.93	0.82	0.88	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	272	1027		251	985		385	984	500	165	1045	449
Arrive On Green	0.15	0.29	0.00	0.14	0.28	0.00	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	1781	3647	0	1781	3647	0	927	2280	1159	534	2420	1040
Grp Volume(v), veh/h	241	836	0	220	681	0	28	545	511	73	236	230
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1777	0	927	1777	1662	534	1777	1683
Q Serve(g_s), s	13.9	22.9	0.0	12.7	18.0	0.0	2.1	26.4	26.4	13.6	9.1	9.4
Cycle Q Clear(g_c), s	13.9	22.9	0.0	12.7	18.0	0.0	11.6	26.4	26.4	40.0	9.1	9.4
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.70	1.00		0.62
Lane Grp Cap(c), veh/h	272	1027		251	985		385	767	717	165	767	727
V/C Ratio(X)	0.89	0.81		0.88	0.69		0.07	0.71	0.71	0.44	0.31	0.32
Avail Cap(c_a), veh/h	340	1221		323	1187		432	856	801	192	856	811
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	34.6	0.0	44.1	33.9	0.0	23.4	24.4	24.4	40.8	19.5	19.6
Incr Delay (d2), s/veh	17.7	4.1	0.0	16.1	1.7	0.0	0.1	3.1	3.3	3.2	0.4	0.4
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	7.3	10.2	0.0	6.6	7.8	0.0	0.5	11.2	10.6	1.9	3.7	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.1	38.8	0.0	60.2	35.5	0.0	23.5	27.5	27.7	44.0	19.9	20.0
LnGrp LOS	E	D		E	D		C	C	C	D	B	C
Approach Vol, veh/h		1077			901			1084			539	
Approach Delay, s/veh		43.8			41.6			27.5			23.2	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.8	35.3		50.7	20.0	34.0		50.7				
Change Period (Y+Rc), s	4.0	5.0		5.5	4.0	5.0		5.5				
Max Green Setting (Gmax), s	19.0	36.0		50.5	20.0	35.0		50.5				
Max Q Clear Time (g_c+I1), s	14.7	24.9		42.0	15.9	20.0		28.4				
Green Ext Time (p_c), s	0.1	5.3		3.2	0.1	5.3		11.6				

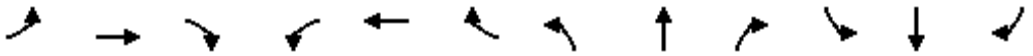
Intersection Summary		
HCM 6th Ctrl Delay	35.2	
HCM 6th LOS	D	

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM Signalized Intersection Capacity Analysis
1: Santa Anita Ave & Valley Blvd

12/13/2023

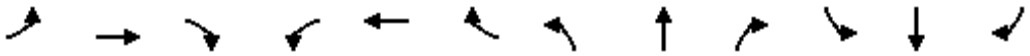


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	324	789	4	83	577	43	369	734	369	40	477	134
Future Volume (vph)	324	789	4	83	577	43	369	734	369	40	477	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.5	
Lane Util. Factor	1.00	0.95		0.97	0.95		0.97	0.91		1.00	0.91	
Frt	1.00	1.00		1.00	0.99		1.00	0.94		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3532		3433	3502		3433	4775		1770	4898	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3532		3433	3502		3433	4775		1770	4898	
Peak-hour factor, PHF	0.90	0.94	0.33	0.87	0.91	0.90	0.86	0.97	0.71	0.67	0.88	0.76
Adj. Flow (vph)	360	839	12	95	634	48	429	757	520	60	542	176
RTOR Reduction (vph)	0	1	0	0	6	0	0	128	0	0	62	0
Lane Group Flow (vph)	360	850	0	95	676	0	429	1149	0	60	656	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	20.1	37.3		5.5	22.7		12.0	28.2		5.5	21.2	
Effective Green, g (s)	20.1	37.3		5.5	22.7		12.0	28.2		5.5	21.2	
Actuated g/C Ratio	0.21	0.39		0.06	0.24		0.13	0.30		0.06	0.22	
Clearance Time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	376	1394		199	841		435	1424		103	1098	
v/s Ratio Prot	c0.20	0.24		0.03	c0.19		c0.12	c0.24		0.03	0.13	
v/s Ratio Perm												
v/c Ratio	0.96	0.61		0.48	0.80		0.99	0.86dr		0.58	0.60	
Uniform Delay, d1	36.8	22.8		43.1	33.8		41.2	30.6		43.4	32.8	
Progression Factor	1.00	1.00		1.00	1.00		1.45	0.38		1.00	1.00	
Incremental Delay, d2	35.0	0.8		1.8	5.6		36.0	3.0		8.1	0.9	
Delay (s)	71.8	23.6		44.9	39.4		95.8	14.7		51.5	33.7	
Level of Service	E	C		D	D		F	B		D	C	
Approach Delay (s)		37.9			40.1			35.1			35.1	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	36.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	94.5	Sum of lost time (s)	18.5
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

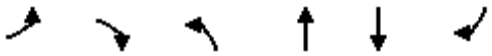
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	144	365	28	0	87	0	1041	40	18	563	0
Future Volume (vph)	12	144	365	28	0	87	0	1041	40	18	563	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		5.0			5.0		4.0	5.5	
Lane Util. Factor		1.00	1.00		1.00			0.91		1.00	0.91	
Frt		1.00	0.85		0.90			0.99		1.00	1.00	
Flt Protected		1.00	1.00		0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1854	1583		1656			5045		1770	5085	
Flt Permitted		0.98	1.00		0.88			1.00		0.19	1.00	
Satd. Flow (perm)		1818	1583		1484			5045		351	5085	
Peak-hour factor, PHF	0.75	0.92	0.77	0.78	0.92	0.87	0.92	0.92	0.63	0.90	0.93	0.92
Adj. Flow (vph)	16	157	474	36	0	100	0	1132	63	20	605	0
RTOR Reduction (vph)	0	0	282	0	103	0	0	6	0	0	0	0
Lane Group Flow (vph)	0	173	192	0	33	0	0	1189	0	20	605	0
Turn Type	Perm	NA	Perm	Perm	NA			NA		pm+pt	NA	
Protected Phases		4			8			6		5	2	
Permitted Phases	4		4	8						2		
Actuated Green, G (s)		37.3	37.3		22.7			28.2		26.7	21.2	
Effective Green, g (s)		37.3	37.3		22.7			28.2		26.7	21.2	
Actuated g/C Ratio		0.39	0.39		0.24			0.30		0.28	0.22	
Clearance Time (s)		5.0	5.0		5.0			5.0		4.0	5.5	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		717	624		356			1505		181	1140	
v/s Ratio Prot								c0.24		c0.01	0.12	
v/s Ratio Perm		0.10	c0.12		0.02					0.02		
v/c Ratio		0.24	0.31		0.09			0.79		0.11	0.53	
Uniform Delay, d1		19.1	19.7		27.9			30.4		25.1	32.3	
Progression Factor		1.00	1.00		1.00			1.00		0.58	0.48	
Incremental Delay, d2		0.2	0.3		0.1			2.8		0.2	0.4	
Delay (s)		19.3	20.0		28.0			33.3		14.7	15.8	
Level of Service		B	B		C			C		B	B	
Approach Delay (s)		19.8			28.0			33.3			15.7	
Approach LOS		B			C			C			B	

Intersection Summary			
HCM 2000 Control Delay	25.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	94.5	Sum of lost time (s)	18.5
Intersection Capacity Utilization	54.7%	ICU Level of Service	A
Analysis Period (min)	15		

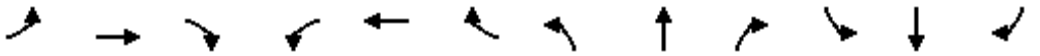
c Critical Lane Group



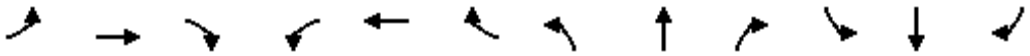
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	163	0	1599	639	538
Future Volume (Veh/h)	0	163	0	1599	639	538
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.79	0.92	0.95	0.92	0.94
Hourly flow rate (vph)	0	206	0	1683	695	572
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					180	
pX, platoon unblocked	0.76	0.76	0.76			
vC, conflicting volume	1402	634	695			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	903	0	0			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	75	100			
cM capacity (veh/h)	211	826	1236			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	206	421	421	421	421	463	804
Volume Left	0	0	0	0	0	0	0
Volume Right	206	0	0	0	0	0	572
cSH	826	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.25	0.25	0.25	0.25	0.25	0.27	0.47
Queue Length 95th (ft)	25	0	0	0	0	0	0
Control Delay (s)	10.8	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B						
Approach Delay (s)	10.8	0.0				0.0	
Approach LOS	B						

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	139	500	1	37	961	25	441	553	29	25	752	344
Future Volume (vph)	139	500	1	37	961	25	441	553	29	25	752	344
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	260		0	130		0	140		0	260		0
Storage Lanes	1		0	2		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	0.97	0.91	0.91	1.00	0.91	0.91
Ped Bike Factor												
Frt					0.996			0.992			0.953	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	0	3433	3525	0	3433	5045	0	1770	4846	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	0	3433	3525	0	3433	5045	0	1770	4846	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					3			8			112	
Link Speed (mph)		35			35			35			40	
Link Distance (ft)		548			579			278			585	
Travel Time (s)		10.7			11.3			5.4			10.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	146	526	1	39	1012	26	464	582	31	26	792	362
Shared Lane Traffic (%)												
Lane Group Flow (vph)	146	527	0	39	1038	0	464	613	0	26	1154	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases												
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												

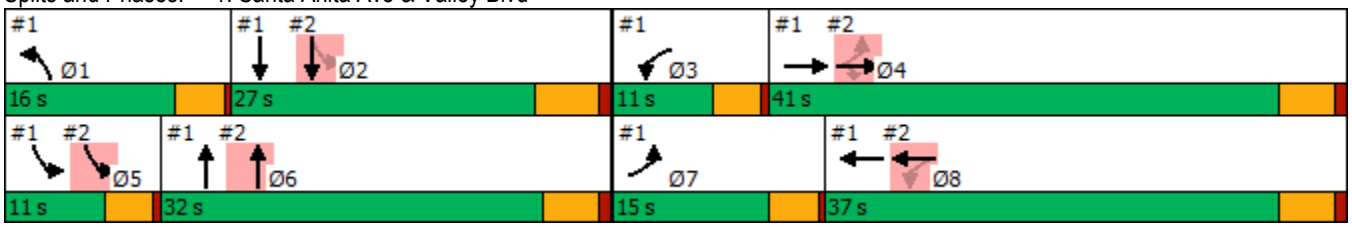


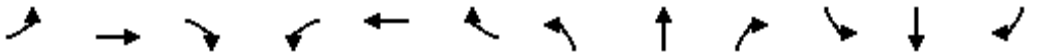
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0		7.0	10.0		10.0	10.0		7.0	10.0	
Minimum Split (s)	11.0	41.0		11.0	28.0		14.0	18.0		11.0	25.5	
Total Split (s)	15.0	41.0		11.0	37.0		16.0	32.0		11.0	27.0	
Total Split (%)	15.8%	43.2%		11.6%	38.9%		16.8%	33.7%		11.6%	28.4%	
Maximum Green (s)	11.0	36.0		7.0	32.0		12.0	27.0		7.0	21.5	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.5	
All-Red Time (s)	0.5	1.0		0.5	1.0		0.5	1.0		0.5	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		29.0			16.0			6.0			13.0	
Pedestrian Calls (#/hr)		10			10			10			10	
Act Effct Green (s)	10.5	39.0		7.0	31.0		12.0	31.5		7.0	21.5	
Actuated g/C Ratio	0.11	0.42		0.07	0.33		0.13	0.34		0.07	0.23	
v/c Ratio	0.74	0.36		0.15	0.89		1.05	0.36		0.20	0.96	
Control Delay	63.8	20.5		42.8	40.2		111.8	5.7		45.2	51.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.1		0.0	0.0	
Total Delay	63.8	20.5		42.8	40.2		111.8	5.8		45.2	51.4	
LOS	E	C		D	D		F	A		D	D	
Approach Delay		29.9			40.3			51.5			51.3	
Approach LOS		C			D			D			D	
90th %ile Green (s)	11.0	36.0		7.0	32.0		12.0	27.0		7.0	21.5	
90th %ile Term Code	Max	Ped		Max	Max		Max	Max		Max	Max	
70th %ile Green (s)	11.0	36.0		7.0	32.0		12.0	27.0		7.0	21.5	
70th %ile Term Code	Max	Hold		Max	Max		Max	Max		Max	Max	
50th %ile Green (s)	11.0	36.0		7.0	32.0		12.0	27.0		7.0	21.5	
50th %ile Term Code	Max	Hold		Max	Max		Max	Max		Max	Max	
30th %ile Green (s)	11.0	47.0		0.0	32.0		12.0	38.0		0.0	21.5	
30th %ile Term Code	Max	Hold		Skip	Max		Max	Hold		Skip	Max	
10th %ile Green (s)	8.4	39.7		0.0	27.3		12.0	38.0		0.0	21.5	
10th %ile Term Code	Gap	Hold		Skip	Gap		Max	Hold		Skip	Max	
Stops (vph)	124	332		35	873		338	56		26	894	
Fuel Used(gal)	3	7		1	19		13	2		1	25	
CO Emissions (g/hr)	230	459		52	1311		941	159		41	1720	
NOx Emissions (g/hr)	45	89		10	255		183	31		8	335	
VOC Emissions (g/hr)	53	106		12	304		218	37		9	399	
Dilemma Vehicles (#)	0	21		0	49		0	47		0	55	
Queue Length 50th (ft)	86	120		11	305		~168	12		15	232	
Queue Length 95th (ft)	#175	164		27	#421		#270	26		42	#331	
Internal Link Dist (ft)		468			499			198			505	
Turn Bay Length (ft)	260			130			140			260		
Base Capacity (vph)	208	1475		256	1209		440	1706		132	1201	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0		0	274		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.70	0.36		0.15	0.86		1.05	0.43		0.20	0.96	

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 93.5			
Natural Cycle: 95			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.05			
Intersection Signal Delay: 44.8		Intersection LOS: D	
Intersection Capacity Utilization 85.3%		ICU Level of Service E	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 95			
70th %ile Actuated Cycle: 95			
50th %ile Actuated Cycle: 95			
30th %ile Actuated Cycle: 95			
10th %ile Actuated Cycle: 87.7			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Santa Anita Ave & Valley Blvd





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	101	396	17	0	53	0	978	22	35	745	0
Future Volume (vph)	0	101	396	17	0	53	0	978	22	35	745	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	145		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor												
Frt			0.850		0.898			0.997				
Flt Protected					0.988					0.950		
Satd. Flow (prot)	0	1863	1583	0	1653	0	0	5070	0	1770	5085	0
Flt Permitted					0.933					0.205		
Satd. Flow (perm)	0	1863	1583	0	1561	0	0	5070	0	382	5085	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			417		167			3				
Link Speed (mph)		30			30			35			40	
Link Distance (ft)		276			326			445			278	
Travel Time (s)		6.3			7.4			8.7			4.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	106	417	18	0	56	0	1029	23	37	784	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	106	417	0	74	0	0	1052	0	37	784	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			10			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2			2		1	2	
Detector Template	Left	Thru	Right	Left	Thru			Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100			100		20	100	
Trailing Detector (ft)	0	0	0	0	0			0		0	0	
Turn Type		NA	Perm	Perm	NA			NA		pm+pt	NA	
Protected Phases		4			8			6		5	2	
Permitted Phases	4		4	8						2		
Detector Phase	4	4	4	8	8			6		5	2	
Switch Phase												

Lane Group	Ø1	Ø3	Ø7
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Growth Factor			
Heavy Vehicles (%)			
Bus Blockages (#/hr)			
Parking (#/hr)			
Mid-Block Traffic (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Turn Type			
Protected Phases	1	3	7
Permitted Phases			
Detector Phase			
Switch Phase			

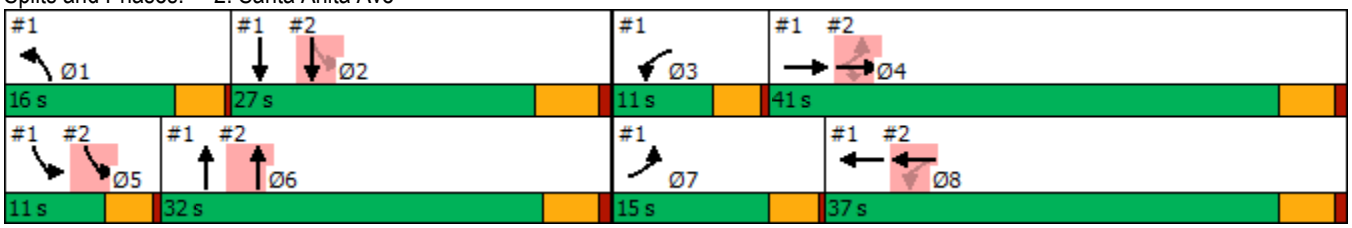
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0			10.0		7.0	10.0	
Minimum Split (s)	41.0	41.0	41.0	28.0	28.0			18.0		11.0	25.5	
Total Split (s)	41.0	41.0	41.0	37.0	37.0			32.0		11.0	27.0	
Total Split (%)	43.2%	43.2%	43.2%	38.9%	38.9%			33.7%		11.6%	28.4%	
Maximum Green (s)	36.0	36.0	36.0	32.0	32.0			27.0		7.0	21.5	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0			4.0		3.5	4.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0			1.0		0.5	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0			0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0			5.0		4.0	5.5	
Lead/Lag	Lag	Lag	Lag	Lag	Lag			Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes			Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0			3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0			0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0			0.0		0.0	0.0	
Recall Mode	None	None	None	None	None			Min		None	Min	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	
Flash Dont Walk (s)	29.0	29.0	29.0	16.0	16.0			6.0			13.0	
Pedestrian Calls (#/hr)	10	10	10	10	10			10			10	
Act Effct Green (s)		39.0	39.0		31.0			31.5		30.0	21.5	
Actuated g/C Ratio		0.42	0.42		0.33			0.34		0.32	0.23	
v/c Ratio		0.14	0.46		0.12			0.61		0.16	0.67	
Control Delay		19.0	4.0		0.4			29.1		10.7	17.5	
Queue Delay		0.0	0.0		0.0			0.0		0.0	0.7	
Total Delay		19.0	4.0		0.4			29.1		10.7	18.2	
LOS		B	A		A			C		B	B	
Approach Delay		7.0			0.4			29.1			17.8	
Approach LOS		A			A			C			B	
90th %ile Green (s)	36.0	36.0	36.0	32.0	32.0			27.0		7.0	21.5	
90th %ile Term Code	Ped	Ped	Ped	Max	Max			Max		Max	Max	
70th %ile Green (s)	36.0	36.0	36.0	32.0	32.0			27.0		7.0	21.5	
70th %ile Term Code	Hold	Hold	Hold	Max	Max			Max		Max	Max	
50th %ile Green (s)	36.0	36.0	36.0	32.0	32.0			27.0		7.0	21.5	
50th %ile Term Code	Hold	Hold	Hold	Max	Max			Max		Max	Max	
30th %ile Green (s)	47.0	47.0	47.0	32.0	32.0			38.0		0.0	21.5	
30th %ile Term Code	Hold	Hold	Hold	Max	Max			Hold		Skip	Max	
10th %ile Green (s)	39.7	39.7	39.7	27.3	27.3			38.0		0.0	21.5	
10th %ile Term Code	Hold	Hold	Hold	Gap	Gap			Hold		Skip	Max	
Stops (vph)		62	33		0			816		9	203	
Fuel Used(gal)		1	2		0			15		0	6	
CO Emissions (g/hr)		79	145		13			1067		16	423	
NOx Emissions (g/hr)		15	28		2			208		3	82	
VOC Emissions (g/hr)		18	34		3			247		4	98	
Dilemma Vehicles (#)		0	0		0			48		0	133	
Queue Length 50th (ft)		41	0		0			208		5	54	
Queue Length 95th (ft)		77	59		0			258		m6	m60	
Internal Link Dist (ft)		196			246			365			198	
Turn Bay Length (ft)										145		
Base Capacity (vph)		776	902		644			1711		226	1169	

Lane Group	Ø1	Ø3	Ø7
Minimum Initial (s)	10.0	7.0	7.0
Minimum Split (s)	14.0	11.0	11.0
Total Split (s)	16.0	11.0	15.0
Total Split (%)	17%	12%	16%
Maximum Green (s)	12.0	7.0	11.0
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0
Recall Mode	None	None	None
Walk Time (s)			
Flash Dont Walk (s)			
Pedestrian Calls (#/hr)			
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
90th %ile Green (s)	12.0	7.0	11.0
90th %ile Term Code	Max	Max	Max
70th %ile Green (s)	12.0	7.0	11.0
70th %ile Term Code	Max	Max	Max
50th %ile Green (s)	12.0	7.0	11.0
50th %ile Term Code	Max	Max	Max
30th %ile Green (s)	12.0	0.0	11.0
30th %ile Term Code	Max	Skip	Max
10th %ile Green (s)	12.0	0.0	8.4
10th %ile Term Code	Max	Skip	Gap
Stops (vph)			
Fuel Used(gal)			
CO Emissions (g/hr)			
NOx Emissions (g/hr)			
VOC Emissions (g/hr)			
Dilemma Vehicles (#)			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0	0		0			0		0	133	
Spillback Cap Reductn		0	0		0			0		0	0	
Storage Cap Reductn		0	0		0			0		0	0	
Reduced v/c Ratio		0.14	0.46		0.11			0.61		0.16	0.76	

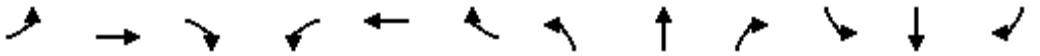
Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 93.5			
Natural Cycle: 95			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.05			
Intersection Signal Delay: 19.8		Intersection LOS: B	
Intersection Capacity Utilization 60.2%		ICU Level of Service B	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 95			
70th %ile Actuated Cycle: 95			
50th %ile Actuated Cycle: 95			
30th %ile Actuated Cycle: 95			
10th %ile Actuated Cycle: 87.7			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Santa Anita Ave



Lane Group	Ø1	Ø3	Ø7
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	599	2	16	1036	3	3	0	1	1	1	9
Future Volume (vph)	7	599	2	16	1036	3	3	0	1	1	1	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	50		0	50		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.966			0.890	
Flt Protected	0.950			0.950				0.964			0.995	
Satd. Flow (prot)	1770	3539	0	1770	3539	0	0	1735	0	0	1650	0
Flt Permitted	0.950			0.950				0.964			0.995	
Satd. Flow (perm)	1770	3539	0	1770	3539	0	0	1735	0	0	1650	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		339			384			394			368	
Travel Time (s)		6.6			7.5			9.0			8.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	7	631	2	17	1091	3	3	0	1	1	1	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	7	633	0	17	1094	0	0	4	0	0	11	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 38.7%		ICU Level of Service A	
Analysis Period (min) 15			

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	83	540	127	15	38	819	226	85	87	796	354	226
Future Volume (vph)	83	540	127	15	38	819	226	85	87	796	354	226
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%				0%		
Storage Length (ft)	270		140		120		0		0		0	270
Storage Lanes	1		1		1		0		1		0	1
Taper Length (ft)	25				25				25			25
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	0.95	0.91	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt			0.850			0.968				0.954		
Flt Protected	0.950				0.950				0.950			0.950
Satd. Flow (prot)	1770	3539	1583	0	1770	3426	0	0	1770	4851	0	1770
Flt Permitted	0.950				0.950				0.950			0.950
Satd. Flow (perm)	1770	3539	1583	0	1770	3426	0	0	1770	4851	0	1770
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)			131			31				97		
Link Speed (mph)		35				35				35		
Link Distance (ft)		598				230				180		
Travel Time (s)		11.6				4.5				3.5		
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%				0%		
Adj. Flow (vph)	87	568	134	16	40	862	238	89	92	838	373	238
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	568	134	0	56	1100	0	0	181	1211	0	238
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	R NA	Left	Left	Right	R NA	Left	Left	Right	Left
Median Width(ft)		12				12				12		
Link Offset(ft)		0				0				0		
Crosswalk Width(ft)		16				16				16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15		9	9	15		9	15
Number of Detectors	1	2	1	1	1	2		1	1	2		1
Detector Template	Left	Thru	Right	Left	Left	Thru		Left	Left	Thru		Left
Leading Detector (ft)	20	100	20	20	20	100		20	20	100		20
Trailing Detector (ft)	0	0	0	0	0	0		0	0	0		0
Turn Type	Prot	NA	Perm	Prot	Prot	NA		Prot	Prot	NA		Prot
Protected Phases	7	4		3	3	8		5	5	2		1
Permitted Phases			4									
Detector Phase	7	4	4	3	3	8		5	5	2		1
Switch Phase												



Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	1038	140
Future Volume (vph)	1038	140
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		147
Link Speed (mph)	35	
Link Distance (ft)	837	
Travel Time (s)	16.3	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.95	0.95
Growth Factor	100%	100%
Heavy Vehicles (%)	2%	2%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Adj. Flow (vph)	1093	147
Shared Lane Traffic (%)		
Lane Group Flow (vph)	1093	147
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Detector Phase	6	6
Switch Phase		



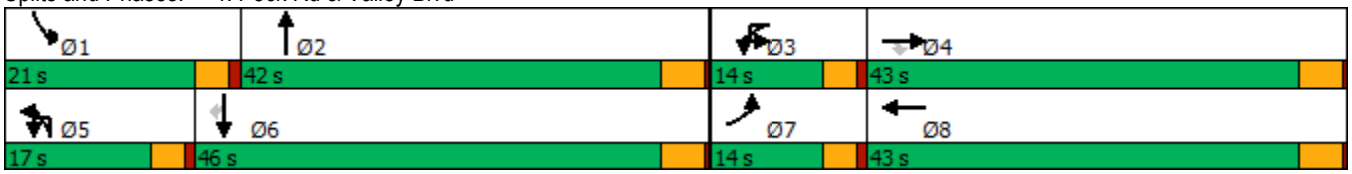
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Minimum Initial (s)	10.0	9.0	9.0	10.0	10.0	9.0		10.0	10.0	9.0		10.0
Minimum Split (s)	14.0	32.5	32.5	14.0	14.0	32.5		14.0	14.0	32.5		14.0
Total Split (s)	14.0	43.0	43.0	14.0	14.0	43.0		17.0	17.0	42.0		21.0
Total Split (%)	11.7%	35.8%	35.8%	11.7%	11.7%	35.8%		14.2%	14.2%	35.0%		17.5%
Maximum Green (s)	10.0	38.5	38.5	10.0	10.0	38.5		13.0	13.0	37.5		17.0
Yellow Time (s)	3.0	4.0	4.0	3.0	3.0	4.0		3.0	3.0	4.0		3.0
All-Red Time (s)	1.0	0.5	0.5	1.0	1.0	0.5		1.0	1.0	0.5		1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		0.0
Total Lost Time (s)	4.0	4.5	4.5		4.0	4.5			4.0	4.5		4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag		Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes		Yes
Vehicle Extension (s)	1.5	4.0	4.0	1.5	1.5	4.0		1.5	1.5	4.0		1.5
Minimum Gap (s)	1.5	3.0	3.0	1.5	1.5	3.0		1.5	1.5	3.0		1.5
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Time To Reduce (s)	0.0	15.0	15.0	0.0	0.0	15.0		0.0	0.0	15.0		0.0
Recall Mode	None	None	None	None	None	None		None	None	Min		None
Walk Time (s)		7.0	7.0			7.0				7.0		
Flash Dont Walk (s)		21.0	21.0			21.0				21.0		
Pedestrian Calls (#/hr)		10	10			10				10		
Act Effct Green (s)	10.0	38.7	38.7		10.0	38.7			13.1	36.7		16.9
Actuated g/C Ratio	0.09	0.33	0.33		0.09	0.33			0.11	0.32		0.15
v/c Ratio	0.57	0.48	0.22		0.37	0.95			0.91	0.76		0.93
Control Delay	68.0	33.4	6.2		59.5	54.4			97.4	36.8		90.5
Queue Delay	0.0	0.0	0.0		0.0	0.0			0.0	0.0		0.0
Total Delay	68.0	33.4	6.2		59.5	54.4			97.4	36.8		90.5
LOS	E	C	A		E	D			F	D		F
Approach Delay		32.6				54.7				44.7		
Approach LOS		C				D				D		
90th %ile Green (s)	10.0	38.5	38.5	10.0	10.0	38.5		13.0	13.0	37.5		17.0
90th %ile Term Code	Max	Hold	Hold	Max	Max	Max		Max	Max	Max		Max
70th %ile Green (s)	10.0	38.5	38.5	10.0	10.0	38.5		13.0	13.0	37.5		17.0
70th %ile Term Code	Max	Hold	Hold	Max	Max	Max		Max	Max	Max		Max
50th %ile Green (s)	10.0	38.5	38.5	10.0	10.0	38.5		13.0	13.0	37.5		17.0
50th %ile Term Code	Max	Hold	Hold	Max	Max	Max		Max	Max	Max		Max
30th %ile Green (s)	10.0	38.5	38.5	10.0	10.0	38.5		13.0	13.0	37.5		17.0
30th %ile Term Code	Max	Hold	Hold	Max	Max	Max		Max	Max	Hold		Max
10th %ile Green (s)	0.0	38.5	38.5	0.0	0.0	38.5		13.0	13.0	33.3		16.3
10th %ile Term Code	Skip	Hold	Hold	Skip	Skip	Max		Max	Max	Hold		Gap
Stops (vph)	77	417	16		49	897			145	933		195
Fuel Used(gal)	2	9	1		1	20			5	17		7
CO Emissions (g/hr)	146	639	58		77	1402			330	1197		489
NOx Emissions (g/hr)	28	124	11		15	273			64	233		95
VOC Emissions (g/hr)	34	148	13		18	325			77	277		113
Dilemma Vehicles (#)	0	17	0		0	43			0	44		0
Queue Length 50th (ft)	66	186	2		42	433			141	286		185
Queue Length 95th (ft)	#129	242	46		86	#585			#284	344		#344
Internal Link Dist (ft)		518				150				100		
Turn Bay Length (ft)	270		140		120							270
Base Capacity (vph)	153	1177	613		153	1161			198	1638		259

Lane Group	SBT	SBR
Minimum Initial (s)	9.0	9.0
Minimum Split (s)	32.5	32.5
Total Split (s)	46.0	46.0
Total Split (%)	38.3%	38.3%
Maximum Green (s)	41.5	41.5
Yellow Time (s)	4.0	4.0
All-Red Time (s)	0.5	0.5
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	4.5	4.5
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	4.0	4.0
Minimum Gap (s)	3.0	3.0
Time Before Reduce (s)	0.0	0.0
Time To Reduce (s)	15.0	15.0
Recall Mode	Min	Min
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	21.0	21.0
Pedestrian Calls (#/hr)	10	10
Act Effct Green (s)	40.6	40.6
Actuated g/C Ratio	0.35	0.35
v/c Ratio	0.89	0.23
Control Delay	46.0	5.3
Queue Delay	0.0	0.0
Total Delay	46.0	5.3
LOS	D	A
Approach Delay	49.1	
Approach LOS	D	
90th %ile Green (s)	41.5	41.5
90th %ile Term Code	Max	Max
70th %ile Green (s)	41.5	41.5
70th %ile Term Code	Max	Max
50th %ile Green (s)	41.5	41.5
50th %ile Term Code	Max	Max
30th %ile Green (s)	41.5	41.5
30th %ile Term Code	Max	Max
10th %ile Green (s)	36.6	36.6
10th %ile Term Code	Gap	Gap
Stops (vph)	924	16
Fuel Used(gal)	23	1
CO Emissions (g/hr)	1604	78
NOx Emissions (g/hr)	312	15
VOC Emissions (g/hr)	372	18
Dilemma Vehicles (#)	42	0
Queue Length 50th (ft)	418	0
Queue Length 95th (ft)	#543	44
Internal Link Dist (ft)	757	
Turn Bay Length (ft)		400
Base Capacity (vph)	1269	662

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Starvation Cap Reductn	0	0	0		0	0			0	0		0
Spillback Cap Reductn	0	0	0		0	0			0	0		0
Storage Cap Reductn	0	0	0		0	0			0	0		0
Reduced v/c Ratio	0.57	0.48	0.22		0.37	0.95			0.91	0.74		0.92

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 116.2			
Natural Cycle: 105			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 46.5		Intersection LOS: D	
Intersection Capacity Utilization 90.6%		ICU Level of Service E	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 120			
70th %ile Actuated Cycle: 120			
50th %ile Actuated Cycle: 120			
30th %ile Actuated Cycle: 120			
10th %ile Actuated Cycle: 101.1			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

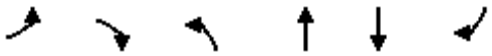
Splits and Phases: 4: Peck Rd & Valley Blvd





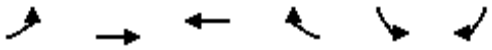
Lane Group	SBT	SBR
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.86	0.22

Intersection Summary



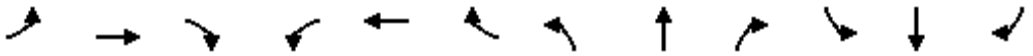
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	307	0	1323	793	495
Future Volume (vph)	0	307	0	1323	793	495
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	70			0
Storage Lanes	0	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.86	0.95	0.95
Ped Bike Factor						
Frt		0.865			0.942	
Flt Protected						
Satd. Flow (prot)	0	1611	0	6408	3334	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	6408	3334	0
Link Speed (mph)	45			35	35	
Link Distance (ft)	244			506	180	
Travel Time (s)	3.7			9.9	3.5	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	323	0	1393	835	521
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	323	0	1393	1356	0
Enter Blocked Intersection	No	No	No	Yes	Yes	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 63.5%		ICU Level of Service B	
Analysis Period (min) 15			

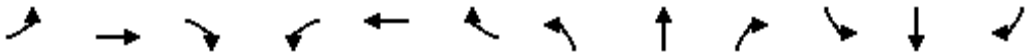


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1135	902	511	0	209
Future Volume (vph)	0	1135	902	511	0	209
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	0	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.946			0.865
Flt Protected						
Satd. Flow (prot)	0	3539	3348	0	0	1611
Flt Permitted						
Satd. Flow (perm)	0	3539	3348	0	0	1611
Link Speed (mph)		35	35		45	
Link Distance (ft)		230	799		215	
Travel Time (s)		4.5	15.6		3.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	1195	949	538	0	220
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1195	1487	0	0	220
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 60.9%		ICU Level of Service B	
Analysis Period (min) 15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	84	572	2	287	1094	18	28	291	306	97	464	200
Future Volume (vph)	84	572	2	287	1094	18	28	291	306	97	464	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	90		0	190		0	150		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt					0.998			0.923			0.955	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	0	1770	3532	0	1770	3267	0	1770	3380	0
Flt Permitted	0.950			0.950			0.241			0.288		
Satd. Flow (perm)	1770	3539	0	1770	3532	0	449	3267	0	536	3380	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2			242			62	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		561			970			736			158	
Travel Time (s)		10.9			18.9			14.3			3.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	88	602	2	302	1152	19	29	306	322	102	488	211
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	604	0	302	1171	0	29	628	0	102	699	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		-10			20			0			0	
Crosswalk Width(ft)		20			20			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	4.0	6.0		4.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	8.0	34.0		8.0	39.0		39.5	39.5		42.5	42.5	
Total Split (s)	16.0	37.0		36.0	57.0		47.0	47.0		47.0	47.0	
Total Split (%)	13.3%	30.8%		30.0%	47.5%		39.2%	39.2%		39.2%	39.2%	
Maximum Green (s)	12.0	32.0		32.0	52.0		41.5	41.5		41.5	41.5	
Yellow Time (s)	3.5	4.0		3.5	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.5	1.0		0.5	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0		4.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	4.0		2.0	4.0		4.5	4.5		4.5	4.5	
Minimum Gap (s)	2.0	3.0		2.0	3.0		3.5	3.5		3.5	3.5	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	15.0		0.0	15.0		0.0	0.0		15.0	15.0	
Recall Mode	None	Min		None	Min		None	None		None	None	
Walk Time (s)		7.0			7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		22.0			27.0		27.0	27.0		30.0	30.0	
Pedestrian Calls (#/hr)		10			10		10	10		10	10	
Act Effct Green (s)	9.1	26.1		20.9	40.9		28.3	28.3		28.3	28.3	
Actuated g/C Ratio	0.10	0.29		0.23	0.45		0.31	0.31		0.31	0.31	
v/c Ratio	0.50	0.60		0.74	0.74		0.21	0.53		0.61	0.64	
Control Delay	55.5	32.6		47.0	26.0		31.0	18.0		47.9	28.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	55.5	32.6		47.0	26.0		31.0	18.0		47.9	28.5	
LOS	E	C		D	C		C	B		D	C	
Approach Delay		35.5			30.3			18.5			30.9	
Approach LOS		D			C			B			C	
90th %ile Green (s)	12.0	32.0		32.0	52.0		41.5	41.5		41.5	41.5	
90th %ile Term Code	Max	Max		Max	Max		Hold	Hold		Max	Max	
70th %ile Green (s)	11.8	34.1		26.9	49.2		36.6	36.6		36.6	36.6	
70th %ile Term Code	Gap	Hold		Gap	Gap		Hold	Hold		Gap	Gap	
50th %ile Green (s)	9.3	27.9		20.8	39.4		27.4	27.4		27.4	27.4	
50th %ile Term Code	Gap	Hold		Gap	Gap		Hold	Hold		Gap	Gap	
30th %ile Green (s)	7.4	23.5		16.5	32.6		22.5	22.5		22.5	22.5	
30th %ile Term Code	Gap	Hold		Gap	Gap		Hold	Hold		Gap	Gap	
10th %ile Green (s)	0.0	13.7		10.9	28.6		15.9	15.9		15.9	15.9	
10th %ile Term Code	Skip	Gap		Gap	Hold		Hold	Hold		Gap	Gap	
Stops (vph)	74	459		248	859		20	278		79	484	
Fuel Used(gal)	2	10		7	20		0	7		2	8	
CO Emissions (g/hr)	129	670		463	1408		33	521		115	576	
NOx Emissions (g/hr)	25	130		90	274		6	101		22	112	
VOC Emissions (g/hr)	30	155		107	326		8	121		27	134	
Dilemma Vehicles (#)	0	25		0	48		0	24		0	29	
Queue Length 50th (ft)	48	151		161	288		12	93		50	166	
Queue Length 95th (ft)	121	281		307	483		42	175		130	273	
Internal Link Dist (ft)		481			890			656			78	
Turn Bay Length (ft)	90			190			150					
Base Capacity (vph)	252	1359		673	2184		221	1734		264	1699	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.35	0.44		0.45	0.54		0.13	0.36		0.39	0.41	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 90.9			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 29.3		Intersection LOS: C	
Intersection Capacity Utilization 76.4%		ICU Level of Service D	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 120			
70th %ile Actuated Cycle: 112.1			
50th %ile Actuated Cycle: 90.6			
30th %ile Actuated Cycle: 77			
10th %ile Actuated Cycle: 55			

Splits and Phases: 7: Garvey Ave & Valley Blvd



Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	599	2	16	1036	3	3	0	1	1	1	9
Future Vol, veh/h	7	599	2	16	1036	3	3	0	1	1	1	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	631	2	17	1091	3	3	0	1	1	1	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1094	0	0	633	0	0	1226	1774	317	1457	1774	547
Stage 1	-	-	-	-	-	-	646	646	-	1127	1127	-
Stage 2	-	-	-	-	-	-	580	1128	-	330	647	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	634	-	-	946	-	-	135	82	679	91	82	481
Stage 1	-	-	-	-	-	-	427	465	-	218	278	-
Stage 2	-	-	-	-	-	-	467	278	-	657	465	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	634	-	-	946	-	-	128	80	679	89	80	481
Mov Cap-2 Maneuver	-	-	-	-	-	-	128	80	-	89	80	-
Stage 1	-	-	-	-	-	-	422	460	-	216	273	-
Stage 2	-	-	-	-	-	-	448	273	-	649	460	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	28	19.5
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	161	634	-	-	946	-	-	259
HCM Lane V/C Ratio	0.026	0.012	-	-	0.018	-	-	0.045
HCM Control Delay (s)	28	10.7	-	-	8.9	-	-	19.5
HCM Lane LOS	D	B	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1135	902	511	0	209
Future Vol, veh/h	0	1135	902	511	0	209
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1195	949	538	0	220

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	475
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	536
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	536
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.3
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	536
HCM Lane V/C Ratio	-	-	0.41
HCM Control Delay (s)	-	-	16.3
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	2

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (veh/h)	83	540	127	15	38	819	226	85	87	796	354	226
Future Volume (veh/h)	83	540	127	15	38	819	226	85	87	796	354	226
Initial Q (Qb), veh	0	0	0		0	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00		1.00		1.00	1.00
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1870	1870	1870		1870	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	87	568	134		40	862	238		92	838	0	238
Peak Hour Factor	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2		2	2	2		2	2	2	2
Cap, veh/h	147	1259	562		113	922	254		148	1448		265
Arrive On Green	0.08	0.35	0.35		0.06	0.33	0.33		0.08	0.28	0.00	0.15
Sat Flow, veh/h	1781	3554	1585		1781	2751	759		1781	5274	0	1781
Grp Volume(v), veh/h	87	568	134		40	556	544		92	838	0	238
Grp Sat Flow(s),veh/h/ln	1781	1777	1585		1781	1777	1734		1781	1702	0	1781
Q Serve(g_s), s	5.3	13.9	6.8		2.4	34.4	34.4		5.7	15.9	0.0	14.9
Cycle Q Clear(g_c), s	5.3	13.9	6.8		2.4	34.4	34.4		5.7	15.9	0.0	14.9
Prop In Lane	1.00		1.00		1.00		0.44		1.00		0.00	1.00
Lane Grp Cap(c), veh/h	147	1259	562		113	595	581		148	1448		265
V/C Ratio(X)	0.59	0.45	0.24		0.36	0.93	0.94		0.62	0.58		0.90
Avail Cap(c_a), veh/h	157	1259	562		157	604	589		204	1689		267
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.2	28.1	25.8		50.9	36.5	36.5		50.2	34.8	0.0	47.4
Incr Delay (d2), s/veh	3.1	0.4	0.3		0.7	22.1	22.7		1.6	0.5	0.0	29.1
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
%ile BackOfQ(50%),veh/ln	2.5	5.9	2.6		1.1	18.1	17.8		2.6	6.6	0.0	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.3	28.5	26.1		51.6	58.6	59.2		51.8	35.3	0.0	76.5
LnGrp LOS	D	C	C		D	E	E		D	D		E
Approach Vol, veh/h		789				1140				930		
Approach Delay, s/veh		30.8				58.6				36.9		
Approach LOS		C				E				D		

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.9	36.7	11.2	44.7	13.4	44.1	13.4	42.5
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.0	4.5	4.0	4.5
Max Green Setting (Gmax), s	17.0	37.5	10.0	38.5	13.0	41.5	10.0	38.5
Max Q Clear Time (g_c+I1), s	16.9	17.9	4.4	15.9	7.7	34.8	7.3	36.4
Green Ext Time (p_c), s	0.0	7.5	0.0	6.0	0.0	4.8	0.0	1.5

Intersection Summary	
HCM 6th Ctrl Delay	44.6
HCM 6th LOS	D

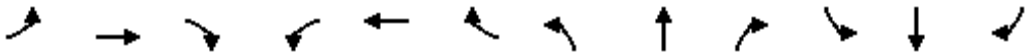
Notes

User approved ignoring U-Turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	1038	140
Future Volume (veh/h)	1038	140
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1870
Adj Flow Rate, veh/h	1093	147
Peak Hour Factor	0.95	0.95
Percent Heavy Veh, %	2	2
Cap, veh/h	1241	553
Arrive On Green	0.35	0.35
Sat Flow, veh/h	3554	1585
Grp Volume(v), veh/h	1093	147
Grp Sat Flow(s),veh/h/ln	1777	1585
Q Serve(g_s), s	32.8	7.5
Cycle Q Clear(g_c), s	32.8	7.5
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	1241	553
V/C Ratio(X)	0.88	0.27
Avail Cap(c_a), veh/h	1301	580
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	34.7	26.5
Incr Delay (d2), s/veh	7.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.0	2.9
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	42.0	26.8
LnGrp LOS	D	C
Approach Vol, veh/h	1478	
Approach Delay, s/veh	46.1	
Approach LOS	D	
Timer - Assigned Phs		



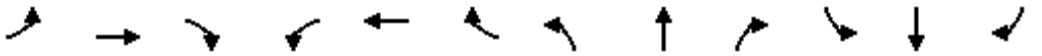
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	572	2	287	1094	18	28	291	306	97	464	200
Future Volume (veh/h)	84	572	2	287	1094	18	28	291	306	97	464	200
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	602	0	302	1152	0	29	306	322	102	488	211
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	113	1051		339	1501		225	645	575	235	878	377
Arrive On Green	0.06	0.30	0.00	0.19	0.42	0.00	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1781	3647	0	1781	3647	0	747	1777	1585	798	2420	1040
Grp Volume(v), veh/h	88	602	0	302	1152	0	29	306	322	102	358	341
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1777	0	747	1777	1585	798	1777	1683
Q Serve(g_s), s	4.7	13.8	0.0	15.8	26.5	0.0	3.1	12.7	15.5	11.2	15.4	15.5
Cycle Q Clear(g_c), s	4.7	13.8	0.0	15.8	26.5	0.0	18.6	12.7	15.5	26.8	15.4	15.5
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		0.62
Lane Grp Cap(c), veh/h	113	1051		339	1501		225	645	575	235	645	611
V/C Ratio(X)	0.78	0.57		0.89	0.77		0.13	0.47	0.56	0.43	0.55	0.56
Avail Cap(c_a), veh/h	223	1188		595	1930		278	770	687	291	770	730
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.2	28.6	0.0	37.8	23.6	0.0	31.8	23.5	24.4	35.1	24.3	24.4
Incr Delay (d2), s/veh	4.4	0.7	0.0	3.8	1.7	0.0	0.4	0.9	1.5	2.2	1.3	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	5.8	0.0	7.1	10.8	0.0	0.6	5.3	5.8	2.3	6.4	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.6	29.3	0.0	41.6	25.3	0.0	32.3	24.4	25.9	37.2	25.6	25.8
LnGrp LOS	D	C		D	C		C	C	C	D	C	C
Approach Vol, veh/h		690			1454			657			801	
Approach Delay, s/veh		31.8			28.7			25.5			27.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	22.2	33.3		40.2	10.1	45.4		40.2				
Change Period (Y+Rc), s	4.0	5.0		5.5	4.0	5.0		5.5				
Max Green Setting (Gmax), s	32.0	32.0		41.5	12.0	52.0		41.5				
Max Q Clear Time (g_c+I1), s	17.8	15.8		28.8	6.7	28.5		20.6				
Green Ext Time (p_c), s	0.4	4.8		6.0	0.0	11.9		6.6				

Intersection Summary		
HCM 6th Ctrl Delay		28.4
HCM 6th LOS		C

Notes

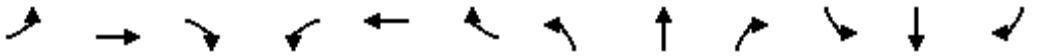
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	139	500	1	37	961	25	441	553	29	25	752	344
Future Volume (vph)	139	500	1	37	961	25	441	553	29	25	752	344
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.5	
Lane Util. Factor	1.00	0.95		0.97	0.95		0.97	0.91		1.00	0.91	
Frt	1.00	1.00		1.00	1.00		1.00	0.99		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3538		3433	3526		3433	5047		1770	4846	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3538		3433	3526		3433	5047		1770	4846	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	146	526	1	39	1012	26	464	582	31	26	792	362
RTOR Reduction (vph)	0	0	0	0	2	0	0	5	0	0	85	0
Lane Group Flow (vph)	146	527	0	39	1036	0	464	608	0	26	1069	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	10.5	39.0		4.1	32.6		12.0	31.5		4.1	23.1	
Effective Green, g (s)	10.5	39.0		4.1	32.6		12.0	31.5		4.1	23.1	
Actuated g/C Ratio	0.11	0.40		0.04	0.34		0.12	0.33		0.04	0.24	
Clearance Time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	192	1426		145	1188		426	1644		75	1157	
v/s Ratio Prot	c0.08	0.15		0.01	c0.29		c0.14	0.12		0.01	c0.22	
v/s Ratio Perm												
v/c Ratio	0.76	0.37		0.27	0.87		1.09	0.37		0.35	0.92	
Uniform Delay, d1	41.9	20.2		44.8	30.1		42.4	25.0		45.0	35.9	
Progression Factor	1.00	1.00		1.00	1.00		1.52	0.21		1.00	1.00	
Incremental Delay, d2	16.1	0.2		1.0	7.3		65.7	0.1		2.8	12.1	
Delay (s)	58.0	20.4		45.9	37.4		130.0	5.5		47.8	48.1	
Level of Service	E	C		D	D		F	A		D	D	
Approach Delay (s)		28.6			37.7			59.1			48.1	
Approach LOS		C			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	45.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	96.7	Sum of lost time (s)	18.5
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		

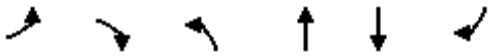
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	101	396	17	0	53	0	978	22	35	745	0
Future Volume (vph)	0	101	396	17	0	53	0	978	22	35	745	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		5.0			5.0		4.0	5.5	
Lane Util. Factor		1.00	1.00		1.00			0.91		1.00	0.91	
Frt		1.00	0.85		0.90			1.00		1.00	1.00	
Flt Protected		1.00	1.00		0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1863	1583		1652			5069		1770	5085	
Flt Permitted		1.00	1.00		0.93			1.00		0.21	1.00	
Satd. Flow (perm)		1863	1583		1561			5069		382	5085	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	106	417	18	0	56	0	1029	23	37	784	0
RTOR Reduction (vph)	0	0	249	0	49	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	106	168	0	25	0	0	1050	0	37	784	0
Turn Type		NA	Perm	Perm	NA			NA		pm+pt	NA	
Protected Phases		4			8			6		5	2	
Permitted Phases	4		4	8						2		
Actuated Green, G (s)		39.0	39.0		32.6			31.5		27.2	23.1	
Effective Green, g (s)		39.0	39.0		32.6			31.5		27.2	23.1	
Actuated g/C Ratio		0.40	0.40		0.34			0.33		0.28	0.24	
Clearance Time (s)		5.0	5.0		5.0			5.0		4.0	5.5	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		751	638		526			1651		166	1214	
v/s Ratio Prot		0.06						c0.21		c0.01	0.15	
v/s Ratio Perm			c0.11		0.02					0.05		
v/c Ratio		0.14	0.26		0.05			0.64		0.22	0.65	
Uniform Delay, d1		18.3	19.3		21.6			27.7		25.6	33.1	
Progression Factor		1.00	1.00		1.00			1.00		0.58	0.49	
Incremental Delay, d2		0.1	0.2		0.0			0.8		0.3	0.4	
Delay (s)		18.3	19.5		21.6			28.5		15.0	16.7	
Level of Service		B	B		C			C		B	B	
Approach Delay (s)		19.3			21.6			28.5			16.6	
Approach LOS		B			C			C			B	

Intersection Summary			
HCM 2000 Control Delay	22.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	96.7	Sum of lost time (s)	18.5
Intersection Capacity Utilization	60.2%	ICU Level of Service	B
Analysis Period (min)	15		

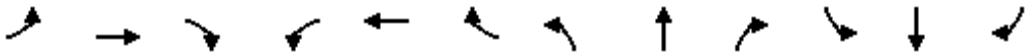
c Critical Lane Group



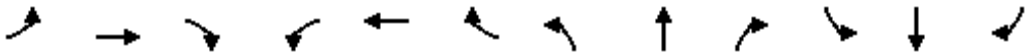
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	307	0	1323	793	495
Future Volume (Veh/h)	0	307	0	1323	793	495
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	323	0	1393	835	521
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					180	
pX, platoon unblocked	0.71	0.71	0.71			
vC, conflicting volume	1444	678	835			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	796	0	0			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	58	100			
cM capacity (veh/h)	229	766	1145			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	323	348	348	348	348	557	799
Volume Left	0	0	0	0	0	0	0
Volume Right	323	0	0	0	0	0	521
cSH	766	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.42	0.20	0.20	0.20	0.20	0.33	0.47
Queue Length 95th (ft)	53	0	0	0	0	0	0
Control Delay (s)	13.1	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B						
Approach Delay (s)	13.1	0.0				0.0	
Approach LOS	B						

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	63.5%	ICU Level of Service	B
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	363	884	4	93	646	48	413	822	67	45	534	150
Future Volume (vph)	363	884	4	93	646	48	413	822	67	45	534	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	260		0	130		0	140		0	260		0
Storage Lanes	1		0	2		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	0.95	0.97	0.91	0.91	1.00	0.91	0.91
Ped Bike Factor												
Frt		0.999			0.990			0.989			0.967	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3536	0	3433	3504	0	3433	5029	0	1770	4917	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3536	0	3433	3504	0	3433	5029	0	1770	4917	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			8			14			69	
Link Speed (mph)		35			35			35			40	
Link Distance (ft)		548			579			278			585	
Travel Time (s)		10.7			11.3			5.4			10.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	382	931	4	98	680	51	435	865	71	47	562	158
Shared Lane Traffic (%)												
Lane Group Flow (vph)	382	935	0	98	731	0	435	936	0	47	720	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			36			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases												
Detector Phase	7	4		3	8		1	6		5	2	
Switch Phase												

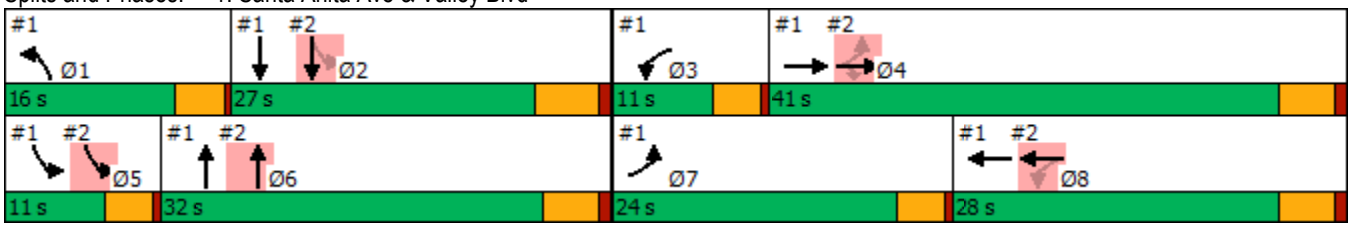


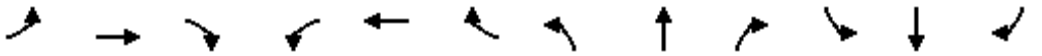
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0		7.0	10.0		10.0	10.0		7.0	10.0	
Minimum Split (s)	11.0	41.0		11.0	28.0		14.0	18.0		11.0	25.5	
Total Split (s)	24.0	41.0		11.0	28.0		16.0	32.0		11.0	27.0	
Total Split (%)	25.3%	43.2%		11.6%	29.5%		16.8%	33.7%		11.6%	28.4%	
Maximum Green (s)	20.0	36.0		7.0	23.0		12.0	27.0		7.0	21.5	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.0		3.5	4.5	
All-Red Time (s)	0.5	1.0		0.5	1.0		0.5	1.0		0.5	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		29.0			16.0			6.0			13.0	
Pedestrian Calls (#/hr)		10			10			10			10	
Act Effct Green (s)	20.0	37.6		7.0	22.2		12.0	28.2		7.0	20.3	
Actuated g/C Ratio	0.22	0.40		0.08	0.24		0.13	0.30		0.08	0.22	
v/c Ratio	1.00	0.65		0.38	0.87		0.98	0.61		0.35	0.64	
Control Delay	86.0	26.2		46.4	46.3		93.6	11.1		49.7	32.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.4		0.0	0.0	
Total Delay	86.0	26.2		46.4	46.3		93.6	11.5		49.7	32.7	
LOS	F	C		D	D		F	B		D	C	
Approach Delay		43.5			46.3			37.5			33.8	
Approach LOS		D			D			D			C	
90th %ile Green (s)	20.0	36.0		7.0	23.0		12.0	27.0		7.0	21.5	
90th %ile Term Code	Max	Max		Max	Max		Max	Max		Max	Max	
70th %ile Green (s)	20.0	36.0		7.0	23.0		12.0	27.0		7.0	21.5	
70th %ile Term Code	Max	Max		Max	Max		Max	Max		Max	Max	
50th %ile Green (s)	20.0	36.0		7.0	23.0		12.0	27.0		7.0	21.5	
50th %ile Term Code	Max	Max		Max	Max		Max	Max		Max	Max	
30th %ile Green (s)	20.0	36.0		7.0	23.0		12.0	27.0		7.0	21.5	
30th %ile Term Code	Max	Hold		Max	Max		Max	Max		Max	Hold	
10th %ile Green (s)	20.0	43.0		0.0	19.0		12.0	32.2		0.0	15.7	
10th %ile Term Code	Max	Hold		Skip	Gap		Max	Hold		Skip	Gap	
Stops (vph)	304	701		85	620		353	164		44	544	
Fuel Used(gal)	10	14		2	14		11	5		1	13	
CO Emissions (g/hr)	705	945		133	986		794	351		75	882	
NOx Emissions (g/hr)	137	184		26	192		154	68		15	172	
VOC Emissions (g/hr)	163	219		31	229		184	81		17	204	
Dilemma Vehicles (#)	0	43		0	34		0	115		0	34	
Queue Length 50th (ft)	~247	245		29	220		~147	34		28	130	
Queue Length 95th (ft)	#425	317		55	#316		m#211	67		63	171	
Internal Link Dist (ft)		468			499			198			505	
Turn Bay Length (ft)	260			130			140			260		
Base Capacity (vph)	381	1429		258	873		443	1533		133	1191	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0		0	202		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.00	0.65		0.38	0.84		0.98	0.70		0.35	0.60	

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 93			
Natural Cycle: 95			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay: 40.4		Intersection LOS: D	
Intersection Capacity Utilization 80.4%		ICU Level of Service D	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 95			
70th %ile Actuated Cycle: 95			
50th %ile Actuated Cycle: 95			
30th %ile Actuated Cycle: 95			
10th %ile Actuated Cycle: 85.2			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: Santa Anita Ave & Valley Blvd





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	161	409	31	0	97	0	1166	45	20	631	0
Future Volume (vph)	13	161	409	31	0	97	0	1166	45	20	631	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	145		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	1.00
Ped Bike Factor												
Frt			0.850		0.898			0.994				
Flt Protected		0.996			0.988					0.950		
Satd. Flow (prot)	0	1855	1583	0	1653	0	0	5055	0	1770	5085	0
Flt Permitted		0.980			0.893					0.189		
Satd. Flow (perm)	0	1825	1583	0	1494	0	0	5055	0	352	5085	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			431		212			6				
Link Speed (mph)		30			30			35			40	
Link Distance (ft)		276			326			445			278	
Travel Time (s)		6.3			7.4			8.7			4.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	14	169	431	33	0	102	0	1227	47	21	664	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	183	431	0	135	0	0	1274	0	21	664	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			10			0			0	
Crosswalk Width(ft)		12			12			12			12	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2			2		1	2	
Detector Template	Left	Thru	Right	Left	Thru			Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100			100		20	100	
Trailing Detector (ft)	0	0	0	0	0			0		0	0	
Turn Type	Perm	NA	Perm	Perm	NA			NA		pm+pt	NA	
Protected Phases		4			8			6		5	2	
Permitted Phases	4		4	8						2		
Detector Phase	4	4	4	8	8			6		5	2	
Switch Phase												

Lane Group	Ø1	Ø3	Ø7
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Growth Factor			
Heavy Vehicles (%)			
Bus Blockages (#/hr)			
Parking (#/hr)			
Mid-Block Traffic (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Turn Type			
Protected Phases	1	3	7
Permitted Phases			
Detector Phase			
Switch Phase			

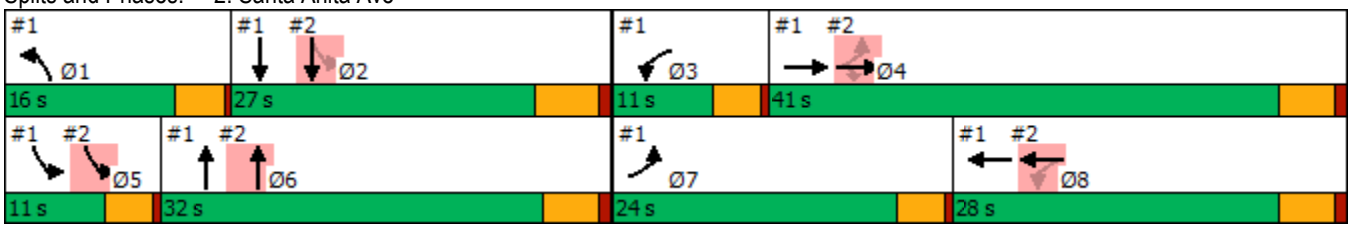
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0			10.0		7.0	10.0	
Minimum Split (s)	41.0	41.0	41.0	28.0	28.0			18.0		11.0	25.5	
Total Split (s)	41.0	41.0	41.0	28.0	28.0			32.0		11.0	27.0	
Total Split (%)	43.2%	43.2%	43.2%	29.5%	29.5%			33.7%		11.6%	28.4%	
Maximum Green (s)	36.0	36.0	36.0	23.0	23.0			27.0		7.0	21.5	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0			4.0		3.5	4.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0			1.0		0.5	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0			0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0			5.0		4.0	5.5	
Lead/Lag	Lag	Lag	Lag	Lag	Lag			Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes			Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0			3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0			0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0			0.0		0.0	0.0	
Recall Mode	None	None	None	None	None			Min		None	Min	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	
Flash Dont Walk (s)	29.0	29.0	29.0	16.0	16.0			6.0			13.0	
Pedestrian Calls (#/hr)	10	10	10	10	10			10			10	
Act Effct Green (s)		37.6	37.6		22.2			28.2		28.8	20.3	
Actuated g/C Ratio		0.40	0.40		0.24			0.30		0.31	0.22	
v/c Ratio		0.25	0.48		0.26			0.83		0.10	0.60	
Control Delay		20.9	4.1		1.8			36.7		10.6	17.2	
Queue Delay		0.0	0.0		0.0			0.0		0.0	0.2	
Total Delay		20.9	4.1		1.8			36.7		10.6	17.4	
LOS		C	A		A			D		B	B	
Approach Delay		9.1			1.8			36.7			17.2	
Approach LOS		A			A			D			B	
90th %ile Green (s)	36.0	36.0	36.0	23.0	23.0			27.0		7.0	21.5	
90th %ile Term Code	Max	Max	Max	Max	Max			Max		Max	Max	
70th %ile Green (s)	36.0	36.0	36.0	23.0	23.0			27.0		7.0	21.5	
70th %ile Term Code	Max	Max	Max	Max	Max			Max		Max	Max	
50th %ile Green (s)	36.0	36.0	36.0	23.0	23.0			27.0		7.0	21.5	
50th %ile Term Code	Max	Max	Max	Max	Max			Max		Max	Max	
30th %ile Green (s)	36.0	36.0	36.0	23.0	23.0			27.0		7.0	21.5	
30th %ile Term Code	Hold	Hold	Hold	Max	Max			Max		Max	Hold	
10th %ile Green (s)	43.0	43.0	43.0	19.0	19.0			32.2		0.0	15.7	
10th %ile Term Code	Hold	Hold	Hold	Gap	Gap			Hold		Skip	Gap	
Stops (vph)		115	34		2			1062		6	173	
Fuel Used(gal)		2	2		0			21		0	5	
CO Emissions (g/hr)		145	151		27			1463		10	357	
NOx Emissions (g/hr)		28	29		5			285		2	69	
VOC Emissions (g/hr)		34	35		6			339		2	83	
Dilemma Vehicles (#)		0	0		0			61		0	33	
Queue Length 50th (ft)		75	0		0			267		3	42	
Queue Length 95th (ft)		126	59		7			#336		m5	50	
Internal Link Dist (ft)		196			246			365			198	
Turn Bay Length (ft)										145		
Base Capacity (vph)		737	896		529			1535		215	1177	

Lane Group	Ø1	Ø3	Ø7
Minimum Initial (s)	10.0	7.0	7.0
Minimum Split (s)	14.0	11.0	11.0
Total Split (s)	16.0	11.0	24.0
Total Split (%)	17%	12%	25%
Maximum Green (s)	12.0	7.0	20.0
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0
Recall Mode	None	None	None
Walk Time (s)			
Flash Dont Walk (s)			
Pedestrian Calls (#/hr)			
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
90th %ile Green (s)	12.0	7.0	20.0
90th %ile Term Code	Max	Max	Max
70th %ile Green (s)	12.0	7.0	20.0
70th %ile Term Code	Max	Max	Max
50th %ile Green (s)	12.0	7.0	20.0
50th %ile Term Code	Max	Max	Max
30th %ile Green (s)	12.0	7.0	20.0
30th %ile Term Code	Max	Max	Max
10th %ile Green (s)	12.0	0.0	20.0
10th %ile Term Code	Max	Skip	Max
Stops (vph)			
Fuel Used(gal)			
CO Emissions (g/hr)			
NOx Emissions (g/hr)			
VOC Emissions (g/hr)			
Dilemma Vehicles (#)			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0	0		0			0		0	92	
Spillback Cap Reductn		0	0		0			0		0	0	
Storage Cap Reductn		0	0		0			0		0	0	
Reduced v/c Ratio		0.25	0.48		0.26			0.83		0.10	0.61	

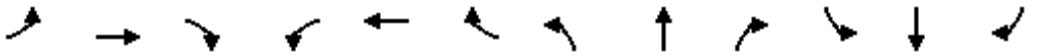
Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 93			
Natural Cycle: 95			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay: 23.8		Intersection LOS: C	
Intersection Capacity Utilization 58.8%		ICU Level of Service B	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 95			
70th %ile Actuated Cycle: 95			
50th %ile Actuated Cycle: 95			
30th %ile Actuated Cycle: 95			
10th %ile Actuated Cycle: 85.2			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Santa Anita Ave



Lane Group	Ø1	Ø3	Ø7
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	1084	6	17	814	1	15	0	24	0	0	16
Future Volume (vph)	8	1084	6	17	814	1	15	0	24	0	0	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	50		0	50		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999						0.918			0.865	
Flt Protected	0.950			0.950				0.981				
Satd. Flow (prot)	1770	3536	0	1770	3539	0	0	1678	0	0	1611	0
Flt Permitted	0.950			0.950				0.981				
Satd. Flow (perm)	1770	3536	0	1770	3539	0	0	1678	0	0	1611	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		339			384			394			368	
Travel Time (s)		6.6			7.5			9.0			8.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	8	1141	6	18	857	1	16	0	25	0	0	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	1147	0	18	858	0	0	41	0	0	17	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	144	866	190	7	58	612	271	106	108	1188	389	253
Future Volume (vph)	144	866	190	7	58	612	271	106	108	1188	389	253
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%				0%		
Storage Length (ft)	270		140		120		0		0		0	270
Storage Lanes	1		1		1		0		1		0	1
Taper Length (ft)	25				25				25			25
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	0.95	0.91	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt			0.850			0.954				0.963		
Flt Protected	0.950				0.950				0.950			0.950
Satd. Flow (prot)	1770	3539	1583	0	1770	3376	0	0	1770	4897	0	1770
Flt Permitted	0.950				0.385				0.381			0.950
Satd. Flow (perm)	1770	3539	1583	0	717	3376	0	0	710	4897	0	1770
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)			149			76				89		
Link Speed (mph)		35				35				35		
Link Distance (ft)		598				230				180		
Travel Time (s)		11.6				4.5				3.5		
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%				0%		
Adj. Flow (vph)	152	912	200	7	61	644	285	112	114	1251	409	266
Shared Lane Traffic (%)												
Lane Group Flow (vph)	152	912	200	0	68	929	0	0	226	1660	0	266
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	R NA	Left	Left	Right	R NA	Left	Left	Right	Left
Median Width(ft)		12				12				12		
Link Offset(ft)		0				0				0		
Crosswalk Width(ft)		16				16				16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15		9	9	15		9	15
Number of Detectors	1	2	1	1	1	2		1	1	2		1
Detector Template	Left	Thru	Right	Left	Left	Thru		Left	Left	Thru		Left
Leading Detector (ft)	20	100	20	20	20	100		20	20	100		20
Trailing Detector (ft)	0	0	0	0	0	0		0	0	0		0
Turn Type	Prot	NA	Perm	custom	Prot	NA		custom	Prot	NA		Prot
Protected Phases	7	4			3	8			5	2		1
Permitted Phases			4	3				5				
Detector Phase	7	4	4	3	3	8		5	5	2		1
Switch Phase												



Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	971	127
Future Volume (vph)	971	127
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		134
Link Speed (mph)	35	
Link Distance (ft)	837	
Travel Time (s)	16.3	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.95	0.95
Growth Factor	100%	100%
Heavy Vehicles (%)	2%	2%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Adj. Flow (vph)	1022	134
Shared Lane Traffic (%)		
Lane Group Flow (vph)	1022	134
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Detector Phase	6	6
Switch Phase		



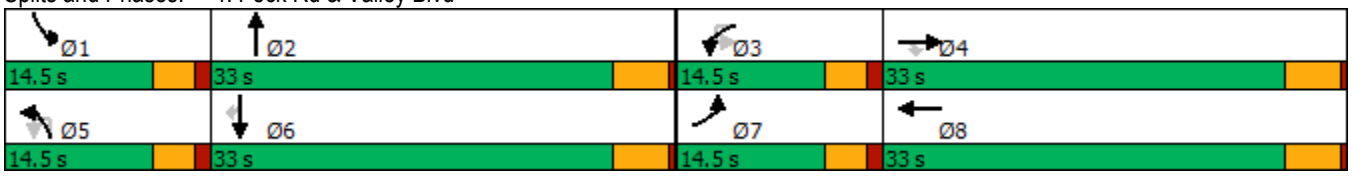
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Minimum Initial (s)	10.0	9.0	9.0	10.0	10.0	9.0		10.0	10.0	9.0		10.0
Minimum Split (s)	14.5	33.0	33.0	14.5	14.5	33.0		14.5	14.5	33.0		14.5
Total Split (s)	14.5	33.0	33.0	14.5	14.5	33.0		14.5	14.5	33.0		14.5
Total Split (%)	15.3%	34.7%	34.7%	15.3%	15.3%	34.7%		15.3%	15.3%	34.7%		15.3%
Maximum Green (s)	10.5	28.5	28.5	10.5	10.5	28.5		10.5	10.5	28.5		10.5
Yellow Time (s)	3.0	4.0	4.0	3.0	3.0	4.0		3.0	3.0	4.0		3.0
All-Red Time (s)	1.0	0.5	0.5	1.0	1.0	0.5		1.0	1.0	0.5		1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		0.0
Total Lost Time (s)	4.0	4.5	4.5		4.0	4.5			4.0	4.5		4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag		Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes		Yes
Vehicle Extension (s)	1.5	4.0	4.0	1.5	1.5	4.0		1.5	1.5	4.0		1.5
Minimum Gap (s)	1.5	3.0	3.0	1.5	1.5	3.0		1.5	1.5	3.0		1.5
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Time To Reduce (s)	0.0	15.0	15.0	0.0	0.0	15.0		0.0	0.0	15.0		0.0
Recall Mode	None	None	None	None	None	None		None	None	Min		None
Walk Time (s)		7.0	7.0			7.0				7.0		
Flash Dont Walk (s)		21.0	21.0			21.0				21.0		
Pedestrian Calls (#/hr)		10	10			10				10		
Act Effct Green (s)	10.4	27.9	27.9		10.4	27.9			10.5	28.5		10.5
Actuated g/C Ratio	0.11	0.30	0.30		0.11	0.30			0.11	0.30		0.11
v/c Ratio	0.78	0.87	0.35		0.86	0.88			2.86	1.08		1.35
Control Delay	68.7	42.2	9.7		113.7	40.5			896.3	77.6		223.5
Queue Delay	0.0	0.0	0.0		0.0	0.0			0.0	0.0		0.0
Total Delay	68.7	42.2	9.7		113.7	40.5			896.3	77.6		223.5
LOS	E	D	A		F	D			F	E		F
Approach Delay		40.2				45.4				175.7		
Approach LOS		D				D				F		
90th %ile Green (s)	10.5	28.5	28.5	10.5	10.5	28.5		10.5	10.5	28.5		10.5
90th %ile Term Code	Max	Max	Max	Max	Max	Max		Max	Max	Max		Max
70th %ile Green (s)	10.5	28.5	28.5	10.5	10.5	28.5		10.5	10.5	28.5		10.5
70th %ile Term Code	Max	Max	Max	Max	Max	Max		Max	Max	Max		Max
50th %ile Green (s)	10.5	28.5	28.5	10.5	10.5	28.5		10.5	10.5	28.5		10.5
50th %ile Term Code	Max	Max	Max	Max	Max	Max		Max	Max	Max		Max
30th %ile Green (s)	10.5	28.5	28.5	10.5	10.5	28.5		10.5	10.5	28.5		10.5
30th %ile Term Code	Max	Max	Max	Max	Max	Max		Max	Max	Max		Max
10th %ile Green (s)	10.0	25.3	25.3	10.0	10.0	25.3		10.5	10.5	28.5		10.5
10th %ile Term Code	Min	Gap	Gap	Min	Min	Hold		Max	Max	Max		Max
Stops (vph)	129	774	46		50	737			164	1311		191
Fuel Used(gal)	4	17	2		2	14			41	37		14
CO Emissions (g/hr)	252	1188	108		139	998			2848	2574		1012
NOx Emissions (g/hr)	49	231	21		27	194			554	501		197
VOC Emissions (g/hr)	58	275	25		32	231			660	596		234
Dilemma Vehicles (#)	0	43	0		0	44			0	75		0
Queue Length 50th (ft)	91	271	22		41	257			~236	~400		~213
Queue Length 95th (ft)	#191	#376	76		#123	#368			#380	#498		#367
Internal Link Dist (ft)		518				150				100		
Turn Bay Length (ft)	270		140		120							270
Base Capacity (vph)	197	1070	582		80	1074			79	1543		197

Lane Group	SBT	SBR
Minimum Initial (s)	9.0	9.0
Minimum Split (s)	33.0	33.0
Total Split (s)	33.0	33.0
Total Split (%)	34.7%	34.7%
Maximum Green (s)	28.5	28.5
Yellow Time (s)	4.0	4.0
All-Red Time (s)	0.5	0.5
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	4.5	4.5
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	4.0	4.0
Minimum Gap (s)	3.0	3.0
Time Before Reduce (s)	0.0	0.0
Time To Reduce (s)	15.0	15.0
Recall Mode	Min	Min
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	21.0	21.0
Pedestrian Calls (#/hr)	10	10
Act Effct Green (s)	28.5	28.5
Actuated g/C Ratio	0.30	0.30
v/c Ratio	0.96	0.23
Control Delay	52.1	5.7
Queue Delay	0.0	0.0
Total Delay	52.1	5.7
LOS	D	A
Approach Delay	79.8	
Approach LOS	E	
90th %ile Green (s)	28.5	28.5
90th %ile Term Code	Max	Max
70th %ile Green (s)	28.5	28.5
70th %ile Term Code	Max	Max
50th %ile Green (s)	28.5	28.5
50th %ile Term Code	Max	Max
30th %ile Green (s)	28.5	28.5
30th %ile Term Code	Max	Max
10th %ile Green (s)	28.5	28.5
10th %ile Term Code	Max	Max
Stops (vph)	856	17
Fuel Used(gal)	23	1
CO Emissions (g/hr)	1580	73
NOx Emissions (g/hr)	307	14
VOC Emissions (g/hr)	366	17
Dilemma Vehicles (#)	49	0
Queue Length 50th (ft)	317	0
Queue Length 95th (ft)	#452	41
Internal Link Dist (ft)	757	
Turn Bay Length (ft)		400
Base Capacity (vph)	1070	572

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Starvation Cap Reductn	0	0	0		0	0			0	0		0
Spillback Cap Reductn	0	0	0		0	0			0	0		0
Storage Cap Reductn	0	0	0		0	0			0	0		0
Reduced v/c Ratio	0.77	0.85	0.34		0.85	0.86			2.86	1.08		1.35

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 94.3			
Natural Cycle: 95			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 2.86			
Intersection Signal Delay: 97.1		Intersection LOS: F	
Intersection Capacity Utilization 93.7%		ICU Level of Service F	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 95			
70th %ile Actuated Cycle: 95			
50th %ile Actuated Cycle: 95			
30th %ile Actuated Cycle: 95			
10th %ile Actuated Cycle: 91.3			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

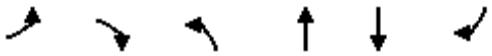
Splits and Phases: 4: Peck Rd & Valley Blvd





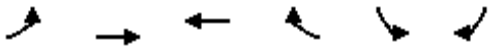
Lane Group	SBT	SBR
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.96	0.23

Intersection Summary



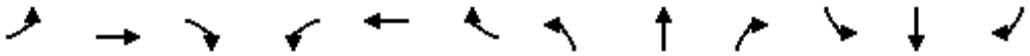
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	183	0	1791	716	603
Future Volume (vph)	0	183	0	1791	716	603
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	70			0
Storage Lanes	0	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.86	0.95	0.95
Ped Bike Factor						
Frt		0.865			0.931	
Flt Protected						
Satd. Flow (prot)	0	1611	0	6408	3295	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	6408	3295	0
Link Speed (mph)	45			35	35	
Link Distance (ft)	244			506	180	
Travel Time (s)	3.7			9.9	3.5	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	193	0	1885	754	635
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	193	0	1885	1389	0
Enter Blocked Intersection	No	No	No	Yes	Yes	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 57.1%		ICU Level of Service B	
Analysis Period (min) 15			

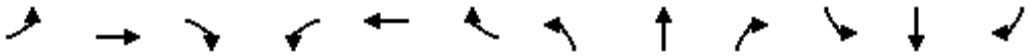


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1514	776	376	0	167
Future Volume (vph)	0	1514	776	376	0	167
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	0	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.951			0.865
Flt Protected						
Satd. Flow (prot)	0	3539	3366	0	0	1611
Flt Permitted						
Satd. Flow (perm)	0	3539	3366	0	0	1611
Link Speed (mph)		35	35		45	
Link Distance (ft)		230	799		215	
Travel Time (s)		4.5	15.6		3.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	1594	817	396	0	176
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1594	1213	0	0	176
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.5%		ICU Level of Service A	
Analysis Period (min) 15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	216	889	24	224	709	31	27	737	371	67	319	151
Future Volume (vph)	216	889	24	224	709	31	27	737	371	67	319	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	90		0	190		0	150		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.996			0.994			0.950			0.952	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3525	0	1770	3518	0	1770	3362	0	1770	3369	0
Flt Permitted	0.950			0.950			0.415			0.097		
Satd. Flow (perm)	1770	3525	0	1770	3518	0	773	3362	0	181	3369	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			4			92			82	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		561			970			736			158	
Travel Time (s)		10.9			18.9			14.3			3.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	227	936	25	236	746	33	28	776	391	71	336	159
Shared Lane Traffic (%)												
Lane Group Flow (vph)	227	961	0	236	779	0	28	1167	0	71	495	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		-10			20			0			0	
Crosswalk Width(ft)		20			20			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8			4		
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												

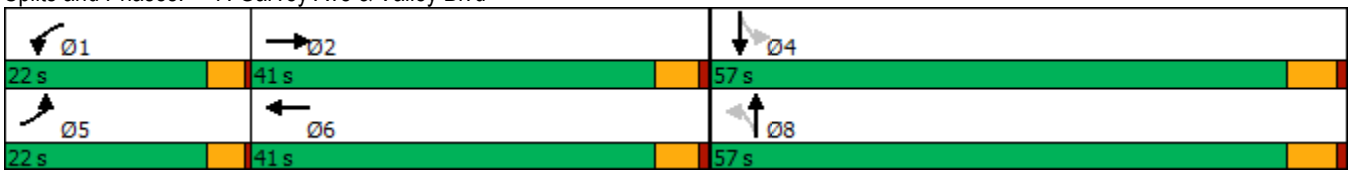


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	4.0	6.0		4.0	6.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	8.0	34.0		8.0	39.0		39.5	39.5		42.5	42.5	
Total Split (s)	22.0	41.0		22.0	41.0		57.0	57.0		57.0	57.0	
Total Split (%)	18.3%	34.2%		18.3%	34.2%		47.5%	47.5%		47.5%	47.5%	
Maximum Green (s)	18.0	36.0		18.0	36.0		51.5	51.5		51.5	51.5	
Yellow Time (s)	3.5	4.0		3.5	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.5	1.0		0.5	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0		4.0	5.0		5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	4.0		2.0	4.0		4.5	4.5		4.5	4.5	
Minimum Gap (s)	2.0	3.0		2.0	3.0		3.5	3.5		3.5	3.5	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	15.0		0.0	15.0		0.0	0.0		15.0	15.0	
Recall Mode	None	Min		None	Min		None	None		None	None	
Walk Time (s)		7.0			7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		22.0			27.0		27.0	27.0		30.0	30.0	
Pedestrian Calls (#/hr)		10			10		10	10		10	10	
Act Effct Green (s)	16.9	34.6		17.1	34.8		48.1	48.1		48.1	48.1	
Actuated g/C Ratio	0.15	0.30		0.15	0.30		0.42	0.42		0.42	0.42	
v/c Ratio	0.87	0.90		0.89	0.73		0.09	0.80		0.95	0.34	
Control Delay	79.9	51.5		83.2	40.8		21.3	31.4		126.1	19.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	79.9	51.5		83.2	40.8		21.3	31.4		126.1	19.2	
LOS	E	D		F	D		C	C		F	B	
Approach Delay		56.9			50.7			31.2			32.6	
Approach LOS		E			D			C			C	
90th %ile Green (s)	18.0	36.0		18.0	36.0		51.5	51.5		51.5	51.5	
90th %ile Term Code	Max	Max		Max	Max		Max	Max		Max	Max	
70th %ile Green (s)	18.0	36.0		18.0	36.0		51.5	51.5		51.5	51.5	
70th %ile Term Code	Max	Max		Max	Max		Max	Max		Max	Max	
50th %ile Green (s)	18.0	36.0		18.0	36.0		51.5	51.5		51.5	51.5	
50th %ile Term Code	Max	Max		Max	Hold		Max	Max		Max	Max	
30th %ile Green (s)	18.0	36.0		18.0	36.0		51.5	51.5		51.5	51.5	
30th %ile Term Code	Max	Max		Max	Hold		Hold	Hold		Max	Max	
10th %ile Green (s)	12.7	28.5		13.6	29.4		35.3	35.3		35.3	35.3	
10th %ile Term Code	Gap	Gap		Gap	Hold		Gap	Gap		Hold	Hold	
Stops (vph)	192	819		196	637		16	870		49	251	
Fuel Used(gal)	6	19		7	16		0	20		2	4	
CO Emissions (g/hr)	408	1358		478	1127		27	1365		151	298	
NOx Emissions (g/hr)	79	264		93	219		5	266		29	58	
VOC Emissions (g/hr)	95	315		111	261		6	316		35	69	
Dilemma Vehicles (#)	0	37		0	27		0	44		0	19	
Queue Length 50th (ft)	174	376		182	283		13	373		51	108	
Queue Length 95th (ft)	#313	#497		#329	357		32	463		#150	150	
Internal Link Dist (ft)		481			890			656			78	
Turn Bay Length (ft)	90			190			150					
Base Capacity (vph)	281	1123		281	1122		351	1581		82	1578	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.81	0.86		0.84	0.69		0.08	0.74		0.87	0.31	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 114.4			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 44.1		Intersection LOS: D	
Intersection Capacity Utilization 91.7%		ICU Level of Service F	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 120			
70th %ile Actuated Cycle: 120			
50th %ile Actuated Cycle: 120			
30th %ile Actuated Cycle: 120			
10th %ile Actuated Cycle: 91.9			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 7: Garvey Ave & Valley Blvd



Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	1084	6	17	814	1	15	0	24	0	0	16
Future Vol, veh/h	8	1084	6	17	814	1	15	0	24	0	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	1141	6	18	857	1	16	0	25	0	0	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	858	0	0	1147	0	0	1625	2054	574	1481	2057	429
Stage 1	-	-	-	-	-	-	1160	1160	-	894	894	-
Stage 2	-	-	-	-	-	-	465	894	-	587	1163	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	779	-	-	605	-	-	68	55	462	87	54	574
Stage 1	-	-	-	-	-	-	208	268	-	302	358	-
Stage 2	-	-	-	-	-	-	547	358	-	463	267	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	779	-	-	605	-	-	64	53	462	80	52	574
Mov Cap-2 Maneuver	-	-	-	-	-	-	64	53	-	80	52	-
Stage 1	-	-	-	-	-	-	206	265	-	299	347	-
Stage 2	-	-	-	-	-	-	515	347	-	433	264	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	42.5	11.5
HCM LOS			E	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	136	779	-	-	605	-	-	574
HCM Lane V/C Ratio	0.302	0.011	-	-	0.03	-	-	0.029
HCM Control Delay (s)	42.5	9.7	-	-	11.1	-	-	11.5
HCM Lane LOS	E	A	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.2	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1514	776	376	0	167
Future Vol, veh/h	0	1514	776	376	0	167
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1594	817	396	0	176

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	409
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	592
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	592
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.6
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	592
HCM Lane V/C Ratio	-	-	0.297
HCM Control Delay (s)	-	-	13.6
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	1.2



Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (veh/h)	144	866	190	7	58	612	271	106	108	1188	389	253
Future Volume (veh/h)	144	866	190	7	58	612	271	106	108	1188	389	253
Initial Q (Qb), veh	0	0	0		0	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00		1.00		1.00	1.00
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1870	1870	1870		1870	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	152	912	200		61	644	285		114	1251	0	266
Peak Hour Factor	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2		2	2	2		2	2	2	2
Cap, veh/h	189	1135	506		153	716	317		183	1513		203
Arrive On Green	0.11	0.32	0.32		0.09	0.30	0.30		0.10	0.30	0.00	0.11
Sat Flow, veh/h	1781	3554	1585		1781	2396	1060		1781	5274	0	1781
Grp Volume(v), veh/h	152	912	200		61	478	451		114	1251	0	266
Grp Sat Flow(s),veh/h/ln	1781	1777	1585		1781	1777	1680		1781	1702	0	1781
Q Serve(g_s), s	7.7	21.6	9.1		3.0	23.7	23.7		5.7	21.0	0.0	10.5
Cycle Q Clear(g_c), s	7.7	21.6	9.1		3.0	23.7	23.7		5.7	21.0	0.0	10.5
Prop In Lane	1.00		1.00		1.00		0.63		1.00		0.00	1.00
Lane Grp Cap(c), veh/h	189	1135	506		153	531	502		183	1513		203
V/C Ratio(X)	0.80	0.80	0.39		0.40	0.90	0.90		0.62	0.83		1.31
Avail Cap(c_a), veh/h	203	1135	506		203	550	520		203	1580		203
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.2	28.7	24.4		39.9	31.0	31.0		39.6	30.2	0.0	40.8
Incr Delay (d2), s/veh	17.4	4.5	0.7		0.6	17.8	18.6		3.1	3.9	0.0	170.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	9.5	3.4		1.3	12.3	11.7		2.6	8.8	0.0	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.6	33.2	25.1		40.5	48.7	49.6		42.7	34.1	0.0	211.1
LnGrp LOS	E	C	C		D	D	D		D	C		F
Approach Vol, veh/h		1264				990				1365		
Approach Delay, s/veh		34.8				48.6				34.8		
Approach LOS		C				D				C		

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.5	31.8	11.9	33.9	13.5	32.8	13.8	32.0
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.0	4.5	4.0	4.5
Max Green Setting (Gmax), s	10.5	28.5	10.5	28.5	10.5	28.5	10.5	28.5
Max Q Clear Time (g_c+I1), s	12.5	23.0	5.0	23.6	7.7	27.8	9.7	25.7
Green Ext Time (p_c), s	0.0	4.1	0.0	3.3	0.0	0.6	0.0	1.8

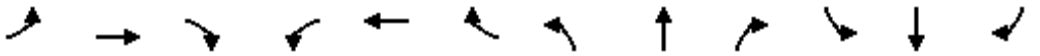
Intersection Summary	
HCM 6th Ctrl Delay	48.7
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	971	127
Future Volume (veh/h)	971	127
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1870
Adj Flow Rate, veh/h	1022	134
Peak Hour Factor	0.95	0.95
Percent Heavy Veh, %	2	2
Cap, veh/h	1093	488
Arrive On Green	0.31	0.31
Sat Flow, veh/h	3554	1585
Grp Volume(v), veh/h	1022	134
Grp Sat Flow(s),veh/h/ln	1777	1585
Q Serve(g_s), s	25.8	5.9
Cycle Q Clear(g_c), s	25.8	5.9
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	1093	488
V/C Ratio(X)	0.93	0.27
Avail Cap(c_a), veh/h	1099	490
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	31.0	24.1
Incr Delay (d2), s/veh	14.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.7	2.2
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	45.3	24.6
LnGrp LOS	D	C
Approach Vol, veh/h	1422	
Approach Delay, s/veh	74.4	
Approach LOS	E	
Timer - Assigned Phs		



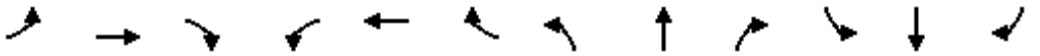
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	889	24	224	709	31	27	737	371	67	319	151
Future Volume (veh/h)	216	889	24	224	709	31	27	737	371	67	319	151
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	227	936	0	236	746	0	28	776	391	71	336	159
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	254	1040		262	1057		369	1001	502	132	1030	478
Arrive On Green	0.14	0.29	0.00	0.15	0.30	0.00	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1781	3647	0	1781	3647	0	902	2290	1150	481	2357	1094
Grp Volume(v), veh/h	227	936	0	236	746	0	28	601	566	71	252	243
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1777	0	902	1777	1663	481	1777	1673
Q Serve(g_s), s	14.8	29.8	0.0	15.3	22.0	0.0	2.5	34.0	34.2	17.3	11.0	11.3
Cycle Q Clear(g_c), s	14.8	29.8	0.0	15.3	22.0	0.0	13.8	34.0	34.2	51.5	11.0	11.3
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.69	1.00		0.65
Lane Grp Cap(c), veh/h	254	1040		262	1057		369	776	727	132	776	731
V/C Ratio(X)	0.89	0.90		0.90	0.71		0.08	0.77	0.78	0.54	0.32	0.33
Avail Cap(c_a), veh/h	272	1085		272	1085		369	776	727	132	776	731
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.7	40.0	0.0	49.4	36.8	0.0	26.4	28.2	28.3	50.3	21.8	21.9
Incr Delay (d2), s/veh	26.7	10.2	0.0	28.4	2.3	0.0	0.1	5.4	5.9	6.5	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	14.2	0.0	8.8	9.7	0.0	0.5	15.1	14.3	2.3	4.6	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.4	50.3	0.0	77.8	39.1	0.0	26.6	33.7	34.2	56.8	22.2	22.3
LnGrp LOS	E	D		E	D		C	C	C	E	C	C
Approach Vol, veh/h		1163			982			1195			566	
Approach Delay, s/veh		55.4			48.4			33.8			26.6	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.4	39.5		57.0	20.8	40.1		57.0				
Change Period (Y+Rc), s	4.0	5.0		5.5	4.0	5.0		5.5				
Max Green Setting (Gmax), s	18.0	36.0		51.5	18.0	36.0		51.5				
Max Q Clear Time (g_c+I1), s	17.3	31.8		53.5	16.8	24.0		36.2				
Green Ext Time (p_c), s	0.0	2.7		0.0	0.0	5.0		10.0				

Intersection Summary			
HCM 6th Ctrl Delay		42.8	
HCM 6th LOS		D	

Notes

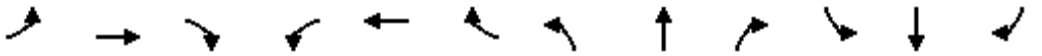
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	363	884	4	93	646	48	413	822	67	45	534	150
Future Volume (vph)	363	884	4	93	646	48	413	822	67	45	534	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.5	
Lane Util. Factor	1.00	0.95		0.97	0.95		0.97	0.91		1.00	0.91	
Frt	1.00	1.00		1.00	0.99		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3537		3433	3502		3433	5027		1770	4918	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3537		3433	3502		3433	5027		1770	4918	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	382	931	4	98	680	51	435	865	71	47	562	158
RTOR Reduction (vph)	0	1	0	0	6	0	0	10	0	0	54	0
Lane Group Flow (vph)	382	934	0	98	725	0	435	926	0	47	666	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	20.0	37.6		5.5	23.1		12.0	28.2		5.5	21.2	
Effective Green, g (s)	20.0	37.6		5.5	23.1		12.0	28.2		5.5	21.2	
Actuated g/C Ratio	0.21	0.40		0.06	0.24		0.13	0.30		0.06	0.22	
Clearance Time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	373	1402		199	853		434	1495		102	1099	
v/s Ratio Prot	c0.22	0.26		0.03	c0.21		c0.13	c0.18		0.03	0.14	
v/s Ratio Perm												
v/c Ratio	1.02	0.67		0.49	0.85		1.00	0.62		0.46	0.61	
Uniform Delay, d1	37.4	23.5		43.3	34.2		41.4	28.7		43.2	33.1	
Progression Factor	1.00	1.00		1.00	1.00		1.60	0.35		1.00	1.00	
Incremental Delay, d2	52.9	1.2		1.9	8.0		34.5	0.5		3.3	1.0	
Delay (s)	90.3	24.7		45.2	42.1		100.9	10.6		46.5	34.0	
Level of Service	F	C		D	D		F	B		D	C	
Approach Delay (s)		43.7			42.5			39.2			34.8	
Approach LOS		D			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	40.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	94.8	Sum of lost time (s)	18.5
Intersection Capacity Utilization	80.4%	ICU Level of Service	D
Analysis Period (min)	15		

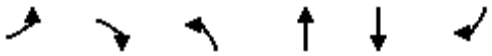
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	161	409	31	0	97	0	1166	45	20	631	0
Future Volume (vph)	13	161	409	31	0	97	0	1166	45	20	631	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		5.0			5.0		4.0	5.5	
Lane Util. Factor		1.00	1.00		1.00			0.91		1.00	0.91	
Frt		1.00	0.85		0.90			0.99		1.00	1.00	
Flt Protected		1.00	1.00		0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1856	1583		1653			5057		1770	5085	
Flt Permitted		0.98	1.00		0.89			1.00		0.19	1.00	
Satd. Flow (perm)		1825	1583		1494			5057		351	5085	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	14	169	431	33	0	102	0	1227	47	21	664	0
RTOR Reduction (vph)	0	0	260	0	102	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	183	171	0	33	0	0	1270	0	21	664	0
Turn Type	Perm	NA	Perm	Perm	NA			NA		pm+pt	NA	
Protected Phases		4			8			6		5	2	
Permitted Phases	4		4	8						2		
Actuated Green, G (s)		37.6	37.6		23.1			28.2		26.7	21.2	
Effective Green, g (s)		37.6	37.6		23.1			28.2		26.7	21.2	
Actuated g/C Ratio		0.40	0.40		0.24			0.30		0.28	0.22	
Clearance Time (s)		5.0	5.0		5.0			5.0		4.0	5.5	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		723	627		364			1504		181	1137	
v/s Ratio Prot								c0.25		c0.01	0.13	
v/s Ratio Perm		0.10	c0.11		0.02					0.03		
v/c Ratio		0.25	0.27		0.09			0.84		0.12	0.58	
Uniform Delay, d1		19.2	19.3		27.7			31.2		25.5	32.9	
Progression Factor		1.00	1.00		1.00			1.00		0.57	0.46	
Incremental Delay, d2		0.2	0.2		0.1			4.5		0.2	0.6	
Delay (s)		19.4	19.6		27.8			35.8		14.7	15.8	
Level of Service		B	B		C			D		B	B	
Approach Delay (s)		19.5			27.8			35.8			15.8	
Approach LOS		B			C			D			B	

Intersection Summary			
HCM 2000 Control Delay	26.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	94.8	Sum of lost time (s)	18.5
Intersection Capacity Utilization	58.8%	ICU Level of Service	B
Analysis Period (min)	15		

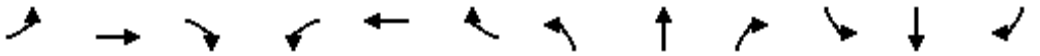
c Critical Lane Group



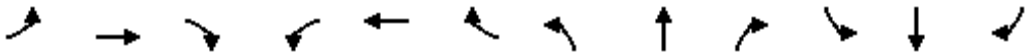
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	183	0	1791	716	603
Future Volume (Veh/h)	0	183	0	1791	716	603
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	193	0	1885	754	635
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					180	
pX, platoon unblocked	0.72	0.72	0.72			
vC, conflicting volume	1543	694	754			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	963	0	0			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	75	100			
cM capacity (veh/h)	181	776	1160			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	193	471	471	471	471	503	886
Volume Left	0	0	0	0	0	0	0
Volume Right	193	0	0	0	0	0	635
cSH	776	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.25	0.28	0.28	0.28	0.28	0.30	0.52
Queue Length 95th (ft)	25	0	0	0	0	0	0
Control Delay (s)	11.2	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B						
Approach Delay (s)	11.2	0.0				0.0	
Approach LOS	B						

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	57.1%	ICU Level of Service	B
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	139	590	355	37	961	25	441	553	29	25	752	344
Future Volume (vph)	139	590	355	37	961	25	441	553	29	25	752	344
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		120	130		0	140		0	260		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.97	0.91	0.91	1.00	0.91	0.91
Ped Bike Factor												
Frt			0.850		0.996			0.992			0.953	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3525	0	3433	5045	0	1770	4846	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3525	0	3433	5045	0	1770	4846	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			354		3			10			126	
Link Speed (mph)		35			35			35			40	
Link Distance (ft)		548			579			278			585	
Travel Time (s)		10.7			11.3			5.4			10.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	146	621	374	39	1012	26	464	582	31	26	792	362
Shared Lane Traffic (%)												
Lane Group Flow (vph)	146	621	374	39	1038	0	464	613	0	26	1154	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			36			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases			4									
Detector Phase	7	4	4	3	8		1	6		5	2	
Switch Phase												

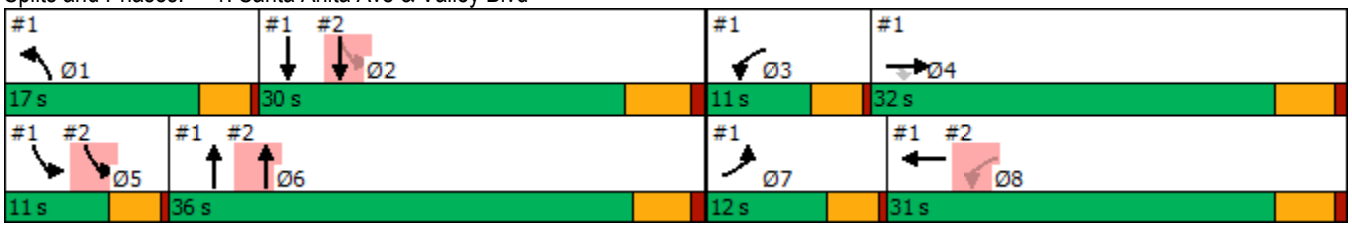


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0	10.0	7.0	10.0		10.0	10.0		7.0	10.0	
Minimum Split (s)	11.0	15.0	15.0	11.0	28.0		14.0	18.0		11.0	25.5	
Total Split (s)	12.0	32.0	32.0	11.0	31.0		17.0	36.0		11.0	30.0	
Total Split (%)	13.3%	35.6%	35.6%	12.2%	34.4%		18.9%	40.0%		12.2%	33.3%	
Maximum Green (s)	8.0	27.0	27.0	7.0	26.0		13.0	31.0		7.0	24.5	
Yellow Time (s)	3.5	4.0	4.0	3.5	4.0		3.5	4.0		3.5	4.5	
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0		0.5	1.0		0.5	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0		4.0	5.0		4.0	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None	None	None	None		None	Min		None	Min	
Walk Time (s)					7.0			7.0			7.0	
Flash Dont Walk (s)					16.0			6.0			13.0	
Pedestrian Calls (#/hr)					10			10			10	
Act Effct Green (s)	8.0	31.4	31.4	7.0	26.0		13.0	35.4		7.0	24.5	
Actuated g/C Ratio	0.09	0.35	0.35	0.08	0.29		0.14	0.39		0.08	0.27	
v/c Ratio	0.93	0.50	0.48	0.28	1.02		0.94	0.31		0.19	0.82	
Control Delay	98.8	26.0	5.8	44.9	65.6		81.7	4.3		42.4	32.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.1		0.0	0.0	
Total Delay	98.8	26.0	5.8	44.9	65.6		81.7	4.4		42.4	32.9	
LOS	F	C	A	D	E		F	A		D	C	
Approach Delay		28.7			64.9			37.7			33.1	
Approach LOS		C			E			D			C	
90th %ile Green (s)	8.0	27.0	27.0	7.0	26.0		13.0	31.0		7.0	24.5	
90th %ile Term Code	Max	Max	Max	Max	Max		Max	Max		Max	Max	
70th %ile Green (s)	8.0	27.0	27.0	7.0	26.0		13.0	31.0		7.0	24.5	
70th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Max		Max	Max	
50th %ile Green (s)	8.0	27.0	27.0	7.0	26.0		13.0	31.0		7.0	24.5	
50th %ile Term Code	Max	Hold	Hold	Max	Max		Max	Max		Max	Max	
30th %ile Green (s)	8.0	38.0	38.0	0.0	26.0		13.0	42.0		0.0	24.5	
30th %ile Term Code	Max	Hold	Hold	Skip	Max		Max	Hold		Skip	Max	
10th %ile Green (s)	8.0	38.0	38.0	0.0	26.0		13.0	42.0		0.0	24.5	
10th %ile Term Code	Max	Hold	Hold	Skip	Max		Max	Hold		Skip	Max	
Stops (vph)	115	458	46	36	861		352	50		26	896	
Fuel Used(gal)	4	9	2	1	24		11	2		1	20	
CO Emissions (g/hr)	294	622	152	53	1662		760	143		40	1433	
NOx Emissions (g/hr)	57	121	30	10	323		148	28		8	279	
VOC Emissions (g/hr)	68	144	35	12	385		176	33		9	332	
Dilemma Vehicles (#)	0	26	0	0	51		0	29		0	61	
Queue Length 50th (ft)	84	156	8	21	~319		148	12		14	201	
Queue Length 95th (ft)	#199	212	75	53	#458		#239	16		40	255	
Internal Link Dist (ft)		468			499			198			505	
Turn Bay Length (ft)	100		120	130			140			260		
Base Capacity (vph)	157	1234	782	137	1020		495	1990		137	1410	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0	0	0	0		0	388		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.93	0.50	0.48	0.28	1.02		0.94	0.38		0.19	0.82	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.02			
Intersection Signal Delay: 40.7		Intersection LOS: D	
Intersection Capacity Utilization 85.3%		ICU Level of Service E	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 90			
70th %ile Actuated Cycle: 90			
50th %ile Actuated Cycle: 90			
30th %ile Actuated Cycle: 90			
10th %ile Actuated Cycle: 90			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Santa Anita Ave & Valley Blvd





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø1	Ø3	Ø4	Ø7
Lane Configurations										
Traffic Volume (vph)	17	53	978	22	35	745				
Future Volume (vph)	17	53	978	22	35	745				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Width (ft)	12	12	12	12	12	12				
Grade (%)	0%		0%			0%				
Storage Length (ft)	0	0		0	145					
Storage Lanes	1	0		0	1					
Taper Length (ft)	25				25					
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	0.91				
Ped Bike Factor										
Frt	0.898		0.997							
Flt Protected	0.988				0.950					
Satd. Flow (prot)	1653	0	5070	0	1770	5085				
Flt Permitted	0.988				0.241					
Satd. Flow (perm)	1653	0	5070	0	449	5085				
Right Turn on Red		Yes		Yes						
Satd. Flow (RTOR)	56		4							
Link Speed (mph)	30		35			40				
Link Distance (ft)	326		445			278				
Travel Time (s)	7.4		8.7			4.7				
Confl. Peds. (#/hr)										
Confl. Bikes (#/hr)										
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				
Growth Factor	100%	100%	100%	100%	100%	100%				
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%				
Bus Blockages (#/hr)	0	0	0	0	0	0				
Parking (#/hr)										
Mid-Block Traffic (%)	0%		0%			0%				
Adj. Flow (vph)	18	56	1029	23	37	784				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	74	0	1052	0	37	784				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Right	Left	Left				
Median Width(ft)	12		24			24				
Link Offset(ft)	10		0			0				
Crosswalk Width(ft)	12		12			12				
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)	15	9		9	15					
Number of Detectors	1		2		1	2				
Detector Template	Left		Thru		Left	Thru				
Leading Detector (ft)	20		100		20	100				
Trailing Detector (ft)	0		0		0	0				
Turn Type	Perm		NA		pm+pt	NA				
Protected Phases			6		5	2	1	3	4	7
Permitted Phases	8				2					
Detector Phase	8		6		5	2				
Switch Phase										

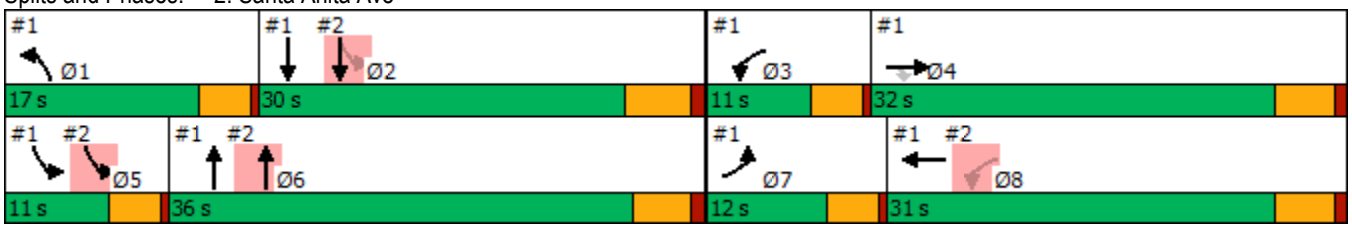


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø1	Ø3	Ø4	Ø7
Minimum Initial (s)	10.0		10.0		7.0	10.0	10.0	7.0	10.0	7.0
Minimum Split (s)	28.0		18.0		11.0	25.5	14.0	11.0	15.0	11.0
Total Split (s)	31.0		36.0		11.0	30.0	17.0	11.0	32.0	12.0
Total Split (%)	34.4%		40.0%		12.2%	33.3%	19%	12%	36%	13%
Maximum Green (s)	26.0		31.0		7.0	24.5	13.0	7.0	27.0	8.0
Yellow Time (s)	4.0		4.0		3.5	4.5	3.5	3.5	4.0	3.5
All-Red Time (s)	1.0		1.0		0.5	1.0	0.5	0.5	1.0	0.5
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	5.0		5.0		4.0	5.5				
Lead/Lag	Lag		Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes		Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0		3.0		3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0		3.0		3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None		Min		None	Min	None	None	None	None
Walk Time (s)	7.0		7.0			7.0				
Flash Dont Walk (s)	16.0		6.0			13.0				
Pedestrian Calls (#/hr)	10		10			10				
Act Effct Green (s)	26.0		35.4		33.0	24.5				
Actuated g/C Ratio	0.29		0.39		0.37	0.27				
v/c Ratio	0.14		0.53		0.14	0.57				
Control Delay	10.4		22.9		9.6	17.3				
Queue Delay	0.1		0.0		0.0	0.7				
Total Delay	10.5		23.0		9.6	18.0				
LOS	B		C		A	B				
Approach Delay	10.5		23.0			17.7				
Approach LOS	B		C			B				
90th %ile Green (s)	26.0		31.0		7.0	24.5	13.0	7.0	27.0	8.0
90th %ile Term Code	Max		Max		Max	Max	Max	Max	Max	Max
70th %ile Green (s)	26.0		31.0		7.0	24.5	13.0	7.0	27.0	8.0
70th %ile Term Code	Max		Max		Max	Max	Max	Max	Hold	Max
50th %ile Green (s)	26.0		31.0		7.0	24.5	13.0	7.0	27.0	8.0
50th %ile Term Code	Max		Max		Max	Max	Max	Max	Hold	Max
30th %ile Green (s)	26.0		42.0		0.0	24.5	13.0	0.0	38.0	8.0
30th %ile Term Code	Max		Hold		Skip	Max	Max	Skip	Hold	Max
10th %ile Green (s)	26.0		42.0		0.0	24.5	13.0	0.0	38.0	8.0
10th %ile Term Code	Max		Hold		Skip	Max	Max	Skip	Hold	Max
Stops (vph)	21		743		11	304				
Fuel Used(gal)	0		13		0	7				
CO Emissions (g/hr)	31		941		17	491				
NOx Emissions (g/hr)	6		183		3	96				
VOC Emissions (g/hr)	7		218		4	114				
Dilemma Vehicles (#)	0		50		0	67				
Queue Length 50th (ft)	7		178		6	61				
Queue Length 95th (ft)	39		223		m12	m98				
Internal Link Dist (ft)	246		365			198				
Turn Bay Length (ft)					145					
Base Capacity (vph)	517		1996		267	1384				

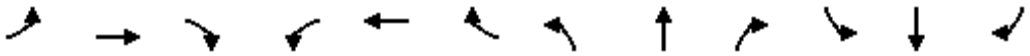
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø1	Ø3	Ø4	Ø7
Starvation Cap Reductn	0		0		0	284				
Spillback Cap Reductn	83		68		0	0				
Storage Cap Reductn	0		0		0	0				
Reduced v/c Ratio	0.17		0.55		0.14	0.71				

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.02			
Intersection Signal Delay: 20.2		Intersection LOS: C	
Intersection Capacity Utilization 45.2%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 90			
70th %ile Actuated Cycle: 90			
50th %ile Actuated Cycle: 90			
30th %ile Actuated Cycle: 90			
10th %ile Actuated Cycle: 90			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Santa Anita Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑						↑	
Traffic Volume (vph)	0	606	0	0	1048	0	0	0	0	0	0	0
Future Volume (vph)	0	606	0	0	1048	0	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	50		0	50		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt												
Flt Protected												
Satd. Flow (prot)	0	3539	0	0	3539	0	0	0	0	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	3539	0	0	3539	0	0	0	0	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		339			384			394			368	
Travel Time (s)		6.6			7.5			9.0			8.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	638	0	0	1103	0	0	0	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	638	0	0	1103	0	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2			2						2	
Detector Template		Thru			Thru						Thru	
Leading Detector (ft)		100			100						100	
Trailing Detector (ft)		0			0						0	
Turn Type		NA			NA							
Protected Phases		4			8						6	
Permitted Phases												
Detector Phase		4			8						6	
Switch Phase												

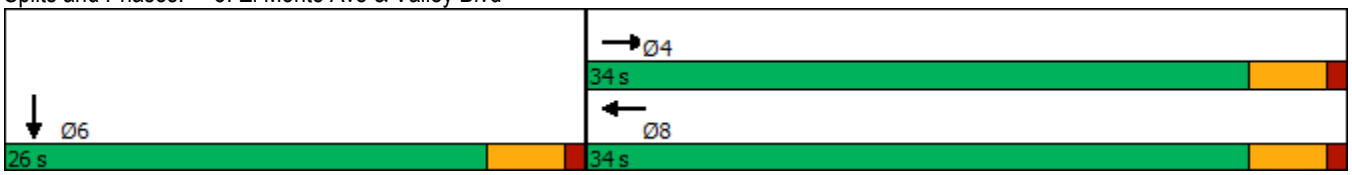


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)		5.0			5.0						5.0	
Minimum Split (s)		22.5			22.5						25.5	
Total Split (s)		34.0			34.0						26.0	
Total Split (%)		56.7%			56.7%						43.3%	
Maximum Green (s)		29.5			29.5						21.5	
Yellow Time (s)		3.5			3.5						3.5	
All-Red Time (s)		1.0			1.0						1.0	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.5			4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0			3.0						3.0	
Minimum Gap (s)		3.0			3.0						3.0	
Time Before Reduce (s)		0.0			0.0						0.0	
Time To Reduce (s)		0.0			0.0						0.0	
Recall Mode		Min			Min						None	
Walk Time (s)											7.0	
Flash Dont Walk (s)											14.0	
Pedestrian Calls (#/hr)											20	
Act Effct Green (s)		37.4			37.4							
Actuated g/C Ratio		0.92			0.92							
v/c Ratio		0.20			0.34							
Control Delay		2.3			2.9							
Queue Delay		0.0			0.0							
Total Delay		2.3			2.9							
LOS		A			A							
Approach Delay		2.3			2.9							
Approach LOS		A			A							
90th %ile Green (s)		44.5			44.5						21.0	
90th %ile Term Code		Dwell			Dwell						Ped	
70th %ile Green (s)		30.8			30.8						0.0	
70th %ile Term Code		Dwell			Dwell						Skip	
50th %ile Green (s)		29.1			29.1						0.0	
50th %ile Term Code		Dwell			Dwell						Skip	
30th %ile Green (s)		26.5			26.5						0.0	
30th %ile Term Code		Dwell			Dwell						Skip	
10th %ile Green (s)		24.7			24.7						0.0	
10th %ile Term Code		Dwell			Dwell						Skip	
Stops (vph)		79			160							
Fuel Used(gal)		2			5							
CO Emissions (g/hr)		165			330							
NOx Emissions (g/hr)		32			64							
VOC Emissions (g/hr)		38			76							
Dilemma Vehicles (#)		11			18							
Queue Length 50th (ft)		0			0							
Queue Length 95th (ft)		95			187							
Internal Link Dist (ft)		259			304			314			288	
Turn Bay Length (ft)												
Base Capacity (vph)		3133			3133							

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0							
Spillback Cap Reductn		0			0							
Storage Cap Reductn		0			0							
Reduced v/c Ratio		0.20			0.35							

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 40.7			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.34			
Intersection Signal Delay: 2.7		Intersection LOS: A	
Intersection Capacity Utilization 32.7%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 74.5			
70th %ile Actuated Cycle: 35.3			
50th %ile Actuated Cycle: 33.6			
30th %ile Actuated Cycle: 31			
10th %ile Actuated Cycle: 29.2			

Splits and Phases: 3: El Monte Ave & Valley Blvd

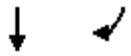


Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	83	540	127	15	38	819	226	85	87	796	354	226
Future Volume (vph)	83	540	127	15	38	819	226	85	87	796	354	226
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%				0%		
Storage Length (ft)	270		140		120		0		0		0	270
Storage Lanes	1		1		1		0		1		0	1
Taper Length (ft)	25				25				25			25
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	0.95	0.91	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt			0.850			0.968				0.954		
Flt Protected	0.950				0.950				0.950			0.950
Satd. Flow (prot)	1770	3539	1583	0	1770	3426	0	0	1770	4851	0	1770
Flt Permitted	0.950				0.950				0.950			0.950
Satd. Flow (perm)	1770	3539	1583	0	1770	3426	0	0	1770	4851	0	1770
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)			131			31				97		
Link Speed (mph)		35				35				35		
Link Distance (ft)		598				230				180		
Travel Time (s)		11.6				4.5				3.5		
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%				0%		
Adj. Flow (vph)	87	568	134	16	40	862	238	89	92	838	373	238
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	568	134	0	56	1100	0	0	181	1211	0	238
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	R NA	Left	Left	Right	R NA	Left	Left	Right	Left
Median Width(ft)		12				12				12		
Link Offset(ft)		0				0				0		
Crosswalk Width(ft)		16				16				16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15		9	9	15		9	15
Number of Detectors	1	2	1	1	1	2		1	1	2		1
Detector Template	Left	Thru	Right	Left	Left	Thru		Left	Left	Thru		Left
Leading Detector (ft)	20	100	20	20	20	100		20	20	100		20
Trailing Detector (ft)	0	0	0	0	0	0		0	0	0		0
Turn Type	Prot	NA	Perm	Prot	Prot	NA		Prot	Prot	NA		Prot
Protected Phases	7	4		3	3	8		5	5	2		1
Permitted Phases			4									
Detector Phase	7	4	4	3	3	8		5	5	2		1
Switch Phase												

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	1038	140
Future Volume (vph)	1038	140
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		147
Link Speed (mph)	35	
Link Distance (ft)	837	
Travel Time (s)	16.3	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.95	0.95
Growth Factor	100%	100%
Heavy Vehicles (%)	2%	2%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Adj. Flow (vph)	1093	147
Shared Lane Traffic (%)		
Lane Group Flow (vph)	1093	147
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Detector Phase	6	6
Switch Phase		



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Minimum Initial (s)	10.0	9.0	9.0	10.0	10.0	9.0		10.0	10.0	9.0		10.0
Minimum Split (s)	14.0	32.5	32.5	14.0	14.0	32.5		14.0	14.0	32.5		14.0
Total Split (s)	14.0	43.0	43.0	14.0	14.0	43.0		17.0	17.0	42.0		21.0
Total Split (%)	11.7%	35.8%	35.8%	11.7%	11.7%	35.8%		14.2%	14.2%	35.0%		17.5%
Maximum Green (s)	10.0	38.5	38.5	10.0	10.0	38.5		13.0	13.0	37.5		17.0
Yellow Time (s)	3.0	4.0	4.0	3.0	3.0	4.0		3.0	3.0	4.0		3.0
All-Red Time (s)	1.0	0.5	0.5	1.0	1.0	0.5		1.0	1.0	0.5		1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		0.0
Total Lost Time (s)	4.0	4.5	4.5		4.0	4.5			4.0	4.5		4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag		Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes		Yes
Vehicle Extension (s)	1.5	4.0	4.0	1.5	1.5	4.0		1.5	1.5	4.0		1.5
Minimum Gap (s)	1.5	3.0	3.0	1.5	1.5	3.0		1.5	1.5	3.0		1.5
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Time To Reduce (s)	0.0	15.0	15.0	0.0	0.0	15.0		0.0	0.0	15.0		0.0
Recall Mode	None	None	None	None	None	None		None	None	Min		None
Walk Time (s)		7.0	7.0			7.0				7.0		
Flash Dont Walk (s)		21.0	21.0			21.0				21.0		
Pedestrian Calls (#/hr)		10	10			10				10		
Act Effct Green (s)	10.0	38.7	38.7		10.0	38.7			13.1	36.7		16.9
Actuated g/C Ratio	0.09	0.33	0.33		0.09	0.33			0.11	0.32		0.15
v/c Ratio	0.57	0.48	0.22		0.37	0.95			0.91	0.76		0.93
Control Delay	68.0	33.4	6.2		59.5	54.4			97.4	36.8		90.5
Queue Delay	0.0	0.0	0.0		0.0	0.0			0.0	0.0		0.0
Total Delay	68.0	33.4	6.2		59.5	54.4			97.4	36.8		90.5
LOS	E	C	A		E	D			F	D		F
Approach Delay		32.6				54.7				44.7		
Approach LOS		C				D				D		
90th %ile Green (s)	10.0	38.5	38.5	10.0	10.0	38.5		13.0	13.0	37.5		17.0
90th %ile Term Code	Max	Hold	Hold	Max	Max	Max		Max	Max	Max		Max
70th %ile Green (s)	10.0	38.5	38.5	10.0	10.0	38.5		13.0	13.0	37.5		17.0
70th %ile Term Code	Max	Hold	Hold	Max	Max	Max		Max	Max	Max		Max
50th %ile Green (s)	10.0	38.5	38.5	10.0	10.0	38.5		13.0	13.0	37.5		17.0
50th %ile Term Code	Max	Hold	Hold	Max	Max	Max		Max	Max	Max		Max
30th %ile Green (s)	10.0	38.5	38.5	10.0	10.0	38.5		13.0	13.0	37.5		17.0
30th %ile Term Code	Max	Hold	Hold	Max	Max	Max		Max	Max	Hold		Max
10th %ile Green (s)	0.0	38.5	38.5	0.0	0.0	38.5		13.0	13.0	33.3		16.3
10th %ile Term Code	Skip	Hold	Hold	Skip	Skip	Max		Max	Max	Hold		Gap
Stops (vph)	77	417	16		49	897			145	933		195
Fuel Used(gal)	2	9	1		1	20			5	17		7
CO Emissions (g/hr)	146	639	58		77	1402			330	1197		489
NOx Emissions (g/hr)	28	124	11		15	273			64	233		95
VOC Emissions (g/hr)	34	148	13		18	325			77	277		113
Dilemma Vehicles (#)	0	17	0		0	43			0	44		0
Queue Length 50th (ft)	66	186	2		42	433			141	286		185
Queue Length 95th (ft)	#129	242	46		86	#585			#284	344		#344
Internal Link Dist (ft)		518				150				100		
Turn Bay Length (ft)	270		140		120							270
Base Capacity (vph)	153	1177	613		153	1161			198	1638		259

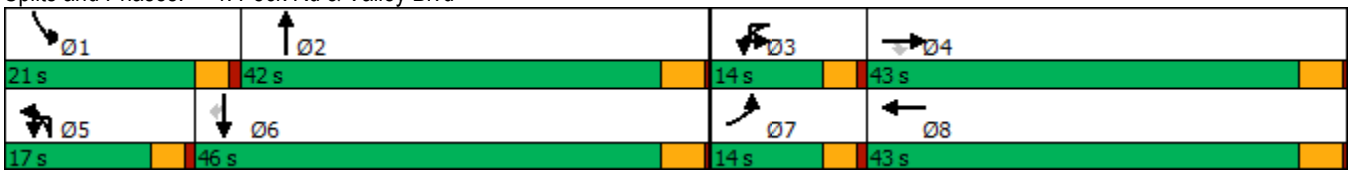


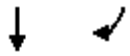
Lane Group	SBT	SBR
Minimum Initial (s)	9.0	9.0
Minimum Split (s)	32.5	32.5
Total Split (s)	46.0	46.0
Total Split (%)	38.3%	38.3%
Maximum Green (s)	41.5	41.5
Yellow Time (s)	4.0	4.0
All-Red Time (s)	0.5	0.5
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	4.5	4.5
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	4.0	4.0
Minimum Gap (s)	3.0	3.0
Time Before Reduce (s)	0.0	0.0
Time To Reduce (s)	15.0	15.0
Recall Mode	Min	Min
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	21.0	21.0
Pedestrian Calls (#/hr)	10	10
Act Effct Green (s)	40.6	40.6
Actuated g/C Ratio	0.35	0.35
v/c Ratio	0.89	0.23
Control Delay	46.0	5.3
Queue Delay	0.0	0.0
Total Delay	46.0	5.3
LOS	D	A
Approach Delay	49.1	
Approach LOS	D	
90th %ile Green (s)	41.5	41.5
90th %ile Term Code	Max	Max
70th %ile Green (s)	41.5	41.5
70th %ile Term Code	Max	Max
50th %ile Green (s)	41.5	41.5
50th %ile Term Code	Max	Max
30th %ile Green (s)	41.5	41.5
30th %ile Term Code	Max	Max
10th %ile Green (s)	36.6	36.6
10th %ile Term Code	Gap	Gap
Stops (vph)	924	16
Fuel Used(gal)	23	1
CO Emissions (g/hr)	1604	78
NOx Emissions (g/hr)	312	15
VOC Emissions (g/hr)	372	18
Dilemma Vehicles (#)	42	0
Queue Length 50th (ft)	418	0
Queue Length 95th (ft)	#543	44
Internal Link Dist (ft)	757	
Turn Bay Length (ft)		400
Base Capacity (vph)	1269	662

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Starvation Cap Reductn	0	0	0		0	0			0	0		0
Spillback Cap Reductn	0	0	0		0	0			0	0		0
Storage Cap Reductn	0	0	0		0	0			0	0		0
Reduced v/c Ratio	0.57	0.48	0.22		0.37	0.95			0.91	0.74		0.92

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 116.2			
Natural Cycle: 105			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 46.5		Intersection LOS: D	
Intersection Capacity Utilization 90.6%		ICU Level of Service E	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 120			
70th %ile Actuated Cycle: 120			
50th %ile Actuated Cycle: 120			
30th %ile Actuated Cycle: 120			
10th %ile Actuated Cycle: 101.1			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

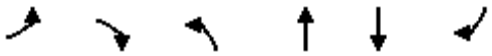
Splits and Phases: 4: Peck Rd & Valley Blvd





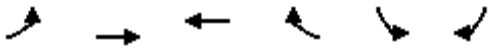
Lane Group	SBT	SBR
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.86	0.22

Intersection Summary



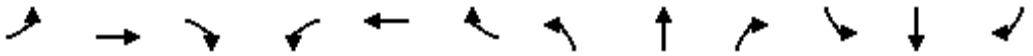
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	307	0	1323	793	495
Future Volume (vph)	0	307	0	1323	793	495
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	70			0
Storage Lanes	0	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.86	0.95	0.95
Ped Bike Factor						
Frt		0.865			0.942	
Flt Protected						
Satd. Flow (prot)	0	1611	0	6408	3334	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	6408	3334	0
Link Speed (mph)	45			35	35	
Link Distance (ft)	244			506	180	
Travel Time (s)	3.7			9.9	3.5	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	323	0	1393	835	521
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	323	0	1393	1356	0
Enter Blocked Intersection	No	No	No	Yes	Yes	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 63.5%		ICU Level of Service B	
Analysis Period (min) 15			

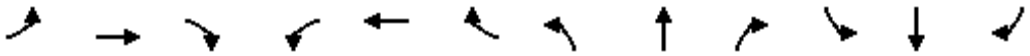


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1135	902	511	0	209
Future Volume (vph)	0	1135	902	511	0	209
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	0	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.946			0.865
Flt Protected						
Satd. Flow (prot)	0	3539	3348	0	0	1611
Flt Permitted						
Satd. Flow (perm)	0	3539	3348	0	0	1611
Link Speed (mph)		35	35		45	
Link Distance (ft)		230	799		215	
Travel Time (s)		4.5	15.6		3.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	1195	949	538	0	220
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1195	1487	0	0	220
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 60.9%		ICU Level of Service B	
Analysis Period (min) 15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	84	572	2	287	1094	18	28	291	306	97	464	200
Future Volume (vph)	84	572	2	287	1094	18	28	291	306	97	464	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	90		0	190		0	150		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt					0.998			0.923			0.955	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	0	1770	3532	0	1770	3267	0	1770	3380	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	0	1770	3532	0	1770	3267	0	1770	3380	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2			221			59	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		561			970			736			158	
Travel Time (s)		10.9			18.9			14.3			3.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	88	602	2	302	1152	19	29	306	322	102	488	211
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	604	0	302	1171	0	29	628	0	102	699	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		-10			20			0			0	
Crosswalk Width(ft)		20			20			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												

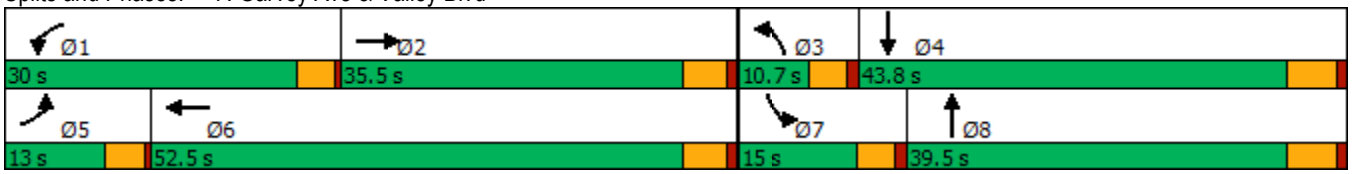


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	4.0	6.0		4.0	6.0		5.0	6.0		5.0	6.0	
Minimum Split (s)	8.0	34.0		8.0	39.0		9.5	39.5		9.5	42.5	
Total Split (s)	13.0	35.5		30.0	52.5		10.7	39.5		15.0	43.8	
Total Split (%)	10.8%	29.6%		25.0%	43.8%		8.9%	32.9%		12.5%	36.5%	
Maximum Green (s)	9.0	30.5		26.0	47.5		6.2	34.0		10.5	38.3	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.5	1.0		0.5	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0		4.0	5.0		4.5	5.5		4.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	4.0		2.0	4.0		3.0	4.5		3.0	4.5	
Minimum Gap (s)	2.0	3.0		2.0	3.0		3.0	3.5		3.0	3.5	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	15.0		0.0	15.0		0.0	0.0		0.0	15.0	
Recall Mode	None	Min		None	Min		None	None		None	None	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		22.0			27.0			27.0			30.0	
Pedestrian Calls (#/hr)		10			10			10			10	
Act Effct Green (s)	8.3	26.1		21.4	42.1		6.3	23.7		9.8	32.5	
Actuated g/C Ratio	0.08	0.26		0.21	0.42		0.06	0.24		0.10	0.32	
v/c Ratio	0.61	0.66		0.81	0.79		0.27	0.67		0.59	0.62	
Control Delay	68.5	38.6		57.3	32.1		58.3	26.6		63.7	31.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	68.5	38.6		57.3	32.1		58.3	26.6		63.7	31.3	
LOS	E	D		E	C		E	C		E	C	
Approach Delay		42.4			37.3			28.0			35.4	
Approach LOS		D			D			C			D	
90th %ile Green (s)	9.0	30.5		26.0	47.5		6.2	34.0		10.5	38.3	
90th %ile Term Code	Max	Max		Max	Max		Max	Ped		Max	Max	
70th %ile Green (s)	9.0	30.5		26.0	47.5		6.2	28.8		10.5	33.1	
70th %ile Term Code	Max	Hold		Max	Max		Max	Hold		Max	Gap	
50th %ile Green (s)	9.0	29.7		23.4	44.1		6.2	24.7		10.5	29.0	
50th %ile Term Code	Max	Hold		Gap	Gap		Max	Hold		Max	Gap	
30th %ile Green (s)	8.2	26.3		19.0	37.1		0.0	19.4		9.8	33.7	
30th %ile Term Code	Gap	Hold		Gap	Gap		Skip	Gap		Gap	Hold	
10th %ile Green (s)	0.0	14.9		13.3	32.2		0.0	13.9		7.2	25.6	
10th %ile Term Code	Skip	Gap		Gap	Hold		Skip	Gap		Gap	Hold	
Stops (vph)	72	487		251	922		28	336		84	497	
Fuel Used(gal)	2	10		7	22		1	9		2	9	
CO Emissions (g/hr)	144	734		507	1537		48	625		140	610	
NOx Emissions (g/hr)	28	143		99	299		9	122		27	119	
VOC Emissions (g/hr)	33	170		117	356		11	145		32	141	
Dilemma Vehicles (#)	0	22		0	46		0	23		0	26	
Queue Length 50th (ft)	59	190		197	365		19	135		68	211	
Queue Length 95th (ft)	#145	286		#357	518		55	203		#156	287	
Internal Link Dist (ft)		481			890			656			78	
Turn Bay Length (ft)	90			190			150					
Base Capacity (vph)	164	1116		475	1735		113	1292		192	1374	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.54	0.54		0.64	0.67		0.26	0.49		0.53	0.51	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 100.8			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 36.2		Intersection LOS: D	
Intersection Capacity Utilization 74.7%		ICU Level of Service D	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 120			
70th %ile Actuated Cycle: 114.8			
50th %ile Actuated Cycle: 107.3			
30th %ile Actuated Cycle: 93.5			
10th %ile Actuated Cycle: 68.3			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 7: Garvey Ave & Valley Blvd



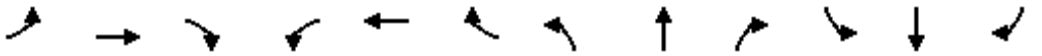
Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1135	902	511	0	209
Future Vol, veh/h	0	1135	902	511	0	209
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1195	949	538	0	220

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	475
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	536
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	536
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.3
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	536
HCM Lane V/C Ratio	-	-	0.41
HCM Control Delay (s)	-	-	16.3
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑						↑	
Traffic Volume (veh/h)	0	606	0	0	1048	0	0	0	0	0	0	0
Future Volume (veh/h)	0	606	0	0	1048	0	0	0	0	0	0	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	0	1870	0	0	1870	0				0	1870	0
Adj Flow Rate, veh/h	0	638	0	0	1103	0				0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	0	0	2	0				0	2	0
Cap, veh/h	0	2628	0	0	2628	0				0	0	0
Arrive On Green	0.00	0.74	0.00	0.00	0.74	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	3741	0	0	3741	0					0	
Grp Volume(v), veh/h	0	638	0	0	1103	0					0.0	
Grp Sat Flow(s),veh/h/ln	0	1777	0	0	1777	0						
Q Serve(g_s), s	0.0	1.0	0.0	0.0	2.0	0.0						
Cycle Q Clear(g_c), s	0.0	1.0	0.0	0.0	2.0	0.0						
Prop In Lane	0.00		0.00	0.00		0.00						
Lane Grp Cap(c), veh/h	0	2628	0	0	2628	0						
V/C Ratio(X)	0.00	0.24	0.00	0.00	0.42	0.00						
Avail Cap(c_a), veh/h	0	6071	0	0	6071	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00						
Uniform Delay (d), s/veh	0.0	0.7	0.0	0.0	0.9	0.0						
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.1	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.8	0.0	0.0	1.0	0.0						
LnGrp LOS	A	A	A	A	A	A						
Approach Vol, veh/h		638			1103							
Approach Delay, s/veh		0.8			1.0							
Approach LOS		A			A							

Timer - Assigned Phs				4				8				
Phs Duration (G+Y+Rc), s				17.3				17.3				
Change Period (Y+Rc), s				4.5				4.5				
Max Green Setting (Gmax), s				29.5				29.5				
Max Q Clear Time (g_c+I1), s				3.0				4.0				
Green Ext Time (p_c), s				4.5				8.7				

Intersection Summary												
HCM 6th Ctrl Delay			0.9									
HCM 6th LOS			A									

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (veh/h)	83	540	127	15	38	819	226	85	87	796	354	226
Future Volume (veh/h)	83	540	127	15	38	819	226	85	87	796	354	226
Initial Q (Qb), veh	0	0	0		0	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00		1.00		1.00	1.00
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1870	1870	1870		1870	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	87	568	134		40	862	238		92	838	0	238
Peak Hour Factor	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2		2	2	2		2	2	2	2
Cap, veh/h	147	1259	562		113	922	254		148	1448		265
Arrive On Green	0.08	0.35	0.35		0.06	0.33	0.33		0.08	0.28	0.00	0.15
Sat Flow, veh/h	1781	3554	1585		1781	2751	759		1781	5274	0	1781
Grp Volume(v), veh/h	87	568	134		40	556	544		92	838	0	238
Grp Sat Flow(s),veh/h/ln	1781	1777	1585		1781	1777	1734		1781	1702	0	1781
Q Serve(g_s), s	5.3	13.9	6.8		2.4	34.4	34.4		5.7	15.9	0.0	14.9
Cycle Q Clear(g_c), s	5.3	13.9	6.8		2.4	34.4	34.4		5.7	15.9	0.0	14.9
Prop In Lane	1.00		1.00		1.00		0.44		1.00		0.00	1.00
Lane Grp Cap(c), veh/h	147	1259	562		113	595	581		148	1448		265
V/C Ratio(X)	0.59	0.45	0.24		0.36	0.93	0.94		0.62	0.58		0.90
Avail Cap(c_a), veh/h	157	1259	562		157	604	589		204	1689		267
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.2	28.1	25.8		50.9	36.5	36.5		50.2	34.8	0.0	47.4
Incr Delay (d2), s/veh	3.1	0.4	0.3		0.7	22.1	22.7		1.6	0.5	0.0	29.1
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
%ile BackOfQ(50%),veh/ln	2.5	5.9	2.6		1.1	18.1	17.8		2.6	6.6	0.0	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.3	28.5	26.1		51.6	58.6	59.2		51.8	35.3	0.0	76.5
LnGrp LOS	D	C	C		D	E	E		D	D		E
Approach Vol, veh/h		789				1140				930		
Approach Delay, s/veh		30.8				58.6				36.9		
Approach LOS		C				E				D		

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.9	36.7	11.2	44.7	13.4	44.1	13.4	42.5
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.0	4.5	4.0	4.5
Max Green Setting (Gmax), s	17.0	37.5	10.0	38.5	13.0	41.5	10.0	38.5
Max Q Clear Time (g_c+I1), s	16.9	17.9	4.4	15.9	7.7	34.8	7.3	36.4
Green Ext Time (p_c), s	0.0	7.5	0.0	6.0	0.0	4.8	0.0	1.5

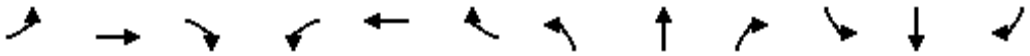
Intersection Summary	
HCM 6th Ctrl Delay	44.6
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	1038	140
Future Volume (veh/h)	1038	140
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1870
Adj Flow Rate, veh/h	1093	147
Peak Hour Factor	0.95	0.95
Percent Heavy Veh, %	2	2
Cap, veh/h	1241	553
Arrive On Green	0.35	0.35
Sat Flow, veh/h	3554	1585
Grp Volume(v), veh/h	1093	147
Grp Sat Flow(s),veh/h/ln	1777	1585
Q Serve(g_s), s	32.8	7.5
Cycle Q Clear(g_c), s	32.8	7.5
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	1241	553
V/C Ratio(X)	0.88	0.27
Avail Cap(c_a), veh/h	1301	580
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	34.7	26.5
Incr Delay (d2), s/veh	7.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.0	2.9
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	42.0	26.8
LnGrp LOS	D	C
Approach Vol, veh/h	1478	
Approach Delay, s/veh	46.1	
Approach LOS	D	
Timer - Assigned Phs		



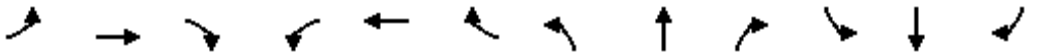
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	572	2	287	1094	18	28	291	306	97	464	200
Future Volume (veh/h)	84	572	2	287	1094	18	28	291	306	97	464	200
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	602	0	302	1152	0	29	306	322	102	488	211
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	112	1003		337	1451		50	463	413	129	738	317
Arrive On Green	0.06	0.28	0.00	0.19	0.41	0.00	0.03	0.26	0.26	0.07	0.31	0.31
Sat Flow, veh/h	1781	3647	0	1781	3647	0	1781	1777	1585	1781	2420	1040
Grp Volume(v), veh/h	88	602	0	302	1152	0	29	306	322	102	358	341
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1777	0	1781	1777	1585	1781	1777	1683
Q Serve(g_s), s	4.7	14.2	0.0	16.1	27.6	0.0	1.6	14.9	18.3	5.5	17.0	17.2
Cycle Q Clear(g_c), s	4.7	14.2	0.0	16.1	27.6	0.0	1.6	14.9	18.3	5.5	17.0	17.2
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		0.62
Lane Grp Cap(c), veh/h	112	1003		337	1451		50	463	413	129	542	513
V/C Ratio(X)	0.78	0.60		0.90	0.79		0.58	0.66	0.78	0.79	0.66	0.67
Avail Cap(c_a), veh/h	165	1116		477	1738		114	622	555	193	701	664
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.8	30.1	0.0	38.4	25.1	0.0	46.6	32.1	33.3	44.3	29.4	29.4
Incr Delay (d2), s/veh	7.6	1.0	0.0	12.0	2.5	0.0	10.3	2.8	6.8	12.1	2.4	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	6.0	0.0	8.0	11.5	0.0	0.8	6.6	7.6	2.8	7.4	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.5	31.1	0.0	50.4	27.6	0.0	57.0	34.9	40.2	56.4	31.8	32.1
LnGrp LOS	D	C		D	C		E	C	D	E	C	C
Approach Vol, veh/h		690			1454			657			801	
Approach Delay, s/veh		33.8			32.4			38.4			35.1	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.4	32.4	7.2	35.1	10.1	44.7	11.5	30.8
Change Period (Y+Rc), s	4.0	5.0	4.5	5.5	4.0	5.0	4.5	5.5
Max Green Setting (Gmax), s	26.0	30.5	6.2	38.3	9.0	47.5	10.5	34.0
Max Q Clear Time (g_c+I1), s	18.1	16.2	3.6	19.2	6.7	29.6	7.5	20.3
Green Ext Time (p_c), s	0.3	4.5	0.0	6.6	0.0	10.1	0.1	5.0

Intersection Summary	
HCM 6th Ctrl Delay	34.3
HCM 6th LOS	C

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	139	590	355	37	961	25	441	553	29	25	752	344
Future Volume (vph)	139	590	355	37	961	25	441	553	29	25	752	344
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0	5.0	4.0	5.0		4.0	5.0		4.0	5.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.97	0.91		1.00	0.91	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.99		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3526		3433	5047		1770	4846	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3539	1583	1770	3526		3433	5047		1770	4846	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	146	621	374	39	1012	26	464	582	31	26	792	362
RTOR Reduction (vph)	0	0	235	0	2	0	0	6	0	0	91	0
Lane Group Flow (vph)	146	621	139	39	1036	0	464	607	0	26	1063	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases			4									
Actuated Green, G (s)	8.0	31.4	31.4	4.2	27.6		13.0	35.4		4.2	26.1	
Effective Green, g (s)	8.0	31.4	31.4	4.2	27.6		13.0	35.4		4.2	26.1	
Actuated g/C Ratio	0.09	0.34	0.34	0.05	0.30		0.14	0.38		0.05	0.28	
Clearance Time (s)	4.0	5.0	5.0	4.0	5.0		4.0	5.0		4.0	5.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	151	1192	533	79	1044		478	1916		79	1357	
v/s Ratio Prot	c0.08	c0.18		0.02	c0.29		c0.14	0.12		0.01	c0.22	
v/s Ratio Perm			0.09									
v/c Ratio	0.97	0.52	0.26	0.49	0.99		0.97	0.32		0.33	0.78	
Uniform Delay, d1	42.5	24.9	22.5	43.5	32.7		39.9	20.4		43.1	30.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.49	0.20		1.00	1.00	
Incremental Delay, d2	62.6	0.4	0.3	4.8	25.8		31.0	0.1		2.4	3.0	
Delay (s)	105.1	25.3	22.7	48.2	58.5		90.4	4.2		45.6	34.0	
Level of Service	F	C	C	D	E		F	A		D	C	
Approach Delay (s)		34.6			58.2			41.3			34.2	
Approach LOS		C			E			D			C	

Intersection Summary			
HCM 2000 Control Delay	41.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	93.2	Sum of lost time (s)	18.5
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		

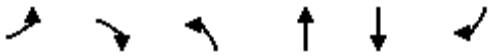
c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	17	53	978	22	35	745
Future Volume (vph)	17	53	978	22	35	745
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0		4.0	5.5
Lane Util. Factor	1.00		0.91		1.00	0.91
Frt	0.90		1.00		1.00	1.00
Flt Protected	0.99		1.00		0.95	1.00
Satd. Flow (prot)	1652		5069		1770	5085
Flt Permitted	0.99		1.00		0.24	1.00
Satd. Flow (perm)	1652		5069		448	5085
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	18	56	1029	23	37	784
RTOR Reduction (vph)	39	0	2	0	0	0
Lane Group Flow (vph)	35	0	1050	0	37	784
Turn Type	Perm		NA		pm+pt	NA
Protected Phases			6		5	2
Permitted Phases	8				2	
Actuated Green, G (s)	27.6		35.4		30.3	26.1
Effective Green, g (s)	27.6		35.4		30.3	26.1
Actuated g/C Ratio	0.30		0.38		0.33	0.28
Clearance Time (s)	5.0		5.0		4.0	5.5
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	489		1925		205	1424
v/s Ratio Prot			c0.21		c0.01	0.15
v/s Ratio Perm	c0.02				0.05	
v/c Ratio	0.07		0.55		0.18	0.55
Uniform Delay, d1	23.6		22.6		21.7	28.6
Progression Factor	1.00		1.00		0.66	0.57
Incremental Delay, d2	0.1		0.3		0.3	0.3
Delay (s)	23.6		22.9		14.6	16.6
Level of Service	C		C		B	B
Approach Delay (s)	23.6		22.9			16.5
Approach LOS	C		C			B

Intersection Summary			
HCM 2000 Control Delay	20.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	93.2	Sum of lost time (s)	18.5
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		

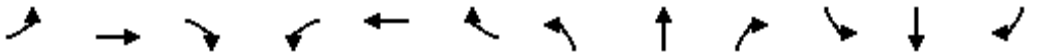
c Critical Lane Group



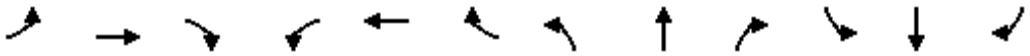
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	307	0	1323	793	495
Future Volume (Veh/h)	0	307	0	1323	793	495
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	323	0	1393	835	521
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					180	
pX, platoon unblocked	0.71	0.71	0.71			
vC, conflicting volume	1444	678	835			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	796	0	0			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	58	100			
cM capacity (veh/h)	229	766	1145			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	323	348	348	348	348	557	799
Volume Left	0	0	0	0	0	0	0
Volume Right	323	0	0	0	0	0	521
cSH	766	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.42	0.20	0.20	0.20	0.20	0.33	0.47
Queue Length 95th (ft)	53	0	0	0	0	0	0
Control Delay (s)	13.1	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B						
Approach Delay (s)	13.1	0.0				0.0	
Approach LOS	B						

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	63.5%	ICU Level of Service	B
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	376	1045	413	93	646	48	413	822	67	45	534	150
Future Volume (vph)	376	1045	413	93	646	48	413	822	67	45	534	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		120	130		0	140		0	260		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.97	0.91	0.91	1.00	0.91	0.91
Ped Bike Factor												
Frt			0.850		0.990			0.989			0.967	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3504	0	3433	5029	0	1770	4917	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3504	0	3433	5029	0	1770	4917	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			275		8			14			74	
Link Speed (mph)		35			35			35			40	
Link Distance (ft)		548			579			278			585	
Travel Time (s)		10.7			11.3			5.4			10.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	396	1100	435	98	680	51	435	865	71	47	562	158
Shared Lane Traffic (%)												
Lane Group Flow (vph)	396	1100	435	98	731	0	435	936	0	47	720	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			36			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases			4									
Detector Phase	7	4	4	3	8		1	6		5	2	
Switch Phase												

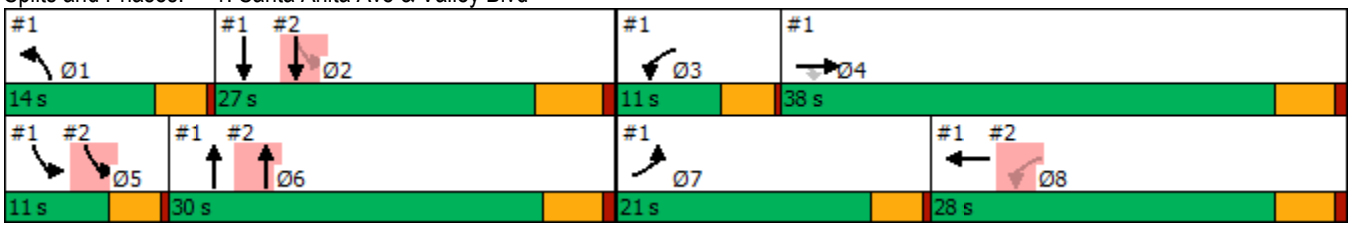


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	7.0	10.0	10.0	7.0	10.0		10.0	10.0		7.0	10.0	
Minimum Split (s)	11.0	15.0	15.0	11.0	28.0		14.0	18.0		11.0	25.5	
Total Split (s)	21.0	38.0	38.0	11.0	28.0		14.0	30.0		11.0	27.0	
Total Split (%)	23.3%	42.2%	42.2%	12.2%	31.1%		15.6%	33.3%		12.2%	30.0%	
Maximum Green (s)	17.0	33.0	33.0	7.0	23.0		10.0	25.0		7.0	21.5	
Yellow Time (s)	3.5	4.0	4.0	3.5	4.0		3.5	4.0		3.5	4.5	
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0		0.5	1.0		0.5	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0		4.0	5.0		4.0	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None	None	None	None		None	Min		None	Min	
Walk Time (s)					7.0			7.0			7.0	
Flash Dont Walk (s)					16.0			6.0			13.0	
Pedestrian Calls (#/hr)					10			10			10	
Act Effct Green (s)	17.1	34.3	34.3	7.0	21.8		10.0	26.1		7.0	20.1	
Actuated g/C Ratio	0.20	0.39	0.39	0.08	0.25		0.11	0.30		0.08	0.23	
v/c Ratio	1.15	0.79	0.55	0.70	0.83		1.11	0.62		0.33	0.61	
Control Delay	131.0	30.0	11.1	66.9	40.5		123.2	11.9		46.2	29.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.4		0.0	0.0	
Total Delay	131.0	30.0	11.1	66.9	40.5		123.2	12.3		46.2	29.4	
LOS	F	C	B	E	D		F	B		D	C	
Approach Delay		46.5			43.6			47.5			30.5	
Approach LOS		D			D			D			C	
90th %ile Green (s)	17.0	33.0	33.0	7.0	23.0		10.0	25.0		7.0	21.5	
90th %ile Term Code	Max	Max	Max	Max	Max		Max	Max		Max	Max	
70th %ile Green (s)	17.0	33.0	33.0	7.0	23.0		10.0	25.0		7.0	21.5	
70th %ile Term Code	Max	Max	Max	Max	Max		Max	Max		Max	Max	
50th %ile Green (s)	17.0	33.0	33.0	7.0	23.0		10.0	25.0		7.0	21.5	
50th %ile Term Code	Max	Max	Max	Max	Max		Max	Max		Max	Max	
30th %ile Green (s)	17.0	33.0	33.0	7.0	23.0		10.0	25.0		7.0	21.5	
30th %ile Term Code	Max	Max	Max	Max	Max		Max	Max		Max	Hold	
10th %ile Green (s)	17.0	38.5	38.5	0.0	17.5		10.0	29.6		0.0	15.1	
10th %ile Term Code	Max	Hold	Hold	Skip	Gap		Max	Hold		Skip	Gap	
Stops (vph)	298	880	129	81	616		335	184		43	529	
Fuel Used(gal)	14	17	4	2	13		14	5		1	12	
CO Emissions (g/hr)	962	1198	247	158	927		958	372		72	840	
NOx Emissions (g/hr)	187	233	48	31	180		186	72		14	163	
VOC Emissions (g/hr)	223	278	57	37	215		222	86		17	195	
Dilemma Vehicles (#)	0	56	0	0	37		0	132		0	36	
Queue Length 50th (ft)	~274	297	63	56	203		~157	39		26	119	
Queue Length 95th (ft)	#449	#385	158	#134	#276		m#211	m69		60	159	
Internal Link Dist (ft)		468			499			198			505	
Turn Bay Length (ft)	100		120	130			140			260		
Base Capacity (vph)	344	1386	787	141	928		393	1508		141	1265	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0	0	0	0		0	179		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	1.15	0.79	0.55	0.70	0.79		1.11	0.70		0.33	0.57	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 87.6			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.15			
Intersection Signal Delay: 43.8		Intersection LOS: D	
Intersection Capacity Utilization 81.1%		ICU Level of Service D	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 90			
70th %ile Actuated Cycle: 90			
50th %ile Actuated Cycle: 90			
30th %ile Actuated Cycle: 90			
10th %ile Actuated Cycle: 78.1			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: Santa Anita Ave & Valley Blvd





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø1	Ø3	Ø4	Ø7
Lane Configurations										
Traffic Volume (vph)	31	97	1166	45	20	631				
Future Volume (vph)	31	97	1166	45	20	631				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Width (ft)	12	12	12	12	12	12				
Grade (%)	0%		0%			0%				
Storage Length (ft)	0	0		0	145					
Storage Lanes	1	0		0	1					
Taper Length (ft)	25				25					
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	0.91				
Ped Bike Factor										
Frt	0.898		0.994							
Flt Protected	0.988				0.950					
Satd. Flow (prot)	1653	0	5055	0	1770	5085				
Flt Permitted	0.988				0.190					
Satd. Flow (perm)	1653	0	5055	0	354	5085				
Right Turn on Red		Yes		Yes						
Satd. Flow (RTOR)	102		6							
Link Speed (mph)	30		35			40				
Link Distance (ft)	326		445			278				
Travel Time (s)	7.4		8.7			4.7				
Confl. Peds. (#/hr)										
Confl. Bikes (#/hr)										
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				
Growth Factor	100%	100%	100%	100%	100%	100%				
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%				
Bus Blockages (#/hr)	0	0	0	0	0	0				
Parking (#/hr)										
Mid-Block Traffic (%)	0%		0%			0%				
Adj. Flow (vph)	33	102	1227	47	21	664				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	135	0	1274	0	21	664				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Right	Left	Left				
Median Width(ft)	12		24			24				
Link Offset(ft)	10		0			0				
Crosswalk Width(ft)	12		12			12				
Two way Left Turn Lane										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Turning Speed (mph)	15	9		9	15					
Number of Detectors	1		2		1	2				
Detector Template	Left		Thru		Left	Thru				
Leading Detector (ft)	20		100		20	100				
Trailing Detector (ft)	0		0		0	0				
Turn Type	Perm		NA		pm+pt	NA				
Protected Phases			6		5	2	1	3	4	7
Permitted Phases	8				2					
Detector Phase	8		6		5	2				
Switch Phase										

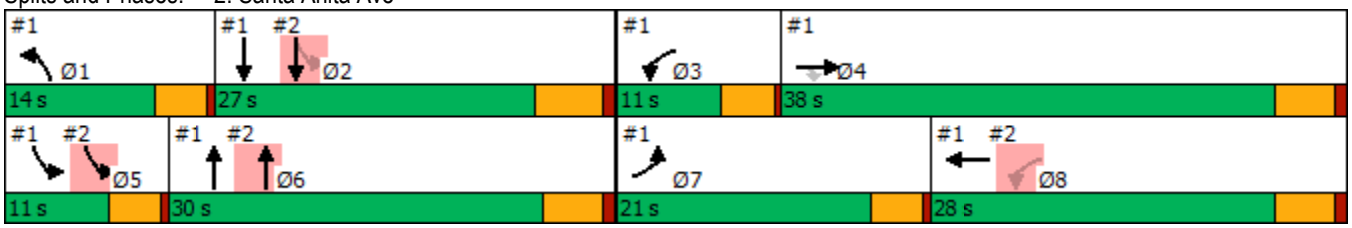


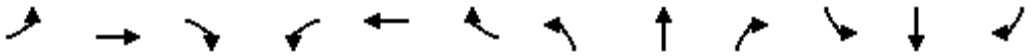
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø1	Ø3	Ø4	Ø7
Minimum Initial (s)	10.0		10.0		7.0	10.0	10.0	7.0	10.0	7.0
Minimum Split (s)	28.0		18.0		11.0	25.5	14.0	11.0	15.0	11.0
Total Split (s)	28.0		30.0		11.0	27.0	14.0	11.0	38.0	21.0
Total Split (%)	31.1%		33.3%		12.2%	30.0%	16%	12%	42%	23%
Maximum Green (s)	23.0		25.0		7.0	21.5	10.0	7.0	33.0	17.0
Yellow Time (s)	4.0		4.0		3.5	4.5	3.5	3.5	4.0	3.5
All-Red Time (s)	1.0		1.0		0.5	1.0	0.5	0.5	1.0	0.5
Lost Time Adjust (s)	0.0		0.0		0.0	0.0				
Total Lost Time (s)	5.0		5.0		4.0	5.5				
Lead/Lag	Lag		Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes		Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0		3.0		3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0		3.0		3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None		Min		None	Min	None	None	None	None
Walk Time (s)	7.0		7.0			7.0				
Flash Dont Walk (s)	16.0		6.0			13.0				
Pedestrian Calls (#/hr)	10		10			10				
Act Effct Green (s)	21.8		26.1		28.7	20.1				
Actuated g/C Ratio	0.25		0.30		0.33	0.23				
v/c Ratio	0.28		0.84		0.09	0.57				
Control Delay	10.6		36.2		13.8	23.2				
Queue Delay	0.0		0.0		0.0	0.4				
Total Delay	10.6		36.2		13.8	23.5				
LOS	B		D		B	C				
Approach Delay	10.6		36.2			23.2				
Approach LOS	B		D			C				
90th %ile Green (s)	23.0		25.0		7.0	21.5	10.0	7.0	33.0	17.0
90th %ile Term Code	Max		Max		Max	Max	Max	Max	Max	Max
70th %ile Green (s)	23.0		25.0		7.0	21.5	10.0	7.0	33.0	17.0
70th %ile Term Code	Max		Max		Max	Max	Max	Max	Max	Max
50th %ile Green (s)	23.0		25.0		7.0	21.5	10.0	7.0	33.0	17.0
50th %ile Term Code	Max		Max		Max	Max	Max	Max	Max	Max
30th %ile Green (s)	23.0		25.0		7.0	21.5	10.0	7.0	33.0	17.0
30th %ile Term Code	Max		Max		Max	Hold	Max	Max	Max	Max
10th %ile Green (s)	17.5		29.6		0.0	15.1	10.0	0.0	38.5	17.0
10th %ile Term Code	Gap		Hold		Skip	Gap	Max	Skip	Hold	Max
Stops (vph)	34		1057		10	334				
Fuel Used(gal)	1		21		0	7				
CO Emissions (g/hr)	55		1451		13	521				
NOx Emissions (g/hr)	11		282		3	101				
VOC Emissions (g/hr)	13		336		3	121				
Dilemma Vehicles (#)	0		64		0	25				
Queue Length 50th (ft)	14		254		5	74				
Queue Length 95th (ft)	59		#339		m10	96				
Internal Link Dist (ft)	246		365			198				
Turn Bay Length (ft)					145					
Base Capacity (vph)	510		1510		229	1251				

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø1	Ø3	Ø4	Ø7
Starvation Cap Reductn	0		0		0	189				
Spillback Cap Reductn	0		0		0	0				
Storage Cap Reductn	0		0		0	0				
Reduced v/c Ratio	0.26		0.84		0.09	0.63				

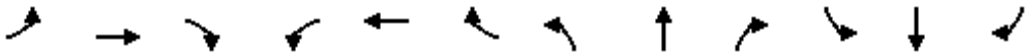
Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 87.6			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.15			
Intersection Signal Delay: 30.3		Intersection LOS: C	
Intersection Capacity Utilization 40.2%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 90			
70th %ile Actuated Cycle: 90			
50th %ile Actuated Cycle: 90			
30th %ile Actuated Cycle: 90			
10th %ile Actuated Cycle: 78.1			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: Santa Anita Ave





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑						↑	
Traffic Volume (vph)	0	1092	0	0	845	0	0	0	0	0	0	0
Future Volume (vph)	0	1092	0	0	845	0	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	50		0	50		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt												
Flt Protected												
Satd. Flow (prot)	0	3539	0	0	3539	0	0	0	0	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	3539	0	0	3539	0	0	0	0	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		339			384			394			368	
Travel Time (s)		6.6			7.5			9.0			8.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	1149	0	0	889	0	0	0	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1149	0	0	889	0	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2			2						2	
Detector Template		Thru			Thru						Thru	
Leading Detector (ft)		100			100						100	
Trailing Detector (ft)		0			0						0	
Turn Type		NA			NA							
Protected Phases		4			8						6	
Permitted Phases												
Detector Phase		4			8						6	
Switch Phase												

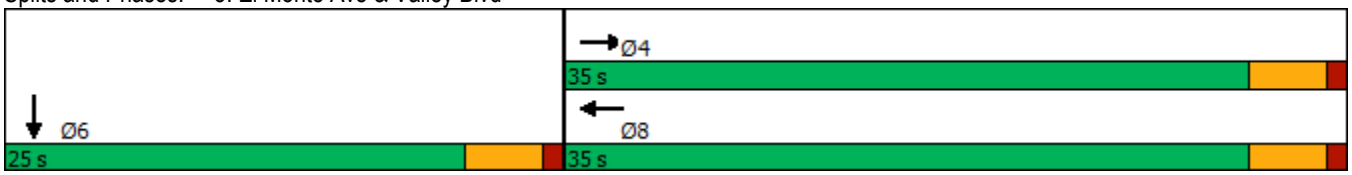


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)		5.0			5.0						5.0	
Minimum Split (s)		22.5			22.5						24.5	
Total Split (s)		35.0			35.0						25.0	
Total Split (%)		58.3%			58.3%						41.7%	
Maximum Green (s)		30.5			30.5						20.5	
Yellow Time (s)		3.5			3.5						3.5	
All-Red Time (s)		1.0			1.0						1.0	
Lost Time Adjust (s)		0.0			0.0						0.0	
Total Lost Time (s)		4.5			4.5						4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0			3.0						3.0	
Minimum Gap (s)		3.0			3.0						3.0	
Time Before Reduce (s)		0.0			0.0						0.0	
Time To Reduce (s)		0.0			0.0						0.0	
Recall Mode		Min			Min						None	
Walk Time (s)											7.0	
Flash Dont Walk (s)											13.0	
Pedestrian Calls (#/hr)											20	
Act Effct Green (s)		38.0			38.0							
Actuated g/C Ratio		0.92			0.92							
v/c Ratio		0.35			0.27							
Control Delay		2.8			2.4							
Queue Delay		0.0			0.0							
Total Delay		2.8			2.4							
LOS		A			A							
Approach Delay		2.8			2.4							
Approach LOS		A			A							
90th %ile Green (s)		45.5			45.5						20.0	
90th %ile Term Code		Dwell			Dwell						Ped	
70th %ile Green (s)		32.0			32.0						0.0	
70th %ile Term Code		Dwell			Dwell						Skip	
50th %ile Green (s)		29.3			29.3						0.0	
50th %ile Term Code		Dwell			Dwell						Skip	
30th %ile Green (s)		27.6			27.6						0.0	
30th %ile Term Code		Dwell			Dwell						Skip	
10th %ile Green (s)		24.8			24.8						0.0	
10th %ile Term Code		Dwell			Dwell						Skip	
Stops (vph)		163			114							
Fuel Used(gal)		5			4							
CO Emissions (g/hr)		315			253							
NOx Emissions (g/hr)		61			49							
VOC Emissions (g/hr)		73			59							
Dilemma Vehicles (#)		19			15							
Queue Length 50th (ft)		0			0							
Queue Length 95th (ft)		191			135							
Internal Link Dist (ft)		259			304			314			288	
Turn Bay Length (ft)												
Base Capacity (vph)		3159			3159							

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0							
Spillback Cap Reductn		0			0							
Storage Cap Reductn		0			0							
Reduced v/c Ratio		0.36			0.28							

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 41.2			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.35			
Intersection Signal Delay: 2.6		Intersection LOS: A	
Intersection Capacity Utilization 33.9%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 74.5			
70th %ile Actuated Cycle: 36.5			
50th %ile Actuated Cycle: 33.8			
30th %ile Actuated Cycle: 32.1			
10th %ile Actuated Cycle: 29.3			

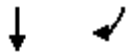
Splits and Phases: 3: El Monte Ave & Valley Blvd



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	144	866	190	7	58	612	271	106	108	1188	389	253
Future Volume (vph)	144	866	190	7	58	612	271	106	108	1188	389	253
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%				0%		
Storage Length (ft)	270		140		120		0		0		0	270
Storage Lanes	1		1		1		0		1		0	1
Taper Length (ft)	25				25				25			25
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	0.95	0.91	1.00	0.91	0.91	1.00
Ped Bike Factor												
Frt			0.850			0.954				0.963		
Flt Protected	0.950				0.950				0.950			0.950
Satd. Flow (prot)	1770	3539	1583	0	1770	3376	0	0	1770	4897	0	1770
Flt Permitted	0.950				0.385				0.381			0.950
Satd. Flow (perm)	1770	3539	1583	0	717	3376	0	0	710	4897	0	1770
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)			149			76				89		
Link Speed (mph)		35				35				35		
Link Distance (ft)		598				230				180		
Travel Time (s)		11.6				4.5				3.5		
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%				0%		
Adj. Flow (vph)	152	912	200	7	61	644	285	112	114	1251	409	266
Shared Lane Traffic (%)												
Lane Group Flow (vph)	152	912	200	0	68	929	0	0	226	1660	0	266
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	R NA	Left	Left	Right	R NA	Left	Left	Right	Left
Median Width(ft)		12				12				12		
Link Offset(ft)		0				0				0		
Crosswalk Width(ft)		16				16				16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15		9	9	15		9	15
Number of Detectors	1	2	1	1	1	2		1	1	2		1
Detector Template	Left	Thru	Right	Left	Left	Thru		Left	Left	Thru		Left
Leading Detector (ft)	20	100	20	20	20	100		20	20	100		20
Trailing Detector (ft)	0	0	0	0	0	0		0	0	0		0
Turn Type	Prot	NA	Perm	custom	Prot	NA		custom	Prot	NA		Prot
Protected Phases	7	4			3	8			5	2		1
Permitted Phases			4	3				5				
Detector Phase	7	4	4	3	3	8		5	5	2		1
Switch Phase												

Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	971	127
Future Volume (vph)	971	127
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		134
Link Speed (mph)	35	
Link Distance (ft)	837	
Travel Time (s)	16.3	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.95	0.95
Growth Factor	100%	100%
Heavy Vehicles (%)	2%	2%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Adj. Flow (vph)	1022	134
Shared Lane Traffic (%)		
Lane Group Flow (vph)	1022	134
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Detector Phase	6	6
Switch Phase		

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Minimum Initial (s)	10.0	9.0	9.0	10.0	10.0	9.0		10.0	10.0	9.0		10.0
Minimum Split (s)	14.5	33.0	33.0	14.5	14.5	33.0		14.5	14.5	33.0		14.5
Total Split (s)	14.5	33.0	33.0	14.5	14.5	33.0		14.5	14.5	33.0		14.5
Total Split (%)	15.3%	34.7%	34.7%	15.3%	15.3%	34.7%		15.3%	15.3%	34.7%		15.3%
Maximum Green (s)	10.5	28.5	28.5	10.5	10.5	28.5		10.5	10.5	28.5		10.5
Yellow Time (s)	3.0	4.0	4.0	3.0	3.0	4.0		3.0	3.0	4.0		3.0
All-Red Time (s)	1.0	0.5	0.5	1.0	1.0	0.5		1.0	1.0	0.5		1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		0.0
Total Lost Time (s)	4.0	4.5	4.5		4.0	4.5			4.0	4.5		4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag		Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes		Yes
Vehicle Extension (s)	1.5	4.0	4.0	1.5	1.5	4.0		1.5	1.5	4.0		1.5
Minimum Gap (s)	1.5	3.0	3.0	1.5	1.5	3.0		1.5	1.5	3.0		1.5
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Time To Reduce (s)	0.0	15.0	15.0	0.0	0.0	15.0		0.0	0.0	15.0		0.0
Recall Mode	None	None	None	None	None	None		None	None	Min		None
Walk Time (s)		7.0	7.0			7.0				7.0		
Flash Dont Walk (s)		21.0	21.0			21.0				21.0		
Pedestrian Calls (#/hr)		10	10			10				10		
Act Effct Green (s)	10.4	27.9	27.9		10.4	27.9			10.5	28.5		10.5
Actuated g/C Ratio	0.11	0.30	0.30		0.11	0.30			0.11	0.30		0.11
v/c Ratio	0.78	0.87	0.35		0.86	0.88			2.86	1.08		1.35
Control Delay	68.7	42.2	9.7		113.7	40.5			896.3	77.6		223.5
Queue Delay	0.0	0.0	0.0		0.0	0.0			0.0	0.0		0.0
Total Delay	68.7	42.2	9.7		113.7	40.5			896.3	77.6		223.5
LOS	E	D	A		F	D			F	E		F
Approach Delay		40.2				45.4				175.7		
Approach LOS		D				D				F		
90th %ile Green (s)	10.5	28.5	28.5	10.5	10.5	28.5		10.5	10.5	28.5		10.5
90th %ile Term Code	Max	Max	Max	Max	Max	Max		Max	Max	Max		Max
70th %ile Green (s)	10.5	28.5	28.5	10.5	10.5	28.5		10.5	10.5	28.5		10.5
70th %ile Term Code	Max	Max	Max	Max	Max	Max		Max	Max	Max		Max
50th %ile Green (s)	10.5	28.5	28.5	10.5	10.5	28.5		10.5	10.5	28.5		10.5
50th %ile Term Code	Max	Max	Max	Max	Max	Max		Max	Max	Max		Max
30th %ile Green (s)	10.5	28.5	28.5	10.5	10.5	28.5		10.5	10.5	28.5		10.5
30th %ile Term Code	Max	Max	Max	Max	Max	Max		Max	Max	Max		Max
10th %ile Green (s)	10.0	25.3	25.3	10.0	10.0	25.3		10.5	10.5	28.5		10.5
10th %ile Term Code	Min	Gap	Gap	Min	Min	Hold		Max	Max	Max		Max
Stops (vph)	129	774	46		50	737			164	1311		191
Fuel Used(gal)	4	17	2		2	14			41	37		14
CO Emissions (g/hr)	252	1188	108		139	998			2848	2574		1012
NOx Emissions (g/hr)	49	231	21		27	194			554	501		197
VOC Emissions (g/hr)	58	275	25		32	231			660	596		234
Dilemma Vehicles (#)	0	43	0		0	44			0	75		0
Queue Length 50th (ft)	91	271	22		41	257			~236	~400		~213
Queue Length 95th (ft)	#191	#376	76		#123	#368			#380	#498		#367
Internal Link Dist (ft)		518				150				100		
Turn Bay Length (ft)	270		140		120							270
Base Capacity (vph)	197	1070	582		80	1074			79	1543		197

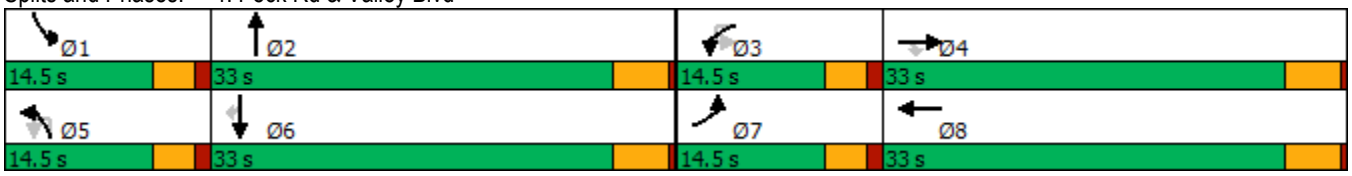


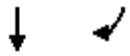
Lane Group	SBT	SBR
Minimum Initial (s)	9.0	9.0
Minimum Split (s)	33.0	33.0
Total Split (s)	33.0	33.0
Total Split (%)	34.7%	34.7%
Maximum Green (s)	28.5	28.5
Yellow Time (s)	4.0	4.0
All-Red Time (s)	0.5	0.5
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	4.5	4.5
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	4.0	4.0
Minimum Gap (s)	3.0	3.0
Time Before Reduce (s)	0.0	0.0
Time To Reduce (s)	15.0	15.0
Recall Mode	Min	Min
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	21.0	21.0
Pedestrian Calls (#/hr)	10	10
Act Effct Green (s)	28.5	28.5
Actuated g/C Ratio	0.30	0.30
v/c Ratio	0.96	0.23
Control Delay	52.1	5.7
Queue Delay	0.0	0.0
Total Delay	52.1	5.7
LOS	D	A
Approach Delay	79.8	
Approach LOS	E	
90th %ile Green (s)	28.5	28.5
90th %ile Term Code	Max	Max
70th %ile Green (s)	28.5	28.5
70th %ile Term Code	Max	Max
50th %ile Green (s)	28.5	28.5
50th %ile Term Code	Max	Max
30th %ile Green (s)	28.5	28.5
30th %ile Term Code	Max	Max
10th %ile Green (s)	28.5	28.5
10th %ile Term Code	Max	Max
Stops (vph)	856	17
Fuel Used(gal)	23	1
CO Emissions (g/hr)	1580	73
NOx Emissions (g/hr)	307	14
VOC Emissions (g/hr)	366	17
Dilemma Vehicles (#)	49	0
Queue Length 50th (ft)	317	0
Queue Length 95th (ft)	#452	41
Internal Link Dist (ft)	757	
Turn Bay Length (ft)		400
Base Capacity (vph)	1070	572

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Starvation Cap Reductn	0	0	0		0	0			0	0		0
Spillback Cap Reductn	0	0	0		0	0			0	0		0
Storage Cap Reductn	0	0	0		0	0			0	0		0
Reduced v/c Ratio	0.77	0.85	0.34		0.85	0.86			2.86	1.08		1.35

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 94.3			
Natural Cycle: 95			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 2.86			
Intersection Signal Delay: 97.1		Intersection LOS: F	
Intersection Capacity Utilization 93.7%		ICU Level of Service F	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 95			
70th %ile Actuated Cycle: 95			
50th %ile Actuated Cycle: 95			
30th %ile Actuated Cycle: 95			
10th %ile Actuated Cycle: 91.3			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

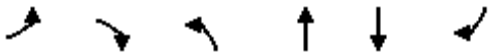
Splits and Phases: 4: Peck Rd & Valley Blvd





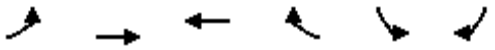
Lane Group	SBT	SBR
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.96	0.23

Intersection Summary



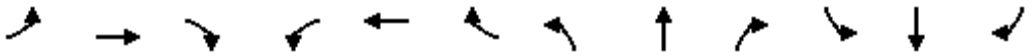
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	183	0	1791	716	603
Future Volume (vph)	0	183	0	1791	716	603
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	70			0
Storage Lanes	0	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.86	0.95	0.95
Ped Bike Factor						
Frt		0.865			0.931	
Flt Protected						
Satd. Flow (prot)	0	1611	0	6408	3295	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	6408	3295	0
Link Speed (mph)	45			35	35	
Link Distance (ft)	244			506	180	
Travel Time (s)	3.7			9.9	3.5	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	193	0	1885	754	635
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	193	0	1885	1389	0
Enter Blocked Intersection	No	No	No	Yes	Yes	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	57.1%	ICU Level of Service	B
Analysis Period (min)	15		

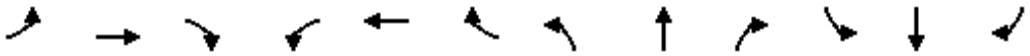


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1514	776	376	0	167
Future Volume (vph)	0	1514	776	376	0	167
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	0	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.951			0.865
Flt Protected						
Satd. Flow (prot)	0	3539	3366	0	0	1611
Flt Permitted						
Satd. Flow (perm)	0	3539	3366	0	0	1611
Link Speed (mph)		35	35		45	
Link Distance (ft)		230	799		215	
Travel Time (s)		4.5	15.6		3.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	1594	817	396	0	176
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1594	1213	0	0	176
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.5%		ICU Level of Service A	
Analysis Period (min) 15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	216	889	24	224	709	31	27	737	371	67	319	151
Future Volume (vph)	216	889	24	224	709	31	27	737	371	67	319	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	90		0	190		0	150		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.996			0.994			0.950			0.952	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3525	0	1770	3518	0	1770	3362	0	1770	3369	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3525	0	1770	3518	0	1770	3362	0	1770	3369	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			4			80			71	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		561			970			736			158	
Travel Time (s)		10.9			18.9			14.3			3.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	227	936	25	236	746	33	28	776	391	71	336	159
Shared Lane Traffic (%)												
Lane Group Flow (vph)	227	961	0	236	779	0	28	1167	0	71	495	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		-10			20			0			0	
Crosswalk Width(ft)		20			20			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												

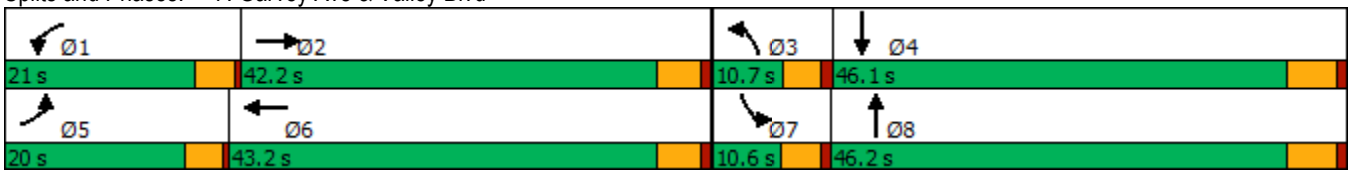


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	4.0	6.0		4.0	6.0		5.0	6.0		5.0	6.0	
Minimum Split (s)	8.0	34.0		8.0	39.0		9.5	39.5		9.5	42.5	
Total Split (s)	20.0	42.2		21.0	43.2		10.7	46.2		10.6	46.1	
Total Split (%)	16.7%	35.2%		17.5%	36.0%		8.9%	38.5%		8.8%	38.4%	
Maximum Green (s)	16.0	37.2		17.0	38.2		6.2	40.7		6.1	40.6	
Yellow Time (s)	3.5	4.0		3.5	4.0		3.5	4.5		3.5	4.5	
All-Red Time (s)	0.5	1.0		0.5	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0		4.0	5.0		4.5	5.5		4.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	4.0		2.0	4.0		3.0	4.5		3.0	4.5	
Minimum Gap (s)	2.0	3.0		2.0	3.0		3.0	3.5		3.0	3.5	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	15.0		0.0	15.0		0.0	0.0		0.0	15.0	
Recall Mode	None	Min		None	Min		None	None		None	None	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		22.0			27.0			27.0			30.0	
Pedestrian Calls (#/hr)		10			10			10			10	
Act Effct Green (s)	16.0	36.1		16.9	37.0		6.1	40.7		6.1	45.0	
Actuated g/C Ratio	0.13	0.30		0.14	0.31		0.05	0.34		0.05	0.38	
v/c Ratio	0.95	0.90		0.94	0.71		0.31	0.97		0.79	0.38	
Control Delay	99.0	51.3		95.0	40.1		64.3	55.8		106.1	24.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	99.0	51.3		95.0	40.1		64.3	55.8		106.1	24.8	
LOS	F	D		F	D		E	E		F	C	
Approach Delay		60.4			52.9			56.0			35.0	
Approach LOS		E			D			E			C	
90th %ile Green (s)	16.0	37.2		17.0	38.2		6.2	40.7		6.1	40.6	
90th %ile Term Code	Max	Max		Max	Max		Max	Max		Max	Hold	
70th %ile Green (s)	16.0	37.2		17.0	38.2		6.2	40.7		6.1	40.6	
70th %ile Term Code	Max	Max		Max	Hold		Max	Max		Max	Hold	
50th %ile Green (s)	16.0	37.2		17.0	38.2		6.2	40.7		6.1	40.6	
50th %ile Term Code	Max	Max		Max	Hold		Max	Max		Max	Hold	
30th %ile Green (s)	16.0	37.2		17.0	38.2		0.0	40.7		6.1	51.3	
30th %ile Term Code	Max	Max		Max	Hold		Skip	Max		Max	Hold	
10th %ile Green (s)	16.0	32.0		16.3	32.3		0.0	40.7		6.1	51.3	
10th %ile Term Code	Max	Gap		Gap	Hold		Skip	Max		Max	Hold	
Stops (vph)	187	828		195	634		26	935		57	288	
Fuel Used(gal)	7	19		7	16		1	26		2	5	
CO Emissions (g/hr)	464	1361		515	1118		48	1784		136	355	
NOx Emissions (g/hr)	90	265		100	218		9	347		27	69	
VOC Emissions (g/hr)	107	315		119	259		11	413		32	82	
Dilemma Vehicles (#)	0	36		0	25		0	45		0	14	
Queue Length 50th (ft)	177	370		184	275		21	443		55	131	
Queue Length 95th (ft)	#337	#482		#341	347		53	#599		#140	181	
Internal Link Dist (ft)		481			890			656			78	
Turn Bay Length (ft)	90			190			150					
Base Capacity (vph)	238	1105		253	1134		92	1204		90	1318	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.95	0.87		0.93	0.69		0.30	0.97		0.79	0.38	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 118.8			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 53.5		Intersection LOS: D	
Intersection Capacity Utilization 90.0%		ICU Level of Service E	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 120			
70th %ile Actuated Cycle: 120			
50th %ile Actuated Cycle: 120			
30th %ile Actuated Cycle: 120			
10th %ile Actuated Cycle: 114.1			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 7: Garvey Ave & Valley Blvd



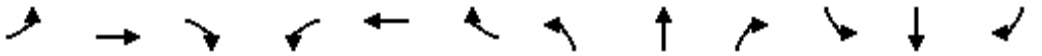
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1514	776	376	0	167
Future Vol, veh/h	0	1514	776	376	0	167
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1594	817	396	0	176

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	409
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	0	592
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	592
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.6
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	592
HCM Lane V/C Ratio	-	-	0.297
HCM Control Delay (s)	-	-	13.6
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	1.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑						↑	
Traffic Volume (veh/h)	0	1092	0	0	845	0	0	0	0	0	0	0
Future Volume (veh/h)	0	1092	0	0	845	0	0	0	0	0	0	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	0	1870	0	0	1870	0				0	1870	0
Adj Flow Rate, veh/h	0	1149	0	0	889	0				0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	0	0	2	0				0	2	0
Cap, veh/h	0	2665	0	0	2665	0				0	0	0
Arrive On Green	0.00	0.75	0.00	0.00	0.75	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	3741	0	0	3741	0					0	
Grp Volume(v), veh/h	0	1149	0	0	889	0					0.0	
Grp Sat Flow(s),veh/h/ln	0	1777	0	0	1777	0						
Q Serve(g_s), s	0.0	2.2	0.0	0.0	1.5	0.0						
Cycle Q Clear(g_c), s	0.0	2.2	0.0	0.0	1.5	0.0						
Prop In Lane	0.00		0.00	0.00		0.00						
Lane Grp Cap(c), veh/h	0	2665	0	0	2665	0						
V/C Ratio(X)	0.00	0.43	0.00	0.00	0.33	0.00						
Avail Cap(c_a), veh/h	0	6025	0	0	6025	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00						
Uniform Delay (d), s/veh	0.0	0.8	0.0	0.0	0.8	0.0						
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.1	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.9	0.0	0.0	0.8	0.0						
LnGrp LOS	A	A	A	A	A	A						
Approach Vol, veh/h		1149			889							
Approach Delay, s/veh		0.9			0.8							
Approach LOS		A			A							

Timer - Assigned Phs				4				8				
Phs Duration (G+Y+Rc), s				18.0				18.0				
Change Period (Y+Rc), s				4.5				4.5				
Max Green Setting (Gmax), s				30.5				30.5				
Max Q Clear Time (g_c+I1), s				4.2				3.5				
Green Ext Time (p_c), s				9.3				6.8				

Intersection Summary												
HCM 6th Ctrl Delay			0.9									
HCM 6th LOS			A									

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (veh/h)	144	866	190	7	58	612	271	106	108	1188	389	253
Future Volume (veh/h)	144	866	190	7	58	612	271	106	108	1188	389	253
Initial Q (Qb), veh	0	0	0		0	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00		1.00		1.00	1.00
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1870	1870	1870		1870	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	152	912	200		61	644	285		114	1251	0	266
Peak Hour Factor	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2		2	2	2		2	2	2	2
Cap, veh/h	189	1135	506		153	716	317		183	1513		203
Arrive On Green	0.11	0.32	0.32		0.09	0.30	0.30		0.10	0.30	0.00	0.11
Sat Flow, veh/h	1781	3554	1585		1781	2396	1060		1781	5274	0	1781
Grp Volume(v), veh/h	152	912	200		61	478	451		114	1251	0	266
Grp Sat Flow(s),veh/h/ln	1781	1777	1585		1781	1777	1680		1781	1702	0	1781
Q Serve(g_s), s	7.7	21.6	9.1		3.0	23.7	23.7		5.7	21.0	0.0	10.5
Cycle Q Clear(g_c), s	7.7	21.6	9.1		3.0	23.7	23.7		5.7	21.0	0.0	10.5
Prop In Lane	1.00		1.00		1.00		0.63		1.00		0.00	1.00
Lane Grp Cap(c), veh/h	189	1135	506		153	531	502		183	1513		203
V/C Ratio(X)	0.80	0.80	0.39		0.40	0.90	0.90		0.62	0.83		1.31
Avail Cap(c_a), veh/h	203	1135	506		203	550	520		203	1580		203
HCM Platoon Ratio	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.2	28.7	24.4		39.9	31.0	31.0		39.6	30.2	0.0	40.8
Incr Delay (d2), s/veh	17.4	4.5	0.7		0.6	17.8	18.6		3.1	3.9	0.0	170.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	9.5	3.4		1.3	12.3	11.7		2.6	8.8	0.0	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.6	33.2	25.1		40.5	48.7	49.6		42.7	34.1	0.0	211.1
LnGrp LOS	E	C	C		D	D	D		D	C		F
Approach Vol, veh/h		1264				990				1365		
Approach Delay, s/veh		34.8				48.6				34.8		
Approach LOS		C				D				C		

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.5	31.8	11.9	33.9	13.5	32.8	13.8	32.0
Change Period (Y+Rc), s	4.0	4.5	4.0	4.5	4.0	4.5	4.0	4.5
Max Green Setting (Gmax), s	10.5	28.5	10.5	28.5	10.5	28.5	10.5	28.5
Max Q Clear Time (g_c+I1), s	12.5	23.0	5.0	23.6	7.7	27.8	9.7	25.7
Green Ext Time (p_c), s	0.0	4.1	0.0	3.3	0.0	0.6	0.0	1.8

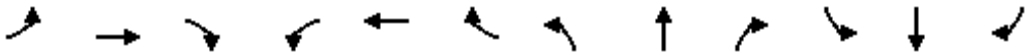
Intersection Summary	
HCM 6th Ctrl Delay	48.7
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	971	127
Future Volume (veh/h)	971	127
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1870
Adj Flow Rate, veh/h	1022	134
Peak Hour Factor	0.95	0.95
Percent Heavy Veh, %	2	2
Cap, veh/h	1093	488
Arrive On Green	0.31	0.31
Sat Flow, veh/h	3554	1585
Grp Volume(v), veh/h	1022	134
Grp Sat Flow(s),veh/h/ln	1777	1585
Q Serve(g_s), s	25.8	5.9
Cycle Q Clear(g_c), s	25.8	5.9
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	1093	488
V/C Ratio(X)	0.93	0.27
Avail Cap(c_a), veh/h	1099	490
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	1.00	1.00
Uniform Delay (d), s/veh	31.0	24.1
Incr Delay (d2), s/veh	14.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.7	2.2
Unsig. Movement Delay, s/veh		
LnGrp Delay(d),s/veh	45.3	24.6
LnGrp LOS	D	C
Approach Vol, veh/h	1422	
Approach Delay, s/veh	74.4	
Approach LOS	E	
Timer - Assigned Phs		



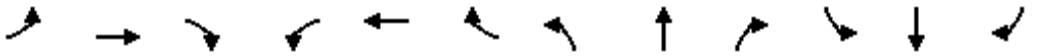
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	889	24	224	709	31	27	737	371	67	319	151
Future Volume (veh/h)	216	889	24	224	709	31	27	737	371	67	319	151
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	227	936	0	236	746	0	28	776	391	71	336	159
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	242	1058		257	1088		45	792	398	91	874	406
Arrive On Green	0.14	0.30	0.00	0.14	0.31	0.00	0.03	0.35	0.35	0.05	0.37	0.37
Sat Flow, veh/h	1781	3647	0	1781	3647	0	1781	2290	1150	1781	2357	1094
Grp Volume(v), veh/h	227	936	0	236	746	0	28	601	566	71	252	243
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1777	0	1781	1777	1663	1781	1777	1673
Q Serve(g_s), s	14.9	29.6	0.0	15.4	21.7	0.0	1.8	39.4	39.7	4.6	12.2	12.6
Cycle Q Clear(g_c), s	14.9	29.6	0.0	15.4	21.7	0.0	1.8	39.4	39.7	4.6	12.2	12.6
Prop In Lane	1.00		0.00	1.00		0.00	1.00		0.69	1.00		0.65
Lane Grp Cap(c), veh/h	242	1058		257	1088		45	614	575	91	659	621
V/C Ratio(X)	0.94	0.88		0.92	0.69		0.62	0.98	0.98	0.78	0.38	0.39
Avail Cap(c_a), veh/h	242	1123		257	1153		94	614	575	92	659	621
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	39.4	0.0	49.7	35.9	0.0	56.8	38.1	38.2	55.2	27.1	27.2
Incr Delay (d2), s/veh	40.5	8.6	0.0	34.3	1.8	0.0	12.9	31.1	33.3	34.0	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	13.9	0.0	9.2	9.5	0.0	1.0	21.9	21.0	2.9	5.2	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.9	48.0	0.0	84.0	37.7	0.0	69.7	69.2	71.5	89.3	27.8	27.9
LnGrp LOS	F	D		F	D		E	E	E	F	C	C
Approach Vol, veh/h		1163			982			1195			566	
Approach Delay, s/veh		56.4			48.8			70.3			35.6	
Approach LOS		E			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	40.1	7.5	49.2	20.0	41.1	10.5	46.2
Change Period (Y+Rc), s	4.0	5.0	4.5	5.5	4.0	5.0	4.5	5.5
Max Green Setting (Gmax), s	17.0	37.2	6.2	40.6	16.0	38.2	6.1	40.7
Max Q Clear Time (g_c+I1), s	17.4	31.6	3.8	14.6	16.9	23.7	6.6	41.7
Green Ext Time (p_c), s	0.0	3.5	0.0	5.1	0.0	5.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	55.7
HCM 6th LOS	E

Notes

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	376	1045	413	93	646	48	413	822	67	45	534	150
Future Volume (vph)	376	1045	413	93	646	48	413	822	67	45	534	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.0	5.0	4.0	5.0		4.0	5.0		4.0	5.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.97	0.91		1.00	0.91	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3502		3433	5027		1770	4918	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3539	1583	1770	3502		3433	5027		1770	4918	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	396	1100	435	98	680	51	435	865	71	47	562	158
RTOR Reduction (vph)	0	0	169	0	6	0	0	10	0	0	57	0
Lane Group Flow (vph)	396	1100	266	98	725	0	435	926	0	47	663	0
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases			4									
Actuated Green, G (s)	17.1	34.3	34.3	5.5	22.7		10.0	26.1		5.5	21.1	
Effective Green, g (s)	17.1	34.3	34.3	5.5	22.7		10.0	26.1		5.5	21.1	
Actuated g/C Ratio	0.19	0.38	0.38	0.06	0.25		0.11	0.29		0.06	0.24	
Clearance Time (s)	4.0	5.0	5.0	4.0	5.0		4.0	5.0		4.0	5.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	338	1357	607	108	889		384	1467		108	1160	
v/s Ratio Prot	c0.22	c0.31		0.06	0.21		c0.13	c0.18		0.03	0.13	
v/s Ratio Perm			0.17									
v/c Ratio	1.17	0.81	0.44	0.91	0.82		1.13	0.63		0.44	0.57	
Uniform Delay, d1	36.2	24.6	20.4	41.7	31.4		39.7	27.5		40.5	30.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.56	0.40		1.00	1.00	
Incremental Delay, d2	104.2	3.8	0.5	57.6	5.8		78.1	0.5		2.8	0.7	
Delay (s)	140.3	28.4	20.9	99.3	37.2		140.1	11.4		43.2	30.8	
Level of Service	F	C	C	F	D		F	B		D	C	
Approach Delay (s)		49.7			44.5			52.2			31.6	
Approach LOS		D			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	46.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	89.4	Sum of lost time (s)	18.5
Intersection Capacity Utilization	81.1%	ICU Level of Service	D
Analysis Period (min)	15		

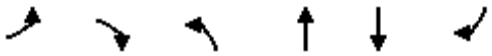
c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	31	97	1166	45	20	631
Future Volume (vph)	31	97	1166	45	20	631
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0		4.0	5.5
Lane Util. Factor	1.00		0.91		1.00	0.91
Frt	0.90		0.99		1.00	1.00
Flt Protected	0.99		1.00		0.95	1.00
Satd. Flow (prot)	1653		5057		1770	5085
Flt Permitted	0.99		1.00		0.19	1.00
Satd. Flow (perm)	1653		5057		353	5085
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	33	102	1227	47	21	664
RTOR Reduction (vph)	76	0	4	0	0	0
Lane Group Flow (vph)	59	0	1270	0	21	664
Turn Type	Perm		NA		pm+pt	NA
Protected Phases			6		5	2
Permitted Phases	8				2	
Actuated Green, G (s)	22.7		26.1		26.6	21.1
Effective Green, g (s)	22.7		26.1		26.6	21.1
Actuated g/C Ratio	0.25		0.29		0.30	0.24
Clearance Time (s)	5.0		5.0		4.0	5.5
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	419		1476		192	1200
v/s Ratio Prot			c0.25		c0.01	0.13
v/s Ratio Perm	c0.04				0.03	
v/c Ratio	0.14		0.86		0.11	0.55
Uniform Delay, d1	25.8		29.9		23.2	30.0
Progression Factor	1.00		1.00		0.81	0.72
Incremental Delay, d2	0.2		5.4		0.2	0.5
Delay (s)	26.0		35.3		19.1	21.9
Level of Service	C		D		B	C
Approach Delay (s)	26.0		35.3			21.8
Approach LOS	C		D			C

Intersection Summary			
HCM 2000 Control Delay	30.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	89.4	Sum of lost time (s)	18.5
Intersection Capacity Utilization	40.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	183	0	1791	716	603
Future Volume (Veh/h)	0	183	0	1791	716	603
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	193	0	1885	754	635
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					180	
pX, platoon unblocked	0.72	0.72	0.72			
vC, conflicting volume	1543	694	754			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	963	0	0			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	75	100			
cM capacity (veh/h)	181	776	1160			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2
Volume Total	193	471	471	471	471	503	886
Volume Left	0	0	0	0	0	0	0
Volume Right	193	0	0	0	0	0	635
cSH	776	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.25	0.28	0.28	0.28	0.28	0.30	0.52
Queue Length 95th (ft)	25	0	0	0	0	0	0
Control Delay (s)	11.2	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B						
Approach Delay (s)	11.2	0.0				0.0	
Approach LOS	B						

Intersection Summary				
Average Delay	0.6			
Intersection Capacity Utilization	57.1%	ICU Level of Service		B
Analysis Period (min)	15			

Appendix G: PEQI Proposed Conditions Worksheets

Valley Blvd Complete Streets
Pedestrian Environmental Quality Index (PEQI) - Proposed Roadway Segments

			11	12	13	14	15	16	17	18	19	20	21	22	23					24	25	26	27	28	29	30	31	32			
Cross street 1	Cross street 2	Side of Street	# lanes	two-way traffic	posted speed lim	TCFs Code	width of sidewalk	surface condition	obstructions--no sidewalk	curb	driveway cuts (#)	trees	planters/ gardens	public seating	buffer--bike lane	buffer--parallel park no time restrict	buffer--parallel park time restrict	buffer--grassy/ paved margin	buffer--none	store/ retail use (#)	public art	graffiti	litter	ped-scale lights--private	construct'n	abandoned buildings	vacant lots	bike racks	Distance between controlled xwalks	Sum	Final Score
Rowland Ave	Santa Anita Ave	N	4	1	35	1	4	2	1	1	5+	2	1	1	1	0	0	0	0	3+	0	0	0	0	1	0	0	0	4476		
			4	10	12	20	22	17	9	17	5	11	9	13					13	19	6	9	10	7	7	13	13	5		251	48
Rowland Ave	Santa Anita Ave	S	4	1	35	1	4	2	1	1	5+	2	1	1	1	0	0	0	0	3+	0	0	0	0	0	0	0	0	4402		
			4	10	12	20	22	17	9	17	5	11	9	13					13	19	6	9	10	7	13	13	13	5		257	50
Santa Anita	Ramona Blvd	N	4	1	35	1	3	2	1	1	5+	2	0	1	1	0	0	0	0	3+	0	0	0	0	0	0	1	0	3025		
			4	10	12	20	19	17	9	17	5	11	4	13					13	19	6	9	10	7	13	13	7	5		243	45
Santa Anita	Ramona Blvd	S	4	1	35	1	3	2	1	1	5+	2	0	1	1	0	0	0	0	3+	0	0	0	0	0	0	0	0	2953		
			4	10	12	20	19	17	9	17	5	11	4	13					13	19	6	9	10	7	13	13	13	5		249	47
Ramona Blvd	Mountain View I	N	4	1	35	1	4	3	1	1	5+	2	9	1	1	0	1	0	0	3+	1	0	0	0	0	1	1	0	4678		
			4	10	12	20	22	24	9	17	5	11	9	13					21	19	14	9	10	7	13	7	7	5		268	54
Ramona Blvd	Mountain View I	S	4	1	35	1	4	3	1	1	5+	2	2	1	1	0	0	0	0	3+	0	0	0	0	0	1	1	0	4716		
			4	10	12	20	22	24	9	17	5	11	9	13					13	19	6	9	10	7	13	7	7	5		252	48
Mountain View I	Garvey Ave	N	4	1	35	1	4	3	1	1	3	2	1	1	1	0	0	0	0	3	0	0	0	0	0	0	0	0	526		
			4	10	12	20	22	24	9	17	15	11	9	13					13	19	6	9	10	7	13	13	13	5		274	56
Mountain View I	Garvey Ave	S	4	1	35	1	4	3	1	1	1	2	2	0	1	0	0	0	0	3	0	0	0	0	0	0	0	0	394		
			4	10	12	20	22	24	9	17	15	11	9	7					13	19	6	9	10	7	13	13	13	5		268	54
Garvey Ave	Rumford Ave	N	4	1	35	1	3	3	1	1	5+	2	1	1	1	0	0	0	0	3+	0	0	0	0	0	1	1	0	2889		
			4	10	12	20	19	24	9	17	5	11	9	13					13	19	6	9	10	7	13	7	7	5		249	47
Garvey Ave	Rumford Ave	S	4	1	35	1	3	3	1	1	5+	2	5	1	1	0	1	0	0	3+	0	0	0	0	0	1	1	0	3066		
			4	10	12	20	19	24	9	17	5	11	9	13					21	19	6	9	10	7	13	7	7	5		257	50

Valley Blvd Complete Streets
Pedestrian Environmental Quality Index (PEQI) - Proposed Intersections

Item name	Int ID	Street name 1	Street name 2	Crosswalks	ladder xwalks	ped signal countdn	ped signal no countdn	stop signs	no turn on red	curb cuts	traffic signal	crossing time	crossing distance-ft	weighted crossing speed	crosswalk scramble	TCFs - code	add'l ped signs	Sum	Final Score	
	A	Valley Blvd	Rowland Ave	2	2	5		0	0	4	1		76		0	1	1			Signalized
				15	16	21		8	5	19				20	5	15	17	133	61	
	B	Valley Blvd	Baldwin Ave	4	4	6		0	0	6	1		100		0	1	1			Signalized
				21	24	21		8	5	19				20	5	15	17	147	72	
	C	Valley Blvd	Shirley Ave	2	2	2		0	0	2	1		89		0	3	1			2 way stop
				15	16	13		8	5	11				20	5	17	17	92	41	
	D	Valley Blvd	Gibson Road	3	3	6		0	0	5	1		122		0	1	1			Signalized
				18	20	21		8	5	19				20	5	15	17	140	66	
	E	Valley Blvd	Arden Dr	2	2	4		0	0	3	1		82		0	1	1			Signalized
				15	16	21		8	5	15				20	5	15	17	129	57	
	F	Valley Blvd	Valley Cir	2	2	4		0	0	4	1		88		0	2	1			Signalized
				15	16	21		8	5	19				20	5	15	17	133	61	
	G	Valley Blvd	Santa Anita Ave	4	4	6		0	0	6	1		173		0	2	1			Signalized
				21	24	21		8	5	19				9	5	15	17	136	63	
	H	Valley Blvd	(Plaza)	3	3	6		0	0	4	1		72		0	1	1			Signalized
				18	20	21		8	5	19				20	5	15	17	140	66	
	I	Valley Blvd	El Monte Ave	1	1	2		0	0	2	1		74		0	4	1			2 way stop
				11	11	13		8	5	11				20	5	17	17	83	31	
	J	Valley Blvd	Center Ave	4	4	8		0	0	7	1		77		0	1	1			Signalized
				21	24	21		8	5	19				20	5	15	17	147	72	
	K	Valley Blvd	Tyler Ave	4	4	8		0	0	4	1		87		0	2	1			Signalized
				21	24	21		8	5	19				20	5	15	17	147	72	
	L	Valley Blvd	Ramona Blvd	4	4	8		0	0	4	1		124		0	1	1			Signalized
				21	24	21		8	5	19				20	5	15	17	147	72	
	M	Valley Blvd	Johnson Ave	2	2	4		0	0	3	1		84		0	1	1			Signalized
				15	16	21		8	5	15				20	5	15	17	129	57	
	N	Valley Blvd	Meeker Ave	3	3	0		2	0	6	0		99		0	2	1			Signalized
				18	20	5		16	5	19				20	5	15	17	124	53	
	O	Valley Blvd	Peck Rd	5	5	8		1	0	10	1		100		0	1	1			Signalized
				21	24	21		11	5	19				20	5	15	17	147	72	
	P	Valley Blvd	La Madera Ave	1	1	0		1	0	2	0		80		0	1	1			2 way stop
				11	11	5		11	5	11				20	5	15	17	87	35	
	Q	Valley Blvd	Mountain View Rd	4	4	8		0	0	6	1		90		0	1	1			Signalized
				21	24	21		8	5	19				20	5	15	17	147	72	
	R	Valley Blvd	Garvey Ave	6	6	8		0	0	6	1		147		0	2	1			Signalized
				21	24	21		8	5	19				20	5	15	17	147	72	
	S	Valley Blvd	Allgeyer Ave	2	2	0		1	0	4	0		88		0	2	1			2 way stop
				15	16	5		11	5	19				20	5	15	17	104	53	
	T	Valley Blvd	Maxson Rd	3	3	0		2	0	5	0		80		0	1	1			2 way stop
				18	20	5		16	5	19				20	5	15	17	121	71	
	U	Valley Blvd	Durfee Ave	4	4	8		0	0	7	1		128		0	1	1			Signalized
				21	24	21		8	5	19				20	5	15	17	147	72	

Appendix H: Parking Utilization Tables

On-Street Parking Utilization - Saturday, May 6th, 2023

Project Segment Number	Parking Zone	Limits	Side of Street	Type	Inventory		10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	Restriction
Segment 1	PZ-1	Strang Ave to Baldwin Ave	North	2 hour	15	Total Occupancy	1	1	1	1	1	1	1	0	0	0	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
						Percent Utilized	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	0.0%	0.0%	0.0%	
						Spaces Remaining	14	14	14	14	14	14	14	15	15	15	
	PZ-2		South	2 hour	18		2	1	0	0	1	1	2	1	0	0	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
				1 hour	1		0	0	0	0	0	0	0	0	0	0	1hr Parking Limit
				Total Inventory	19	Total Occupancy	2	1	0	0	1	1	2	1	0	0	
						Percent Utilized	10.5%	5.3%	0.0%	0.0%	5.3%	5.3%	10.5%	5.3%	0.0%	0.0%	
						Spaces Remaining	17	18	19	19	18	18	17	18	19	19	
	PZ-3	Baldwin Ave to Gibson Rd	North	2 hour	11	Total Occupancy	7	7	5	6	5	6	5	2	2	1	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
						Percent Utilized	63.6%	63.6%	45.5%	54.5%	45.5%	54.5%	45.5%	18.2%	18.2%	9.1%	
						Spaces Remaining	4	4	6	5	6	5	6	9	9	10	
	PZ-4		South	Regular	2	Total Occupancy	0	0	1	1	0	0	0	0	1	0	No Restriction
						Percent Utilized	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	
						Spaces Remaining	2	2	1	1	2	2	2	2	1	2	
	PZ-5	Gibson Rd to Arden Dr	North	Regular	6		2	1	1	1	1	0	1	2	1	1	No Parking Mon & Thu 3am-6am Street Sweeping
				2 hour	7		5	4	3	2	1	4	4	2	0	2	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
				2 hour	12		0	1	1	2	1	2	1	1	0	1	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
				Total Inventory	25	Total Occupancy	7	6	5	5	3	6	6	5	1	4	
						Percent Utilized	28.0%	24.0%	20.0%	20.0%	12.0%	24.0%	24.0%	20.0%	4.0%	16.0%	
						Spaces Remaining	18	19	20	20	22	19	19	20	24	21	
	PZ-6			2 hour	37	Total Occupancy	9	11	9	7	9	9	9	5	3	1	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
						Percent Utilized	24.3%	29.7%	24.3%	18.9%	24.3%	24.3%	24.3%	13.5%	8.1%	2.7%	
						Spaces Remaining	28	26	28	30	28	28	28	32	34	36	
	PZ-7	Arden Dr to Main St	North	2 hour	19		0	0	0	0	0	0	0	0	2	0	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
						Percent Utilized	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.5%	0.0%	
						Spaces Remaining	19	19	19	19	19	19	19	19	17	19	
	PZ-8		South	Regular	17		0	0	0	0	0	0	0	0	0	0	No Parking Mon & Thu 3am-6am Street Sweeping
						Percent Utilized	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
						Spaces Remaining	17	17	17	17	17	17	17	17	17	17	
	Subtotal Segment 1				145	Subtotal Occupancy	26	26	21	20	19	23	23	13	9	6	
						Subtotal Percent Utilized	17.9%	17.9%	14.5%	13.8%	13.1%	15.9%	15.9%	9.0%	6.2%	4.1%	
						Spaces Remaining	119	119	124	125	126	122	122	132	136	139	

On-Street Parking Utilization - Saturday, May 6th, 2023

Project Segment Number	Parking Zone	Limits	Side of Street	Type	Inventory		10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	Restriction
Segment 3	PZ-9	Ramona Blvd to Meeker Ave	North	2 hour	17	Total Occupancy	0	0	0	0	0	0	0	0	1	0	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
						Percent Utilized	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.9%	0.0%	
						Spaces Remaining	17	17	17	17	17	17	17	17	16	17	
	PZ-10		South	2 hour	15		0	0	0	0	0	0	1	0	0	1	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
						Percent Utilized	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.7%	0.0%	0.0%	6.7%	
						Spaces Remaining	15	15	15	15	15	15	14	15	15	14	
	PZ-11	Meeker Ave to Peck Rd	North	2 hour	13		2	3	0	0	0	1	2	0	0	1	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
						Percent Utilized	15.4%	23.1%	0.0%	0.0%	0.0%	7.7%	15.4%	0.0%	0.0%	7.7%	
						Spaces Remaining	11	10	13	13	13	12	11	13	13	12	
	PZ-12		South	2 hour	10		0	0	0	0	0	0	0	0	0	0	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
						Percent Utilized	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
						Spaces Remaining	10	10	10	10	10	10	10	10	10	10	
	PZ-13	Peck Rd to Mountain View Road	North	2 hour	52		12	16	14	12	10	13	9	11	7	9	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
				20 minute	5		3	3	3	3	4	4	3	1	2	3	20 Min Parking 9am-6pm
				Total Inventory	57	Total Occupancy	15	19	17	15	14	17	12	12	9	12	
						Percent Utilized	26.3%	33.3%	29.8%	26.3%	24.6%	29.8%	21.1%	21.1%	15.8%	21.1%	
						Spaces Remaining	42	38	40	42	43	40	45	45	48	45	
	PZ-14		South	2 hour	25		5	4	4	3	3	3	2	2	0	1	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
				Time Restricted	19		3	6	5	3	4	3	3	3	1	1	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
				Total Inventory	44	Total Occupancy	8	10	9	6	7	6	5	5	1	2	
						Percent Utilized	18.2%	22.7%	20.5%	13.6%	15.9%	13.6%	11.4%	11.4%	2.3%	4.5%	
						Spaces Remaining	36	34	35	38	37	38	39	39	43	42	
	Subtotal Segment 3				156	Subtotal Occupancy	25	32	26	21	21	24	20	17	11	16	
						Subtotal Percent Utilized	16.0%	20.5%	16.7%	13.5%	13.5%	15.4%	12.8%	10.9%	7.1%	10.3%	
						Spaces Remaining	131	124	130	135	135	132	136	139	145	140	

On-Street Parking Utilization - Saturday, May 6th, 2023

Project Segment Number	Parking Zone	Limits	Side of Street	Type	Inventory		10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	Restriction
Segment 5	PZ-15	Garvey Avenue to Maxson Rd	North	Regular	7		0	0	0	0	0	0	0	0	0	0	No Parking Mon & Thu 3am-6am Street Sweeping
				2 hour	1		0	0	0	0	0	0	0	0	0	0	20min Parking 9am-6am
				Total Inventory	8	Total Occupancy	0	0	0	0	0	0	0	0	0	0	
						Percent Utilized	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
						Spaces Remaining	8	8	8	8	8	8	8	8	8	8	
	PZ-16		South	20 minute	2		0	0	0	0	0	0	0	0	0	0	20 minutes
				2 hour	19		16	11	10	9	10	13	11	7	4	3	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
				Total Inventory	21	Total Occupancy	16	11	10	9	10	13	11	7	4	3	
						Percent Utilized	76.2%	52.4%	47.6%	42.9%	47.6%	61.9%	52.4%	33.3%	19.0%	14.3%	
						Spaces Remaining	5	10	11	12	11	8	10	14	17	18	
	PZ-17	Maxson Rd to Durfee Ave	North	2 hour	12		9	8	9	10	7	8	6	6	2	0	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
						Percent Utilized	75.0%	66.7%	75.0%	83.3%	58.3%	66.7%	50.0%	50.0%	16.7%	0.0%	
						Spaces Remaining	3	4	3	2	5	4	6	6	10	12	
	PZ-18		South	2 hour	10		2	0	0	1	1	8	6	6	2	0	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
						Percent Utilized	20.0%	0.0%	0.0%	10.0%	10.0%	80.0%	60.0%	60.0%	20.0%	0.0%	
						Spaces Remaining	8	10	10	9	9	2	4	4	8	10	
	Subtotal Segment 5				51	Subtotal Occupancy	27	19	19	20	18	29	23	19	8	3	
						Subtotal Percent Utilized	52.9%	37.3%	37.3%	39.2%	35.3%	56.9%	45.1%	37.3%	15.7%	5.9%	
						Spaces Remaining	24	32	32	31	33	22	28	32	43	48	
Subtotal Segment 1					145	Total Occupancy	26	26	21	20	19	23	23	13	9	6	
						Total Percent Utilized	17.9%	17.9%	14.5%	13.8%	13.1%	15.9%	15.9%	9.0%	6.2%	4.1%	
Subtotal Segment 3					156	Total Occupancy	25	32	26	21	21	24	20	17	11	16	
						Total Percent Utilized	16.0%	20.5%	16.7%	13.5%	13.5%	15.4%	12.8%	10.9%	7.1%	10.3%	
Subtotal Segment 5					51	Total Occupancy	27	19	19	20	18	29	23	19	8	3	
						Total Percent Utilized	52.9%	37.3%	37.3%	39.2%	35.3%	56.9%	45.1%	37.3%	15.7%	5.9%	
Total On-Street					352	Total Occupancy	78	77	66	61	58	76	66	49	28	25	
						Total Percent Utilized	22.2%	21.9%	18.8%	17.3%	16.5%	21.6%	18.8%	13.9%	8.0%	7.1%	

Percent Utilized Spaces
- > 85%
- 65% - 85%
- 45% - 65%
- < 45%

On-Street Parking Utilization - Wednesday May 10th, 2023

Project Segment Number	Parking Zone	Limits	Side of Street	Type	Inventory		10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	Restriction
Segment 1	PZ-1	Strang Ave to Baldwin Ave	North	2 hour	15	Total Occupancy	1	2	0	1	2	2	2	1	0	0	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
						Percent Utilized	6.7%	13.3%	0.0%	6.7%	13.3%	13.3%	13.3%	6.7%	0.0%	0.0%	
						Spaces Remaining	14	13	15	14	13	13	13	14	15	15	
	PZ-2		South	2 hour	18		0	0	0	0	0	1	0	0	0	0	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
				1 hour	1		0	0	0	0	0	0	0	0	0	0	1hr Parking Limit
				Total Inventory	19	Total Occupancy	0	0	0	0	0	1	0	0	0	0	
						Percent Utilized	0.0%	0.0%	0.0%	0.0%	0.0%	5.3%	0.0%	0.0%	0.0%	0.0%	
						Spaces Remaining	19	19	19	19	19	18	19	19	19	19	
	PZ-3	Baldwin Ave to Gibson Rd	North	2 hour	11	Total Occupancy	4	4	5	8	7	5	4	5	3	0	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
						Percent Utilized	36.4%	36.4%	45.5%	72.7%	63.6%	45.5%	36.4%	45.5%	27.3%	0.0%	
						Spaces Remaining	7	7	6	3	4	6	7	6	8	11	
	PZ-4		South	Regular	2	Total Occupancy	0	0	0	0	0	0	0	0	0	0	No Restriction
						Percent Utilized	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
						Spaces Remaining	2	2	2	2	2	2	2	2	2	2	
	PZ-5	Gibson Rd to Arden Dr	North	Regular	6		0	0	0	0	0	4	3	1	0	0	No Parking Mon & Thu 3am-6am Street Sweeping
				2 hour	7		3	2	3	5	3	2	3	3	2	1	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
				2 hour	12		0	1	2	4	3	4	2	2	0	0	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
				Total Inventory	25	Total Occupancy	3	3	5	9	6	10	8	6	2	1	
						Percent Utilized	12.0%	12.0%	20.0%	36.0%	24.0%	40.0%	32.0%	24.0%	8.0%	4.0%	
						Spaces Remaining	22	22	20	16	19	15	17	19	23	24	
	PZ-6			2 hour	37	Total Occupancy	11	15	19	19	18	25	21	14	16	0	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
						Percent Utilized	29.7%	40.5%	51.4%	51.4%	48.6%	67.6%	56.8%	37.8%	43.2%	0.0%	
						Spaces Remaining	26	22	18	18	19	12	16	23	21	37	
	PZ-7	Arden Dr to Main St	North	2 hour	19		0	0	0	4	6	6	8	6	4	1	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
						Percent Utilized	0.0%	0.0%	0.0%	21.1%	31.6%	31.6%	42.1%	31.6%	21.1%	5.3%	
						Spaces Remaining	19	19	19	15	13	13	11	13	15	18	
	PZ-8		South	Regular	17		3	3	3	4	3	5	4	1	2	0	No Parking Mon & Thu 3am-6am Street Sweeping
						Percent Utilized	17.6%	17.6%	17.6%	23.5%	17.6%	29.4%	23.5%	5.9%	11.8%	0.0%	
						Spaces Remaining	14	14	14	13	14	12	13	16	15	17	
	Subtotal Segment 1				145	Subtotal Occupancy	22	27	32	45	42	54	47	33	27	2	
						Subtotal Percent Utilized	15.2%	18.6%	22.1%	31.0%	29.0%	37.2%	32.4%	22.8%	18.6%	1.4%	
						Spaces Remaining	123	118	113	100	103	91	98	112	118	143	

On-Street Parking Utilization - Wednesday May 10th, 2023

Project Segment Number	Parking Zone	Limits	Side of Street	Type	Inventory		10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	Restriction
Segment 3	PZ-9	Ramona Blvd to Meeker Ave	North	2 hour	17	Total Occupancy	6	7	7	8	6	6	4	2	1	0	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
						Percent Utilized	35.3%	41.2%	41.2%	47.1%	35.3%	35.3%	23.5%	11.8%	5.9%	0.0%	
						Spaces Remaining	11	10	10	9	11	11	13	15	16	17	
	PZ-10		South	2 hour	15		4	4	5	4	4	5	4	3	2	0	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
						Percent Utilized	26.7%	26.7%	33.3%	26.7%	26.7%	33.3%	26.7%	20.0%	13.3%	0.0%	
						Spaces Remaining	11	11	10	11	11	10	11	12	13	15	
	PZ-11	Meeker Ave to Peck Rd	North	2 hour	13		0	0	0	0	0	2	1	1	0	0	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
						Percent Utilized	0.0%	0.0%	0.0%	0.0%	0.0%	15.4%	7.7%	7.7%	0.0%	0.0%	
						Spaces Remaining	13	13	13	13	13	11	12	12	13	13	
	PZ-12		South	2 hour	10		0	0	1	0	0	0	0	0	0	0	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
						Percent Utilized	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
						Spaces Remaining	10	10	9	10	10	10	10	10	10	10	
	PZ-13	Peck Rd to Mountain View Road	North	2 hour	52		14	15	21	23	22	30	24	17	11	2	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
				20 minute	5		1	1	2	2	1	0	0	2	1	0	20 Min Parking 9am-6pm
				Total Inventory	57	Total Occupancy	15	16	23	25	23	30	24	19	12	2	
						Percent Utilized	26.3%	28.1%	40.4%	43.9%	40.4%	52.6%	42.1%	33.3%	21.1%	3.5%	
						Spaces Remaining	42	41	34	32	34	27	33	38	45	55	
	PZ-14		South	2 hour	25		3	2	6	9	8	8	9	6	4	0	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
				Time Restricted	19		4	8	7	11	10	8	7	4	3	0	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
				Total Inventory	44	Total Occupancy	7	10	13	20	18	16	16	10	7	0	
						Percent Utilized	15.9%	22.7%	29.5%	45.5%	40.9%	36.4%	36.4%	22.7%	15.9%	0.0%	
						Spaces Remaining	37	34	31	24	26	28	28	34	37	44	
	Subtotal Segment 3				156	Subtotal Occupancy	32	37	49	57	51	59	49	35	22	2	
						Subtotal Percent Utilized	20.5%	23.7%	31.4%	36.5%	32.7%	37.8%	31.4%	22.4%	14.1%	1.3%	
						Spaces Remaining	124	119	107	99	105	97	107	121	134	154	

On-Street Parking Utilization - Wednesday May 10th, 2023

Project Segment Number	Parking Zone	Limits	Side of Street	Type	Inventory		10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	Restriction
Segment 5	PZ-15	Garvey Avenue to Maxson Rd	North	Regular	7		1	0	2	2	2	2	0	1	0	0	No Parking Mon & Thu 3am-6am Street Sweeping
				20 Minute	1		0	0	0	0	0	0	0	0	0	0	20min Parking 9am-6am
				Total Inventory	8	Total Occupancy	1	0	2	2	2	2	0	1	0	0	
						Percent Utilized	12.5%	0.0%	25.0%	25.0%	25.0%	25.0%	0.0%	12.5%	0.0%	0.0%	
						Spaces Remaining	7	8	6	6	6	6	8	7	8	8	
	PZ-16		South	20 minute	2		0	0	1	0	0	0	1	0	0	0	20 minutes
				2 hour	19		5	4	10	11	10	8	11	8	7	1	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
				Total Inventory	21	Total Occupancy	5	4	11	11	10	8	12	8	7	1	
						Percent Utilized	23.8%	19.0%	52.4%	52.4%	47.6%	38.1%	57.1%	38.1%	33.3%	4.8%	
						Spaces Remaining	16	17	10	10	11	13	9	13	14	20	
	PZ-17 [1]	Maxson Rd to Durfee Ave	North	2 hour	12		14	15	9	10	14	13	11	7	5	0	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
						Percent Utilized	116.7%	125.0%	75.0%	83.3%	116.7%	108.3%	91.7%	58.3%	41.7%	0.0%	
						Spaces Remaining	-2	-3	3	2	-2	-1	1	5	7	12	
	PZ-18		South	2 hour	10		2	3	5	8	7	9	7	4	4	0	No Parking Mon & Thu 3am-6am Street Sweeping/2hr Parking 9am-6pm
						Percent Utilized	20.0%	30.0%	50.0%	80.0%	70.0%	90.0%	70.0%	40.0%	40.0%	0.0%	
						Spaces Remaining	8	7	5	2	3	1	3	6	6	10	
	Subtotal Segment 5				51	Subtotal Occupancy	22	22	27	31	33	32	30	20	16	1	
						Subtotal Percent Utilized	43.1%	43.1%	52.9%	60.8%	64.7%	62.7%	58.8%	39.2%	31.4%	2.0%	
						Spaces Remaining	29	29	24	20	18	19	21	31	35	50	
Subtotal Segment 1					145	Total Occupancy	22	27	32	45	42	54	47	33	27	2	
						Total Percent Utilized	15.2%	18.6%	22.1%	31.0%	29.0%	37.2%	32.4%	22.8%	18.6%	1.4%	
Subtotal Segment 3					156	Total Occupancy	32	37	49	57	51	59	49	35	22	2	
						Total Percent Utilized	20.5%	23.7%	31.4%	36.5%	32.7%	37.8%	31.4%	22.4%	14.1%	1.3%	
Subtotal Segment 5					51	Total Occupancy	22	22	27	31	33	32	30	20	16	1	
						Total Percent Utilized	43.1%	43.1%	52.9%	60.8%	64.7%	62.7%	58.8%	39.2%	31.4%	2.0%	
Total On-Street					352	Total Occupancy	76	86	108	133	126	145	126	88	65	5	
						Total Percent Utilized	21.6%	24.4%	30.7%	37.8%	35.8%	41.2%	35.8%	25.0%	18.5%	1.4%	

Percent Utilized Spaces
- > 85%
- 65% - 85%
- 45% - 65%
- < 45%

(1) The parking utilization for PZ-17 is shown as greater than 100% (demand exceeds supply) due to illegally parked vehicles overlapping red curbs and vehicles encroaching into driveways.

Appendix I: Public Outreach Summary Report

VALLEY BLVD

COMPLETE STREETS

Community Engagement Summary Report

January 2024



TABLE OF CONTENTS

1. PROJECT OVERVIEW 4
2. OUTREACH TOOLS AND COLLATERALS 4
2.1 Fact Sheet 4
2.2 Business Card 4
2.3 Sidewalk Decals 4
2.4 StoryMap 5
3. COMMUNITY ADVISORY COMMITTEE MEETINGS 6
3.1 Community Advisory Committee Meeting #1 6
3.2 Community Advisory Committee Meeting #2 8
3.2 Community Advisory Committee Meeting #3 9
4. COMMUNITY ENGAGEMENT- ROUND #1 10
4.1 Notification 10
4.2 Public Meeting #1 11
4.3 Public Meeting #2 12
5. COMMUNITY ENGAGEMENT- ROUND #2 14
5.2 Notification 14
5.3 Public Meeting #3 15
5.4 Business Workshop 17
6. SURVEYS 20
6.1 Current Use of the Corridor and Perception 20
6.2 Proposed Concepts Survey 27
6. APPENDICES 32

TABLES

Table 1. Community Advisory Committee Meetings Summary 6
Table 2. CAC Meeting #1 Notification 6
Table 3. CAC Meeting #1 Attendees 6
Table 4. CAC Meeting #1 Key Themes 7
Table 5. CAC Meeting #2 Notification 8
Table 6. CAC Meeting #2 Attendees 8
Table 7. CAC Meeting #2 Key Themes 9
Table 8. CAC Meeting #3 Notification 9
Table 9. CAC Meeting #3 Attendees 9
Table 10. CAC Meeting #3 Key Themes 10
Table 11. Community Engagement Round #10 E-Blast Schedule 10
Table 12. Community Engagement Round #1- Social Media Schedule 10
Table 13. Community Engagement Round #1- Business Corridor Walk Engagement 11
Table 14. Public Meeting #1 Details 11
Table 15. Public Meeting #1 Attendees 12
Table 16. Public Meeting #1 Key Themes 12
Table 17. Public Meeting #2 Details 13
Table 18. Public Meeting #2 Attendees 13
Table 19. Public Meeting #2 Key Themes 13
Table 20. Pop-Up Events Round #1 14
Table 21. Community Engagement Round #2- E-Blast Schedule 14
Table 22. Community Engagement Round #2- Social Media Schedule 15
Table 23. Public Meeting #3 Details 15
Table 24. Public Meeting #3 Attendees 15
Table 25. Public Meeting #3 Key Themes 16
Table 26. Pop-Up Events Round #2 16
Table 27. Business Workshop Details 17
Table 28. Business Workshop Attendees 18
Table 29. Business Workshop Key Themes 18

FIGURES

Figure 1. Sidewalk Decals 4
Figure 2. StoryMap Content 5

1. PROJECT OVERVIEW

In preparation for the Valley Boulevard Complete Street Feasibility Study, the City of El Monte (City), Michael Baker International (Michael Baker) and Arellano Associates (AA) hosted a series of community engagement activities to spread project awareness and gather community feedback on key Complete Street components for Valley Boulevard. Feedback received was used to develop a feasibility study will be executed to identify key project elements and develop a comprehensive, integrated multi-modal transportation network. Valley Boulevard is a major arterial, serving as one of the City's primary gateways, stretching approximately 3.3 miles from the southeasterly city limits at San Gabriel River to the northwesterly city limits near Eaton Wash. The complete street improvements are expected to allow for safe travel along and across Valley Boulevard for all users, and thus connecting the community safely to local and regional transit services, residences, businesses, parks, and other community destinations.

2. OUTREACH TOOLS AND COLLATERALS

2.1 Fact Sheet

A project fact sheet was developed and included project overview, project map, timeline, and contact information for the project team. The fact sheet was the primary material distributed to interested parties and stakeholder groups. The fact sheet was available in physical and digital formats and was posted on the project website. Fact sheets were translated and made available in English, Spanish, Chinese and Vietnamese. See *Appendix A* for the fact sheets.

2.2 Business Card

A project business card was developed to promote project information. The business card was one of the primary materials distributed to interested parties and stakeholder groups. The business card included a QR code that redirected stakeholders to the project StoryMap. See *Appendix B* for the business card.

2.3 Sidewalk Decals

Sidewalk decals were installed at key locations throughout Valley Boulevard. The sidewalk decals included a QR code that led to a Linktree containing information about the upcoming public meetings as well as other key project information.



Figure 1. Sidewalk Decals

2.4 StoryMap

An interactive StoryMap was developed to expand the range of project details offered on the City's project webpage. This interactive engagement tool offered an easy way to navigate and illustrate project information, including an interactive map and the use of multi-media tools highlighting the existing conditions and proposed concepts. The StoryMap tool was linked from the project website for easy access to the tool once it is developed.

All messaging and project materials was translated and made available in English and Spanish. The StoryMap can be accessed by visiting *emcompletestreets.com*.



Figure 2. StoryMap Content

3. COMMUNITY ADVISORY COMMITTEE MEETINGS

As part of the planning efforts for the City of El Monte's Valley Boulevard Complete Street Feasibility Study, Community Advisory Committee (CAC) meetings were held to discuss the public's perception of the two corridors and to help identify key improvement needs that will allow for safe travel along and across Valley Boulevard for all users.

Table 1. Community Advisory Committee Meetings Summary

Meeting	Date	Time	Attendees	Key Organizations
CAC Meeting #1	May 11, 2023	1:30-2:30pm	10	• Active SGV • DEMBA • El Monte Police Department Traffic Safety Bureau • Metro • Metrolink • Residents
CAC Meeting #2	July 20, 2023	1:30-2:30pm	4	• Active SGV • Metro • David's Jewelers
CAC Meeting #3	November 29, 2023	1:30-2:30pm	1	• Active SGV

View *Appendix C, D and E* for full reports and their respective appendices.

3.1 Community Advisory Committee Meeting #1

Meeting Notification

Stakeholders part of the CAC Candidate List were invited via e-blast to the CAC meetings. Additionally, calls were made to stakeholders who had not RSVP'd to confirm their interest in attending.

Table 2. CAC Meeting #1 Notification

E-blast to CAC Candidate List	Date Sent
Initial	April 23, 2023
Reminder #1	May 3, 2023
Reminder #2	May 10, 2023
Thank you, with links to meeting recordings and presentation materials	May 15, 2023

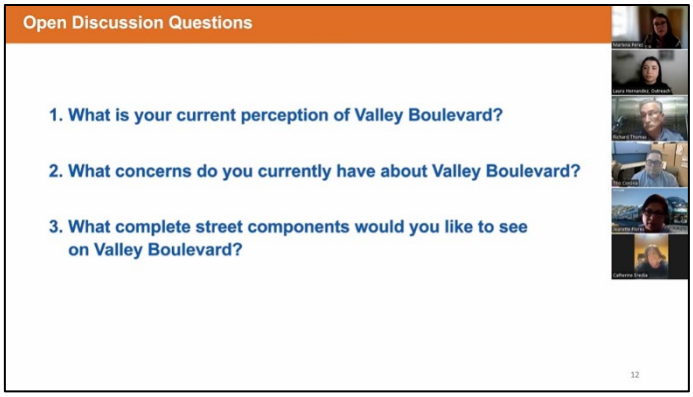
Attendees

Table 3. CAC Meeting #1 Attendees

No.	Name	Organization
1	Edward Duong	Active SGV
2	Blanca Medina	DEMBA
3	Jimmie Pitts	El Monte Police Department Traffic Safety Bureau
4	Tito Corona	Metro
5	Jeanette Flores	Metrolink
6	Daniel Arellano	Resident
7	Catherine Eredia	Resident

No.	Name	Organization
8	Charles Hoffman	Resident
9	Cosme Jimenez	Resident
10	Richard Thomas	Resident

Meeting Format



During the meeting, the project team introduced participants to the Study and its objectives. Participants provided their input on their perception of the current conditions of the corridors, share their main concerns, and identify what complete streets components they would like to see implemented. Additionally, live Spanish interpretation was made available throughout the meeting for participants. Meetings were recorded and made available in English and Spanish to all stakeholders invited to the CAC meetings.

Key Themes

Participants were able to provide input and ask questions during the breakout rooms and Q&A segment of the meeting.

Table 4. CAC Meeting #1 Key Themes

Topic	Key Themes
Traffic	• Valley Boulevard is considered a significant alternative route to the I-10 freeway based on common feedback. • Traffic on Valley Boulevard can be significant, particularly during accidents, leading to congestion and high speeds.
Pedestrian/Cyclist	• Pedestrian safety is a major concern, including uncontrolled crossings and pedestrians crossing wherever they please. • The separated travel way enhances safety and reduces the risk of accidents, making it more appealing to cyclists. • More information is needed to determine if the bike pathways are being utilized to their full potential. • The buffered bike lane can improve the overall traffic flow and increase the corridor's efficiency. • The bike pathways have been around for a few years, but how many people use them is unclear. • Providing a dedicated bike lane with a buffer can reduce conflicts with pedestrians and motor vehicles. • Recommendation to conduct a study to determine how many bikes use the pathways. Without data on usage, it's difficult to determine whether the pathways are effective. • The buffer can increase the comfort level of bike riders and encourage more people to choose active transportation. • Creating a buffer on the bike lane can offer a sense of security and separation, particularly for families with young children. • Addressing driveways and intersections is also necessary to improve the overall safety and experience of the corridor.

Topic	Key Themes
	• The impact of trees on pedestrian walkways must be considered when making enhancements. • There is a specific concern regarding crossings near schools. • Improving transit accommodations will complement pedestrian enhancements and ensure safe access to transit.
Safety	• The heavy flow of vehicles and higher speeds have raised concerns about pedestrian safety. • Safe access to transit stops is essential to ensure people can use them comfortably and securely. • Visibility and safety concerns were highlighted at intersections due to buildings being set back so close.
Parking	• Concerns were raised about parking in the corridor, particularly with the introduction of high-density housing. • Most parking lots on the streets are far from businesses.
General	• Trees should not block businesses and signs for visibility. • A previous Valley Blvd study conducted 20 years ago by Metro did not appear to lead to significant improvements. • Improvements such as adding shade and bike facilities would enhance the corridor's comfort and appeal. • Improvement initiatives should focus on connecting people to places and ensure meaningful enhancements.

3.2 Community Advisory Committee Meeting #2

Meeting Notification

Stakeholders part of the CAC Candidate List were invited via e-blast to the CAC meetings. Additionally, calls were made to stakeholders who had not RSVP'd to confirm their interest in attending.

Table 5. CAC Meeting #2 Notification

E-blast to CAC Candidate List	Date Sent
Initial	July 10, 2023
Reminder #1	July 11, 2023
Reminder #2	July 17, 2023
Reminder #3	July 18, 2023
Thank you, with links to meeting recordings and presentation materials.	July 28, 2023

Attendees

Table 6. CAC Meeting #2 Attendees

No.	Name	Organization
1	Edward Duong	Active SGV
2	Tito Corona	Metro
3	Jose Nava	David's Jewelers
4	John Lee	Did not state

Meeting Format

During the meeting, the project team introduced participants to the Study and its objectives. Participants provided their input on their perception of the current conditions of the corridors, share their main concerns, and identify what complete streets components they would like to see implemented. Additionally, live Spanish interpretation was made available throughout the meeting for participants. Meetings were recorded and made available in English and Spanish to all stakeholders invited to the CAC meetings.

Key Themes

Participants were able to provide input and ask questions during the breakout rooms and Q&A segment of the meeting.

Table 7. CAC Meeting #2 Key Themes

Topic	Key Themes
Traffic	• Raised medians and keeping both travel lanes could prove beneficial • Raised medians and reducing a lane may upset community members
Pedestrian/Cyclist	• Interest in bike lane safety by implementing buffers but cost may be a concern • Lane reductions concerns • 6-foot bike lanes are ideal
Parking	• Parking may be unnecessary on Valley • Community members are very interested in parking costs

3.2 Community Advisory Committee Meeting #3

Meeting Notification

Stakeholders part of the CAC Candidate List were invited via e-blast to the CAC meetings. Additionally, calls were made to stakeholders who had not RSVP'd to confirm their interest in attending.

Table 8. CAC Meeting #3 Notification

E-blast to CAC Candidate List	Date Sent
Initial	November 16, 2023
Reminder #1	November 28, 2023
Reminder #2	November 29, 2023

Attendees

Table 9. CAC Meeting #3 Attendees

No.	Name	Organization
1	David Diaz	Active SGV

Meeting Format

During the meeting, the project team introduced participants to the Study and its objectives. Participants provided their input on their perception of the current conditions of the corridors,

share their main concerns, and identify what complete streets components they would like to see implemented. Additionally, live Spanish interpretation was made available throughout the meeting for participants. The meeting was recorded and was made available in English and Spanish to all stakeholders invited to the CAC meetings.

Key Themes

Participants were able to provide input and ask questions during the breakout rooms and Q&A segment of the meeting.

Table 10. CAC Meeting #3 Key Themes

Meeting	Key Themes
Bike lanes	• Inquiry about the possibility of longer and taller buffers for enhanced safety. • Suggestion to implement vertical protection on Valley Street due to its high speed. • Emphasis on finding ways to make the area more vibrant for a significant improvement.
Raised bus stops	• During the discussion of public spaces, it was noted that improvements could be made to the lighting along the corridor to increase security, particularly around parking lots. • Backing up is one of the most unsafe driving movements. •
Mini Park	• Inquiry about the popularity of the two presented designs and their reception. • Proposal to highlight features of the mini park for increased visibility and attraction. • Positive response to Main Street changes, such as temporary closures for events, pedestrian-friendly initiatives, and increased urban canopy

4. COMMUNITY ENGAGEMENT- ROUND #1

4.1 Notification

E-Blast

Table 11. Community Engagement Round #10 E-Blast Schedule

E-blast	Date Sent
Initial Invitation	June 13, 2023
Reminder #1	June 21, 2023
Reminder #2	June 26, 2023

Social Media

The City's social media platforms were utilized to promote the upcoming public meetings. Social media content was posted in English and Spanish.

Table 12. Community Engagement Round #1- Social Media Schedule

Platform	Content	Date Sent
Facebook	Initial Invite	June 13, 2023
	Reminder #1	June 21, 2023

Platform	Content	Date Sent
	Flyer	June 21, 2023
	Online Event	June 21, 2023
	Reminder #2	June 26, 2023
	Reminder #3	June 27, 2023
Instagram	Pinned Post	June 13, 2023
	Flyer	June 21, 2023

City Website and Calendar

In order to utilize the City's existing network, upcoming meeting information was shared on the City's main website and upcoming events calendar. Interested community members were directed to register for the event as well as navigate through key information about the Study.

Business Corridor Walk

On June 14, 2023, the outreach team visited 200 businesses along Valley Boulevard to promote project engagement. Business owners were informed of upcoming project meetings and key project collateral was shared.

Table 13. Community Engagement Round #1- Business Corridor Walk Engagement

Business Corridor Walk	
Businesses Visited	200
Contact Information Collected	32
New Businesses Contacted	17

Flyer Distribution at Counters

A meeting flyer was developed in English, Spanish, Chinese and Vietnamese to promote upcoming meetings. Flyers were distributed on June 9, 2023, by mail to contacts part of the project's stakeholder database. Additionally, the flyer was distributed at key informational locations such as the City of El Monte offices, El Monte Aquatic Center, El Monte Public Library, and El Monte Community Center.

See *Appendix F* and *G* for more details on notification.

4.2 Public Meeting #1

Public Meeting #1 was held virtually to discuss the objectives of the Study and gather the public's perception of the two corridors and identify key improvement needs that will allow for safe travel along and across Valley Boulevard for all users.

See *Appendix F* for a full summary and the respective appendices.

Table 14. Public Meeting #1 Details

Meeting	Date	Time	Attendees	Location
Meeting #1	June 27, 2023	6:00-7:00pm	9	Virtual Via Zoom

Attendees

Table 15. Public Meeting #1 Attendees

No.	Name	Organization
1	Sal Mendez	City of El Monte
2	Robert Waddell	City of El Monte
3	Jimmie Pitts	El Monte Police Traffic Safety Bureau
4	Naresh Bhakta	La Bonita Motel
5	Edwin Arguijo	Did not state
6	John Lee	Did not state
7	David Diaz	Did not state
8	Rudy Sanchez	Did not state
9	Nathan Bui	Did not state

Meeting Format

During the meeting, the project team introduced participants to the study overview, objectives, and a variety of complete streets features that can be considered for Valley Boulevard. Participants provided their input on what type of features they would like to see implemented. Additionally, live Spanish interpretation was made available throughout the meeting for participants. The meeting was recorded and was made available in English and Spanish to all stakeholders after the culmination of the first meeting series.

Key Themes

Participants were able to provide input and ask questions during the breakout rooms and Q&A segment of the meeting. Below are key points discussed during both meetings. The conversation included the following key themes:

Table 16. Public Meeting #1 Key Themes

Key Themes
• Inclusion of bus only lanes as a complete streets component • Prior complete streets efforts in other parts of Valley Boulevard • Future complete streets efforts on Garvey Avenue • Funding secured for Valley Boulevard • Timeline for completion of final design of the project • Driving is the dominant mode of transportation along Valley Boulevard, while walking and transit are comparatively less popular. • Safety concerns and inconvenience were chosen as the primary reasons that keeps people from using Valley Boulevard. • Participants prefer bike lane physical buffer and bike lane with striped buffer as viable options for them to consider biking along Valley Boulevard. • Curb extensions and pedestrian hybrid beacons are preferred viable options for the community to consider walking along Valley Boulevard.

4.3 Public Meeting #2

Public Meeting #2 meeting was held to discuss the public's perception of the two corridors and to help identify key improvement needs that will allow for safe travel along and across Valley Boulevard for all users.

See *Appendix G* for a full summary and the respective appendices.

Table 17. Public Meeting #2 Details

Meeting	Date	Time	Attendees	Location
Meeting #2	July 12, 2023	6:00-7:00pm	4	El Monte Aquatic Center 1101 Mildred St. El Monte, CA 91731

Attendees

Table 18. Public Meeting #2 Attendees

No.	Name	Organization
1	Chris Greenspon	StreetsBlog LA
2	Blanca Medina	Downtown El Monte Business Association
3	Nguyen Tran	Did Not State

Meeting Format

During the meeting, the project team shared a presentation that introduced the Study and its objectives. Following the presentation, participants were able to visit different stations and interact with project staff. The following stations were available:

- Project Overview
- Valley Boulevard
  - Existing Conditions
  - Proposed Concepts
- Santa Anita Mini Park



At each station, participants provided their input on the proposed concepts and what features they would like to see along Valley Boulevard. Additionally, live Spanish interpretation was made available throughout the meeting for participants.

Key Themes

Participants were able to provide input and ask questions during the meeting. Below are key points discussed during the meeting. The conversation included the following key themes:

Table 19. Public Meeting #2 Key Themes

Key Themes
• Concerns about unhoused community utilizing the mini parks. • Parking on Valley Boulevard is well utilized. • Use intersection for stages for events.

Pop-Up Events

The project team coordinated a series of informational booths at the City of El Monte's Main Street Farmers Market. Outreach efforts identified several areas of improvement in both the Main Street and Valley Boulevard areas recommended by the public.

Table 20. Pop-Up Events Round #1

Event	Date	Time	Attendees	Location
Main St Farmers Market	June 15, 2023	5:00-9:00pm	100	Main Street, El Monte, California
Main St Farmers Market	August 3, 2023	5:00-9:00pm	150	Main Street, El Monte, California

See *Appendix H for the full reports.*





5. COMMUNITY ENGAGEMENT- ROUND #2

5.2 Notification

E-Blasts

An e-blast was distributed to invite stakeholders in the stakeholder database to the meeting. E-Blasts were sent out in English and Spanish.

Table 21. Community Engagement Round #2- E-Blast Schedule

E-blast	Date Sent
Initial	September 27, 2023
Reminder #1	October 5, 2023
Reminder #2	October 10, 2023

Social Media

The City's social media platforms were utilized to promote the upcoming public meetings. Social media content was posted in English and Spanish.

Table 22. Community Engagement Round #2- Social Media Schedule

Platform	Content	Date Sent
Facebook	Initial Invite	September 27, 2023
Instagram	Pinned Post	September 27, 2023

City Website and Calendar

To utilize the City's existing network, upcoming meeting information was shared on the City's main website and upcoming events calendar. Interested community members were directed to register for the event and navigate through key information about the Study.

Door-to-Door Noticing

A meeting flyer was developed in English, Spanish, Chinese, and Vietnamese to promote upcoming meetings. 1,600 meeting notices were distributed on September 27 at properties and parked cars along the project corridor. Additionally, the flyer was distributed at key informational locations such as the City of El Monte offices, El Monte Aquatic Center, El Monte Public Library, and El Monte Community Center.

See *Appendix H* for more details on notification.

5.3 Public Meeting #3

Public Meeting #3 meeting was held to discuss the public's perception of the two corridors and to help identify key improvement needs that will allow for safe travel along and across Valley Boulevard for all users.

See *Appendix H* for a full summary and the respective appendices.

Table 23. Public Meeting #3 Details

Meeting	Date	Time	Attendees	Location
Meeting #3	October 11, 2023	6:00-7:30pm	10	Virtual Via Zoom

Attendees

Table 24. Public Meeting #3 Attendees

No.	Name	Organization
1	John L	Did Not Disclose
2	Andrew Mora	El Monte Police Department
3	Chris Greenspon	SGV Reporter
4	Jose Nava	David's Jewelers
5	Rossana Meza	Meza's Jewelry
6	Darin DeKnikker	Mountain View Elementary School District
7	Ada Li	Did Not Disclose
8	Laura Landin	Did Not Disclose
9	Miguel Meza	Meza's Jewelry

No.	Name	Organization
10	Raul Miya	Did Not Disclose

Meeting Format

The project team shared a presentation during the meetings introducing the Study and its objectives. During the presentation, participants could take and ask the project staff questions.

Participants provided input on the proposed concepts and what features they would like to see along Valley Boulevard using polls. Additionally, live Spanish interpretation was made available throughout the meeting for participants.

Key Themes

Participants were able to provide input and ask questions during the meeting. Below are key points discussed during the meeting. The conversation included the following key themes:

Table 25. Public Meeting #3 Key Themes

Key Themes
• Emphasis on Safety Along Valley Blvd: The meeting attendees strongly emphasized safety while traveling along Valley Blvd. This community's top priority is ensuring that Valley Blvd is a safe and user-friendly street. • The community meeting highlighted the significance of safety and security along Valley Blvd as a shared concern among residents, business owners, and meeting attendees. Additionally, the preference for pedestrian-oriented improvements indicates a desire for measures that enhance safety and accessibility for walkers and cyclists in the community. • 44% of participants believed that all of the listed improvements would transform their experience on Valley Blvd. Additionally, 22% expressed an increased interest in bike riding and a similar percentage (22%) found public transit more appealing, while 11% expected to feel more comfortable walking as a result of these enhancements. • Mini Park- a water feature (29%) received the highest preference among respondents for the mini-park options. Landscaping and lighting (each 21%) were also popular choices. Additionally, interactive experiences, memorial walls, passive spaces, and selecting all the listed features were each valued the same (each 7%). • The results indicate that the respondents prefer mini park option 2 (62%) over mini park option 1 (38%).

Pop-Up Events

The project team coordinated a series of informational booth at the City events. Outreach efforts identified several areas of improvement in both the Main Street and Valley Boulevard areas recommended by the public.

Table 26. Pop-Up Events Round #2

Event	Date	Time	Attendees	Location
Howl-O-Ween Bark Bash Dog Parade	October 18, 2023	4:00-7:00pm	100	Fletcher “Fetch” Dog Park, El Monte, California
Downtown El Monte Business Association’s Day of the Dead	October 21, 2023	11:00-4:00pm	80	Main Street, El Monte, California

See *Appendix J for the full report*s.





5.4 Business Workshop

The Valley Boulevard Business Workshop was held to discuss the complete streets features along Valley Boulevard and the business owner's perception of the corridor.

See *Appendix K* for a full report.





Table 27. Business Workshop Details

Meeting	Date	Time	Attendees	Location
Valley Boulevard Business Workshop	October 17, 2023	8:00-9:30am	6	Norm's Restaurant

Attendees

Table 28. Business Workshop Attendees

No.	Name	Organization
1	Lee Kwang	Leeco Transmission
2	Millie Martinez	Dr. Martinez Dentistry
3	Mike Ortega	IDOtech
4	Jose Torres	Jose's Modern Upholstery
5	Helen Leung	ArTech Building Plus
6	William Sidaros	LA Auto Wrecking

Meeting Format

The project team shared a presentation during the meetings introducing the Study and its objectives. During the presentation, participants could take and ask the project staff questions.

Participants provided input on the proposed concepts and what features they would like to see along Valley Boulevard. Additionally, live Spanish interpretation was made available throughout the meeting for participants.

Key Themes

Participants were able to provide input and ask questions during the meeting. Below are key points discussed during the meeting. The conversation included the following key themes:

Table 29. Business Workshop Key Themes

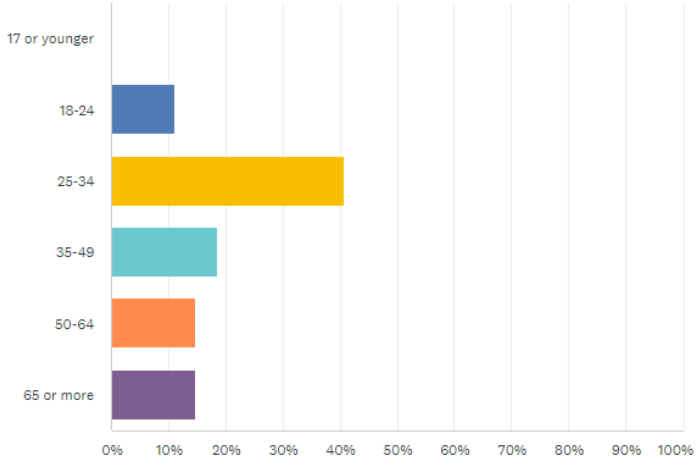
Topic	Key Themes
General Questions	During the event, several key topics were discussed: • Feasibility Study: It was mentioned that a feasibility study is required for the proposed changes. • Timelines: The proposed project is still a few years away from implementation, emphasizing the need for careful planning. • Time-Consuming: Participants acknowledged that this project may be time-consuming.
Concerns	Several concerns were raised during the event: • Speed Limit: Concerns were expressed regarding the existing speed limit and its impact on safety. • Parking: The issue of parking, particularly the potential removal of on-street parking, raised concerns. Businesses with limited parking may be adversely affected. • Parking Violations: Discussion on parking violations and enforcement issues were noted. • Safety Concerns: There were concerns about the safety of turning out of businesses, especially when visibility is limited.
Solutions	Participants proposed several solutions to address the concerns: • Changing Time Duration: It was suggested that the duration for parking be reduced from one hour to 20 minutes. • Pay-for-Parking: Consideration of a pay-for-parking system was put forth.

Topic	Key Themes
	• Exploring Parking Pockets: The idea of creating parking pockets aligned with businesses was discussed. • Vision for Bike Lanes: Some participants liked the dedicated bike lanes, so their vision would not be blocked while traveling along Valley Blvd. • Left Turns: There was a desire to modify the design to allow left turns at certain locations.
Feedback	Feedback from participants included the following: • Parking Pockets: There was a request for more information on how parking pockets would be structured, a preference for assigned parking in these pockets, and the consideration of time limits. • Bike Lanes: Suggestions were made to enhance safety in bike lanes, including the addition of protective measures and modifications to speed limits and enforcement. • Modifying Left Turns: Participants expressed concerns about making full U-turns on Valley Blvd and the difficulty of making left turns out of La Madera. • Proposed Design: Specific feedback on the proposed design included the introduction of a left U-turn between Baseball Road and La Madera, emphasizing addressing the difficulty of left turns.

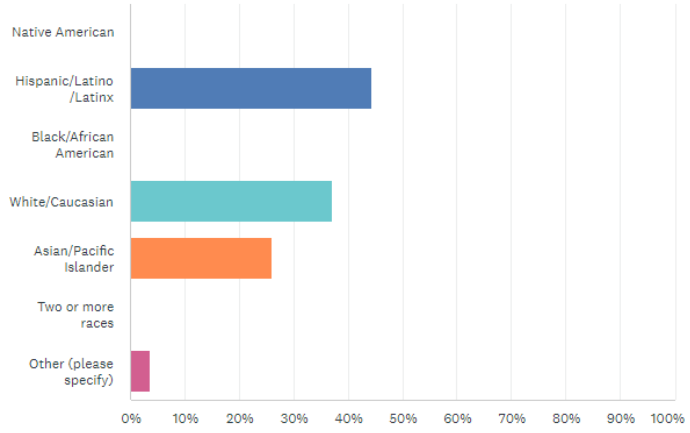
6. SURVEYS

6.1 Current Use of the Corridor and Perception

Age

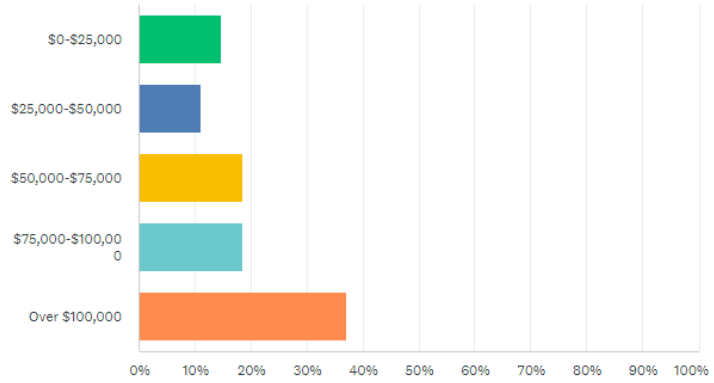


What race or ethnic group do you identify with? (Select all that apply).

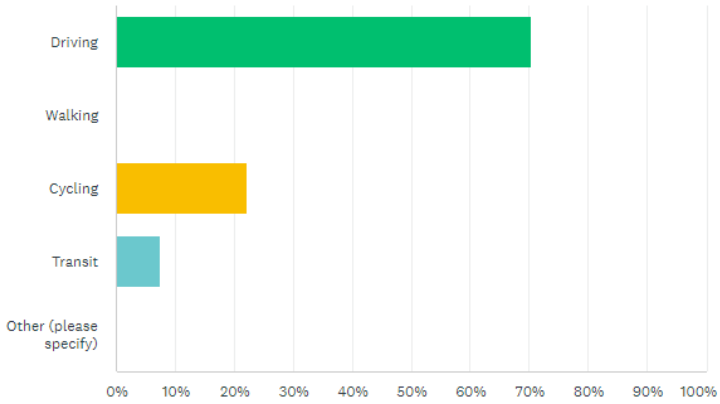


Other: Middle Eastern

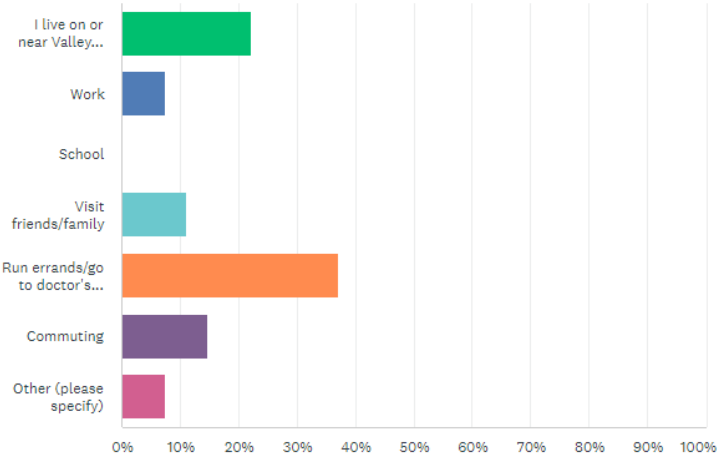
What is your annual household income?



How do travel along Valley Boulevard?



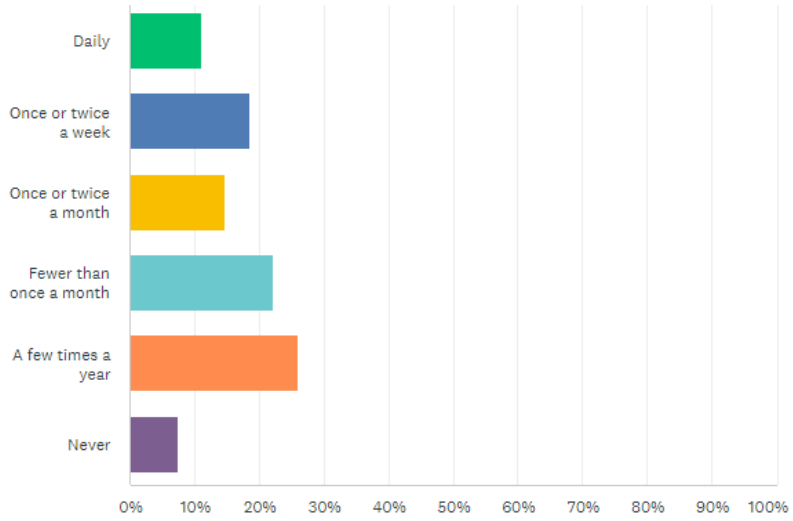
What are the main reasons you travel in and around Valley Boulevard?



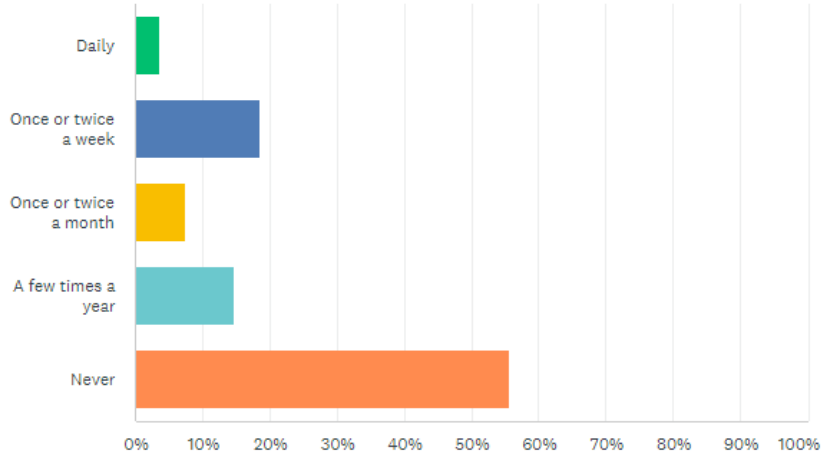
Other:

- Visit businesses
- Eatery

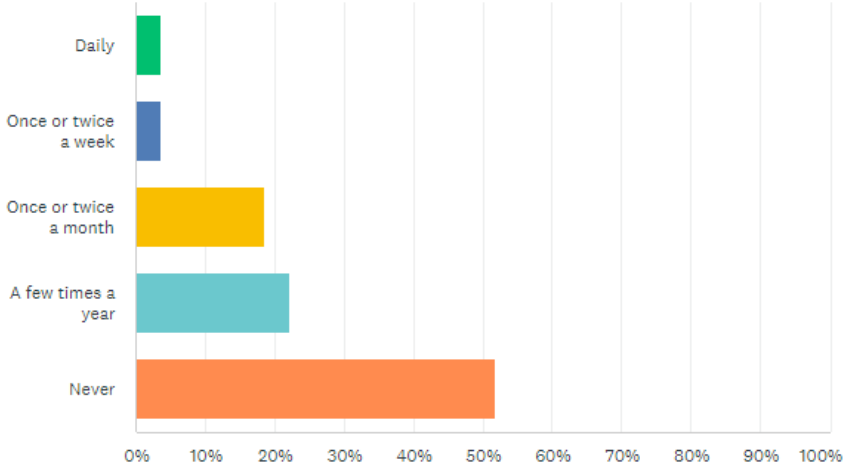
On average, how often do you walk in and round Valley Boulevard?



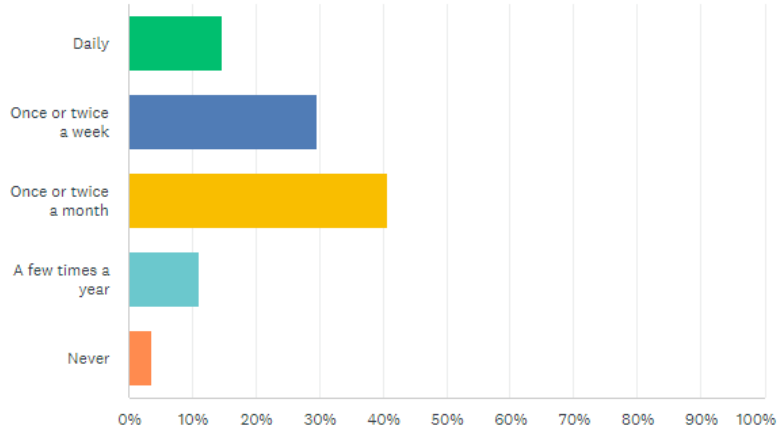
On average, how often do you bike in and around Valley Boulevard?



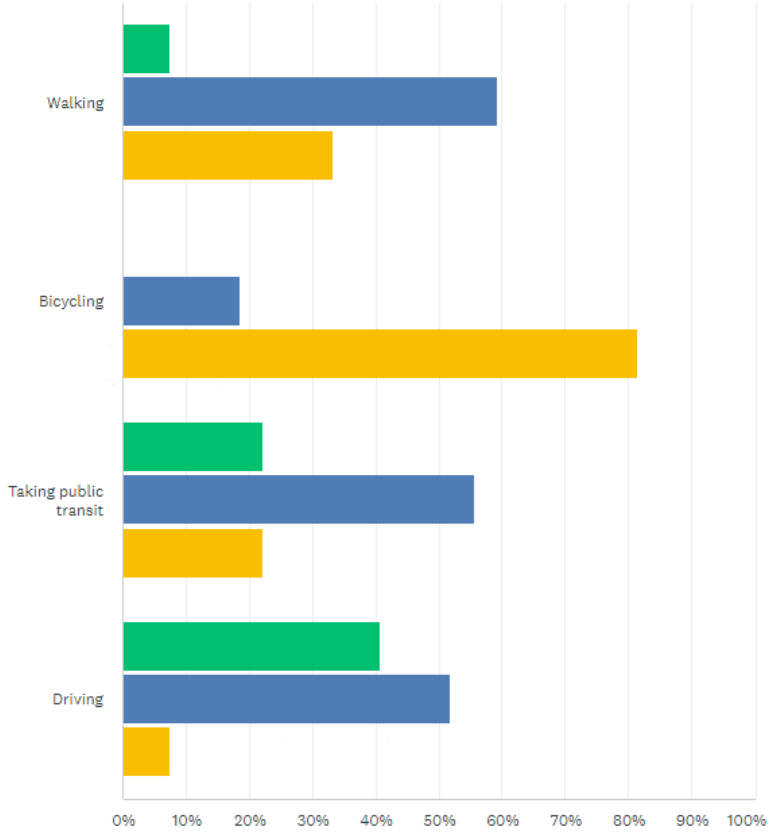
On average, how often do you take public transit in and around Valley Boulevard?



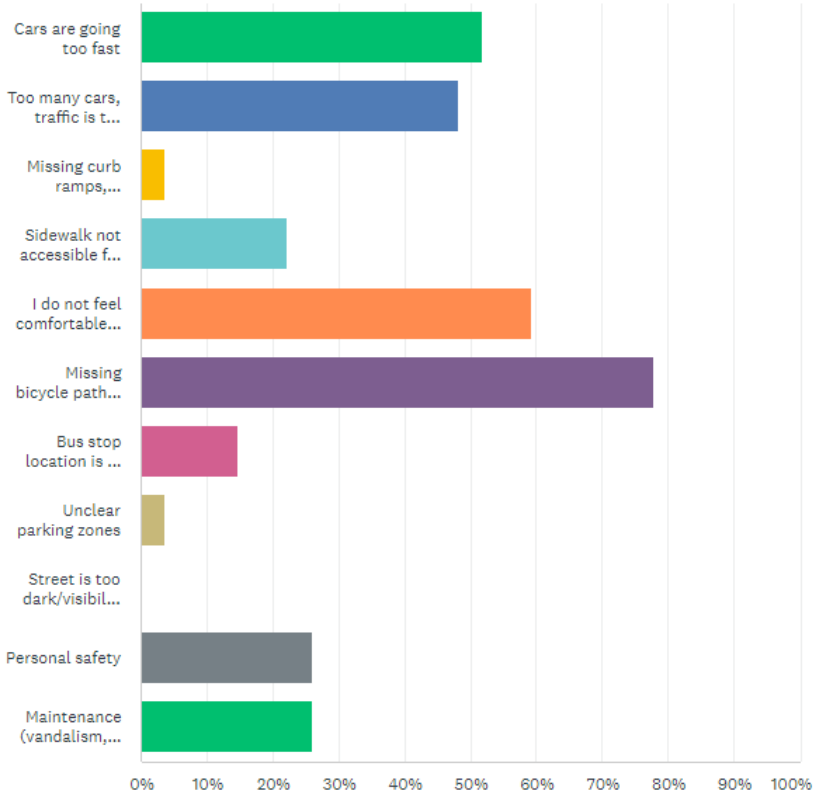
On average, how often do you drive on Valley Boulevard?



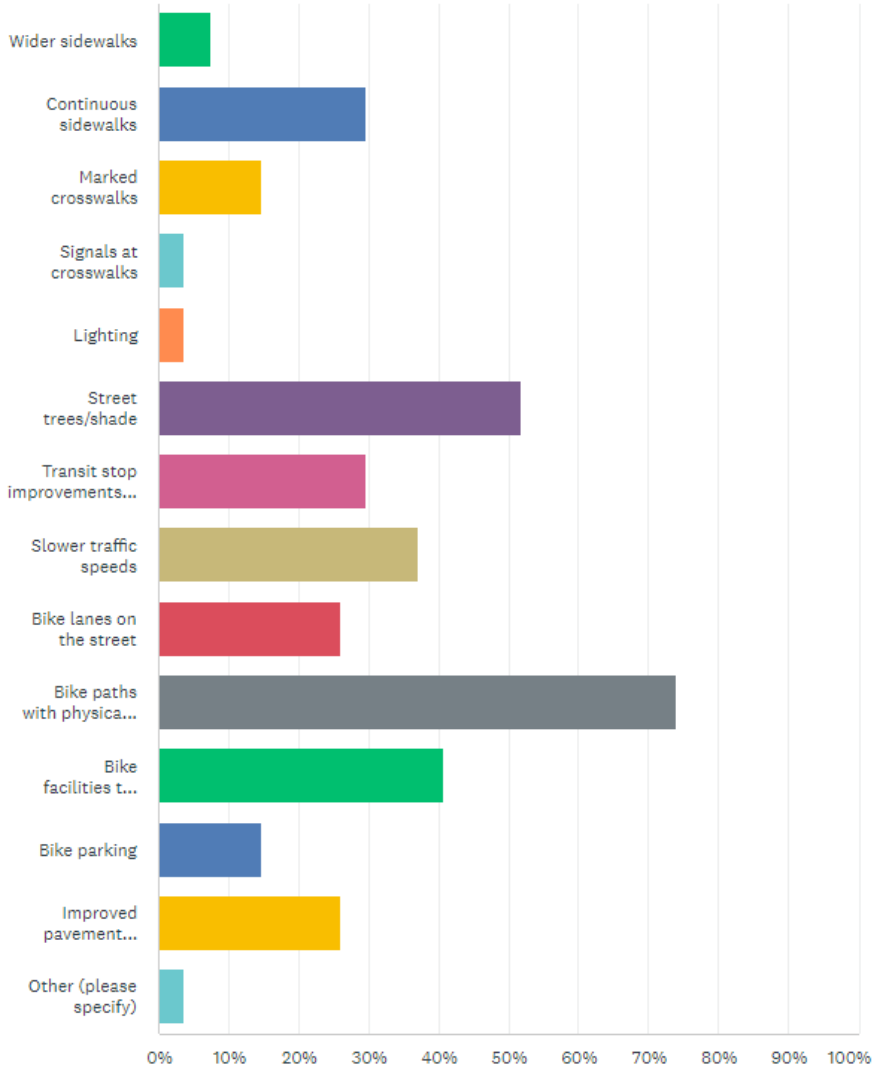
How safe do you feel using the following types of transportation on Valley Boulevard?



What are your primary concerns within Valley Boulevard? (select top 3 choices)

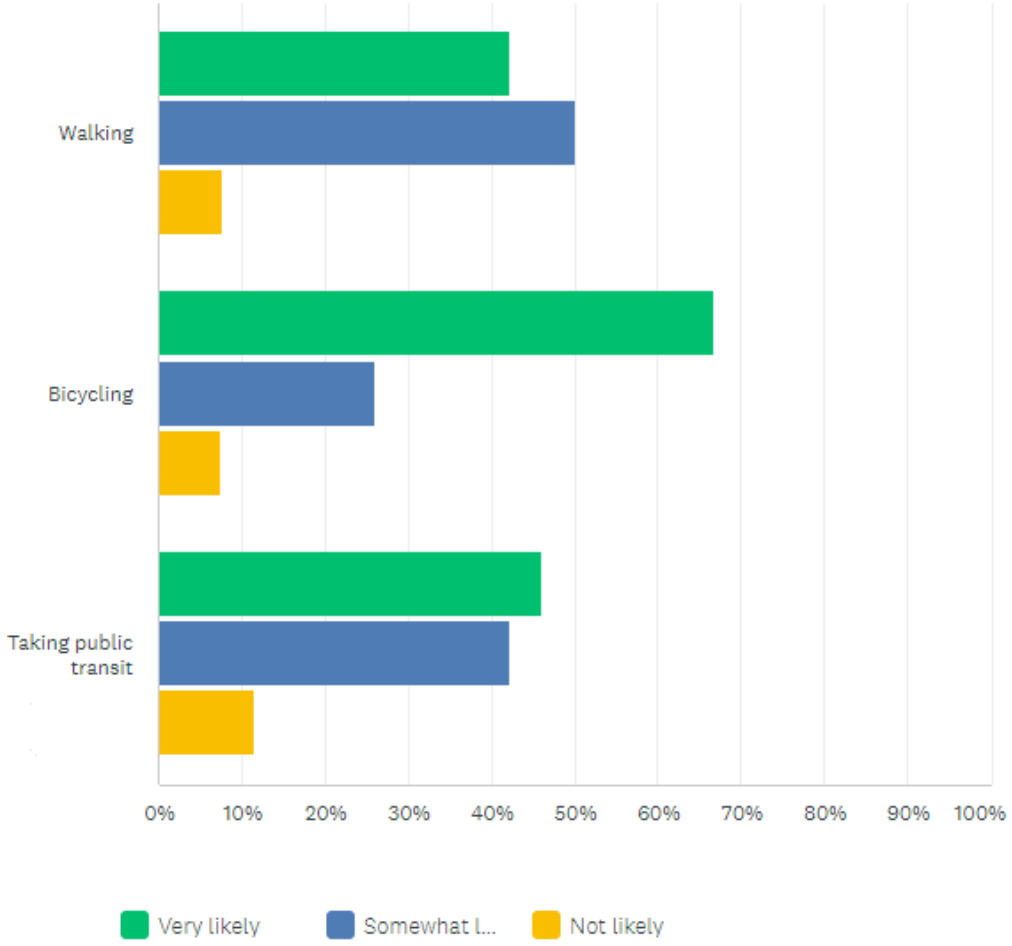


Select the top features that you feel would most improve the experience for people traveling on Valley Boulevard. (select top 3 choices)



Other: Traffic enforcement

If sidewalks, bike lanes and bus stop improvements were made along this corridor, how likely is it that you would choose the following rather than drive?

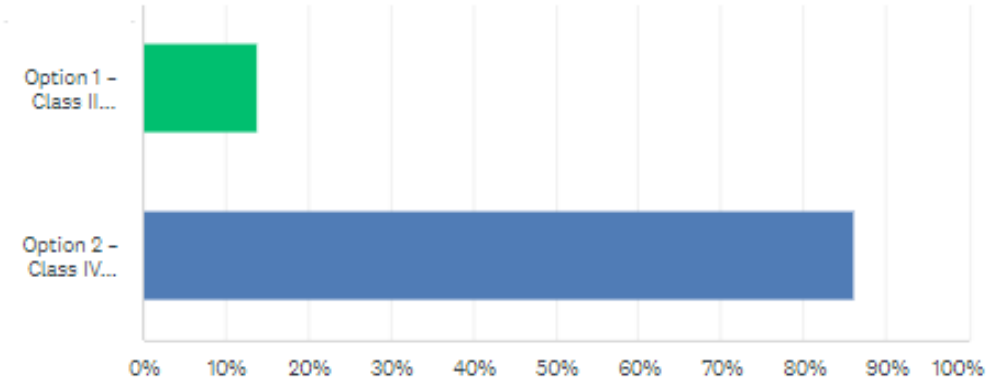


6.2 Proposed Concepts Survey

Which bike facility option do you prefer?

Option 1 – Class II facility

Option 2 – Class IV facility

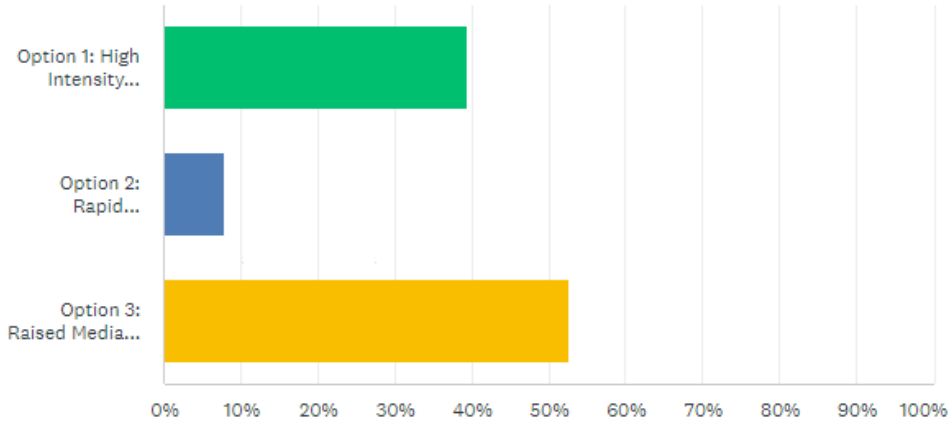


Which option for addressing uncontrolled crosswalks do you prefer?

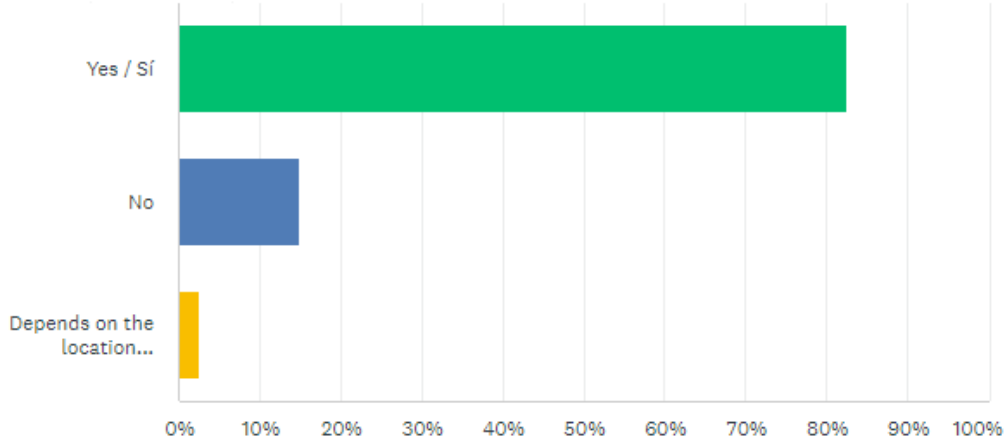
Option 1: High Intensity Activated Crosswalk (HAWK) signal

Option 2: Rapid Rectangular Flashing Beacon (RRFB)

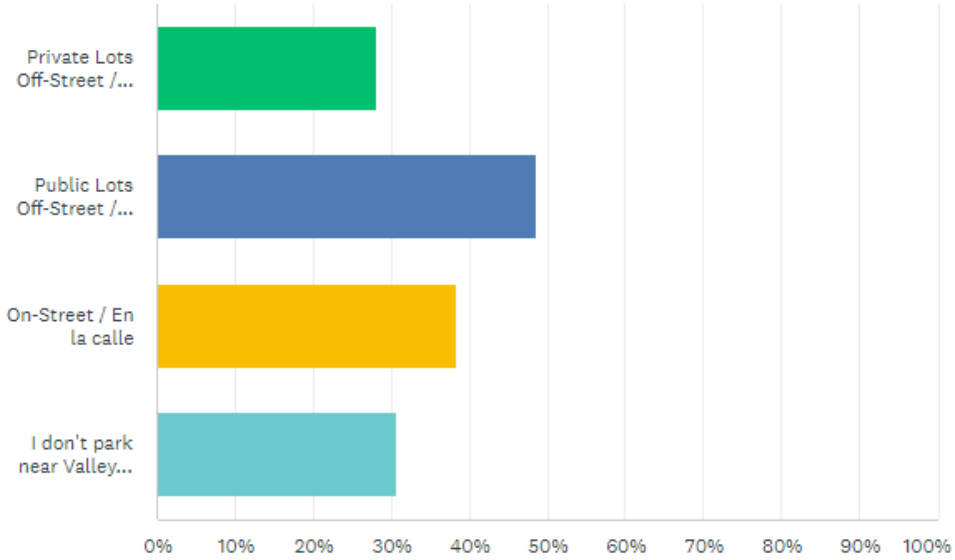
Option 3: Raised Median with Refuge Islands



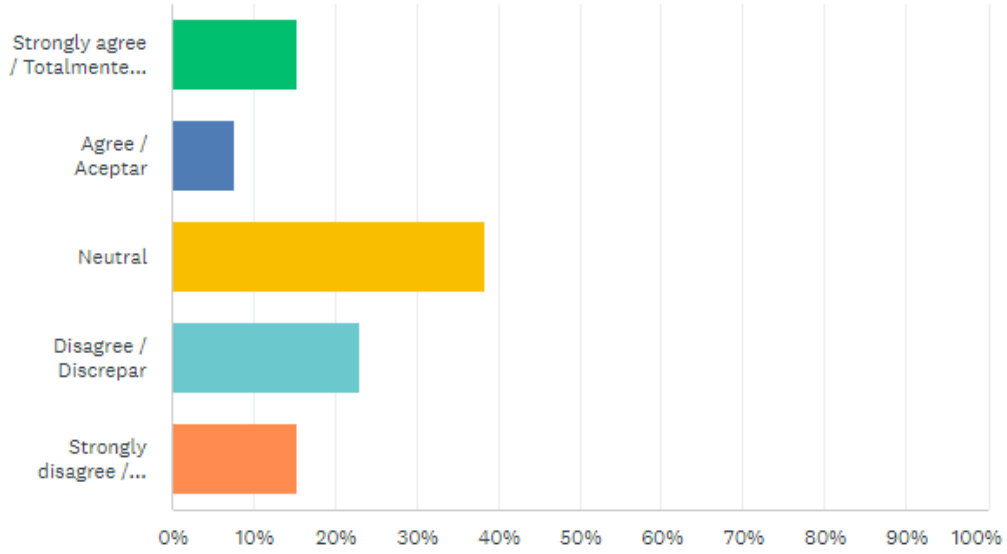
On Valley Blvd, are you open to the idea of adding more raised medians, which limit vehicular access but improve crossing for pedestrians and limit vehicular conflicts?



When you travel to Valley Blvd, where do you park? (select all that apply)



On-street parking is necessary on Valley Blvd.

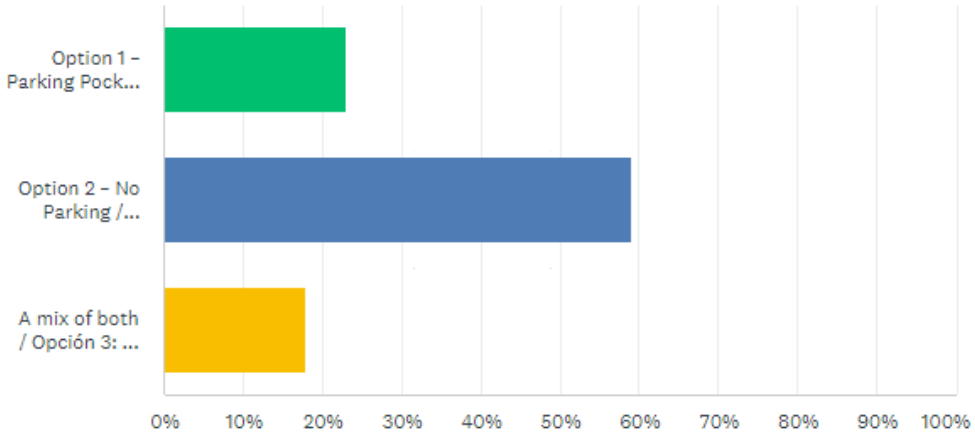


Which parking option do you prefer on Valley Blvd?

Option 1 – Parking pockets: stretches of some parts of the street that will have parking included. This option will lead to some interactions between cars parking and bike lane users.

Option 2 – No parking: eliminate parking on Valley Blvd and maintain separated bike lanes that don't interact with parked cars.

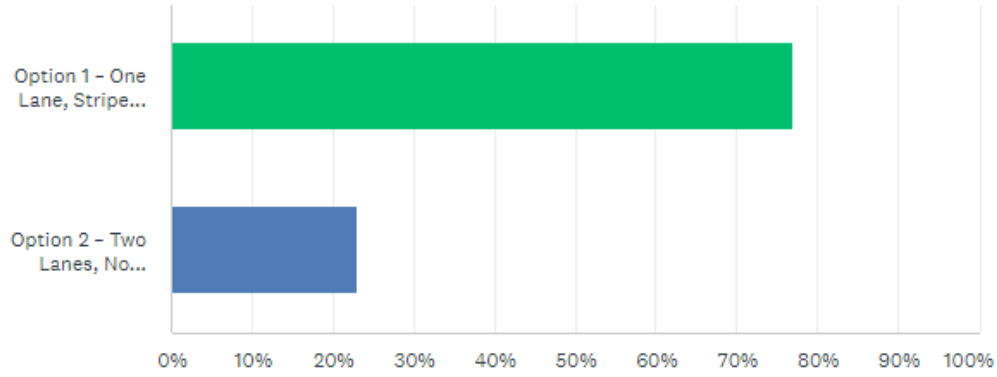
Option 3 – A mix of both: some sections of Valley Blvd will have some parking pockets but other stretches will not have on-street parking at all.



For the section of Valley Blvd between Santa Anita Ave and Ramona Blvd, which option do you prefer?

Option 1 – One lane in either direction on Valley Blvd between Santa Anita Ave and Ramona Blvd. Lane reduction would end prior to approach to intersections of Valley and Santa Anita and Valley and Ramona. This option would preserve a striped buffer between the bike lane and travel lane.

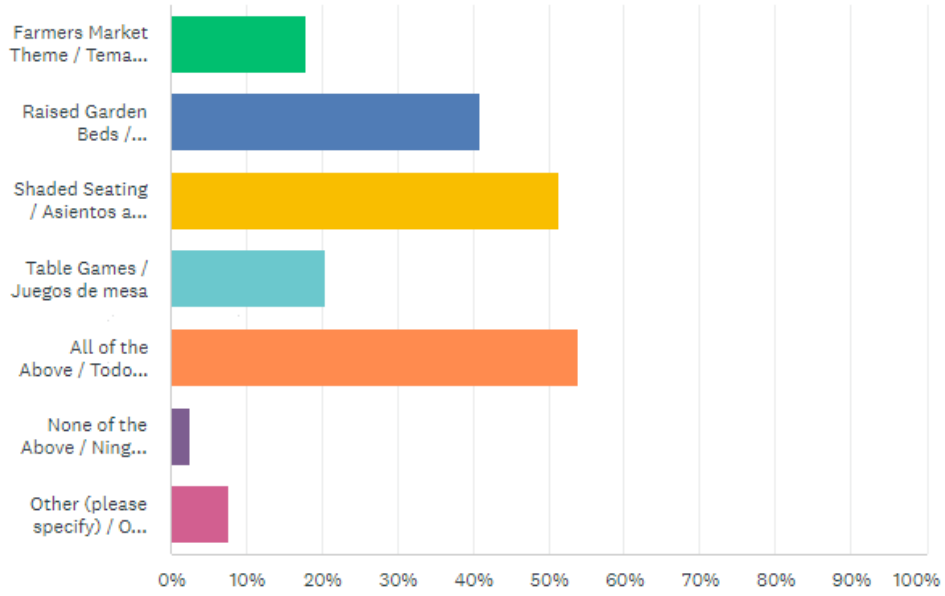
Option 2 – Maintains two lanes in either direction but bike lane would not have a buffer between it and the travel lane.



Why did you select the option you chose?

- Option 1 would be better for the safety of pedestrians and cyclists, but there's a lot of vehicles on Valley, and I think keeping two lanes in either direction would be better to reduce traffic.
- I'd rather bikers be safe and people encouraged to bike and deal with a little traffic than have cars zooming by an unbuffered bike lane.
- I think preserving and protecting human life on bikes and pedestrians is more important than adding a lane or increasing the flow of traffic
- Complete streets are safer for everyone
- I feel much safer when I bike on streets with a buffer between the bike lane and cars.
- It will provide more safety for people on bikes and walking
- Safer for pedestrians and cyclists.
- increased safety for bikers and pedestrians is needed with high speeds on Valley.
- Too many cars on Valley Blvd to change from 2 lanes to 1 lane. Traffic will be backed up.
- Is the best option for bikers.
- Studies have shown that taking away car lanes does not negatively affect traffic - induced demand means traffic levels and travel times will more or less stay the same in response to removing car lanes. Meanwhile, the buffer does have a significant positive effect on safety for bike lane users and pedestrians. Ideally the buffet would contain physical barriers rather than just paint on the road.
- The options that I chose maintain the flow of traffic making for a safer travel experience.
- Win win for both foot and motor traffic.
- I advocate for the safety of bike riders in El Monte, being a bike rider myself.
- I want to be able to bike in El Monte safely.

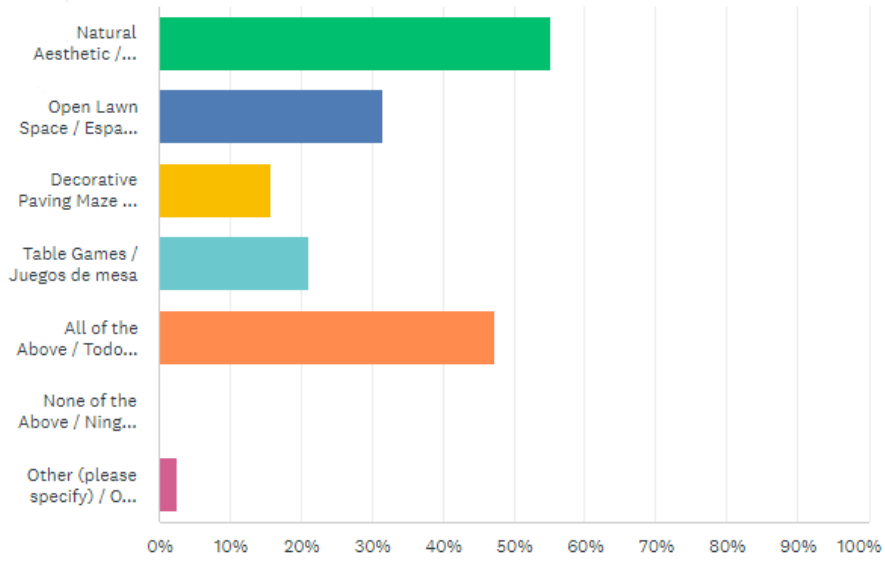
What is something you like about Mini Park Option 1?



Other:

- It needs proper lighting if it will be a park
- Trees for shade
- Trees remaining

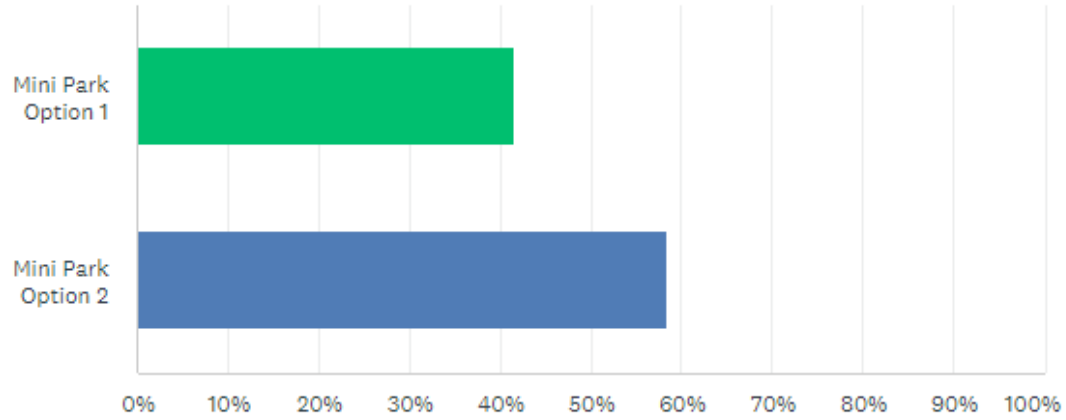
What is something you like about Mini Park Option 2?



Other

- I love the idea of trees surrounding the open space.

Which option do you prefer for the Mini Park? (To view details, please view larger images above)



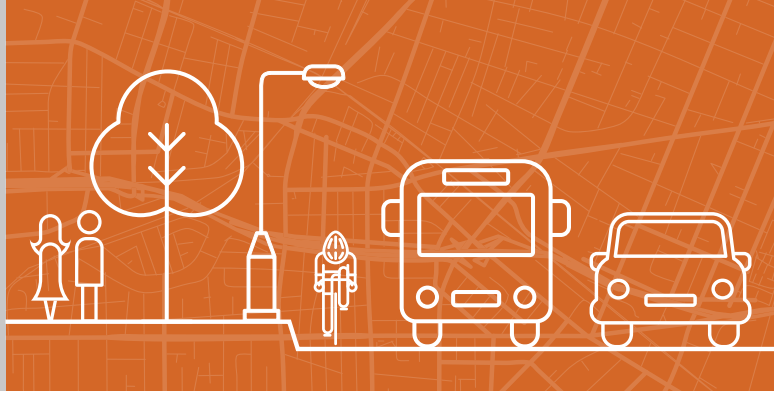
6. APPENDICES

- Appendix A. Fact Sheets
- Appendix B. Business Card
- Appendix C. CAC #1
- Appendix D. CAC #2
- Appendix E. CAC #3
- Appendix F. Public Meeting #1
- Appendix G. Public Meeting #2
- Appendix H. Pop-Ups Round #1
- Appendix I. Public Meeting #3
- Appendix J. Pop-Ups Round #2
- Appendix K. Business Workshop

APPENDIX A
Fact Sheet

VALLEY BLVD

COMPLETE STREETS



OVERVIEW

The City of El Monte is conducting the Valley Boulevard Complete Street Feasibility Study (Study) to enhance connectivity, accessibility, and safety for all users in the community.

The Study will identify key improvements that will allow all users to travel safely, connecting the community to local and regional transit services, businesses, parks, and other community destinations.

Valley Boulevard is a four-lane major arterial road, serving as one of the City's primary gateways, stretching approximately 3.3 miles from the southeasterly city limits at the San Gabriel River to the northwesterly city limits near Eaton Wash.

Valley Boulevard currently serves as a critical link in the local and regional transit network with crucial stops for the City's five trolley routes, LA Metro, Foothill Transit, and Norwalk Transit, as well as access to the El Monte Trolley Station, El Monte Train Station (Metrolink) and the El Monte Bus Station. The Study will enhance Valley Boulevard by providing the community with short-distance non-motorized options and allowing them to connect with regional transit links.

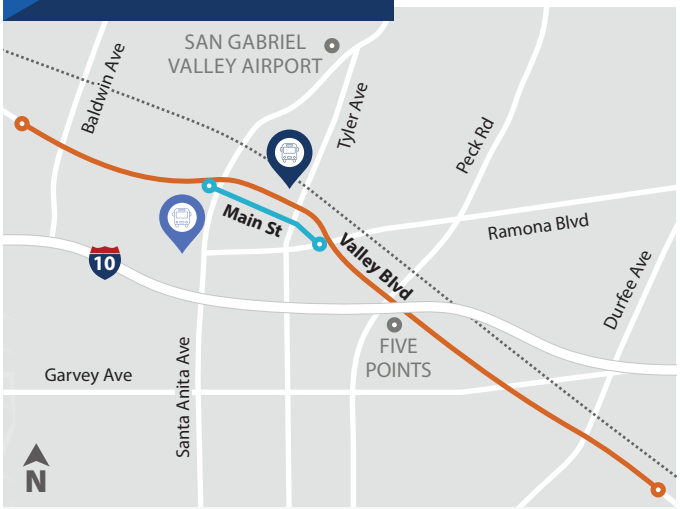
KEY COMPONENTS

- Enhance multi-modal accommodations
- Improve safety for all users
- Americans with Disabilities Act (ADA) enhancements
- Incorporate low-impact development
- Improve streetscape beautification and landscaping

GOALS

- Identify feasible and viable concepts that embrace the community's character and provide long-term access solutions for all users.
- Develop and identify four alternatives for Valley Boulevard.
- Alternatives will illustrate potential opportunities and benefits for each mode of travel while identifying potential impacts to right-of-way and utilities.

PROJECT AREA



STAY CONNECTED

Connect with us using any of the methods below:

completestreets@elmonteca.gov

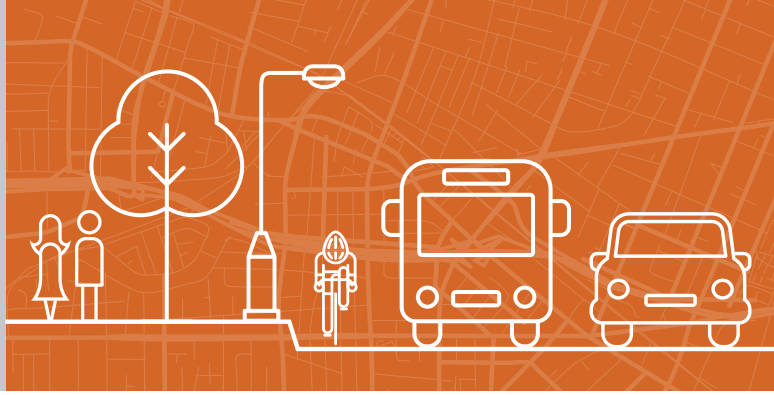
EMCompleteStreets.com

facebook.com/CityofElMonte

@MyElMonte

VALLEY BLVD

CALLES COMPLETAS



DESCRIPCIÓN GENERAL

La ciudad de El Monte está llevando a cabo el Estudio de Factibilidad de Calle Completa de Valley Boulevard (el "Estudio") para mejorar la conectividad, accesibilidad y seguridad para todos los usuarios de la comunidad.

El Estudio identifica aspectos claves que permitirán a todos los usuarios viajar de manera segura, conectando a la comunidad con los servicios de transporte público locales y regionales, negocios, parques y otros destinos dentro de la comunidad.

Valley Boulevard es una arteria principal de cuatro carriles, que sirve como una de las principales puertas de entrada de la ciudad y que se extiende aproximadamente 3.3 millas desde los límites de la ciudad hacia el sureste en el río San Gabriel hasta los límites de la ciudad hacia el noroeste cerca de Eaton Wash.

Valley Boulevard sirve actualmente como un enlace crítico en la red de transporte público local y regional con paradas cruciales para las cinco rutas de trolley de la ciudad, LA Metro, Foothill Transit y Norwalk Transit, así como de acceso a la estación de trolley de El Monte, la estación de tren de El Monte (Metrolink) y la estación de autobuses de El Monte. El Estudio mejorará el funcionamiento de Valley Boulevard ofreciendo opciones no motorizadas de corta distancia a la comunidad y permitiéndole conectarse con los puntos de enlace de transporte público.

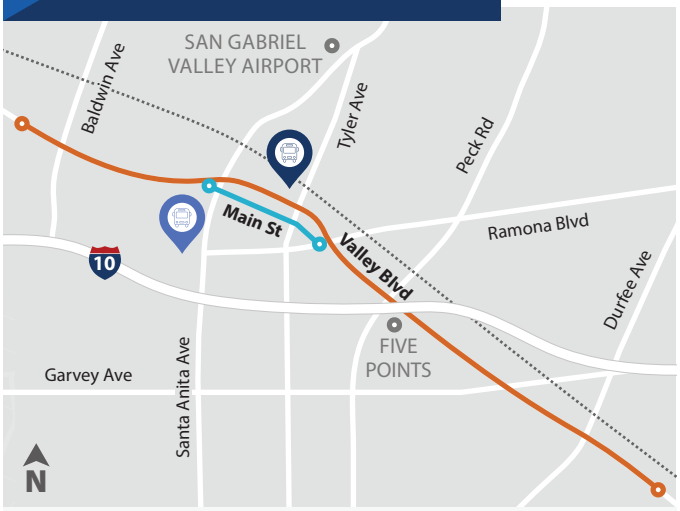
PRINCIPALES ASPECTOS

- Mejorar las opciones de transporte multimodal
- Mejorar la seguridad de todos los usuarios
- Mejorar la seguridad de todos los usuarios
- Incorporar un desarrollo de bajo impacto
- Mejorar el embellecimiento de las calles y el paisajismo

OBJETIVOS

- Identificar conceptos factibles y viables que respeten el carácter de la comunidad y ofrezcan soluciones de acceso a largo plazo para todos los usuarios.
- Desarrollar e identificar cuatro alternativas para Valley Boulevard.
- Las alternativas mostrarán las oportunidades y beneficios potenciales para cada modalidad de transporte, al tiempo que identificarán los posibles impactos sobre el derecho de paso y los servicios públicos.

ÁREA DEL PROYECTO



MANTÉNGASE CONECTADO

Comuníquese con nosotros por cualquiera de estas vías:

@ completestreets@elmonteca.gov

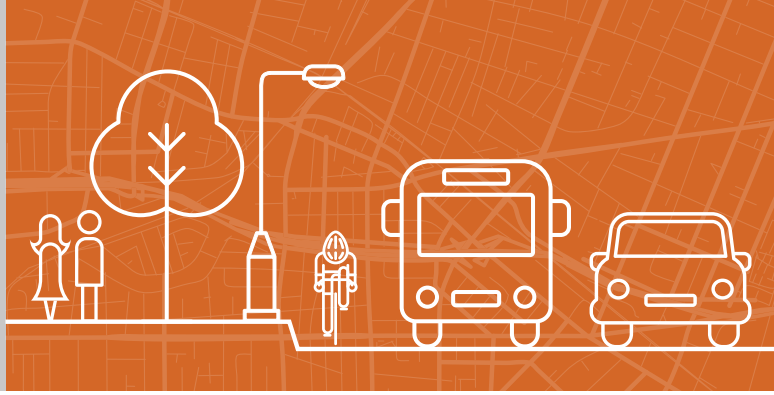
EMCompleteStreets.com

facebook.com/CityofElMonte

@MyElMonte

VALLEY BLVD

山谷大道完整街道



概述

艾尔蒙特市正在进行山谷大道（Valley Boulevard）完整街道可行性研究（研究），以增强社区所有用户的连通性、可达性和安全性。

这项研究将确定可让所有用户安全出行的关键改进措施，将社区与当地和区域交通服务、企业、公园和其他社区目的地连接起来。

山谷大道是一条四车道的主干道，是该市的主要交通要道之一，从圣盖博河的东南城市边界延伸至伊顿瓦西（Eaton Wash）附近的西北城市边界约 3.3 英里。

山谷大道目前是当地和区域交通网络的关键连接点，在该市的 5 条电车路线、LA Metro、Foothill Transit 和 Norwalk Transit 的重要站点都有重要站点，以及通往 El Monte 电车站、

艾尔蒙特火车站 (Metrolink) 和艾尔蒙特巴士站。这项研究将通过为社区提供短途非机动车选择并允许他们与区域中转链接。

关键组成部分

- 加强多式联运设施
- 提高所有用户的安全性
- 改进实施（美国残疾人法案）(ADA)
- 纳入低影响开发项目
- 改善街景美化和景观美化

目标

- 确定具有社区特征并为所有用户提供长期通行解决方案的可行概念。
- 为山谷大道开发并确定四个备选方案。
- 备选方案将说明每种出行方式的潜在机会和好处，同时确定对通行权和公用事业的潜在影响。

项目区域



保持联系

使用以下任何方法与我们联系：

completestreets@elmonteca.gov

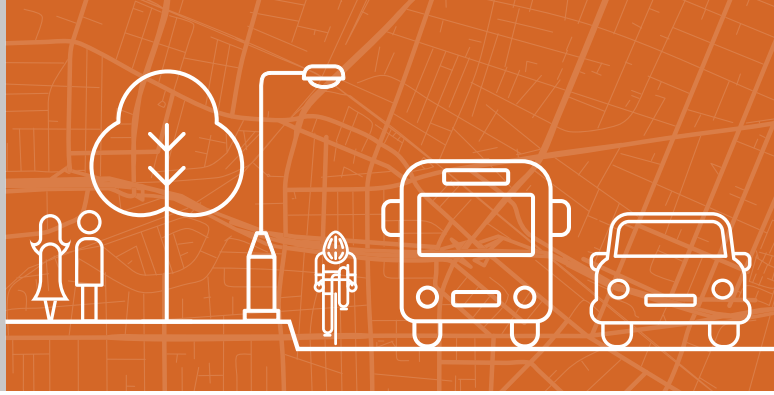
EMCompleteStreets.com

facebook.com/CityofElMonte

@MyElMonte

VALLEY BLVD

TOÀN BỘ ĐƯỜNG PHỐ



TỔNG QUAN

Thành phố El Monte đang tiến hành một Cuộc Nghiên cứu về Tính Khả thi (gọi là Cuộc Nghiên cứu) của Toàn bộ Đại lộ Valley để tăng cường khả năng kết nối, khả năng tiếp cận và sự an toàn cho tất cả những người sử dụng trong cộng đồng.

Cuộc Nghiên cứu sẽ nhận định những cải tiến chính yếu mà sẽ cho phép tất cả những người sử dụng đi lại an toàn, kết nối cộng đồng với các dịch vụ vận chuyển địa phương và khu vực, doanh nghiệp, công viên và các điểm đến khác của cộng đồng khác.

Đại lộ Valley là một con đường huyết mạch chính có bốn làn xe, đóng vai trò là một trong những cửa ngõ chính của Thành phố, trải dài khoảng 3,3 dặm từ ranh giới phía đông nam thành phố tại Sông San Gabriel đến ranh giới phía tây bắc thành phố gần Eaton Wash.

Đại lộ Valley hiện đóng vai trò là một liên kết tối quan trọng trong mạng lưới giao thông vận chuyển công cộng địa phương và khu vực với các điểm dừng quan trọng cho năm tuyến xe điện của Thành phố, LA Metro, Foothill Transit và Norwalk Transit, cũng như lối vào Trạm Xe điện El Monte, Ga Xe lửa El Monte (Metrolink) và Bến Xe buýt El Monte. Cuộc Nghiên cứu sẽ cải thiện Đại lộ Valley bằng cách cung cấp cho cộng đồng các tùy chọn phi động cơ ở khoảng cách ngắn và cho phép họ kết nối với liên kết với hệ thống giao thông vận chuyển khu vực.

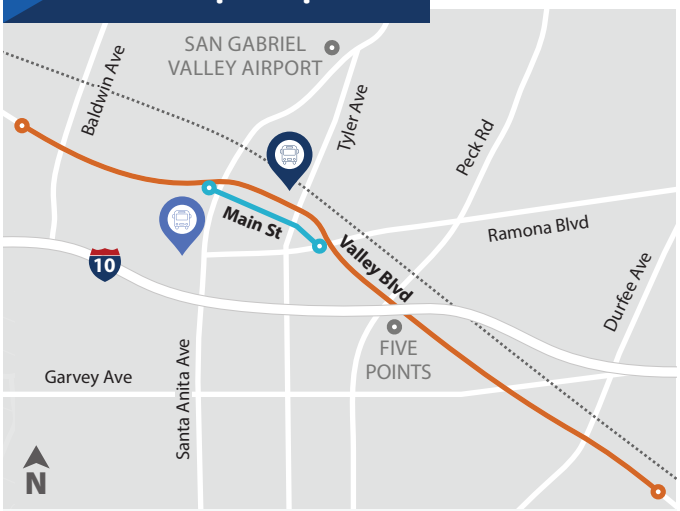
CÁC THÀNH PHẦN CHÍNH

- **Tăng cường các tiện dụng đa phương thức**
- **Nâng cao tính an toàn cho tất cả những người sử dụng**
- **Các cải tiến do Đạo luật Người Mỹ Khuyết tật (ADA) quy định**
- **Kết hợp việc phát triển có tác động thấp**
- **Cải thiện mỹ quan và cảnh quan đường phố**

CÁC MỤC TIÊU

- Nhận định các khái niệm khả thi và có thể thực hiện được bao trùm đặc tính của cộng đồng và cung cấp các giải pháp tiếp cận lâu dài cho tất cả các người sử dụng.
- Phát triển và nhận định bốn giải pháp thay thế cho Valley Boulevard.
- Các giải pháp thay thế sẽ minh họa các cơ hội và lợi ích tiềm năng cho từng phương thức di chuyển đồng thời xác định các tác động tiềm ẩn đối với quyền ưu tiên và các tiện ích.

KHU VỰC DỰ ÁN



GIỮ LIÊN LẠC

Kết nối với chúng tôi bằng bất kỳ phương pháp nào dưới đây:

completestreets@elmonteca.gov

EMCompleteStreets.com

facebook.com/CityofElMonte

@MyElMonte

APPENDIX B
Business Card

CITY OF EL MONTE
END OF THE SANTA FE TRAIL
INC. 1912
CALIFORNIA

VALLEY BLVD

MAIN STREET

COMPLETE STREETS



STAY CONNECTED

completestreets@elmonteca.gov

EMCompleteStreets.com

facebook.com/CityofElMonte

@MyElMonte

APPENDIX C

Community Advisory Committee Meeting #1
Summary with Appendices



Valley Boulevard and Main Street Complete Streets Feasibility Study

Community Advisory Committee Meeting #1
Summary Report

1. Meeting Overview

As part of the planning efforts for the City of El Monte's Valley Boulevard and Main Street Complete Streets Feasibility Study, a virtual Community Advisory Committee (CAC) meeting was held to discuss the public's perception of the two corridors and to help identify key improvement needs that will allow for safe travel along and across Valley Boulevard and Main Street for all users.

Two CAC meetings were held:

- **CAC #1- Valley Boulevard**
  Date: Thursday, May 11,
  Time: 1:30 – 2:30 p.m.

- **CAC #2- Main Street**
  Date: Thursday, May 11
  Time: 3:00 – 4:00 p.m.

During the meetings, the project team introduced participants to the Study and its objectives. Participants provided their input on their perception of the current conditions of the corridors, share their main concerns, and identify what complete streets components they would like to see implemented. Additionally, live Spanish interpretation was made available throughout the meeting for participants. Both meetings were recorded and made available in English and Spanish to all stakeholders invited to the CAC meetings.

2. Meeting Agenda

The following agenda items were discussed during both CAC meetings:

- Project Team Introductions
- Goals and Objectives of this Project
- Overview of Existing Conditions
- Listening Session – Breakout Rooms
- Alternatives Overview
- Q&A Segment
- Future Engagement Opportunities

To view the presentations shared during each meeting, see *Appendix A*.

3. Meeting Notification

Stakeholders part of the CAC Candidate List were invited via e-blast to the CAC meetings. Additionally, calls were made to stakeholders who had not RSVP'd to confirm their interest in attending. To view the CAC Candidate List, see *Appendix B.*

Table 1. E-Blast Notification Schedule

E-blast to CAC Candidate List	Date Sent
Initial	April 23, 2023
Reminder #1	May 3, 2023
Reminder #2	May 10, 2023
Thank you, with links to meeting recordings and presentation materials	May 15, 2023

To view the e-blasts, please reference *Appendix B*.

4. Attendee Reports

Members of the following organizations, groups and agencies were invited to be part of the CAC meetings:

- Active SGV
- Caltrans
- El Monte Business Association (DEMBA)
- El Monte Police Department Traffic Safety Bureau
- El Monte/South El Monte Chamber of Commerce
- Metrolink
- Metro
- Residents

Table 2. CAC #1 Valley Boulevard Meeting Attendees

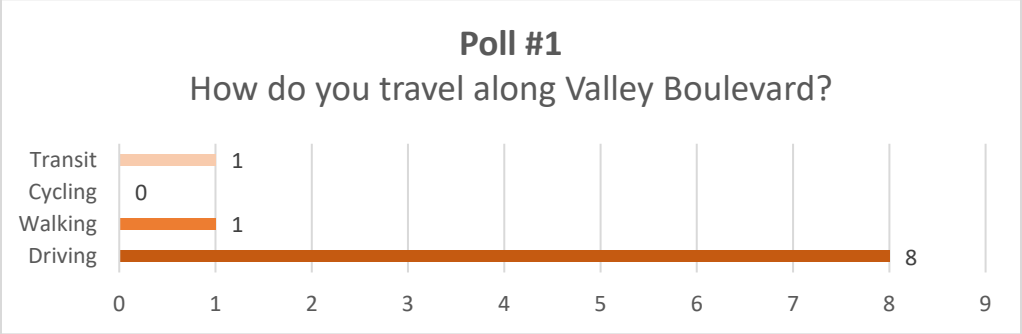
No.	Name	Organization
1	Edward Duong	Active SGV
2	Blanca Medina	DEMBA
3	Jimmie Pitts	El Monte Police Department Traffic Safety Bureau
4	Tito Corona	Metro
5	Jeanette Flores	Metrolink
6	Daniel Arellano	Resident
7	Catherine Eredia	Resident
8	Charles Hoffman	Resident
9	Cosme Jimenez	Resident
10	Richard Thomas	Resident

Table 3. CAC #1 Main Street Meeting Attendees

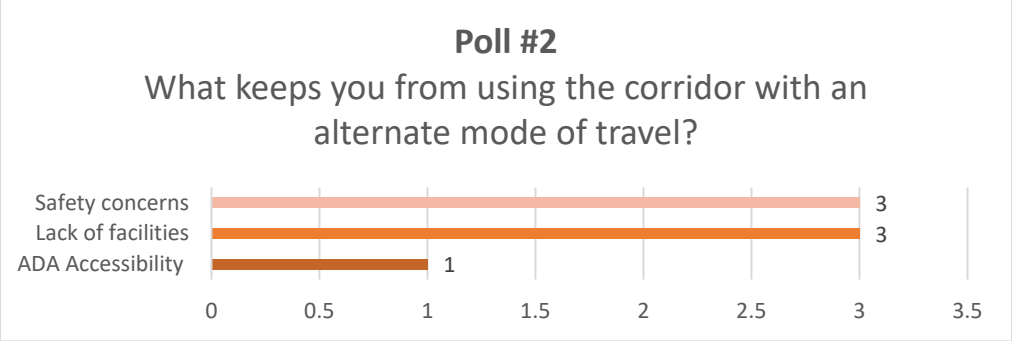
No.	Name	Organization
1	Edward Duong	Active SGV
2	Blanca Medina	DEMBA
3	Jimmie Pitts	El Monte Police Department Traffic Safety Bureau
4	Daniel Arellano	Resident
5	Catherine Eredia	Resident
6	Charles Hoffman	Resident
7	Richard Thomas	Resident
8	Cosme Jimenez	Resident

5. Meeting Poll Results

During the meeting, a series of polls were launched to understand participant's travel patterns and use of the corridor.

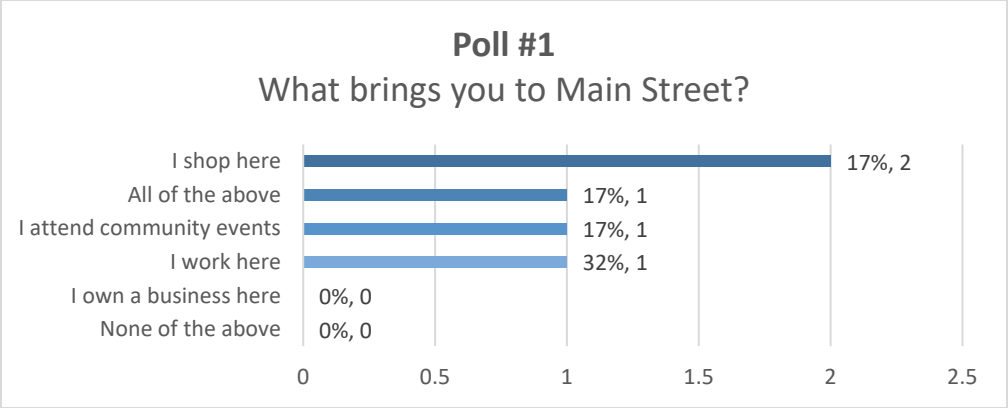


The results show that driving is the dominant mode of transportation along Valley Boulevard, while walking and transit are comparatively less popular.



The results indicate that safety concerns and a lack of facilities were chosen as the primary reason that keeps people from using Valley Boulevard.

Additionally, one participant shared in the meeting chat that physical constraints keep them from accessing the corridor except for in their car.



The results reveal individuals visiting Main Street go to shop, while the additional reasons to visit include attending community events or engaging in work-related activities.

6. Participant Input

Participants were able to provide input and ask questions during the breakout rooms and Q&A segment of the meeting. Below are key points discussed during both meetings.

See *Appendix C* for a comprehensive report of the discussion and participant input.

Table 4. CAC #1 Valley Boulevard Key Themes

Topic	Key Themes
Traffic	• Valley Boulevard is considered a significant alternative route to the I-10 freeway based on common feedback. • Traffic on Valley Boulevard can be significant, particularly during accidents, leading to congestion and high speeds.
Pedestrian/Cyclist	• Pedestrian safety is a major concern, including uncontrolled crossings and pedestrians crossing wherever they please. • The separated travel way enhances safety and reduces the risk of accidents, making it more appealing to cyclists. • More information is needed to determine if the bike pathways are being utilized to their full potential. • The buffered bike lane can improve the overall traffic flow and increase the corridor's efficiency. • The bike pathways have been around for a few years, but how many people use them is unclear. • Providing a dedicated bike lane with a buffer can reduce conflicts with pedestrians and motor vehicles. • Recommendation to conduct a study to determine how many bikes use the pathways. Without data on usage, it's difficult to determine whether the pathways are effective. • The buffer can increase the comfort level of bike riders and encourage more people to choose active transportation. • Creating a buffer on the bike lane can offer a sense of security and separation, particularly for families with young children.

Topic	Key Themes
	• Addressing driveways and intersections is also necessary to improve the overall safety and experience of the corridor. • The impact of trees on pedestrian walkways must be considered when making enhancements. • There is a specific concern regarding crossings near schools. • Improving transit accommodations will complement pedestrian enhancements and ensure safe access to transit.
Safety	• The heavy flow of vehicles and higher speeds have raised concerns about pedestrian safety. • Safe access to transit stops is essential to ensure people can use them comfortably and securely. • Visibility and safety concerns were highlighted at intersections due to buildings being set back so close.
Parking	• Concerns were raised about parking in the corridor, particularly with the introduction of high-density housing. • Most parking lots on the streets are far from businesses.
General	• Trees should not block businesses and signs for visibility. • A previous Valley Blvd study conducted 20 years ago by Metro did not appear to lead to significant improvements. • Improvements such as adding shade and bike facilities would enhance the corridor's comfort and appeal. • Improvement initiatives should focus on connecting people to places and ensure meaningful enhancements.

Table 5. CAC #1 Main Street Key Themes

Meeting	Key Themes
Pedestrian/Cyclist	• The idea of creating a bicycle throughway was suggested, potentially utilizing a bike boulevard or other treatments to enhance the bicycling experience. • Some sidewalks need repair and should be a priority for improvement.
Safety	• During the discussion of public spaces, it was noted that improvements could be made to the lighting along the corridor to increase security, particularly around parking lots. • Backing up is one of the most unsafe driving movements.
Parking	• This parking style improves visibility but experiences with it vary. • Reverse angle parking can be difficult to see, especially for drivers behind the parked car. • Offsite parking could be better utilized as an alternative to on-street parking.

Meeting	Key Themes
	• Parking is heavily utilized in the corridor, potentially by business owners, leaving fewer spaces for shoppers.
General	• Main Street has a rich history and connection to the city, featuring iconic moments and historic buildings valued by the community. • Overall, there is a desire to enhance the public spaces in the area by improving lighting, sidewalks and adding more greenery to the corridor. • Integrating more green space was suggested, and the playground was mentioned as a well-utilized space that children enjoy. • Some trees along the corridor have aged and need to be replaced, while new ones could also be added to the area.

7. Appendices

The appendices below are available for review at the end of the report.

- Appendix A. Presentations
- Appendix B. CAC Candidate List
- Appendix C. E-Blast Notifications
- Appendix D. Q&A Logs

APPENDIX A

Presentations

Interpretation / Interpretación



This meeting is transmitted in both English and Spanish. Everyone must choose a language.

Click the **Interpretation** icon in your meeting controls to enter an *English or Spanish* room.

To hear the interpreted language only, click **Mute Original Audio** (Optional).

Esta reunión se transmite tanto en inglés como en español. Todos deben elegir un idioma.

*Haga clic en el icono de **Interpretación** en los controles de su reunión para ingresar a una sala en inglés o español.*

*Para escuchar solo el idioma interpretado, haga clic en **Mute Original Audio** o **Silenciar Audio Original** (Opcional).*

1

VALLEY BLVD

COMPLETE STREETS

Community Advisory Committee Meeting #1

Thursday, May 11, 2023

2

VALLEY BLVD COMPLETE STREETS

Introductions



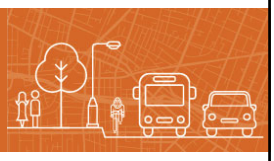
Michael Baker INTERNATIONAL

arellano associates

3

VALLEY BLVD COMPLETE STREETS

Study Overview



4

Overview

The City of El Monte is conducting the Valley Boulevard Complete Street Feasibility Study (Study) to enhance connectivity, accessibility, and safety for all users in the community.

The Study will identify key improvements that will allow all users to travel safely, connecting the community to local and regional transit services, residences, businesses, parks, and other community destinations.



5

Valley Boulevard

- Approximately 3.3 miles
- Major arterial serving as one of the City's primary gateways
- Serves as a critical link in the regional transit network





6

Study Objectives

Enhance multi-modal accommodations

Improve safety for all users

Americans with Disabilities (ADA) enhancements

Incorporate low-impact development

Improve streetscape beautification and landscaping

7

What are Complete Streets?

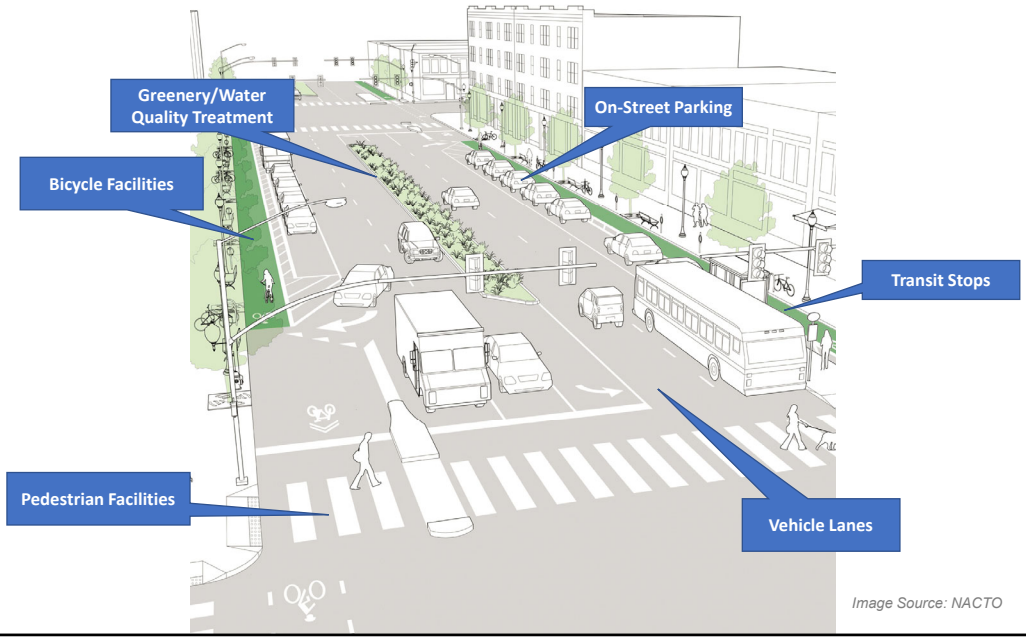


Image Source: NACTO

8

Poll #1



How do you travel along Valley Blvd?

a. Driving **b.** Walking **c.** Cycling **d.** Transit

Poll #2



What keeps you from using the corridor with an alternate mode of travel?

a. Lack of facilities **b.** Safety Concerns
c. Inconvenient **d.** Other (*please state in chat*)

VALLEY BLVD COMPLETE STREETS

Open Discussion



Open Discussion Questions



1. What is your current perception of Valley Boulevard?

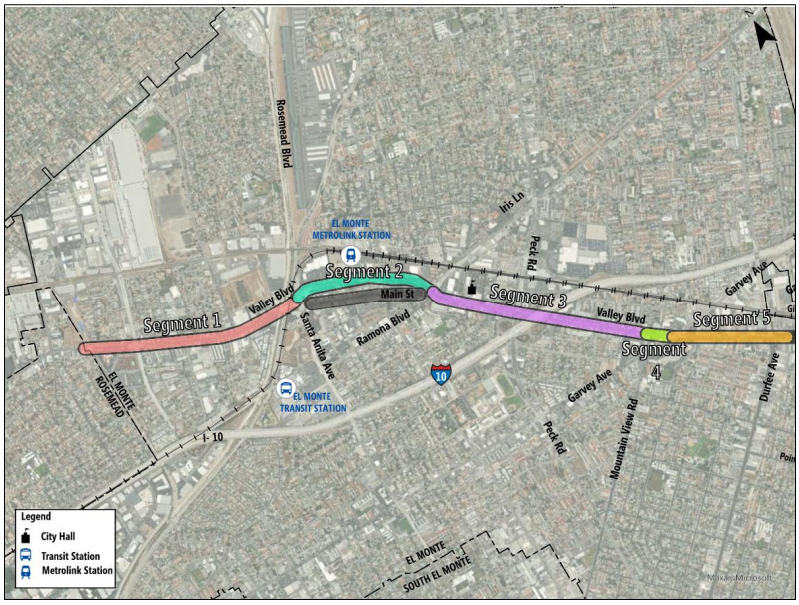
2. What concerns do you currently have about Valley Boulevard?

3. What complete street components would you like to see on Valley Boulevard?

VALLEY BLVD COMPLETE STREETS

Existing Conditions

Valley Boulevard Segment Overview



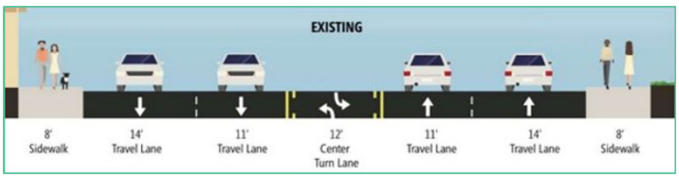
Segment 1: W. City Limits to Santa Anita Ave
Segment 2: Santa Anita Ave to Ramona Blvd
Segment 3: Ramona Blvd to Mountain View Rd
Segment 4: Mountain View Rd to Garvey Ave
Segment 5: Garvey Ave to E. City Limits

Existing Conditions

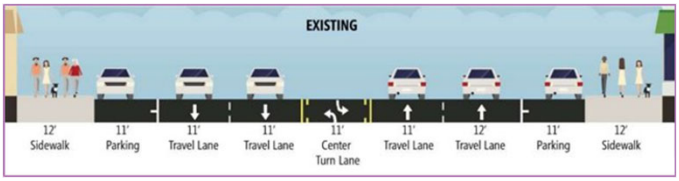
100' Width



78' Width



102' Width



15

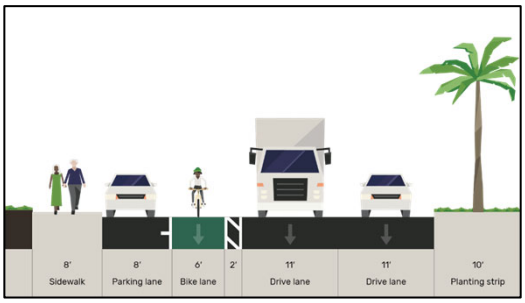
VALLEY BLVD COMPLETE STREETS

Complete Streets Elements

16

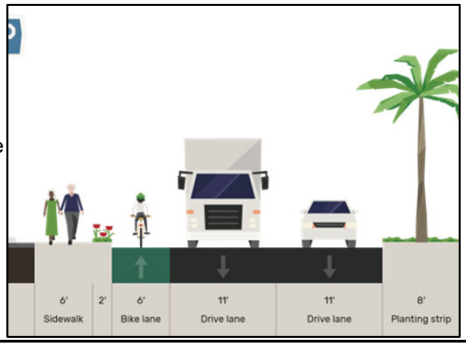
Complete Streets Elements

Parking Adjacent Bike Lane





Striped Bike Lane Without Buffer

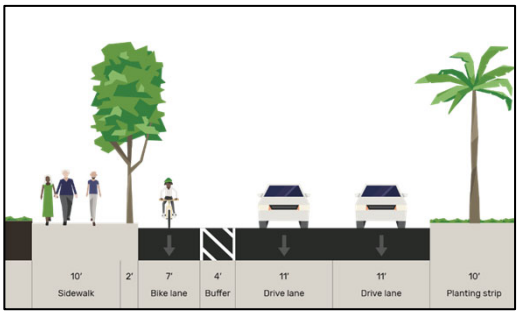


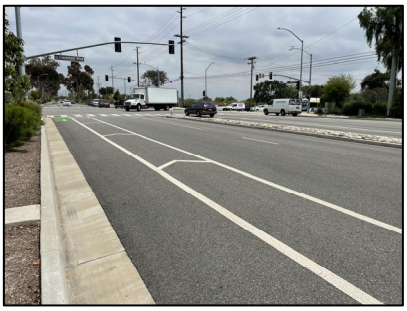


17

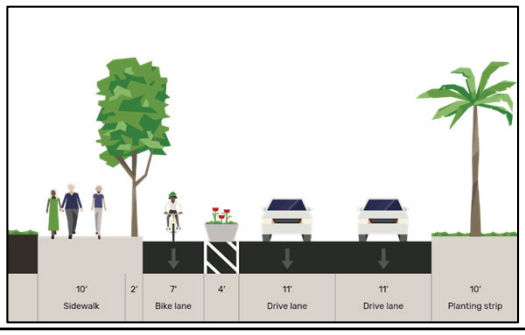
Complete Streets Elements

Bike Lane with Striped Buffer





Bike Lane with Physical Buffer





18

VALLEY BLVD COMPLETE STREETS

Questions & Answers



Future Engagement Opportunities



Upcoming Events and Meetings

Main Street Farmer's Market

Date: Thursday, June 15
Time: 5:00-9:00 p.m.

Public Meeting #1

Date: Tuesday, June 27
Time: 6:00-7:00 p.m.
Location: In-Person

Public Meeting #2

Date: Wednesday, July 12
Time: 6:00-7:00 p.m.
Location: Virtual via Zoom

CAC Meeting #2

Valley Boulevard
Date: Thursday, July 20
Time: 1:30-2:30 p.m.
Location: Virtual via Zoom

Main Street
Date: Thursday, July 20
Time: 3:00-4:00 p.m.
Location: Virtual via Zoom

Poll #3

Does the proposed date and time for the next CAC work for you?

Valley Boulevard
Date: Thursday, July 20
Time: 1:30-2:30 p.m.
Location: Virtual via Zoom

a. Yes **b.** No (*Please state preferred day and time in the chat*)

Stay Connected

Thank you for joining us today!

Steven Wright
City Project Manager

Lee Torres
City Engineer

completestreets@elmonteca.gov
CityofElMonte
myelmonte
MyElMonte





Interpretation / Interpretación



This meeting is transmitted in both English and Spanish. Everyone must choose a language.

Click the **Interpretation** icon in your meeting controls to enter an *English or Spanish* room.

To hear the interpreted language only, click **Mute Original Audio** (Optional).

Esta reunión se transmite tanto en inglés como en español. Todos deben elegir un idioma.

*Haga clic en el icono de **Interpretación** en los controles de su reunión para ingresar a una sala en inglés o español.*

*Para escuchar solo el idioma interpretado, haga clic en **Mute Original Audio** o **Silenciar Audio Original** (Opcional).*

1

MAIN STREET

COMPLETE STREETS

Community Advisory Committee Meeting #1

Thursday, May 11, 2023

2

MAIN STREET COMPLETE STREETS

Introductions



Michael Baker INTERNATIONAL

arellano associates

3

MAIN STREET COMPLETE STREETS

Study Overview



4

Overview

The City of El Monte is conducting the Main Street Complete Street Feasibility Study (Study) to enhance connectivity, accessibility, and safety for all users in the community.

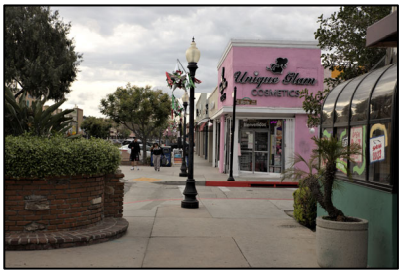
The Study will identify key improvements that will allow all users to travel safely, connecting the community to local and regional transit services, residences, businesses, parks, and other community destinations.



Main Street

- Approximately 0.5 miles
- Commercial district in the heart of El Monte's downtown area
- Popular destination for outdoor shopping and dining experiences





Study Objectives

Enhance multi-modal accommodations

Improve safety for all users

Americans with Disabilities (ADA) enhancements

Incorporate low-impact development

Improve streetscape beautification and landscaping

7

What are Complete Streets?

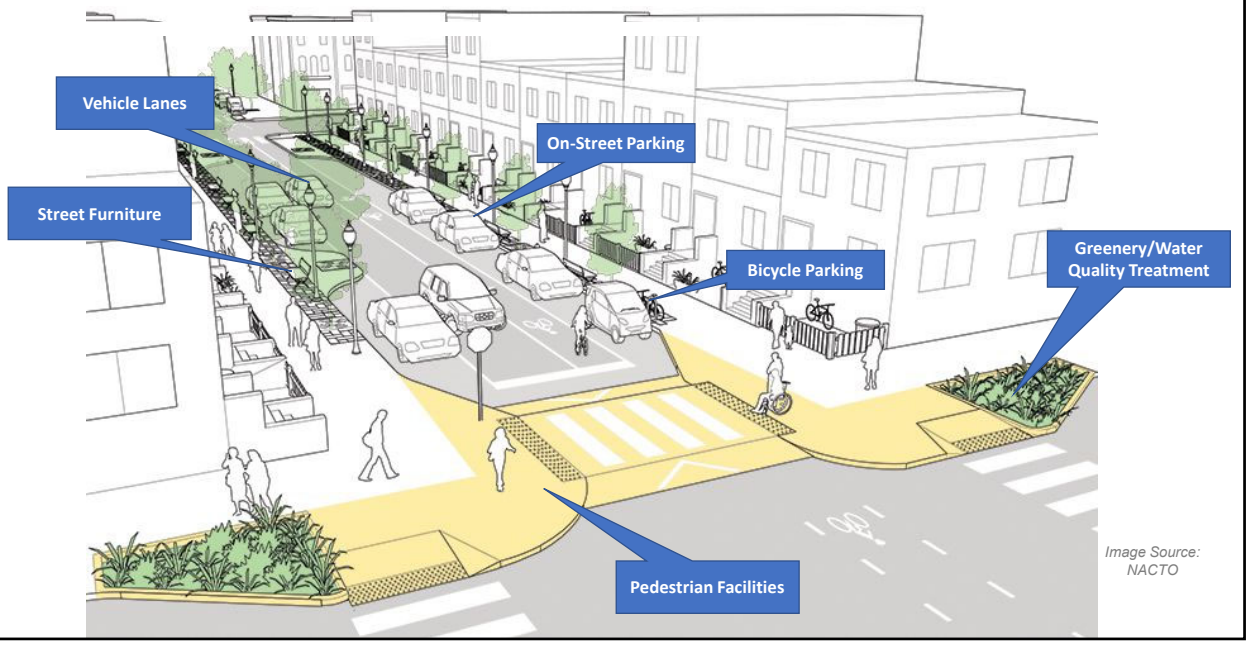


Image Source: NACTO

8

Poll #1



What brings you to Main Street?

a. I work here **b.** I shop here **c.** I attend community events

d. I own a business here **d.** All of the above **e.** None of the above

MAIN STREET COMPLETE STREETS

Open Discussion



Open Discussion Questions



1. What is your current perception of Main Street?
2. What concerns do you currently have about Main Street?
3. What complete street components would you like to see on Main Street?

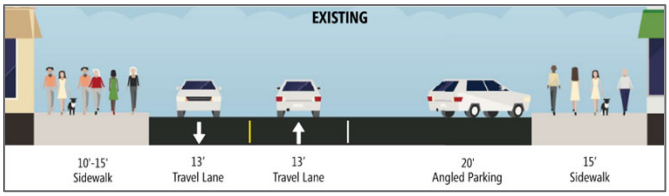
MAIN STREET COMPLETE STREETS

Existing Conditions



Existing Conditions

- Santa Anita Avenue to Ramona Boulevard
- 100' Right of Way





13

MAIN STREET
COMPLETE STREETS

Complete Streets Features

14

Complete Streets Features



Bicycle Striping



Bulbouts & High Visibility Crosswalks



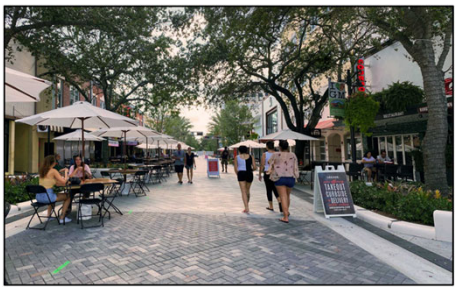
Reverse Angle Parking

15

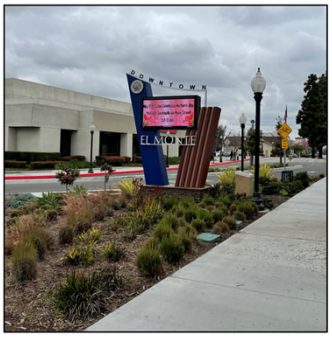
Complete Streets Features



Community Spaces



Pedestrian Paseo



Greenery

16

MAIN STREET COMPLETE STREETS

Questions & Answers



17

Future Engagement Opportunities



Upcoming Events and Meetings

Main Street Farmer's Market

Date: Thursday, June 15
Time: 5:00-9:00 p.m.

Public Meeting #1

Date: Tuesday, June 27
Time: 6:00-7:00 p.m.
Location: In-Person

Public Meeting #2

Date: Wednesday, July 12
Time: 6:00-7:00 p.m.
Location: Virtual via Zoom

CAC Meeting #2

Valley Boulevard
Date: Thursday, July 20
Time: 1:30-2:30 p.m.
Location: Virtual via Zoom

Main Street
Date: Thursday, July 20
Time: 3:00-4:00 p.m.
Location: Virtual via Zoom

18

Poll #2

Does the proposed date and time for the next CAC work for you?

Main Street
Date: Thursday, July 20
Time: 3:00-4:00 p.m.
Location: Virtual via Zoom

a. Yes **b.** No (*Please state preferred day and time in the chat*)

Stay Connected

Thank you for joining us today!

Steven Wright
City Project Manager

Lee Torres
City Engineer

completestreets@elmonteca.gov
CityofElMonte
myelmonte
MyElMonte





APPENDIX B

CAC Candidate List

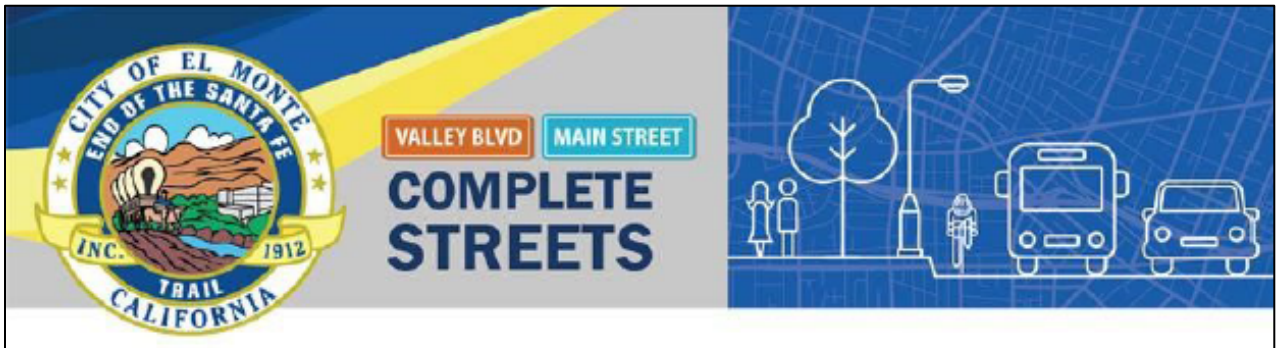
City of El Monte- Valley Boulevard & Main Street Complete Streets
CAC Candidates List

No.	Main Category	Sub Category	Organization	Salutation	First Name	Last Name
1	Agency	Transportation	Metrolink	Ms.	Sylvia	Novoa
2	Agency	Transportation	Metro	Ms.	Jennifer	Vides
3	Agency	Transportation	Caltrans	Mr.	Danny	Arellano
4	Agency	Transportation	Metro	Mr.	Tito	Corona
5	Agency	Transportation	Metrolink	Mr.	Alex	Davis
6	Agency	Transportation	Metrolink	Mr.	Jeff	Dunn
7	Businesses	Business Associations	Downtown El Monte Business Association			
8	Businesses	Chamber of Commerce	El Monte/South El Monte Chamber of Commerce	Mr.	Ken	Rausch
9	Businesses	Chamber of Commerce	El Monte/South El Monte Chamber of Commerce	Ms.	Denise	Klein
10	City	Management Team	City of El Monte	Ms.	Alma	Martinez
11	City	Management Team	City of El Monte	Mr.	Richard	Montanez
12	City	Transportation	El Monte Police Department Traffic Safety Bureau	Sergeant	Jimmie	Pitts
13	Community Organizations	Ped/Bicycle Advocacy Groups	Active SGV	Mr.	Edward	Duong
14	Community Organizations	Ped/Bicycle Advocacy Groups	Active SGV	Mr.	Jose	Jimenez
15	Resident	Resident	Resident	Mr.	Cosme	Jimenez
16	Resident	Resident	Resident	Ms.	Mary Ann	Powers
17	Resident	Resident	Resident	Mr.	Chuck	Hoffman
18	Resident	Resident	Resident	Ms.	Cathie	Eredia
19	Resident	Resident	Resident	Mr.	Richard	Thomas
20	Resident	Resident	Resident	Mr.	Andrew	Mora

APPENDIX C

E-Blast Notifications

Initial Invite



Be part of the El Monte Valley Boulevard and Main Street Complete Street Feasibility Study!

As part of ongoing planning efforts, the City of El Monte will be conducting the Valley Boulevard and Main Street Complete Street Feasibility Study that will identify key improvements that will allow for safe travel along and across Valley Boulevard and Main Street for all users, connecting the community safely to local and regional transit services, residences, businesses, parks, and other community destinations.

The study will focus on safety improvements for pedestrians, non-motorized and motorized vehicles; multi-modal opportunities; drainage improvements; street lighting improvements; American with Disabilities (ADA) enhancements and upgrades; low impact development; and street tree and landscape improvements.

Join us for our first virtual Community Advisory Committee meetings and let us know your thoughts!

Upcoming Meetings

Please select the meetings you would like to attend below:

Community Advisory Committee Meeting #1 – Valley Boulevard
Date: Thursday, May 11
Time: 1:30 – 2:30 p.m.
Location: Virtual meeting via Zoom

RSVP HERE

Community Advisory Committee Meeting #1 – Main Street
Date: Thursday, May 11
Time: 3:00 – 4:00 p.m.
Location: Virtual meeting via Zoom

RSVP HERE

Stay Connected

For more information, please contact Laura Hernandez at lhernandez@arellanoassociates.com or call 909-314-6913.

Reminder #1



Be part of the El Monte Valley Boulevard and Main Street Complete Street Feasibility Study!

As part of ongoing planning efforts, the City of El Monte will be conducting the Valley Boulevard and Main Street Complete Street Feasibility Study that will identify key improvements that will allow for safe travel along and across Valley Boulevard and Main Street for all users, connecting the community safely to local and regional transit services, residences, businesses, parks, and other community destinations.

The study will focus on safety improvements for pedestrians, non-motorized and motorized vehicles; multi-modal opportunities; drainage improvements; street lighting improvements; American with Disabilities (ADA) enhancements and upgrades; low impact development; and street tree and landscape improvements.

Join us for our first virtual Community Advisory Committee meetings and let us know your thoughts!

Upcoming Meetings

Please select the meetings you would like to attend below:

Community Advisory Committee Meeting #1 – Valley Boulevard
Date: Thursday, May 11
Time: 1:30 – 2:30 p.m.
Location: Virtual meeting via Zoom

RSVP HERE

Community Advisory Committee Meeting #1 – Main Street
Date: Thursday, May 11
Time: 3:00 – 4:00 p.m.
Location: Virtual meeting via Zoom

RSVP HERE

Stay Connected

For more information, please contact Laura Hernandez at lhernandez@arellanoassociates.com or call 909-314-6913.

Reminder #2



Join us for the upcoming Community Advisory Committee Meeting!

As part of the Valley Boulevard and Main Street Complete Street Feasibility Study, the City of El Monte will be hosting its first Community Advisory Committee meeting.

Join us to provide your input and identify key improvements that will allow for safe travel along and across Valley Boulevard and Main Street for all users, connecting the community safely to local and regional transit services, residences, businesses, parks, and other community destinations.

The study will focus on safety improvements for pedestrians, non-motorized and motorized vehicles; multi-modal opportunities; drainage improvements; street lighting improvements; American with Disabilities (ADA) enhancements and upgrades; low impact development; and street tree and landscape improvements.

Upcoming Meetings

Please select the meetings you would like to attend below:

Community Advisory Committee Meeting #1 – Valley Boulevard
Date: Thursday, May 11
Time: 1:30 – 2:30 p.m.
Location: Virtual meeting via Zoom

RSVP HERE

Community Advisory Committee Meeting #1 – Main Street
Date: Thursday, May 11
Time: 3:00 – 4:00 p.m.
Location: Virtual meeting via Zoom

RSVP HERE

Stay Connected

For more information, please contact Laura Hernandez at lhernandez@arellanoassociates.com or call 909-314-6913.

Thank You E-Blast



Thank you for Participating!

The City of El Monte thanks everyone who participated in the first Community Advisory Committee meeting for the Valley Boulevard and Mai Street Complete Streets Feasibility Study (Study) held on Thursday, May 11th.

The City of El Monte is conducting this Study to enhance connectivity, accessibility, and safety for all users in the community. Your input will help identify key improvements that will allow all users to travel safely, connecting the community to local and regional transit services, residences, businesses, parks, and other community destinations.

If you were unable to attend the virtual meetings, click on the links below to access the meeting materials:

Community Advisory Committee Meeting #1 – Valley Boulevard

- Meeting Recording- English
- Meeting Recording- Spanish
- Presentation

Community Advisory Committee Meeting #1 – Main Street

- Meeting Recording- English
- Meeting Recording- Spanish
- Presentation

Upcoming Meetings

Community Advisory Committee Meeting #2 – Valley Boulevard
Date: Thursday, July 20
Time: 1:30 – 2:30 p.m.
Location: Virtual meeting via Zoom

Community Advisory Committee Meeting #2 – Main Street
Date: Thursday, July 20
Time: 3:00 – 4:00 p.m.
Location: Virtual meeting via Zoom

Does this date and time work for you? Let us know by taking the below poll.

Take Poll Here

Stay Connected

For more information, please contact Laura Hernandez at lhernandez@arellanoassociates.com or call 909-314-6913. You can also visit the project website.

APPENDIX D

Q&A Logs

Community Advisory Committee #1
Valley Boulevard

AGENDA	NAME	QUESTION/COMMENT	DIRECTED TO	RESPONSE
Poll Questions	Catherine Eredia	Unable to walk due to physical back issues	N/A	N/A
Poll Questions	Blanca Medina	Also to take in consideration that any trees not to block businesses signs, to have visibility to clients	N/A	N/A
Poll Questions	Catherine Eredia	Nothing will put me on a bike, but if I were on one, the one on the bottom with the flowers and median, that would be more pleasurable. It would be safer because two barriers protect me and my family.	N/A	N/A
Breakout Room #1	Dawn Wilson	What is your current perception of Valley Boulevard?	Edward Duong	That street connects to schools. Commute to South El Monte from El Monte always had me cross Valley Blvd. It felt like a freeway. I'm comfortable riding on the roads with or without bike lanes, but now I work in outreach for a non-profit; others think differently. If people feel unsafe, they might want to avoid using the street for bicycles and walking. Exciting to see there's a plan to bridge and connect people to El Monte. If dedicated bikeways were available, would folks riding on this corridor feel more comfortable?
Breakout Room #1	Dawn Wilson	What is your current perception of Valley Boulevard?	Daniel Arellano	There's sometimes a short width of the sidewalk. The trees are low. For driveways, sometimes cars turn suddenly into parking lots and businesses. I take the 5:58 am Metrolink to San Bernardino (my place of work), but there are no transit options at that time, including the trolley station adjacent to the Metrolink station. So on my way back, I have to walk to Valley Blvd and Ramona Blvd for the closest bus stop. That walk between the train station and Valley Blvd/Ramona Blvd intersection is a bit uncomfortable because the sidewalk has these large tree wells and the trees themselves (I'm curious to know how old they are). Still, they don't cast much shade and are cut low where one has to duck to avoid getting their hair snagged. And the number of driveways poses so many points of conflict.
Breakout Room #1	Dawn Wilson	What is your current perception of Valley Boulevard?	Jimmie Pitts	I would like to keep listening.
Breakout Room #1	Dawn Wilson	What is your current perception of Valley Boulevard?	Cosme Jimenez	We did this study about 20 years ago. Metro did this study, but it didn't go anywhere. We need many improvements.
Breakout Room #2	Marlena Perez	What is everyone's current perspective of Valley Boulevard	Catherine Eredia	I am concerned about the apartment buildings and street parking around the city hall. There are a lot of pedestrians and students traveling. There is not enough parking.
Breakout Room #2	Marlena Perez	Have you noticed people are using the crossings at Valley or are people crossing wherever they want to cross?	Catherine Eredia	People are cutting across the street not using the crosswalks
Breakout Room #2	Marlena Perez	What is everyone's current perspective of Valley Boulevard	Richard Thomas	There is a vacant property on Valley that leads to traffic issues. We should utilize the property that has been demolished to reconstruct only the right-turn lane. In addition, the visibility on Valley and Tyler could be better. Many people are crossing in the middle of the road. Look at structured media to enhance businesses.
Breakout Room #2	Catherine Eredia	The east part of Valley Boulevard crossing Garvey, the traffic traveling east is horrific.	Richard Thomas	An incident on I-10, Valley boulevard, is used as a short cut.
Breakout Room #2	Marlena Perez	What is everyone's current perspective of Valley Boulevard	Jeanette Flores	We want to increase access and use alternative transportation for a cleaner footprint. So we will be enhancing the Metrolink station.

Community Advisory Committee #1
Valley Boulevard

AGENDA	NAME	QUESTION/COMMENT	DIRECTED TO	RESPONSE
Breakout Room #2	Marlena Perez	What is everyone's current perspective of Valley Boulevard	Richard Thomas	Make Metrolink a way for the public to reach the shops.
Breakout Room #2	Marlena Perez	What is everyone's current perspective of Valley Boulevard	Tito Corona	Safety is a primary concern alongside traffic. It was taking Valley as an alternative that connects LA to the Inland Empire. Affordable housing is a need.
Q&A Segment	Edward Duong	Could the samples you're showing be applied to the street design? Which designs will be used in which areas?	Dawn Wilson	For the most part we can get the buffered bike lanes in the 100-102 foot stretches. With the tighter sections, it's harder to do that, and we might look at stripes and paint. It is possible to do this through most of the corridor.
Q&A Segment	Edward Duong	Buffer will definitely help with reducing the anxiety of reducing safety concerns.	N/A	N/A
Q&A Segment	Jimmie Pitts	Can cars park past the bike lane? Could the buffered bike lane have parking next to it?	Dawn Wilson	If there is parking, there would be a solid stripe to separate parking and the bike lane. You could flip where the parking and bike lanes are.
Q&A Segment	Jimmie Pitts	You're going to have to have infrastructure for power and water. How would you sweep the street between the buffer and the bike lane? Our current contract doesn't call for the smaller sweepers, so we'd need a new contract for the smaller sweepers.	Dawn Wilson	There are sweeping devices that can clean in between the bike lanes. Those sweepers need to turn corners, and there are considerations we have to have. Something we'd consider in the final plans to include maintenance and operations
Q&A Segment	Jimmie Pitts	Anyone would feel better riding with the buffer. However, the cost will be 100 to 150 times more than the painted stripes.	Dawn Wilson	There are other times of treatments, like delineators, which have modified curbs you'll see in parking lots. Again, lower-cost alternatives are available, and we can explore them.
Q&A Segment	Cosme Jimenez	We have a few bike lanes around the city, but I have yet to see any bikes use it. I recommend we look at that first. Bicycles need to be fixed in this city. I recommend a good study and see how many bikes are going through the current bike lanes. It costs money to build a bike lane, even to paint the lines for what?	Dawn Wilson	We have data that will show us where there are safety concerns.
Q&A Segment	Jimmie Pitts	For the crash data, it has to be exceptionally well reviewed. Crash data may show bike vs. car collision, but that doesn't mean the bike lane would have stopped the accident. Many bike and ped fatalities are caused by jaywalking or bike failing to yield for the right of way.	Dawn Wilson	We get quite a bit of data and can apply that to how pedestrians cross the street.
Q&A Segment	Edward Duong	Facilities don't make people feel safe walking or biking on Valley Blvd. Everything does take a shift, and there needs to be education. There won't be an overnight fix. It's all a process, and there has to be community-wide education about bike safety.	Dawn Wilson	Trying to find a balance between different modes, and it's easier to choose auto because there's space and the street is broad, but we want to see other options for the rest of the residents. So looking at the potential is essential too.
Q&A Segment	Richard Thomas	Consider parking pop-outs as something to take a look at. Throw that in your file.	Dawn Wilson	Noted.
Q&A Segment	Richard Thomas	Realistically it varies based on where your business concentration is at. Some will be strictly traveling, and some will be good for pop-outs. It also incorporates some pedestrian safety. Depending on where you're looking at.	N/A	N/A
Q&A Segment	Catherine Eredia	I would park in a parking lot where there's handicap parking.	N/A	N/A

Community Advisory Committee #1
Main Street

AGENDA	NAME	QUESTION/COMMENT	DIRECTED TO	RESPONSE
Breakout Room #1	Dawn Wilson	Will you be working on just Main St or will you be including parking?	Blanca Medina	Lighting and security need to be improved on Main Street, Safety is a priority within the project and we should focus on security, accessibility, and enhancing planters and seating areas. The private parking served the corridor. We will be looking at the linkages between those and the corridor but mainly focus on the roadway.
Breakout Room #1	Dawn Wilson	When you drive or walk, how would you describe your experience as you go up and down Main St?	Blanca Medina	I think it needs a little more improvement, it did good when they planted the new trees and the new planters. I think it needs better trees, better view, and new lights, it needs to change.
Breakout Room #1	Dawn Wilson	So the Corridor feels dark as you go along the roadway and you would like to see the light be better?	Blanca Medina	It is not as dark but it needs improvement
Breakout Room #1	Blanca Medina	Can I ask you about the funds? It there two different funds one for Main St and one for Valley Blvd?	Dawn Wilson	Yes, there are two separate work efforts that are going on right now for the planning level efforts.
Breakout Room #1	Blanca Medina	Do we have the amount already or is it not set yet?	Dawn Wilson	No, not at this time. What we are looking to do is to establish a concept so then the city can identify potential funding sources, once we know what types of improvement need to be made. So this project is being funded by the cities but there is a ton of grants available out there that might apply to a project like this one and we will be helping the cities to idetnify those and see if they can get assistance ti do improvement along Main and along Valley
Breakout Room #1	Blanca Medina	Enhancements in children's areas should be a priority as well. Another playground or kids' entertainment should be accessible to families shopping along Main Street. I think keeping parking on the street.	Dawn Wilson	Okay, great.
Breakout Room #1	Dawn Wilson	Thoughts on the corridor how does it feel when you travel along there?	Edward Duong	I like the fact that Main St has extended sidewalks. I don't see a lot speeding in on Main St., So that's a good thing that they don't use Main St as a cut-through as Valley. Valleys are still as fast as ever. It's still like the main street for going east and sent, and not many people will use Main St because tit is a main business area. It is a high-traffic area during various times of the day. Like trees can be improved, more trees, shade area, seating area. Opportunities of engagement, like park play, the little park foes get utilized a lot. It has old equipment. Maybe something unique, It doesn't have to be necessarily children, but some kid music, some art deco. They're starting to get artistic around the area and added high-visibility crosswalks. I hope they can create some type of bicycle thruway possibly because the regional transit is right next door, El Monte public transit is right next door, and we do see much usage. There is ample bicycle parking there that gets utilized. We also have the Metro Best program, like a bike storage locker. Sanat Anita and Romona leading north and Main St can be more accommodative for cyclists. I think that would enhance by allowing other multimodal transportation going for the bus stops to enter into El Monte and to support the pedestrians and make that like Old Town Pasadena, like an outdoor really lovely area
Breakout Room #1	Dawn Wilson	Can we have public safety standpoint? Do you have some thoughts relative to Man St and how things are along the corridor?	Jimmie Pitts	The speed limit is 15 miles an hour so beautification, that's the only area of the city which I do not disagree with the artwork for crosswalks because it's slow speed anywhere else in the city. But more trees, more beautfication. Sounds good.
Breakout Room #1	Dawn Wilson	Any input on the process there about the corridor? What does it look like? What are your feelings along there?	Dawn Wilson	Well, we've heard a few things here about what we would like to see some improved lighting and security particularly as it relates to maybe some of the parking or connections to parking enhancements to the sidewalks. Sounds like the trees while there's some trees aling there and could benefit from either updating the trees or replacing or adding some trees as receiving areas. There's a playground apparently it's very well used, which is great to hear. But I could we intergratre more activity centers it doesn't necessarily have to be a playground it can be more interactive experience, should embrace some fot hte transition that's been going on are some different activities that are happening in the city. The slow speeds are good, like you keep these that way. The parking is good. They like the parking that's on the street. It seems to be well used.
Breakout Room #1	Dawn Wilson	And then could we think about ways to intergate bicycles in here? Could it be a bicycle boulevard?	Dawn Wilson	Maybe, add some treatments where. When the bikes are intergated into the street, they're expected or you see them or signage or something along those lines indicate that this is a mixed flow area.
Breakout Room #1	Dawn Wilson	Did I miss anything or misrepresent any of the comments that we heard? Are there other ideas that we haven't really explored yet? The next section we will show some pictures like we did in the last one, to get some take on different ideas for the corridor. But, are there any other ideas?	Dawn Wilson	One of the things that we've noticied is and have started thinking a little bit about some pedestrain plazas that might connect between Valley and Main that would help people connect between where the transit station is and then the downtwon commerical area.
Breakout Room #1	Dawn Wilson	Have you seen the different areas that are along the corridor today?	Dawn Wilson	There's one in particular, it looks like a little mini park down towards the western end of the corridor.

Community Advisory Committee #1
Main Street

AGENDA	NAME	QUESTION/COMMENT	DIRECTED TO	RESPONSE
Breakout Room #1	Dawn Wilson	Do you have any particular thoughts that public space and how that's being used or different ideas for these that might make them interactive between the two roadways? Familiar with that area that I'm talking about?	Edward Duong	That's actually a meetup spot for whenever we host bike rides. Tthat's a really good open space area that could use a face lift, could be a potential park, you can have activites, music. That could be a second extension park, but this is also one of the main parts where they also have stage for the farmers market. So intergration with community programming could benefit from having something already on site.
Breakout Room #1	Dawn Wilson	How about adding more of those plazas along the corridor again, trying to connect between the two streets and creating some public space? Any thoughts about those?	Edward Duong	I see also, some residential areas actually, on like, really next to the Main St. too as well. So maybe some parklets could benefit the surround residential residents to that as well. I haven't seen any parks close by there.
Breakout Room #2	Marlena Perez	Do you feel like the current parking configiration takes up a lot of the road space?	Catherine Eredia	Well, I know that they went to diagonal to allow for more parkig, but it minimizes the amount of drive thru traffic. But you have a kitty tot playground area. We have protruding planters that stick you know without damage the current aesthetic of Main St. I don't know you'd go back to regular parking.
Breakout Room #2	Marlena Perez	Okay, and your concern is that there isn't enough parking because there are a lot of busines owners who use the park.	Catherine Eredia	And we've discussed it. We actually, the board would like to see metered parking. That would limit probably a lot of the parking issues because you'd have people that would go and park we have a lot of double parking.
Breakout Room #2	Marlena Perez	And you mentioned a little bit about some off site parking. How do you feel that is utilized? And is that really an alernative to parking on Main? Or do you feel like you mentioned there's two different parking lots, do they know that it's there and do they acess those?	Catherine Eredia	Yes, it's we have a north parking lot which is on the north side of Main St and the south parking lot on the south side. They are utlized especially when we have events.
Breakout Room #2	Marlena Perez	I'd like to give Richard and Daniel a few mintues to speak if they had anything else they wanted to add about your perception and your thoughts about Main St.	Richard Thomas	It depends, it brings a lot of people to the Valley Mall, but at the same time bringing people is actually not creating stability for the business. So generally if you need to open it up for something, it can be done or generally if you have a big event you want to lose, utilize the entire street you can close it down with a push of a button. So that was one of the options. It's been kind of kicked around at this point in time. The other challenge, not only making things nice, there have been grant proposals out there for facades for buildings, and you can't get the owners interested and we're talking about money. They don't have to pay back. We're talking about building up paperwork, talking about getting involved, and we're talking about enhancing the business as far as the aesthetics and everything else. You can't get the business owners to move that's been a huge challenge. So it's not just the street but one of the things you need to look at. If you're going to make something work, and you're going to make it successful. You got to figure out how to get the owners on board. And that has been a horrific, horrific challenge. already talked about parking. Yeah, that's a problem. I think years and years ago, we've kind of tried to change the culture of Main Street used to be very difficult with cruisers, alcohol and things like that. We managed to bring that to a halt. And people would start coming out and start shopping again. Because at that time, a lot of businesses were open very attractive. So the key number one, it's gotta be attractive. Number two, there's got to be stability for the businesses and look at the variables that you could possibly put in place that will make it work for day to day special. Events, that type of thing. Special events, like I said, well attended, but it gets people there, but they're not coming back as far as shopping at some of the businesses. So that's a challenge
Breakout Room #2	Marlena Perez	I just want to see first if Daniel has anything you'd like to add?	Daniel Arellano	I did want to echo a lot of those concerns with the parking conflicts between vehicles and pedestrians wihins the Main St, people crossing the street not only at crosswalks. A lot of conflicts between vehicles and pedestrains. And I remember hearing something about that that idea of closing it down to vehicles so that it was more pedestrian friendly, but at the same time when you walk through you kind of see all this space by it I don't know how good or how well it can be utilized you know like if we introduce more ideas like the the outdoor playground that's like that's been there since I was a kid or even before so
Breakout Room #2	Marlena Perez	I think I'm hearing some interest in like either temporarily having it be like pet or bike only and but maybe some concerns about if you made that a permanent thing. How would foot traffic remain stable over the area, especially if at that point, you know? Parking is going to change a lot with something like that. Does that sound about right?	Daniel Arellano	I think the farmers market is occuring there.
Q&A Segment	Marlena Perez	Does anyone have any thoughts or experiences with reverse angle parking	Richard Thomas	Driving in reverse is extremely dangerous, the concept is good but safety is a priority
Q&A Segment	Marlena Perez	Does anyone have any thoughts or experiences with reverse angle parking	Catherine Eredia	I would agree with Richard but stopping and reversing into the parking spot is not as safe. Main street is very narrow, some pedestrians aren't as aware of the damage that can be done to themselves or loved ones.

Community Advisory Committee #1
Main Street

AGENDA	NAME	QUESTION/COMMENT	DIRECTED TO	RESPONSE
Q&A Segment	Marlena Perez	Does anyone have any thoughts or experiences with reverse angle parking	Edward Duong	The roads are very narrow, so I feel like there would be a lot of education
Q&A Segment	Marlena Perez	Does anyone have any thoughts or experiences with reverse angle parking	Jimmie Pitts	Children will approach a parked car and can not be seen; this needs to be considered when changing traffic problems.
Q&A Segment	Marlena Perez	Does anyone have any thoughts or experiences with reverse angle parking	Blanca Medina	I have not seen many incidents with backing up; the reverse angle parking is saving spaces. It would need to be metered.
Q&A Segment	Marlena Perez	Does anyone have any thoughts or experiences with reverse angle parking	Jimmie Pitts	Parking enforcement an metered parking would require enforcement and we do not have the current work force
Q&A Segment	Richard Thomas	Just historically to let you know. There was metered parking on the Valley Mall at one time, I believe, in the mid to late seventies.They used to go down and enforce all the parking meters, but they kinda did away with that particular program at that time, and the meters went with it.	Dawn Wilson	Okay. Good. To know. Thank you.
Q&A Segment	Marlena Perez	Does anyone have any thoughts on the pedestrian paseos?	Blanca Medina	Will you create an alternative route to Main Street?
Q&A Segment	Marlena Perez	Yeah. So I don't think we wouldn't be looking to create any new corridors.	Blanca Medina	Okay, and on regard to tags. And please, it's essential on the way you guys design or take into consideration the way you create or the kind of plants that you are planning to have or planned a lot of this. Plans have, like some of you mentioned, some of the streets are very narrow, especially on Cross Street. So some of those somebody else mentioned about tiny kids and in some of those areas the plants are a little bit too high, in which but the coming trucks, the company cars are not able to see the people waiting to cross the street, so you know it's something to have in mind. The trees, too, have the trees not damaged our sidewalks. Like, I said. I've been here for 30 years, and a lot of those trees had been for some reason, and in my eyes, I think they grow, and for some reason, they break easily. And then we have the danger of having the branches fall on a car, or it's just that I've seen it a couple of times already, and I don't know if it's because they grow so high so tall, or you know it might be different. Kind trees that can be planned. And another thing is to have consideration.
Q&A Segment	Marlena Perez	Edward do you have anything to say?	Edward Doung	I have two questions. One is regarding the pedestrian I wanted to see if you guys had any plans of specific strategies that you are planning to convert into pedestrian paseos, and the second question Is regarding the bulb carve-outs. Do you guys plan to add or remove it? I think the curb bull bouts are a perfect example of having an area that's dense enough not to include speed bumps or speed humps and to be still able to control the speed.
Q&A Segment	Marlena Perez	Now it's just seeing if there are additional spaces where it makes sense and there's a good, a good place to add bulb outs that could work within this space. Regarding the first question about the that's what we want to hear from you today is, if people are open to the idea or excited by it. Is there a space within Main street that makes sense? And you know we understand the farmers, markets. There every week. So maybe getting a better idea of where you're seeing a lot of foot traffic at the farmers market, and maybe like what part of Main Street would make the most sense for something like this.	Catherine Eredia	I would like to make a statement regarding closing Main Street. It's a double edge sword. We'd really like to be able to utilize closing that off when we have events on Main Street. Dena has to pay to have public works come and close down the street, and we have to bring in. We pay the police department, we pay for whatever needs to be done to put on our events. But we also don't want to further decrease foot, not foot traffic, but any kind of traffic that would be visiting our merchants. We we don't want to lose the business that they are already used to having by limiting it when we, if we close down the the through traffic, part of that, it's just really difficult. This group of people are the hardest working people that I've ever met in my entire life. The only problem is trying to bring in different kind of businesses to bring it more accessible to other people in our community. You know we can't bring in big box doors because they just feel well. So why are we gonna bring it in tal money? Why would we took for aver to get norms in, you know, and when you go there on an off, not a weekend day? That place is dead, but when you're there on Saturday and Sunday, everybody's in norms takes you an hour to get in there. So we just need to make sure that we, we consider everything, including our merchants and the discussion on the trees. Some of those trees are really old, and I appreciate that you're looking at doing whatever you know. The out the growth of it, because we have a lot of raised concrete because of the routes that are growing out. And then when they go to fix it, they aren't fixed properly. A few years ago we had an elderly woman fall because of a raised concrete piece. So just a lot of things to experience there on Main Street. And our goal, I believe, by everybody is to just how can we make it better for our community, for our merchants and for everyone.

APPENDIX D

Community Advisory Committee Meeting #2
Summary with Appendices



Valley Boulevard and Main Street Complete Streets Feasibility Study

Community Advisory Committee Meeting #2
Summary Report

1. Meeting Overview

As part of the planning efforts for the City of El Monte's Valley Boulevard and Main Street Complete Streets Feasibility Study, a virtual Community Advisory Committee (CAC) meeting was held to discuss the public's perception of the two corridors and to help identify key improvement needs that will allow for safe travel along and across Valley Boulevard. The Main Street meeting was postponed due to low attendance.

The CAC meeting was held:

- **CAC #2- Valley Boulevard**
  Date: Thursday, July 20, 2023
  Time: 1:30 – 2:30 p.m.

During the meeting, the project team introduced participants to the Study and its objectives. Participants provided their input on their perception of the current conditions of the corridors, shared their main concerns, and identified what complete streets components they would like to see implemented. Additionally, live Spanish interpretation was made available throughout the meeting for participants. The meeting was recorded and made available in English and Spanish to all stakeholders invited to the CAC meetings.

2. Meeting Agenda

The following agenda items were discussed during the CAC meeting:

- Study Overview and Objectives
- Valley Boulevard Proposed Concepts
- Santa Anita Mini Park
- Future Engagement Opportunities
- Open Discussion/Questions
- Santa Anita Mini Park Existing Conditions and Proposed Concepts
- Future Engagement Opportunities
- Stay Connected
- Open Discussion/Questions

To view the presentations shared during each meeting, see *Appendix A.*

3. Meeting Notification

Stakeholders part of the CAC Candidate List were invited via e-blast to the CAC meeting. Additionally, calls were made to stakeholders who had not RSVP'd to confirm their interest in attending.

Table 1. E-Blast Notification Schedule

E-blast to CAC Candidate List	Date Sent
Initial	July 10, 2023
Reminder #1	July 11, 2023
Reminder #2	July 17, 2023
Reminder #3	July 18, 2023
Thank you, with links to meeting recordings and presentation materials. English Presentation Spanish Presentation	July 28, 2023

To view the e-blasts, please reference *Appendix B.*

4. Attendee Reports

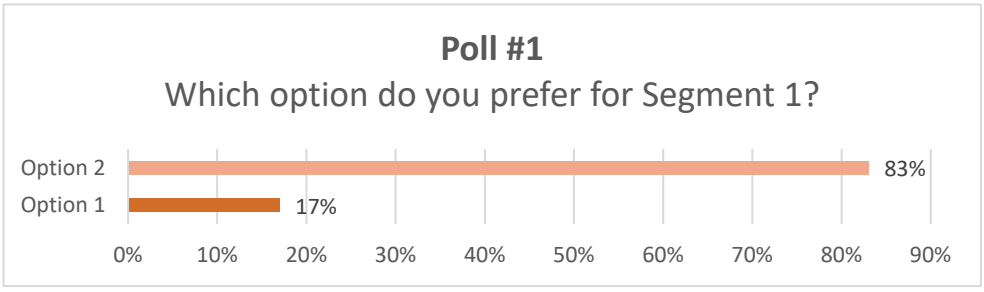
Members of the following organizations, groups and agencies registered and/or attended the meeting.

Table 2. CAC #2 Valley Boulevard Meeting Attendees

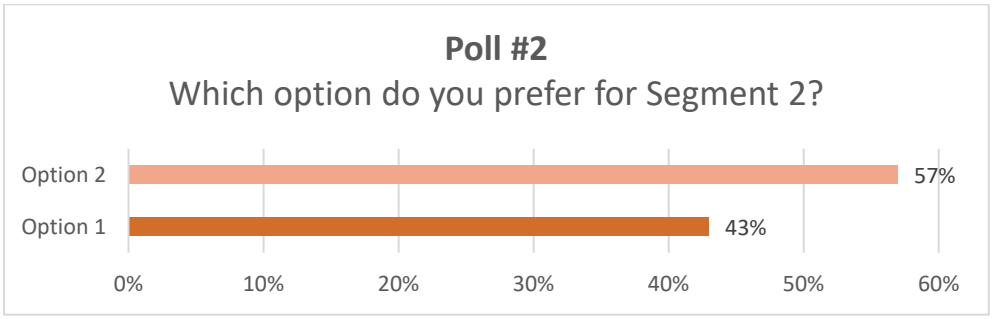
No.	Name	Organization	Registered (R)/Attended (A)
1	Naresh Bhakta	All 4 Lodging	R
2	Edward Duong	Active SGV	A
3	Andrea Trejo	Apple Jack's Coffee Shop	R
4	Charles Hoffman	Resident	R
5	Tito Corona	Metro	A
6	Jose Nava	David's Jewelers	A
7	Hassan Saeed	Holiday Inn	R
8	John Lee	Did not state	A
9	George Abile	The Plug 4 Barbers	R

5. Meeting Poll Results

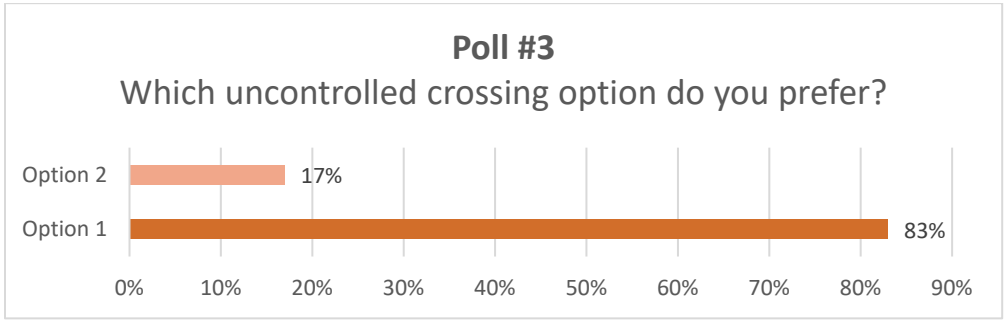
During the meeting, a series of polls were launched to understand participants' travel patterns and corridor use.



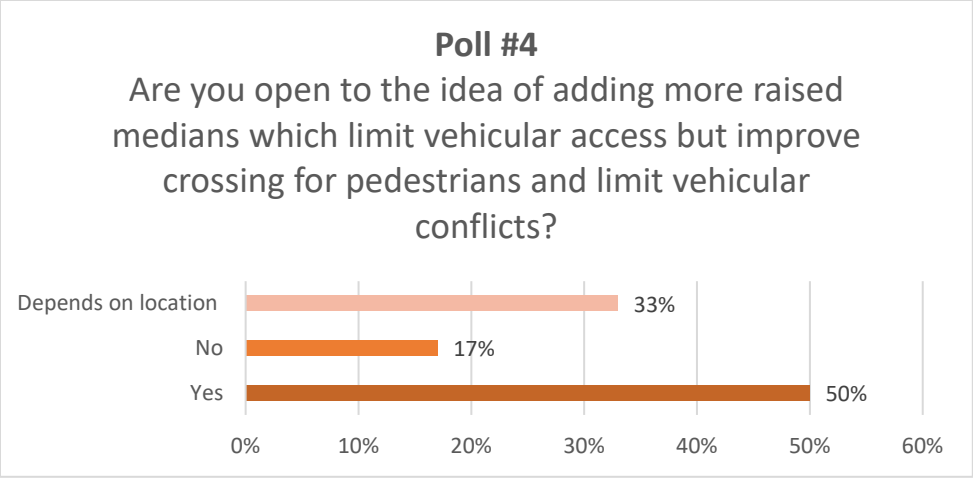
The results indicate that individuals prefer a bike lane with a buffer.



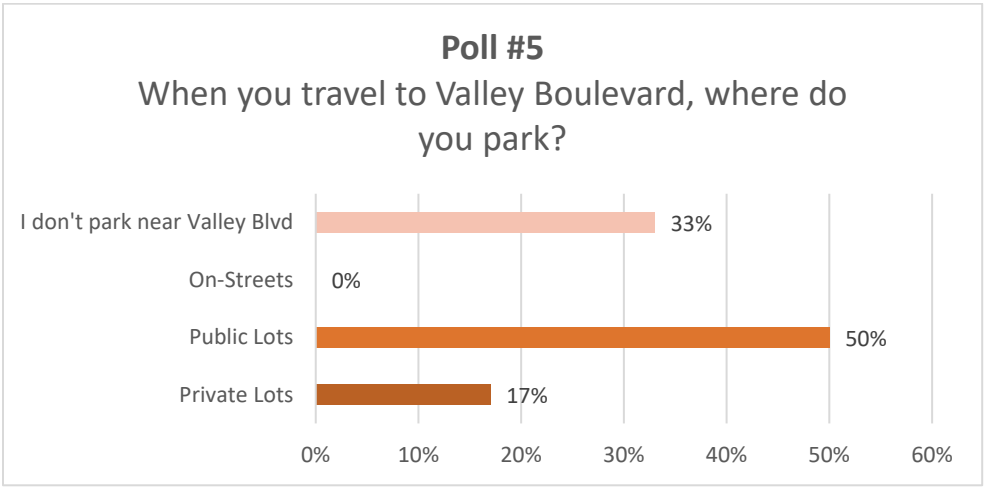
The results indicate that individuals prefer a crossing section with a planting strip.



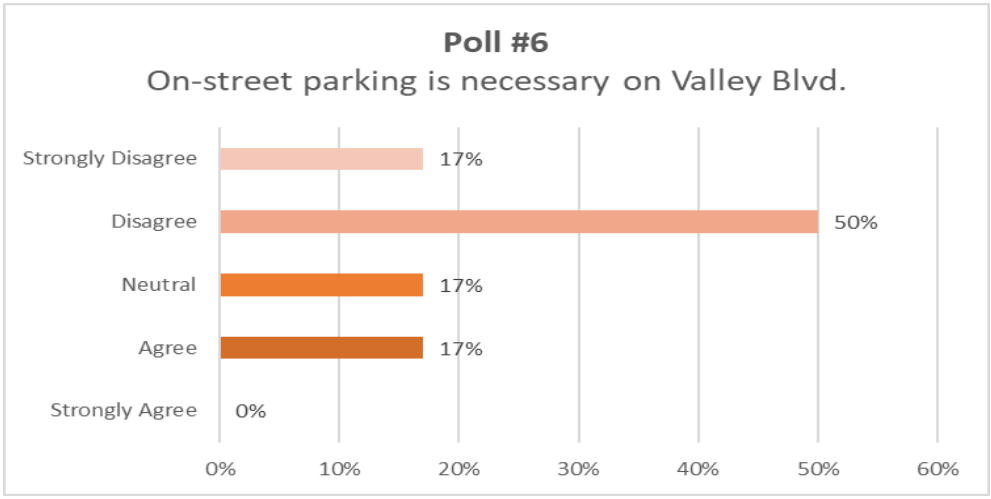
The results indicate that individuals prefer a HAWK signal as an uncontrolled crossing option.



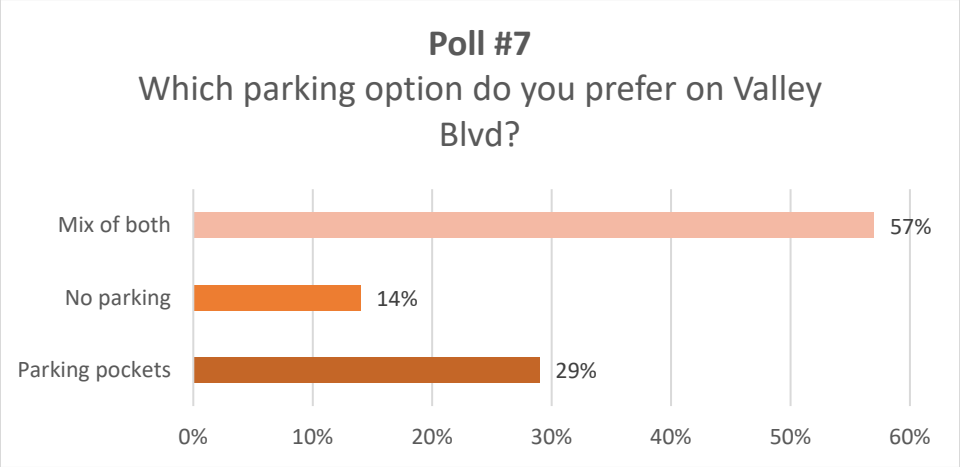
The results indicate that community members are open to the idea of adding more raised medians which limit vehicular access but improve crossing for pedestrians and limit vehicular conflicts.



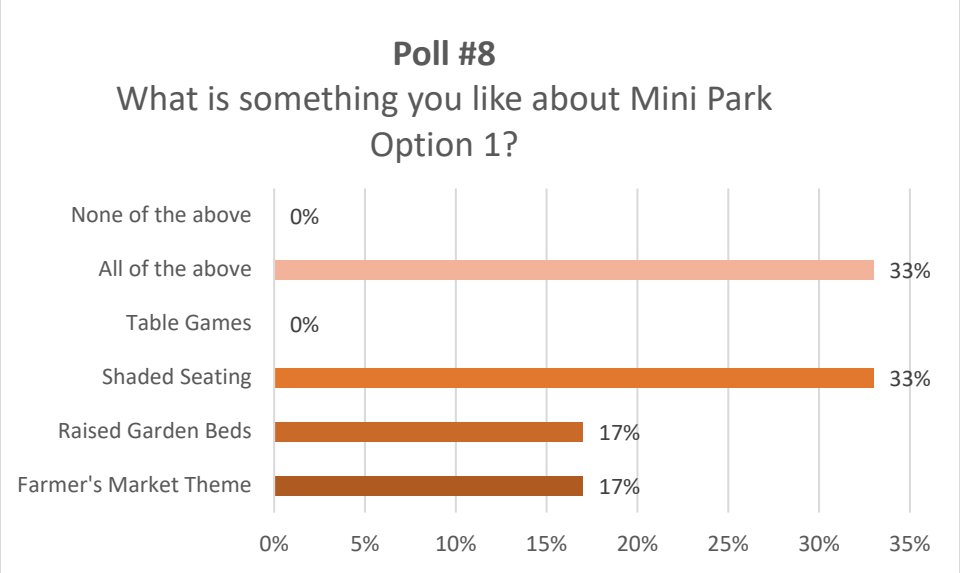
The results reveal individuals visiting Valley Boulevard, park in public lots.



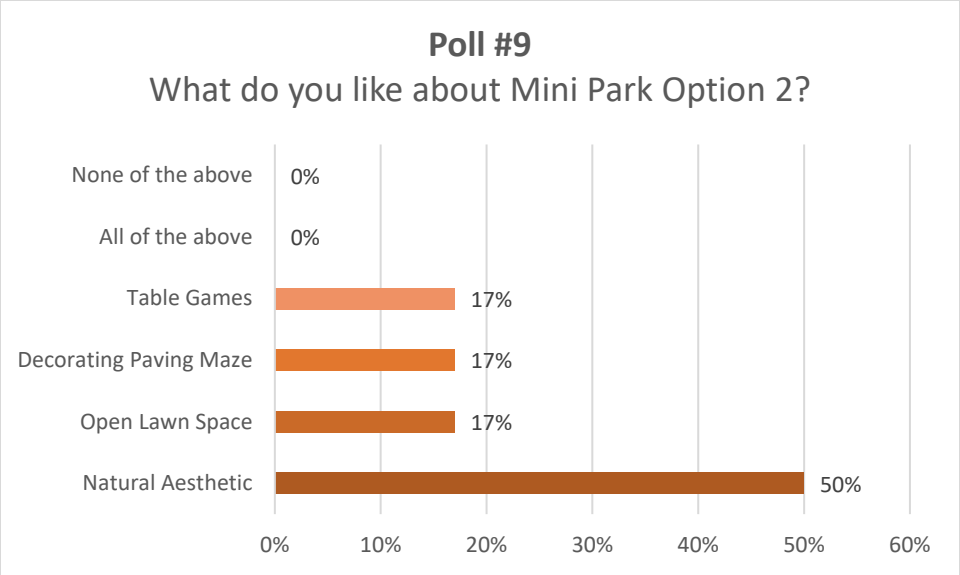
The results reveal that individuals disagree that on-street parking is not necessary on Valley Blvd.



The results reveal that individuals visiting Valley Blvd prefer a mix of parking pockets and no parking.



The results reveal that individuals like the Santa Anita Mini Park Option 1 because of the shaded seating, raised garden beds, table games, and farmer's market theme.



The results reveal that individuals prefer the Santa Anita Mini Park Option 2 because of the natural aesthetic, table games, decorating paving maze, and open lawn aesthetic.

6. Participant Input

Participants were able to provide input and ask questions during the Q&A segment of the meeting. Below are key points discussed.

Table 4. CAC #2 Valley Boulevard Key Themes

Topic	Key Themes
Traffic	• Raised medians and keeping both travel lanes could prove beneficial • Raised medians and reducing a lane may upset community members
Pedestrian/Cyclist	• Interest in bike lane safety by implementing buffers but cost may be a concern • Lane reductions concerns • 6-foot bike lanes are ideal
Parking	• Parking may be unnecessary on Valley • Community members are very interested in parking costs

7. Appendices

The appendices below are available for review at the end of the report.

- Appendix A. Presentation
- Appendix B. E-Blast Notifications

APPENDIX A

Presentation

VALLEY BLVD

COMPLETE STREETS



Valley Boulevard CAC Meeting #2

Thursday, July 20, 2023

VALLEY BLVD
COMPLETE STREETS

Introductions



Michael Baker INTERNATIONAL

arellano associates

Agenda

- Study Overview and Objectives
- Valley Boulevard Proposed Concepts
- Santa Anita Mini Park
- Future Engagement Opportunities
- Open Discussion/Questions





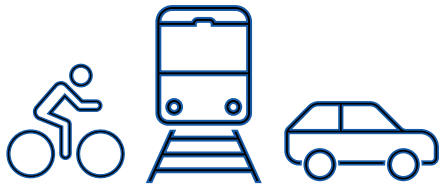
Valley Boulevard Study Overview

- Approximately 3.3 miles
- Major arterial serving as one of the City's primary gateways
- Serves as a critical link in the regional transit network





Study Objectives



Enhance multi-modal accommodations



Improve safety for all users



Americans with Disabilities Act (ADA) improvements

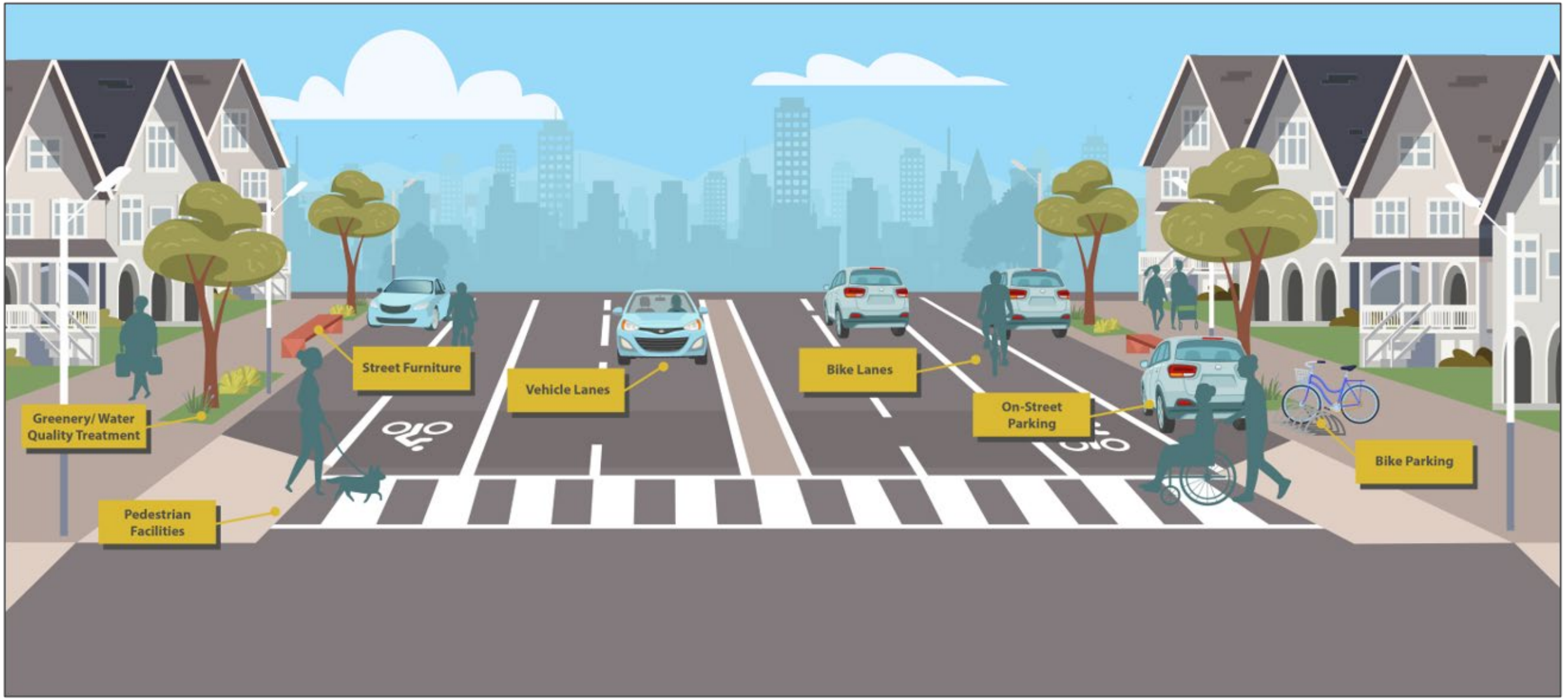


Incorporate low-impact development



Improve streetscape beautification and landscaping

What are Complete Streets?

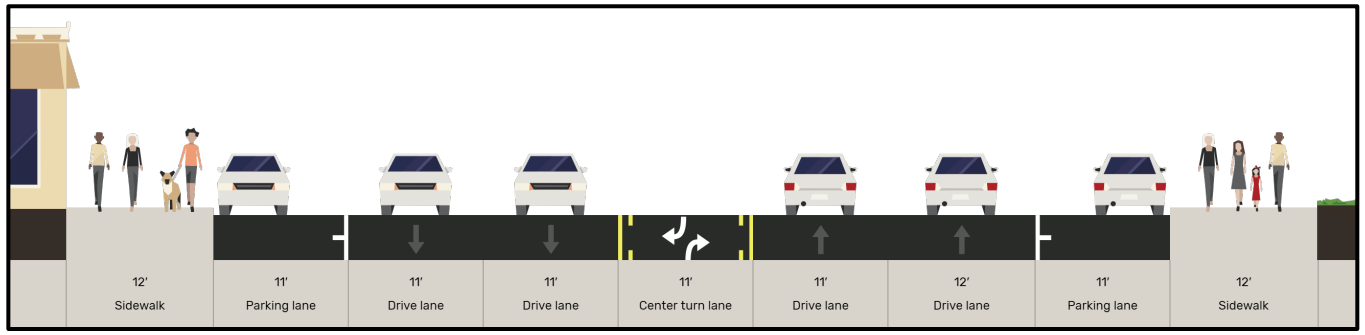


Existing Conditions



Existing Conditions- Valley Boulevard

102' Width



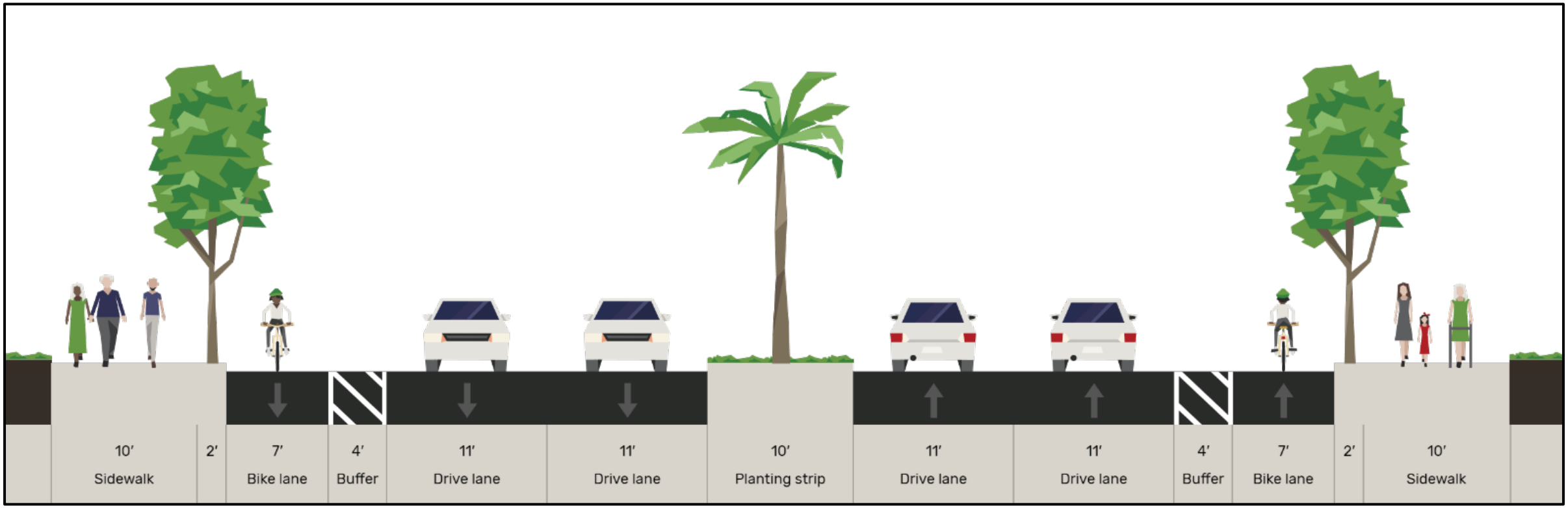


VALLEY BLVD
COMPLETE STREETS

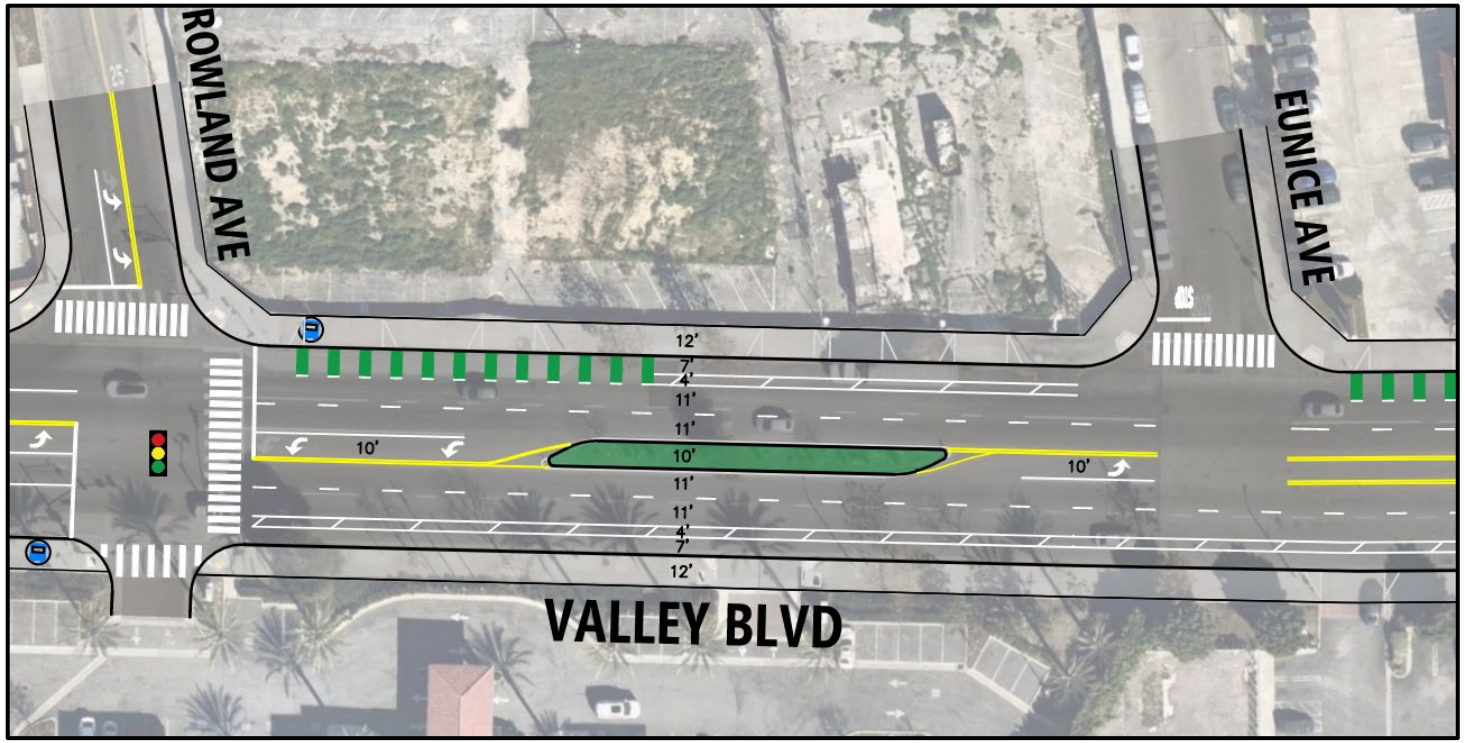
Proposed Concepts



Option 1 – Cross Section

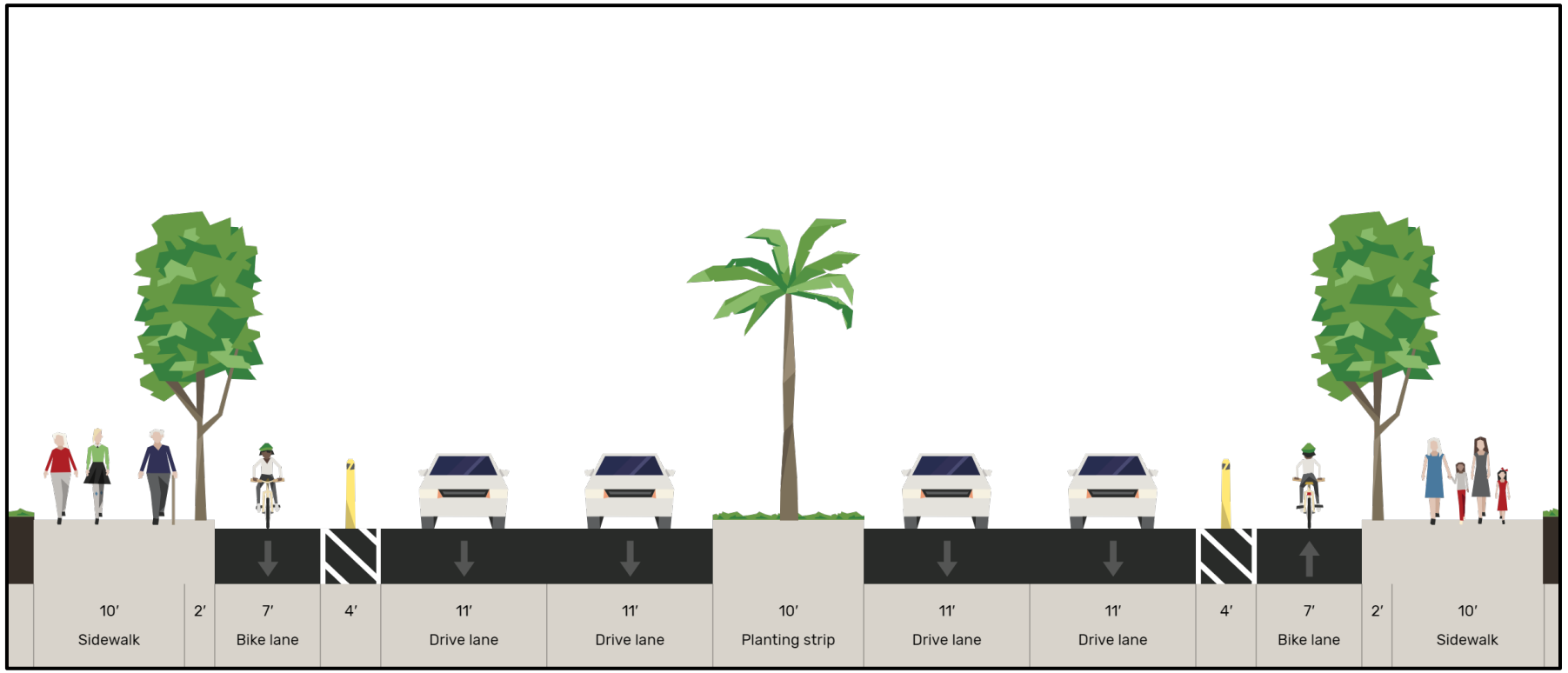


Option 1 – Plan View



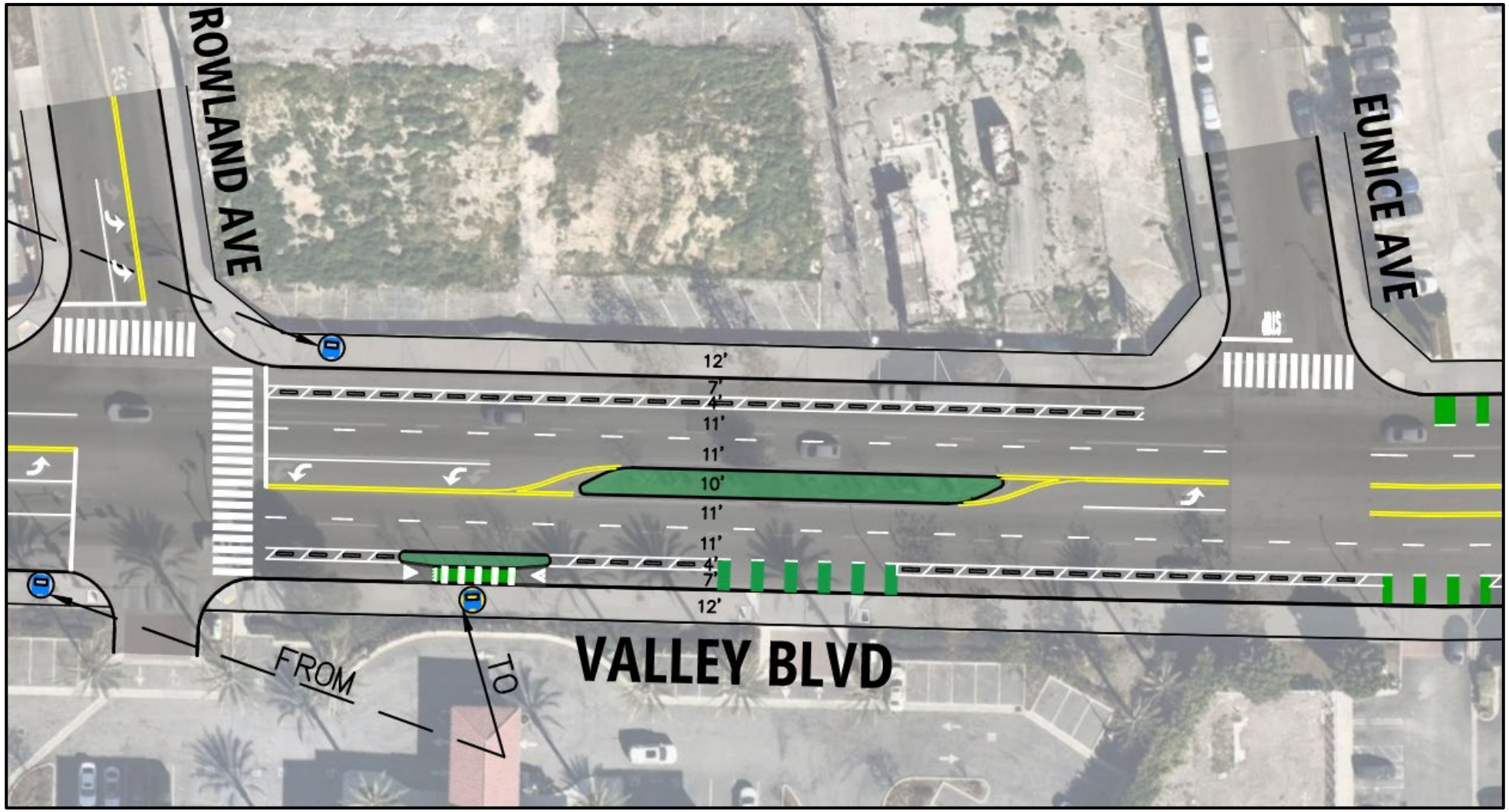


Option 2 – Cross Section





Option 2


ROWLAND AVE
EUNICE AVE
12'
7'
4'
11'
11'
10'
11'
11'
4'
7'
12'
VALLEY BLVD
FROM
TO

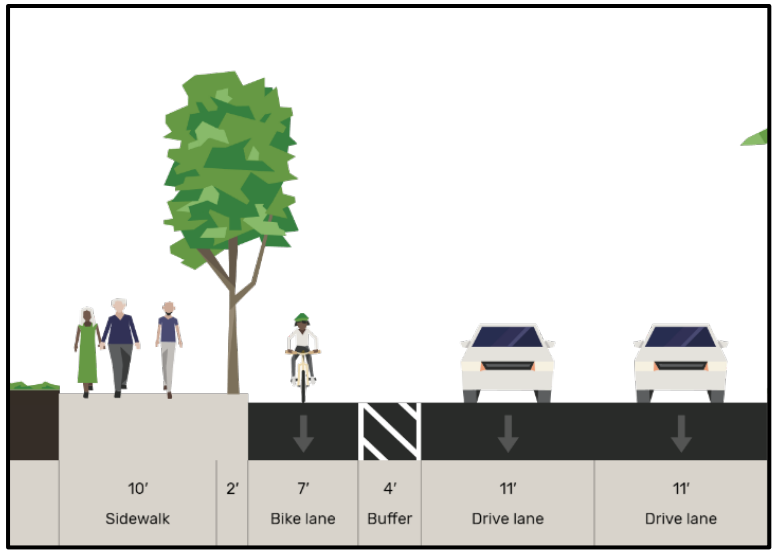
Option 2 – Bus Islands



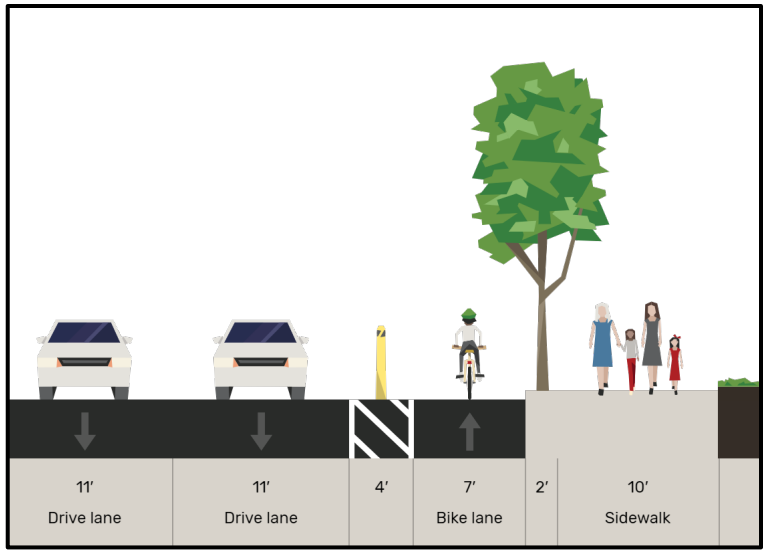
Poll #1

Which option do you prefer?

a. Option 1



b. Option 2



Segment 2



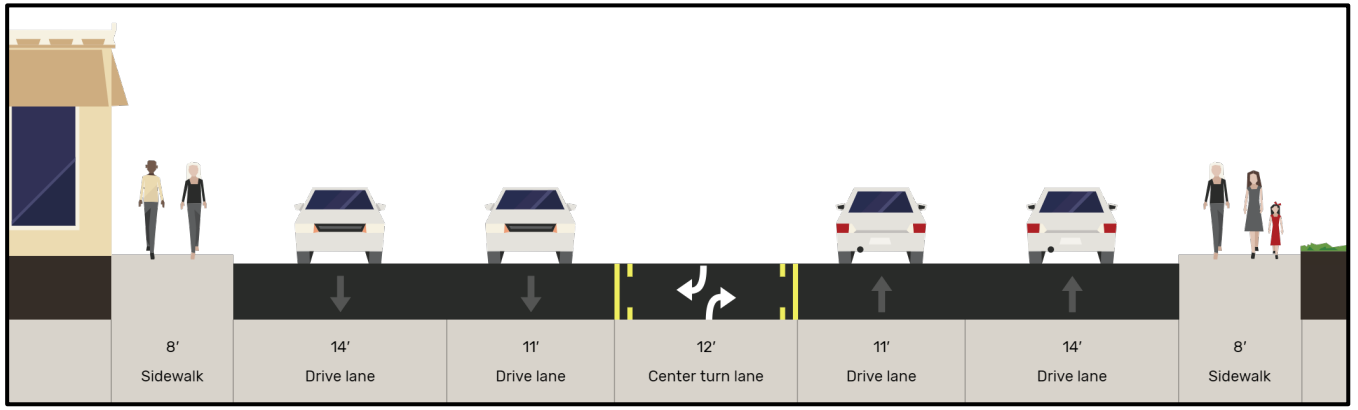
Existing Conditions- Segment 2

Santa Anita Avenue to Ramona Boulevard



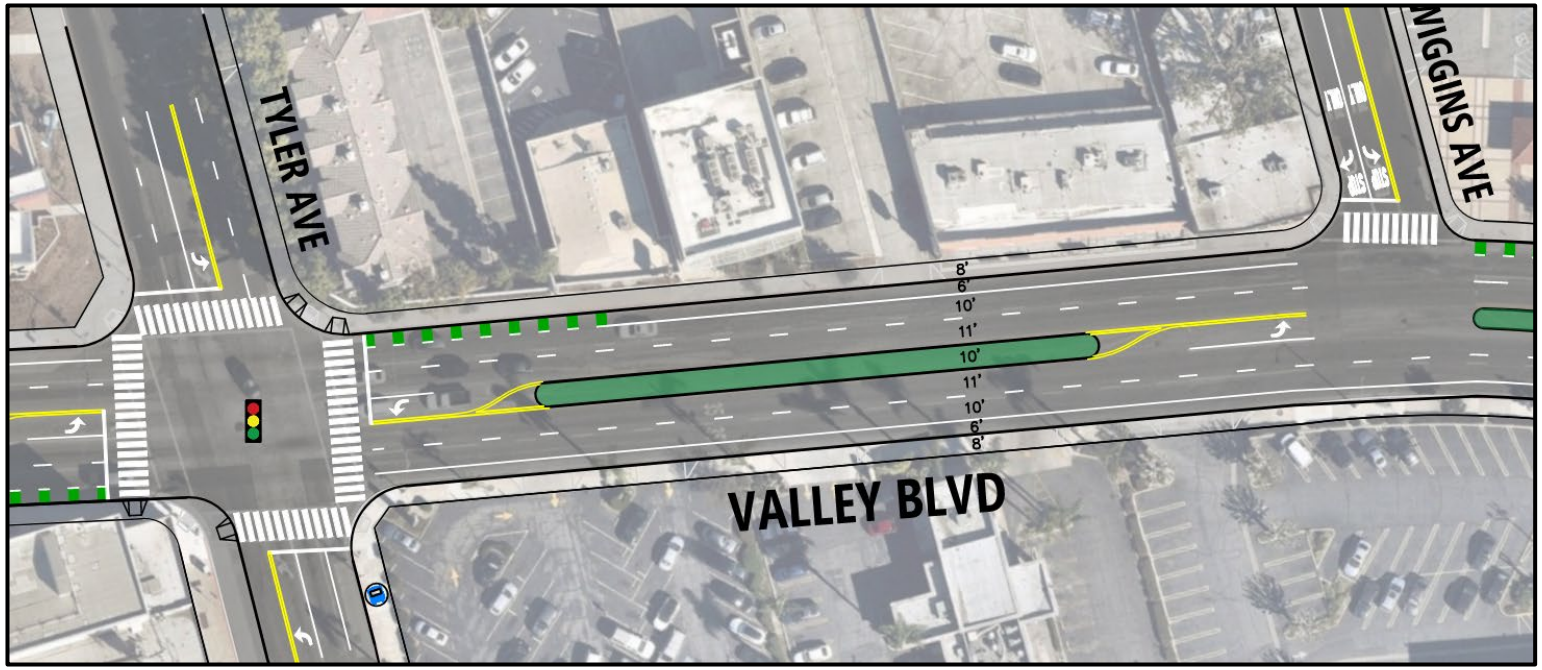
Existing Conditions- Valley Boulevard

78' Width



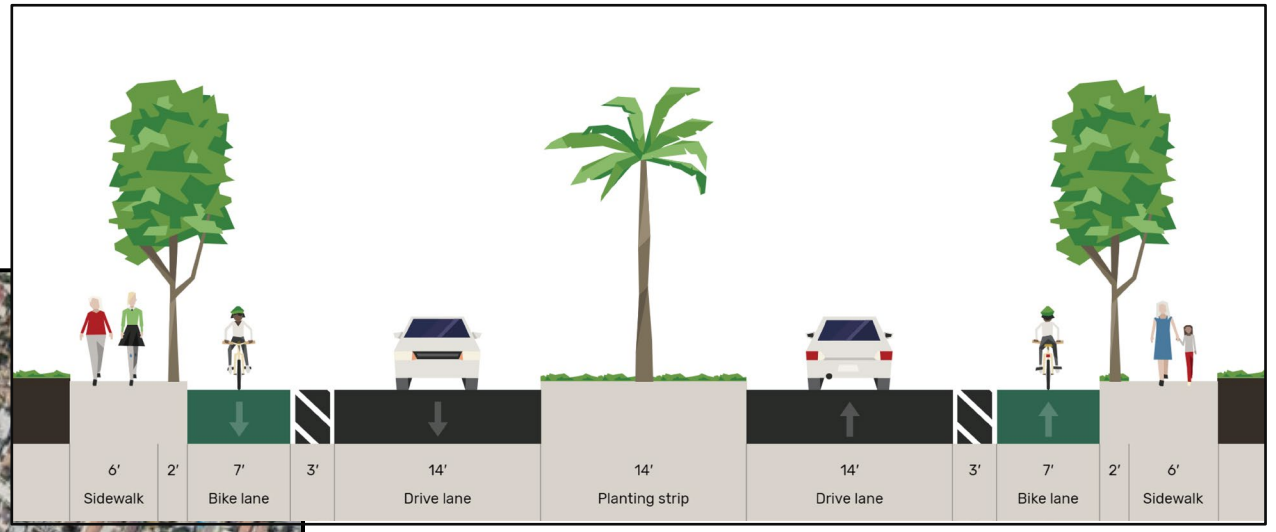


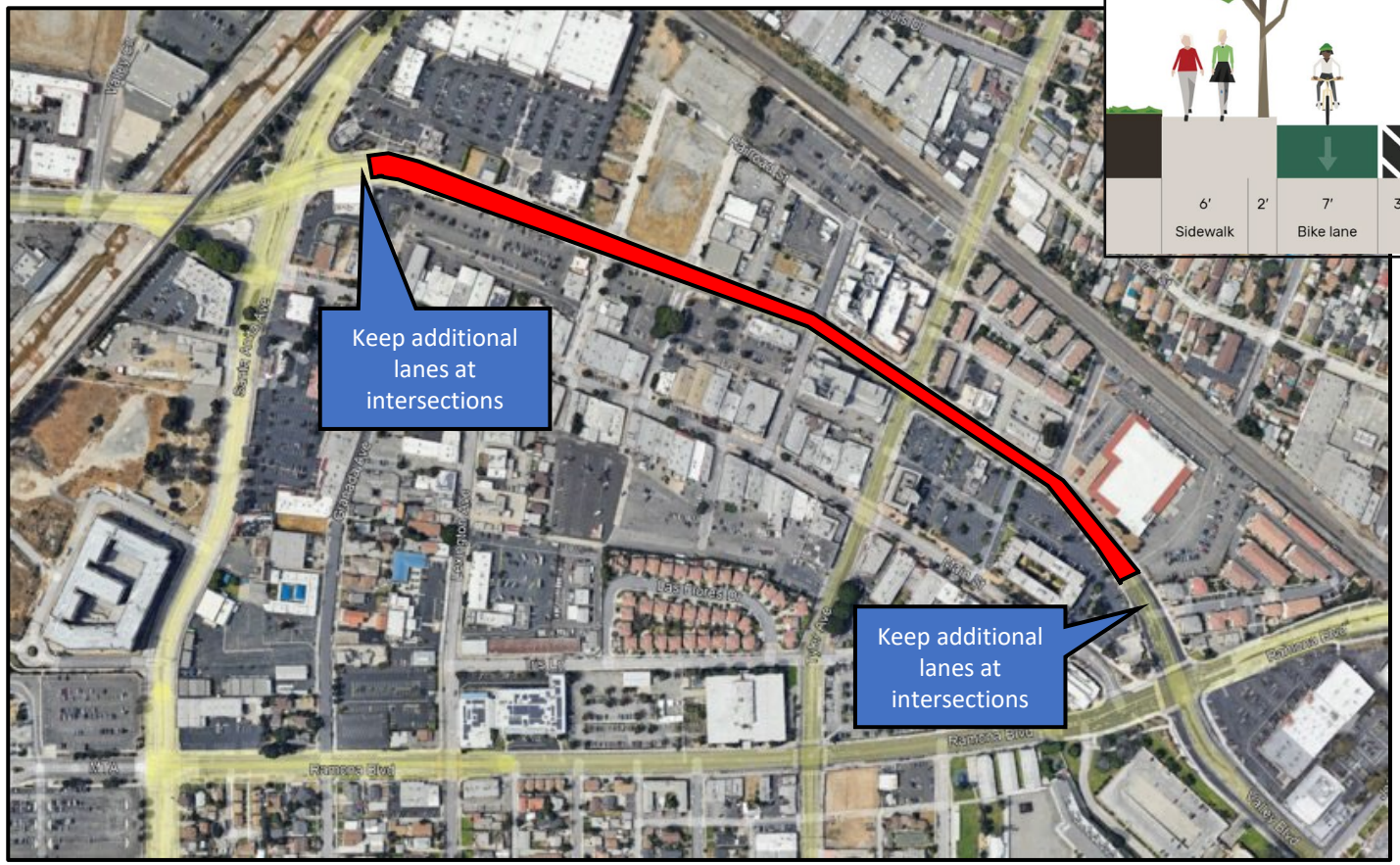
Option 1 – Plan View



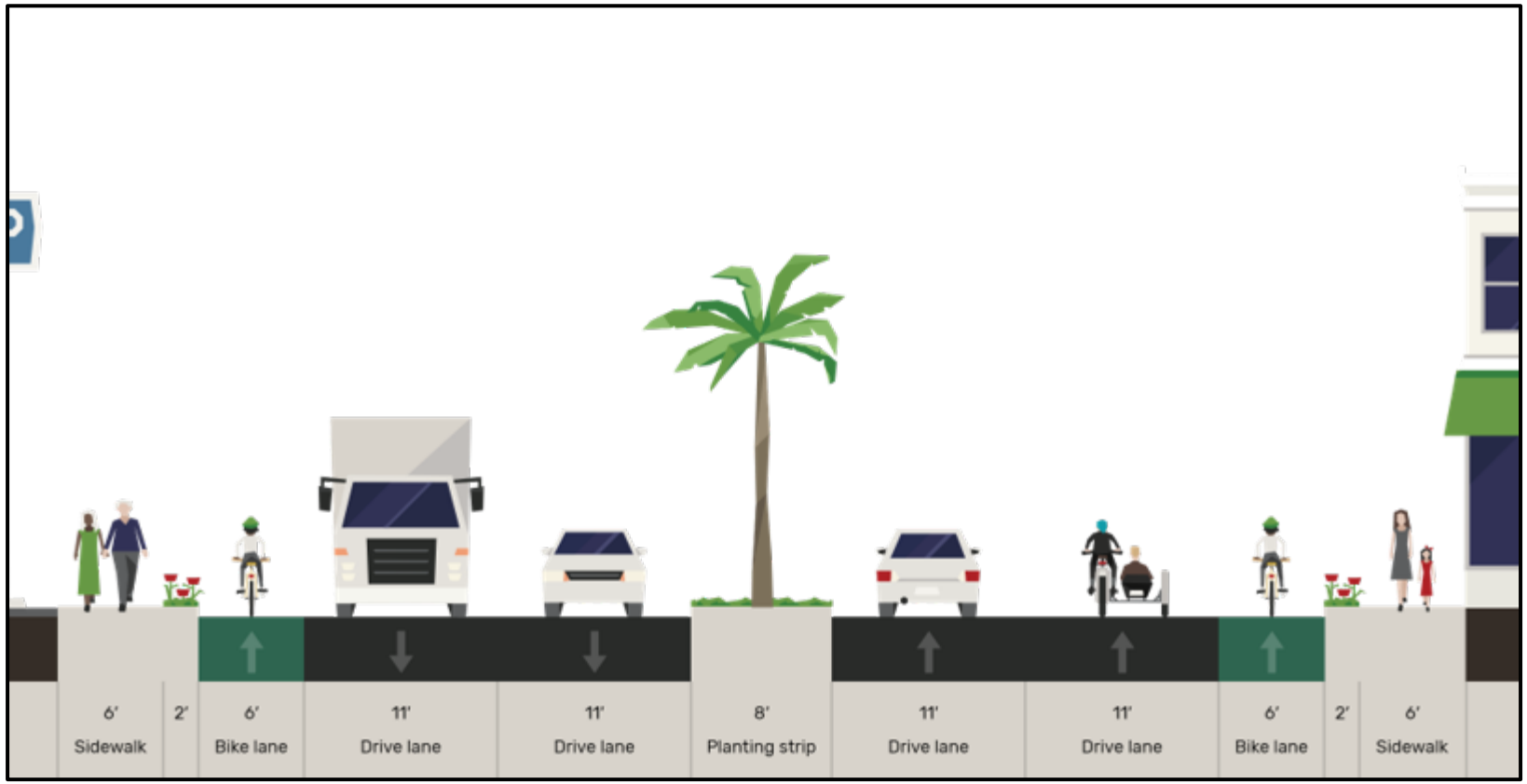


Option 2- Limits

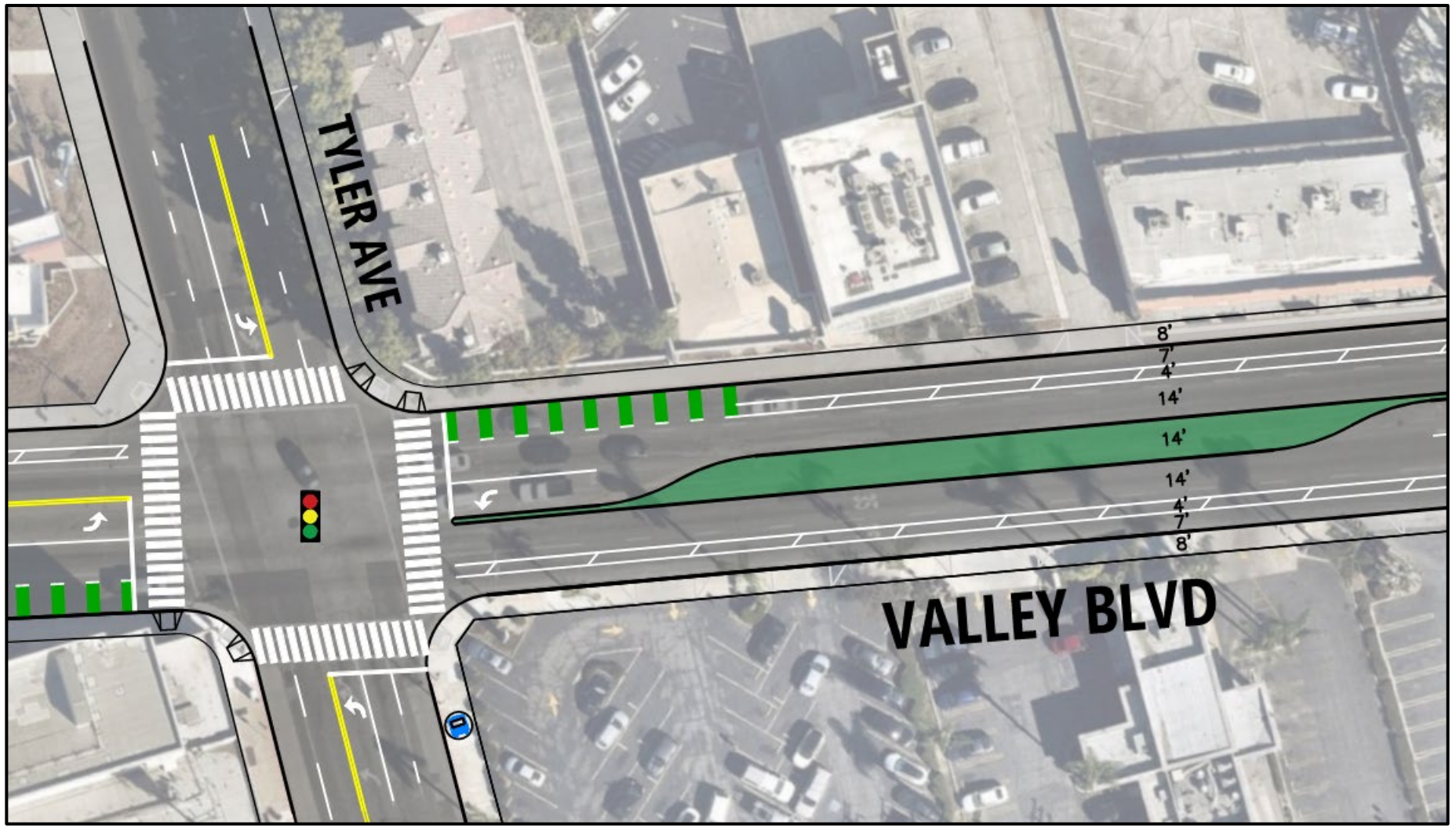




Option 2 – Cross Section



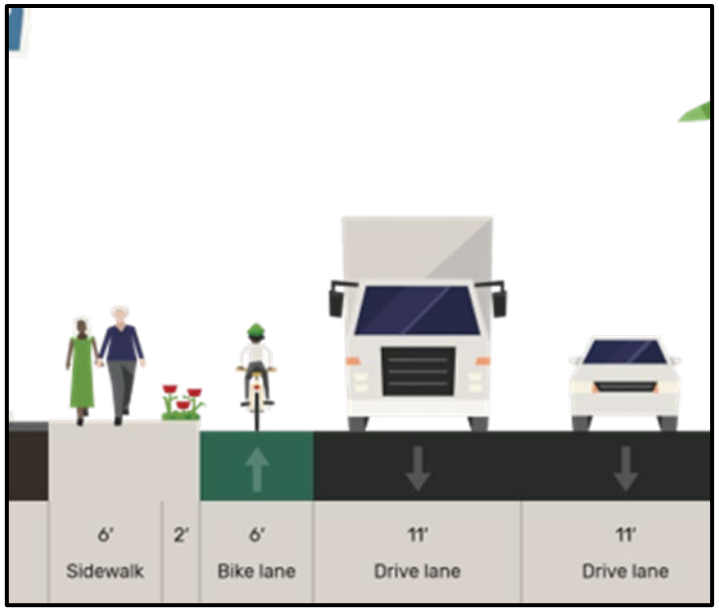
Option 2 – Plan View



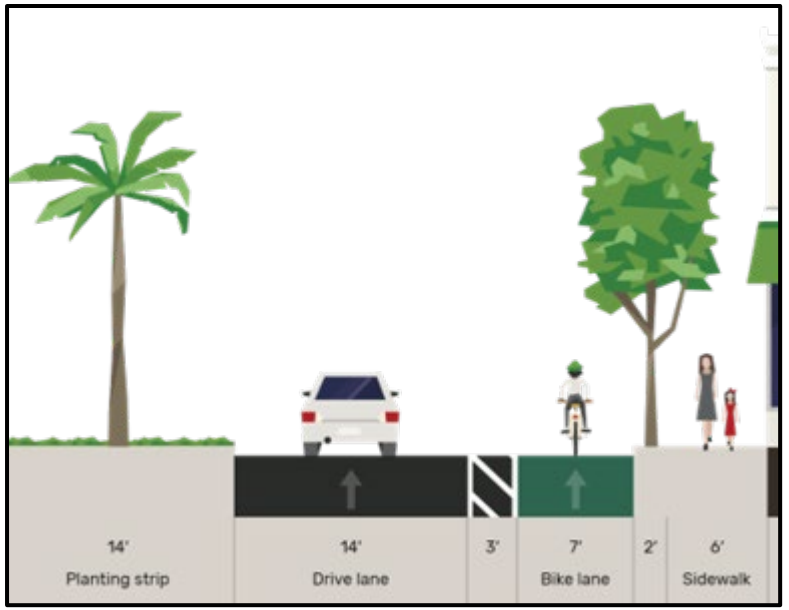
Poll #2

What option do you prefer for Segment 2?

a. Option 1



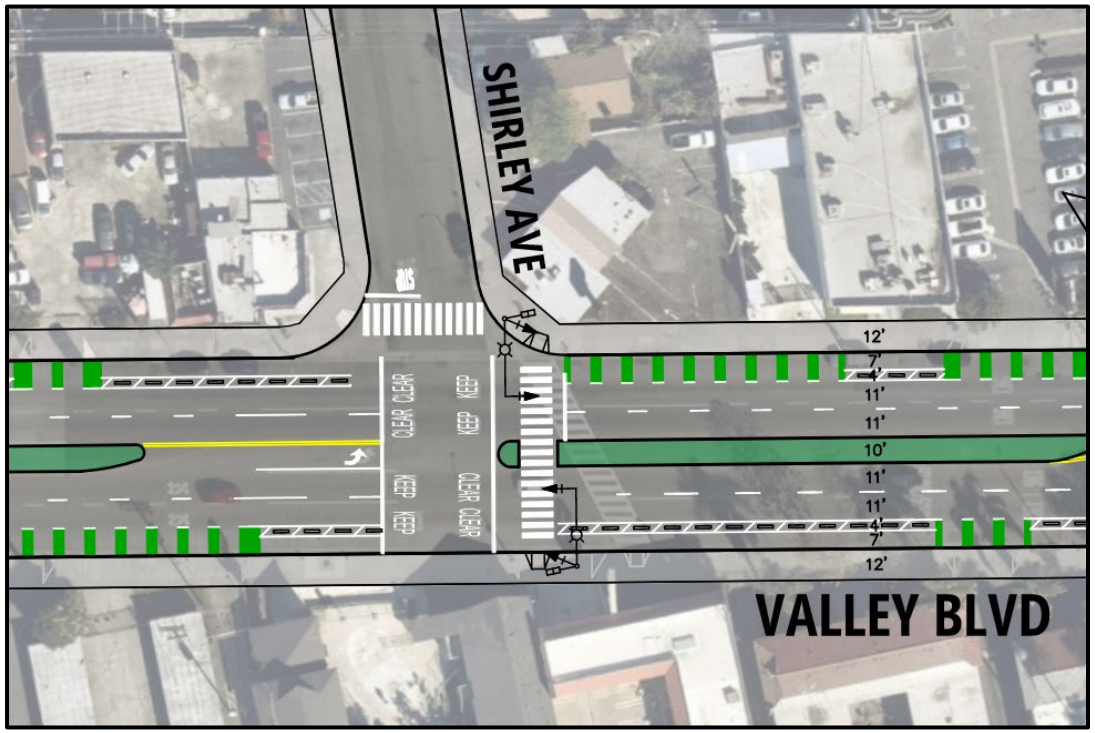
b. Option 2



Uncontrolled Crossings

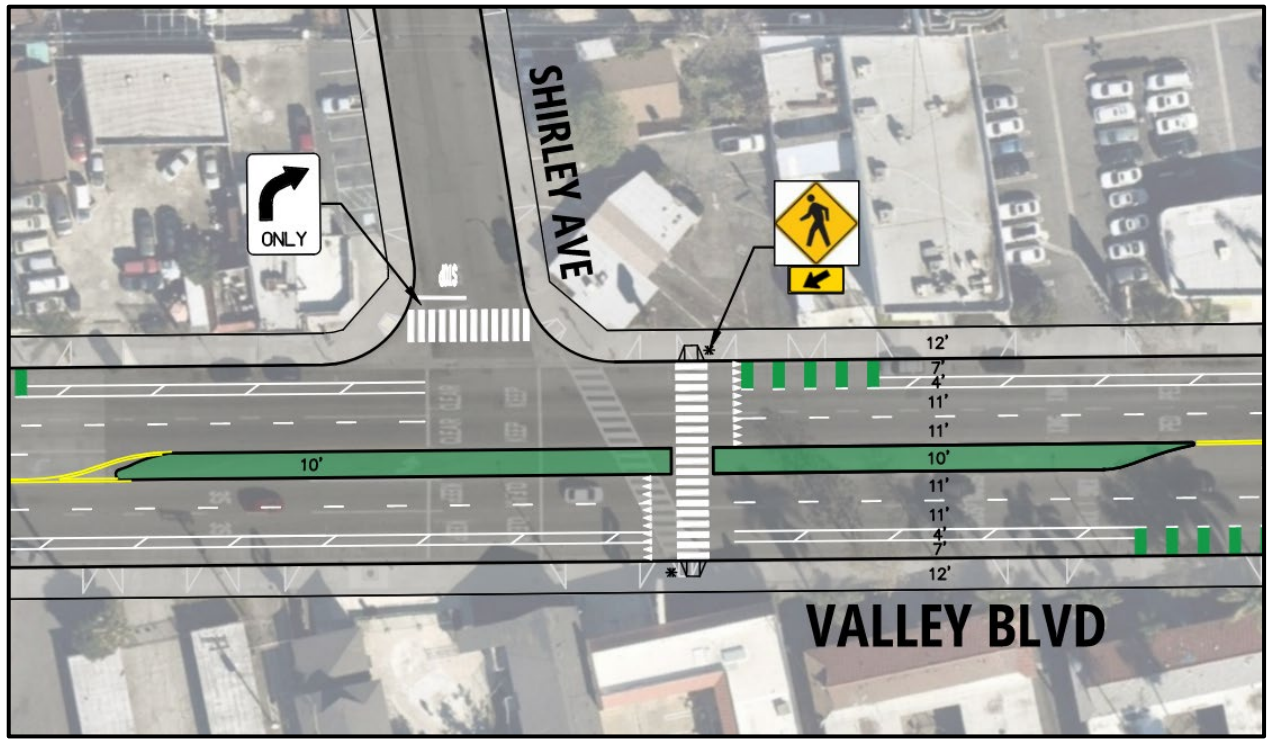


Uncontrolled Crossings – HAWK Signal





Uncontrolled Crossings – Rapid Rectangular Flashing Beacon





Which uncontrolled crossing option do you prefer?

a. Option 1



b. Option 2

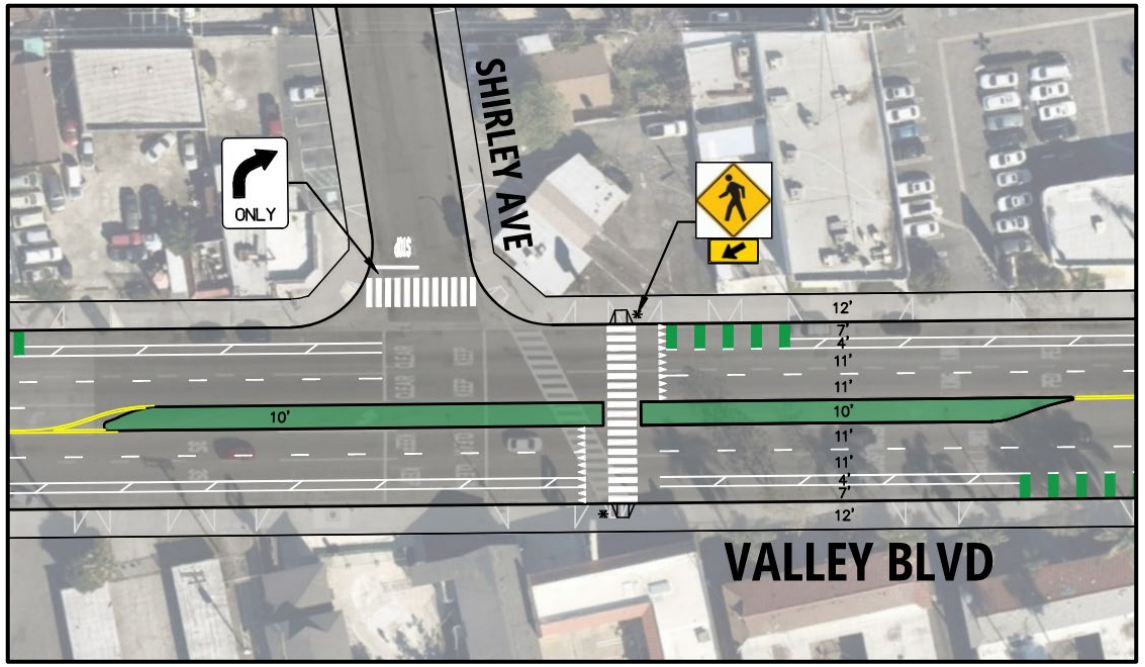


Poll #4

Are you open to the idea of adding more raised medians which limit vehicular access but improve crossing for pedestrians and limit vehicular conflicts?

a. Yes **b.** No

c. Depends on location (please indicate where)



Parking



Poll #5

When you travel to Valley Boulevard, where do you park?

a. Private Lots Off-Street

b. Public Lots Off-Street

c. On-Street

d. I don't park near Valley Blvd

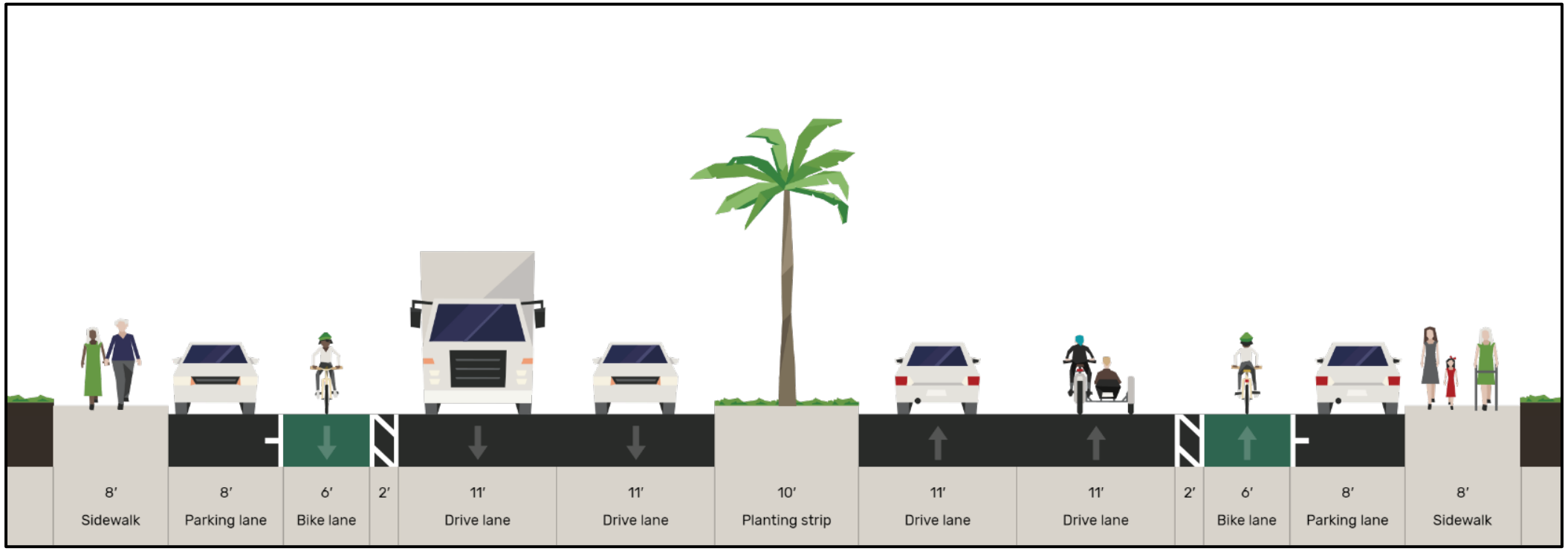
Poll #6

On-street parking is necessary on Valley Blvd.

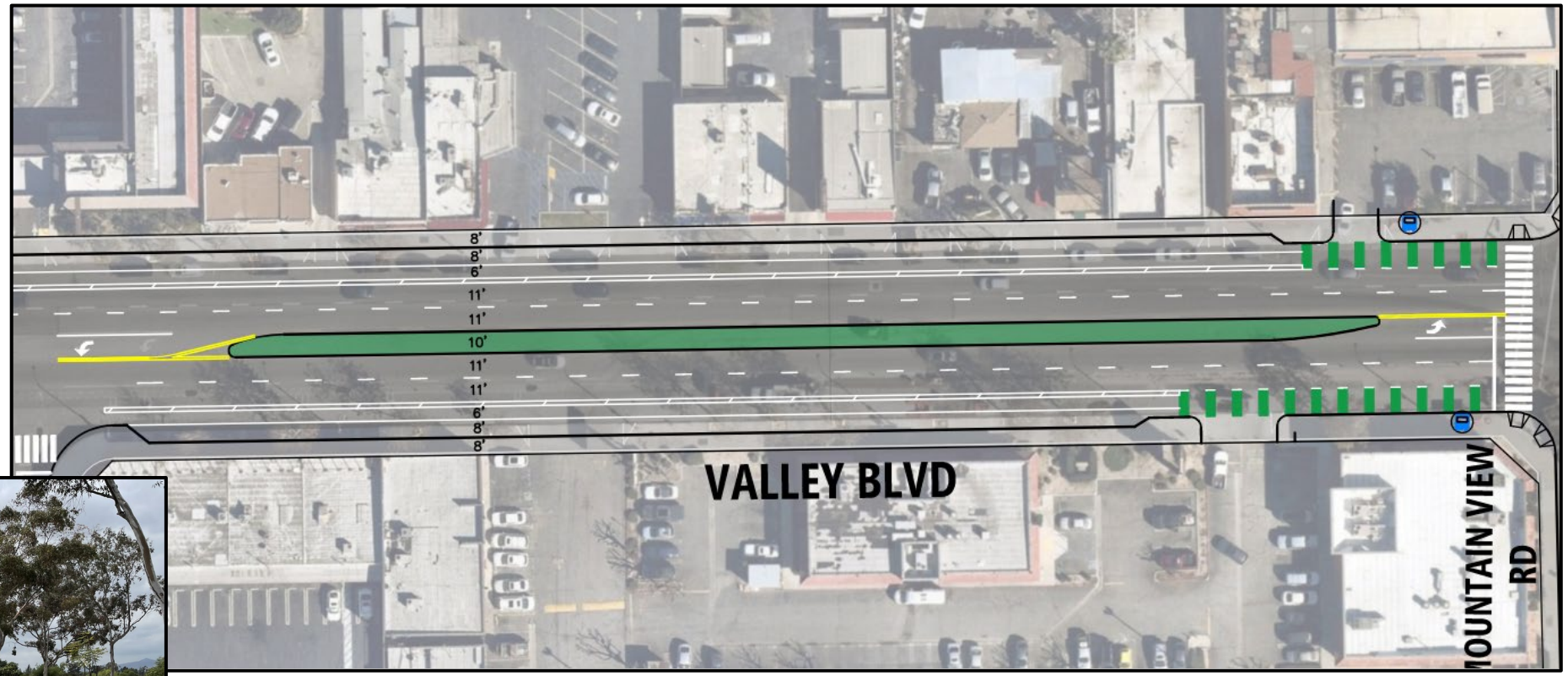
a. Strongly Agree **b.** Agree

c. Neutral **d.** Disagree **e.** Strongly Disagree

Parking


8′
Sidewalk
8′
Parking lane
6′
Bike lane
2′
11′
Drive lane
11′
Drive lane
10′
Planting strip
11′
Drive lane
11′
Drive lane
2′
6′
Bike lane
8′
Parking lane
8′
Sidewalk

Parking

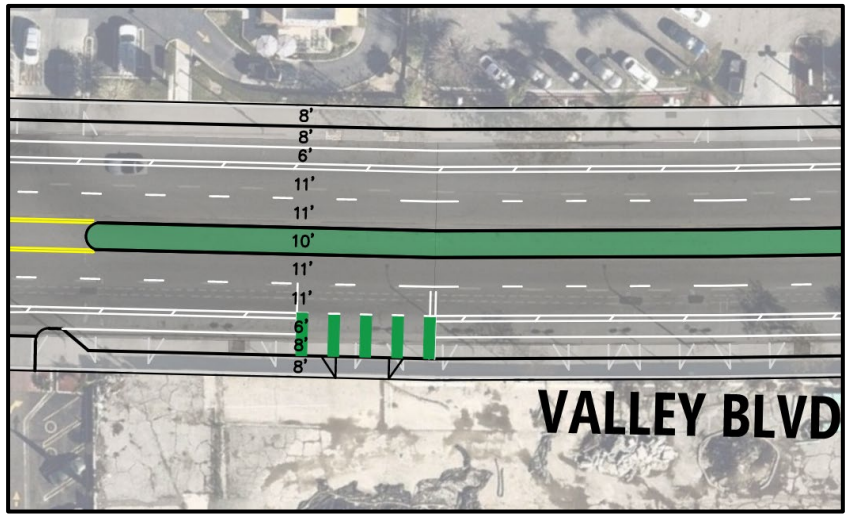




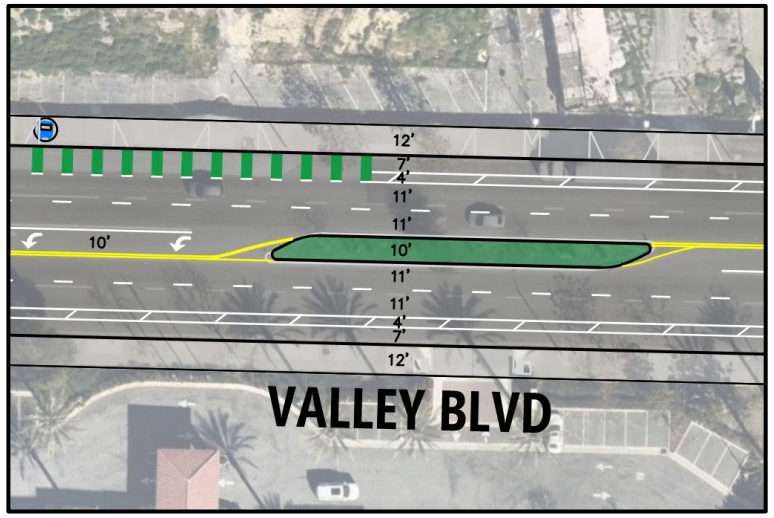
Poll #7

Which parking option do you prefer on Valley Blvd?

a. Parking Pockets



b. No Parking

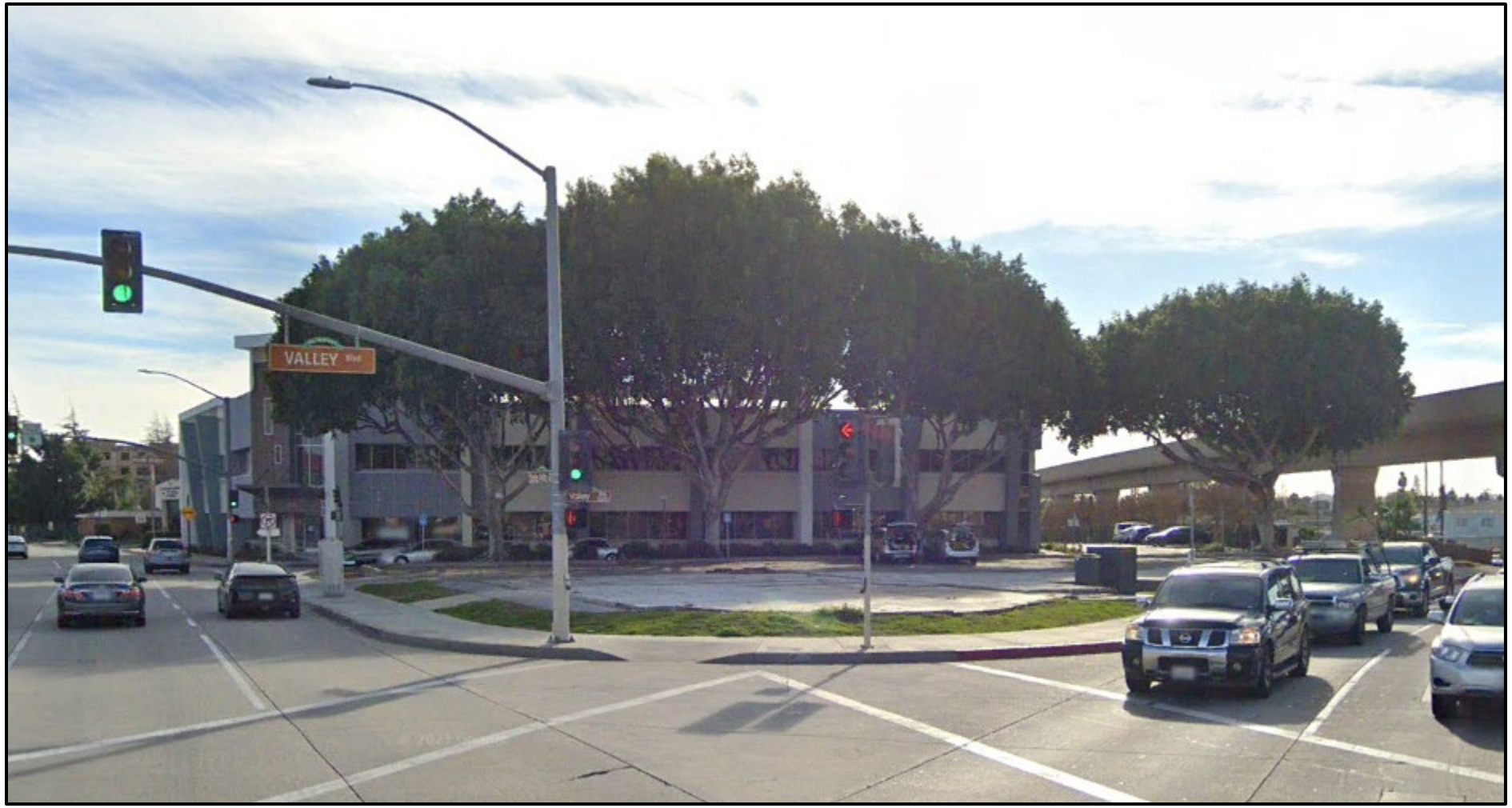


c. Mix of Both

Santa Anita Mini Park

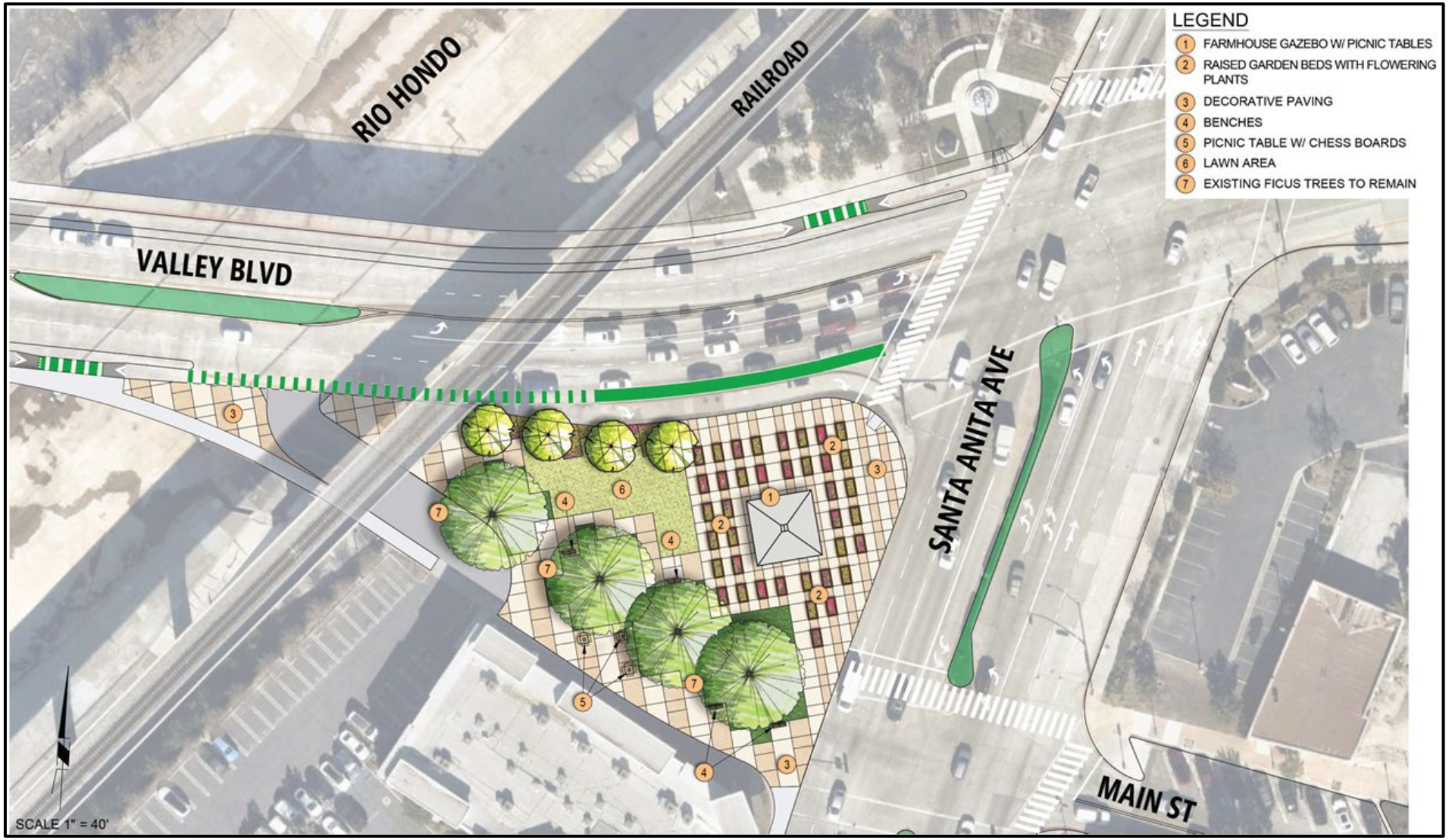


Existing Conditions



Proposed Concepts- Santa Anita Mini Park

Option 1



Poll #8

What is something you like about the Mini Park Option 1?

a. Farmer's Market Theme
b. Raised Garden Beds
c. Shaded Seating
d. Table Games
e. All of the above
f. None of the above
g. Other (please state)

Proposed Concepts - Santa Anita Mini Park

Option 2



Poll #9

What is something you like about the Mini Park Option 2?

a. Natural Aesthetic **b.** Open Lawn Space
c. Decorative Paving Maze **d.** Table Games
e. All of the above **f.** None of the above
g. Other (please state)

Poll #10

Which option do you prefer for the Mini Park?

a. Option 1 **b.** Option 2

Future Engagement Opportunities

Upcoming Events and Meetings

Main Street Farmer's Market

Date: Thursday, August 3
Time: 5:00-9:00 p.m.





Stay Connected

Thank you for joining us today!

Steven Wright
City Project Manager

Lee Torres
City Engineer

EMcompletestreets.com

completestreets@elmonteca.gov

CityofElMonte

myelmonte

MyElMonte

For more information, scan the QR code with your mobile phone or visit: https://linktr.ee/emcompletestreets

VALLEY BLVD
COMPLETE STREETS

Open Discussion/Questions



APPENDIX B

E-Blast Notifications

Initial Invite E-blast



Join us for the upcoming Community Advisory Committee Meeting!

The City of El Monte continues efforts on the Valley Boulevard and Main Street Complete Streets Feasibility Study. This Study will help identify key improvement needs that will allow for safe travel along and across Valley Boulevard and Main Street. Complete streets features will help connect the community safely to local and regional transit services, residences, businesses, parks, and other community destinations. We appreciate your participation in this process and look forward to continuing to work together to make our streets safer, more accessible, and vibrant for all users.

Join us for our second virtual Community Advisory Committee meetings and let us know your thoughts!

Please select the meetings you would like to attend below:

Community Advisory Committee Meeting #2 - Valley Boulevard
Date: Thursday, July 20
Time: 1:30 – 2:30 p.m.
Location: Virtual meeting via Zoom

RSVP HERE

Community Advisory Committee Meeting #2 - Main Street
Date: Thursday, July 20
Time: 3:00 – 4:00 p.m.
Location: Virtual meeting via Zoom

RSVP HERE

Live Spanish interpretation will be available. *Habrá interpretación en español en vivo disponible.* Additional language interpretation can be requested 72 hours in advance at completestreets@elmonte.ca.gov.

Take the Survey

Participate in the survey and share your valuable input to create safer, more accessible, and vibrant streets for all. To access the survey, scan the QR code with your mobile phone or visit EMCompleteStreets.com.

Stay Connected

For more information visit EMCompleteStreets.com.

Reminder E-Blasts



Be part of the upcoming Community Advisory Committee Meeting!

Join us on Thursday, July 20 and continue to help us identify key improvement needs that will allow for safe travel along and across Valley Boulevard and Main Street.

The Valley Boulevard and Main Street Complete Streets Feasibility Study is focusing on safety improvements for pedestrians, non-motorized and motorized vehicles; multi-modal opportunities; drainage improvements; street lighting improvements; Americans with Disabilities (ADA) enhancements and upgrades; low impact development; and street tree and landscape improvements.

We look forward to continuing to work together to make our streets safer, more accessible, and vibrant for all users.

Please select the meetings you would like to attend below:

Community Advisory Committee Meeting #2 - Valley Boulevard
Date: Thursday, July 20
Time: 1:30 – 2:30 p.m.
Location: Virtual meeting via Zoom

RSVP HERE

Live Spanish interpretation will be available. *Habrá interpretación en español en vivo disponible.* Additional language interpretation can be requested 72 hours in advance at completestreets@elmonte.ca.gov.

Take the Survey

Participate in the survey for the City of El Monte Complete Streets project and share your valuable input to create safer, more accessible, and vibrant streets for all. To access the survey, scan the QR code with your mobile phone or visit EMCompleteStreets.com.

Stay Connected

For more information visit EMCompleteStreets.com.

APPENDIX E

Community Advisory Committee Meeting #3
Summary with Appendices

VALLEY BLVD MAIN STREET

COMPLETE STREETS

Valley Boulevard and Main Street Complete Streets Feasibility Study

Community Advisory Committee Meeting #3
Summary Report

1. Meeting Overview

As part of the planning efforts for the City of El Monte's Valley Boulevard and Main Street Complete Streets Feasibility Study, Community Advisory Committee (CAC) meetings for Valley Boulevard and Main Street were held to discuss the proposed concepts.

Two CAC meetings were held:

- **CAC #3- Valley Boulevard**
  Date: Wednesday, November 29
  Time: 1:30 – 2:30 p.m.
  Location: Virtual Via Zoom

- **CAC #3- Main Street**
  Date: Thursday, November 30
  Time: 8:00 – 9:30 a.m.
  Location: Main Street

Live Spanish interpretation was made available throughout the meeting for participants.





2. Meeting Agenda

The following agenda items were discussed during both CAC meetings:

- Project Team Introductions
- Goals and Objectives of this Project
- Overview of Existing Conditions
- Listening Session – Breakout Rooms
- Alternatives Overview
- Q&A Segment
- Future Engagement Opportunities

To view the presentations shared during each meeting, see *Appendix A*.

3. Meeting Notification

Stakeholders part of the CAC Candidate List were invited via e-blast to the CAC meetings. Additionally, calls were made to stakeholders who had not RSVP'd to confirm their interest in attending.

Table 1. E-Blast Notification Schedule

E-blast to CAC Candidate List	Date Sent
Initial	11/16/2023
Reminder #1	11/28/23
Reminder #2	11/29/23

To view the e-blasts, please reference *Appendix B*.

4. Attendee Reports

Members of the following organizations, groups and agencies were invited to be part of the CAC meetings:

- Active SGV
- El Monte Business Association (DEMBA)
- Residents

Table 2. CAC #3 Valley Boulevard Meeting Attendees

No.	Name	Organization
1	David Diaz	Active SGV

Table 3. CAC #3 Main Street Meeting Attendees

No.	Name	Organization
1	Blanca Gonzalez	DEMBA
2	Blanca Medina	DEMBA
3	Charles Hoffman	DEMBA

No.	Name	Organization
4	Adrian	Titi's Shoes
5	Ariel	Titi's Shoes

5. Participant Input

Participants were able to provide input and ask questions during the breakout rooms and Q&A segment of the meeting. Below are key points discussed during both meetings.

Table 3. CAC #3 Valley Blvd Key Themes

Meeting	Key Themes
Bike lanes	• Inquiry about the possibility of longer and taller buffers for enhanced safety. • Suggestion to implement vertical protection on Valley Street due to its high speed. • Emphasis on finding ways to make the area more vibrant for a significant improvement.
Raised bus stops	• During the discussion of public spaces, it was noted that improvements could be made to the lighting along the corridor to increase security, particularly around parking lots. • Backing up is one of the most unsafe driving movements.
Mini Park	• Inquiry about the popularity of the two presented designs and their reception. • Proposal to highlight features of the mini-park for increased visibility and attraction. • Positive response to Main Street changes, such as temporary closures for events, pedestrian-friendly initiatives, and increased urban canopy

Table 4. CAC #3 Main Blvd Key Themes

Topic	Key Themes
Traffic Flow Adjustments	• Proposal to reduce two lanes to one lane on Main Street (Tyler). • Noted increase in traffic and discussed the Valley Blvd cutoff.
Roundabouts	• Mixed opinions on roundabouts, with some expressing dislike. • Concerns raised about drivers ignoring yield.
Project Timing and Additional Signage	• Discussion on the timing of the project. • Proposal for additional Pod signs with flashing lights to demonstrate the roundabout at Mountain View, Elliot/Meeker.
Pedestrian Safety and Traffic Concerns	• Concerns about drivers ignoring yield, emphasizing the need for better traffic control. • Acknowledgment that pedestrians will have to walk more but need protection.
Roundabout Design and Features	• Detailed discussion on the flow of roundabouts. • Consideration for widening sidewalks, creating interactive spaces, and marking pathways (Blue=Sidewalk).

Topic	Key Themes
	• Street narrowing and its impact on the Farmers Market..
Corridor Entry Points and Signage	• Exploration of entry points along the corridor. • Consideration of signage placement on roundabouts.
Landscaping and Mini Park Options	• Proposal for landscaping on the roundabout at Tyler & Main, focusing on low-level features. • Consideration of a mini-park as an option.
Traffic Concerns	• Specific concerns expressed about traffic, especially in relation to Option 1.

6. Appendices

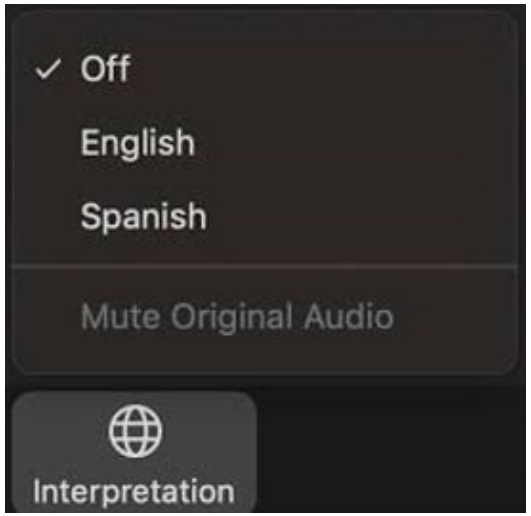
The appendices below are available for review at the end of the report.

- Appendix A. Presentations- Valley Blvd
- Appendix B. Roll Plot- Main St
- Appendix C. E-Blast Notifications

Appendix A

Presentations- Valley Blvd

Interpretation / Interpretación



This meeting is transmitted in both English and Spanish. Everyone must choose a language.

Click the **Interpretation** icon in your meeting controls to enter an *English or Spanish* room.

To hear the interpreted language only, click **Mute Original Audio** (Optional).

Esta reunión se transmite tanto en inglés como en español. Todos deben elegir un idioma.

*Haga clic en el icono de **Interpretación** en los controles de su reunión para ingresar a una sala en inglés o español.*

*Para escuchar solo el idioma interpretado, haga clic en **Mute Original Audio** o **Silenciar Audio Original** (Opcional).*

VALLEY BLVD

COMPLETE STREETS



Community Advisory Committee Meeting #3

Wednesday, November 29, 2023

Valley Boulevard Study Overview



Study Objectives

- Enhance multi-modal accommodations
- Improve safety for all users
- ADA improvements
- Incorporate low impact development
- Improve streetscape beautification and landscaping

Poll #1

Which study objectives are a priority for you?

a. Enhance multi-modal accommodations
b. Improve safety for all users
c. Americans with Disabilities Act (ADA) improvements
d. Incorporate low-impact development
e. Improve streetscape beautification and landscaping

To participate:

Go to

www.menti.com

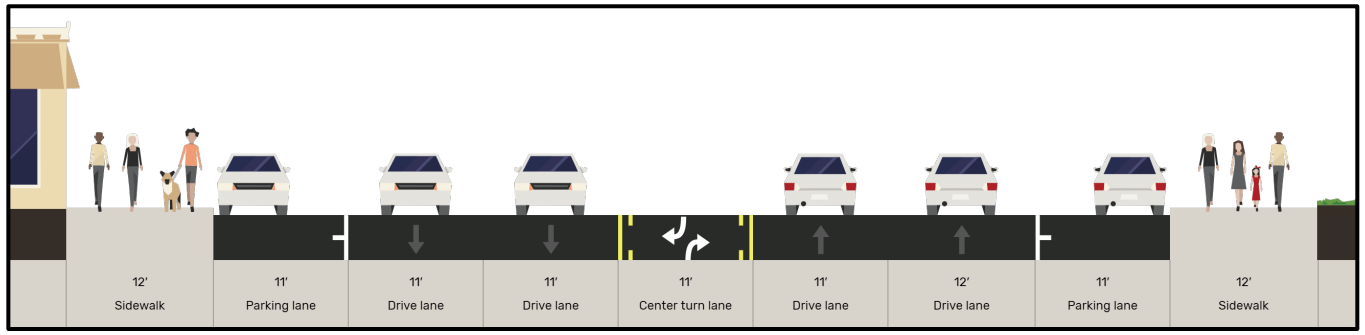
Enter the code

3629 4086

Or use QR code

Existing Conditions- Valley Boulevard

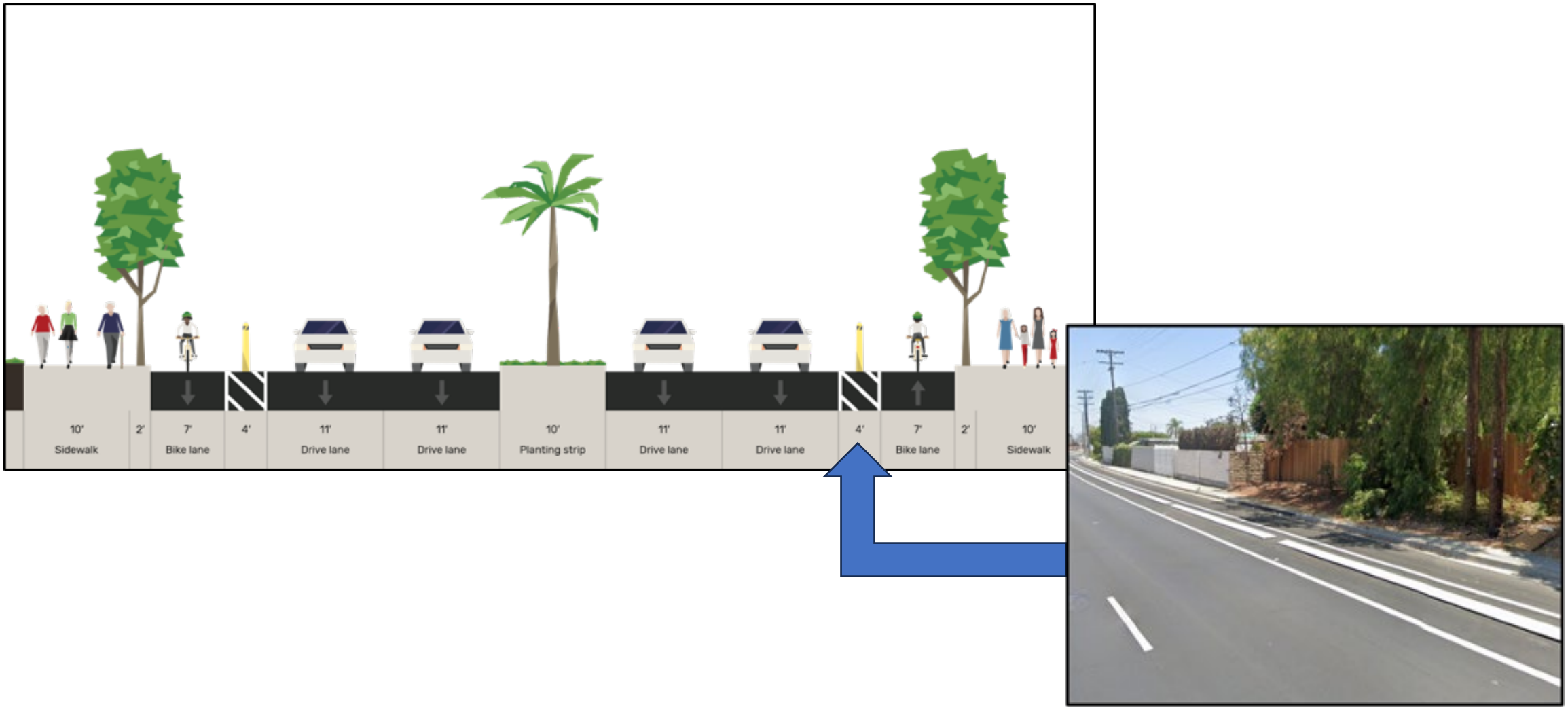
102' Width



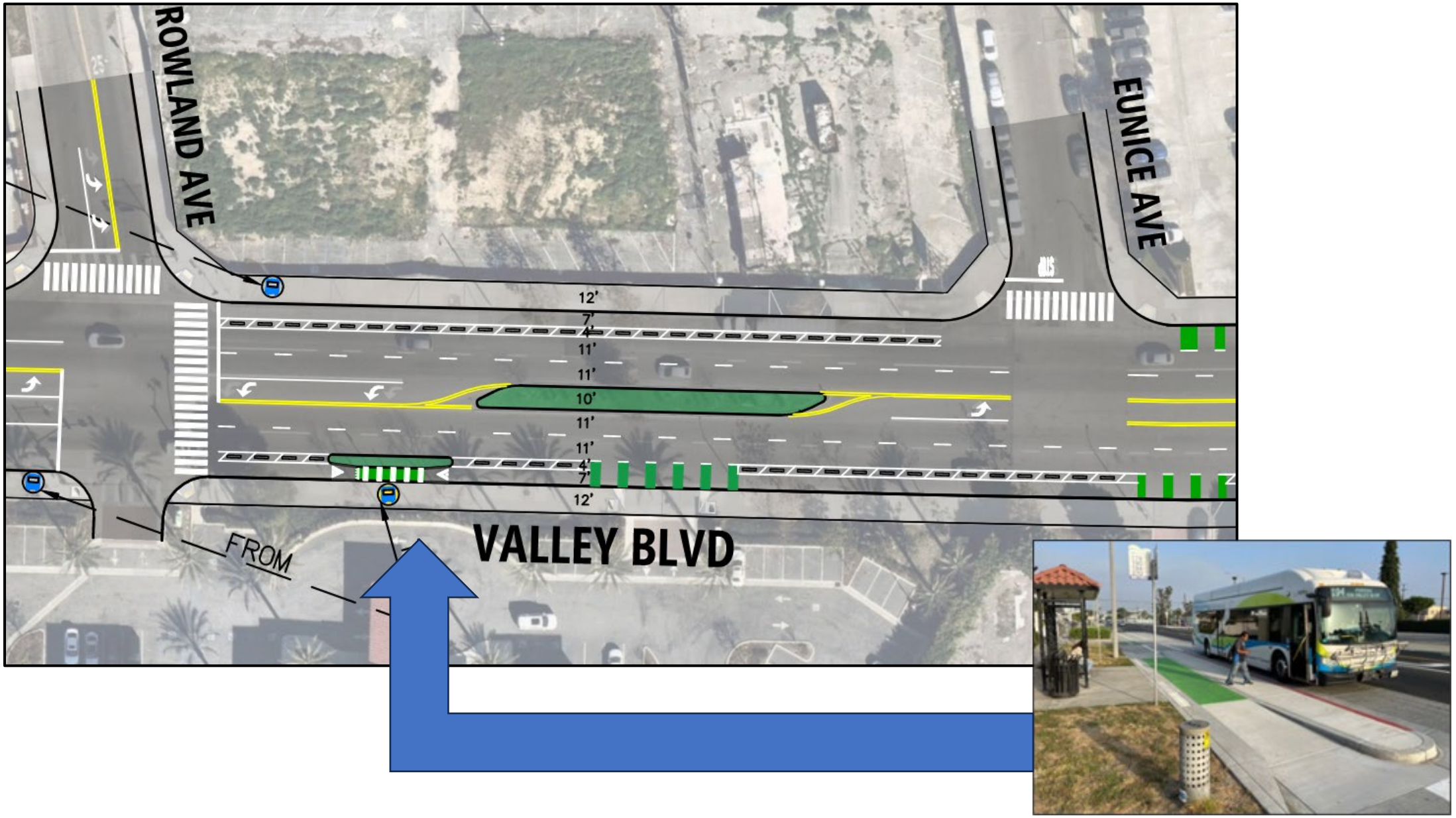


Proposed Concept – Parking Removed

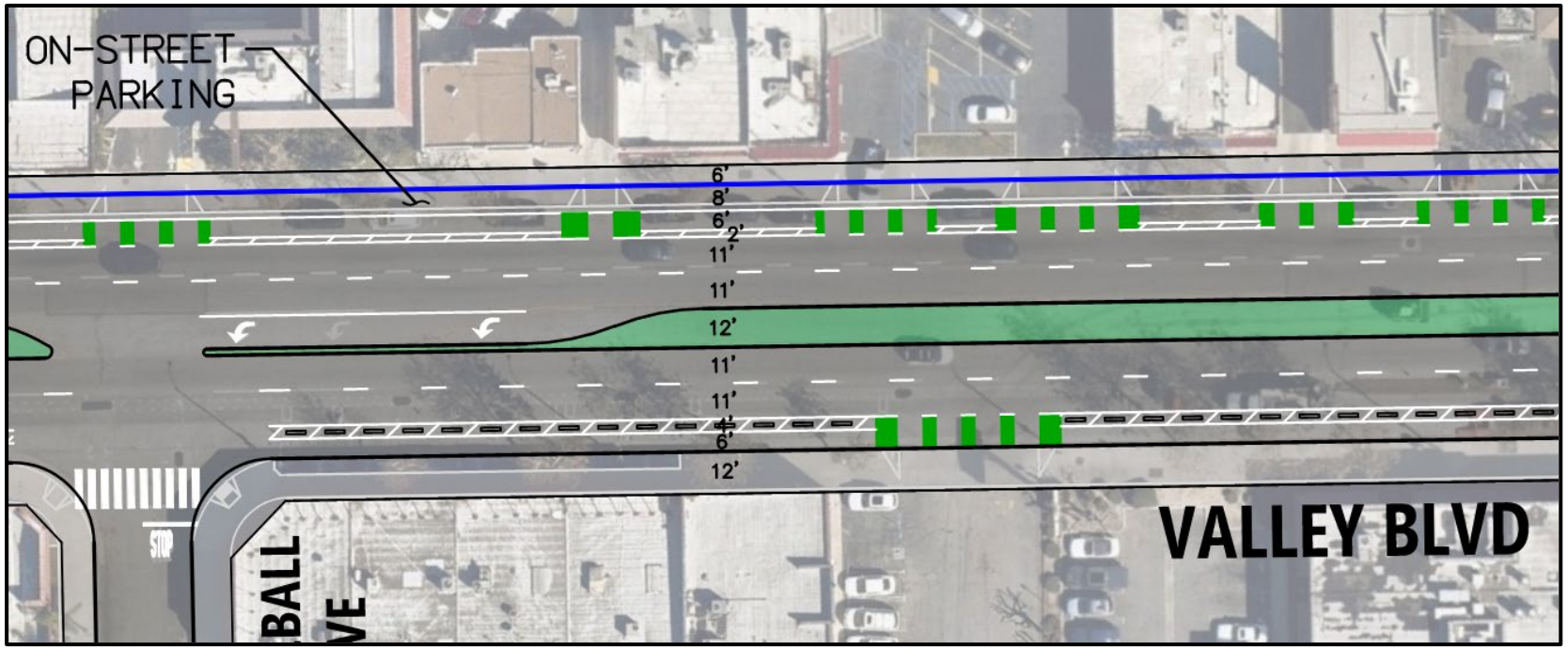
Cross Section



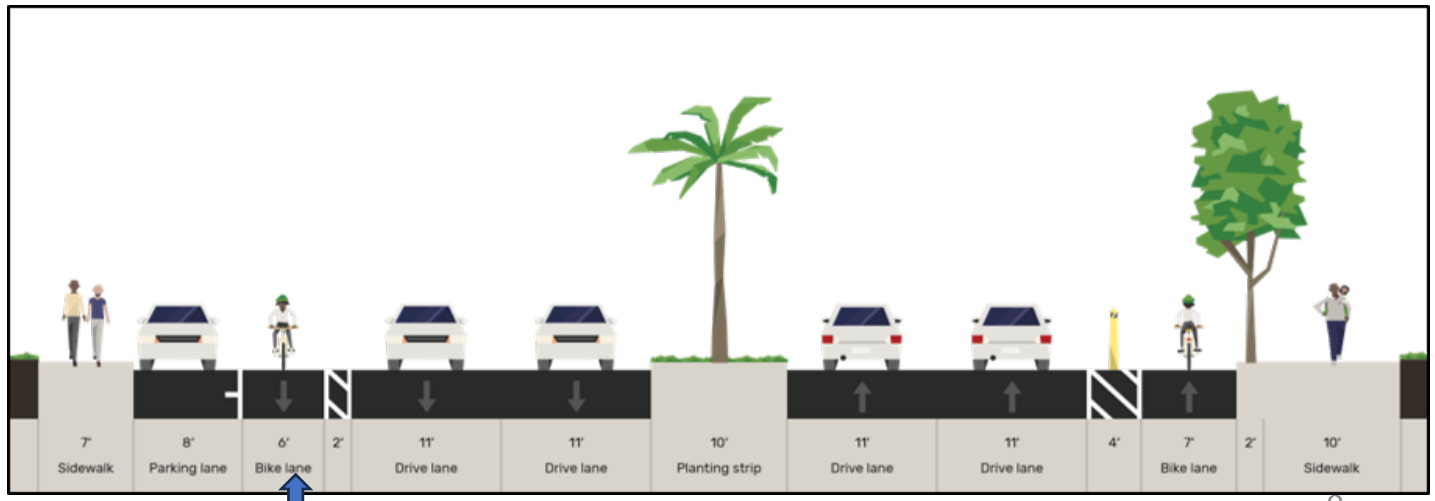
Proposed Concept – Class IV Bike Facility and Bus Islands



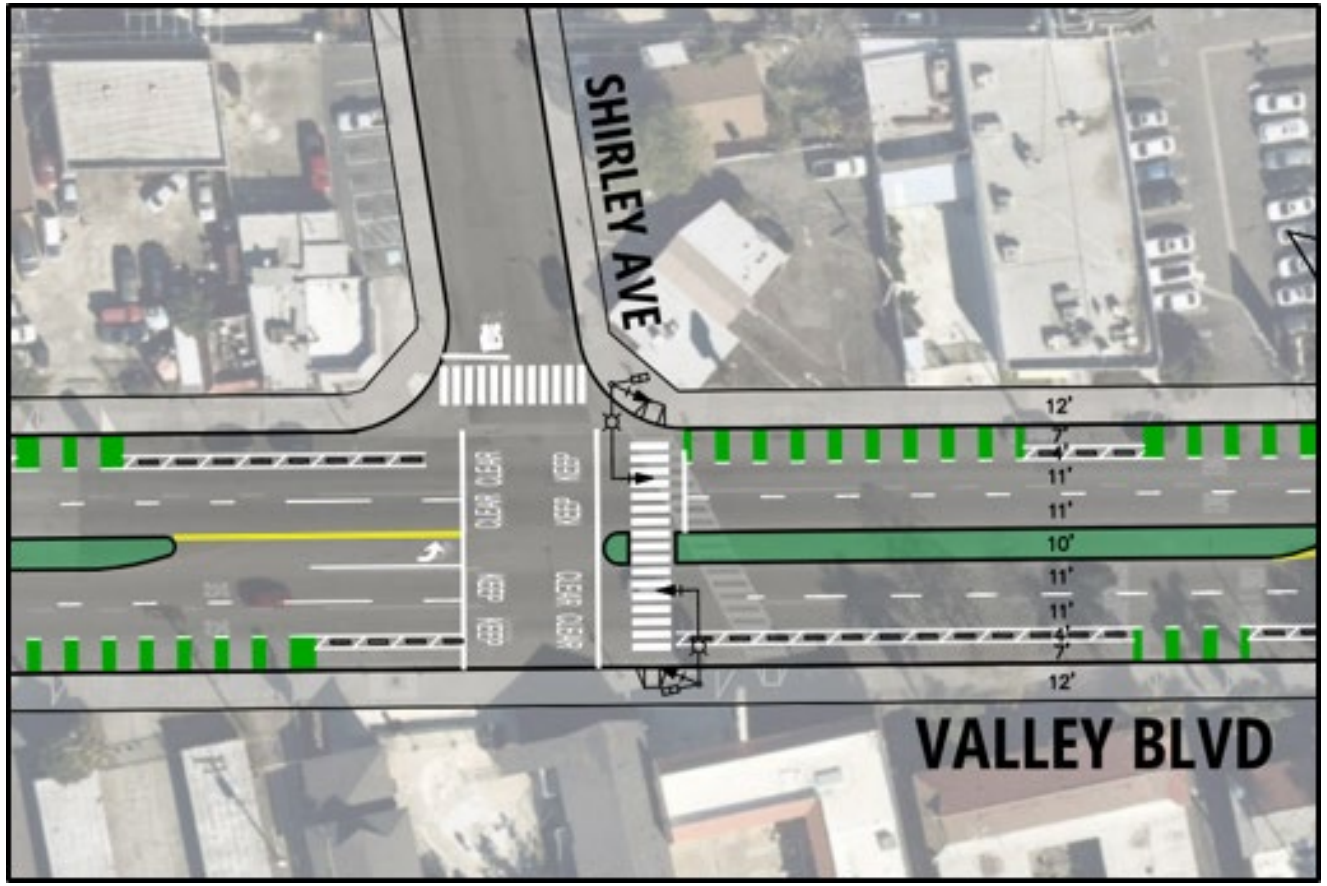
Proposed Concept – Parking Pockets







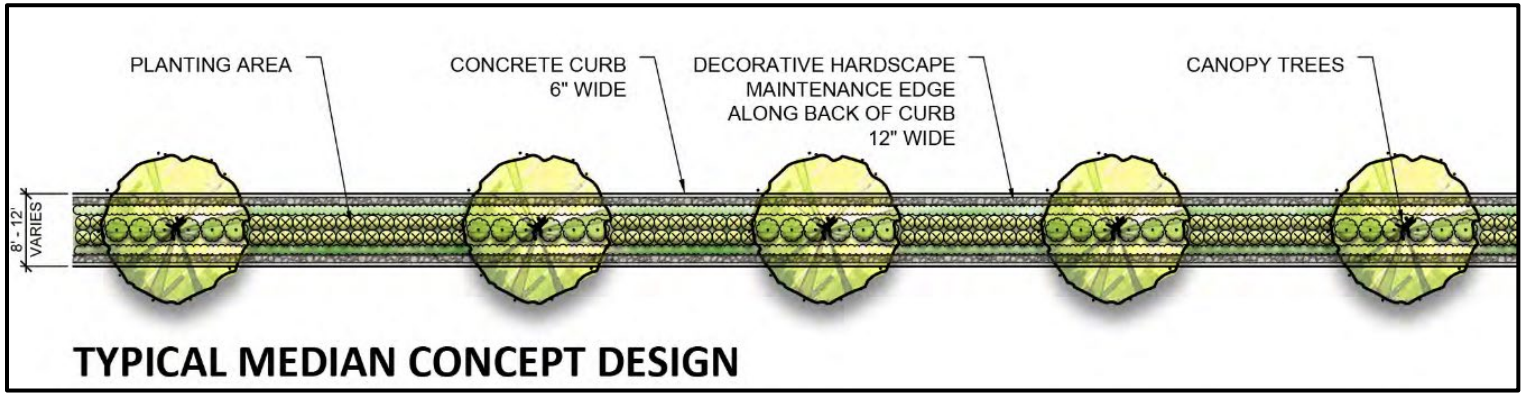
Proposed Concept – Midblock Crossings

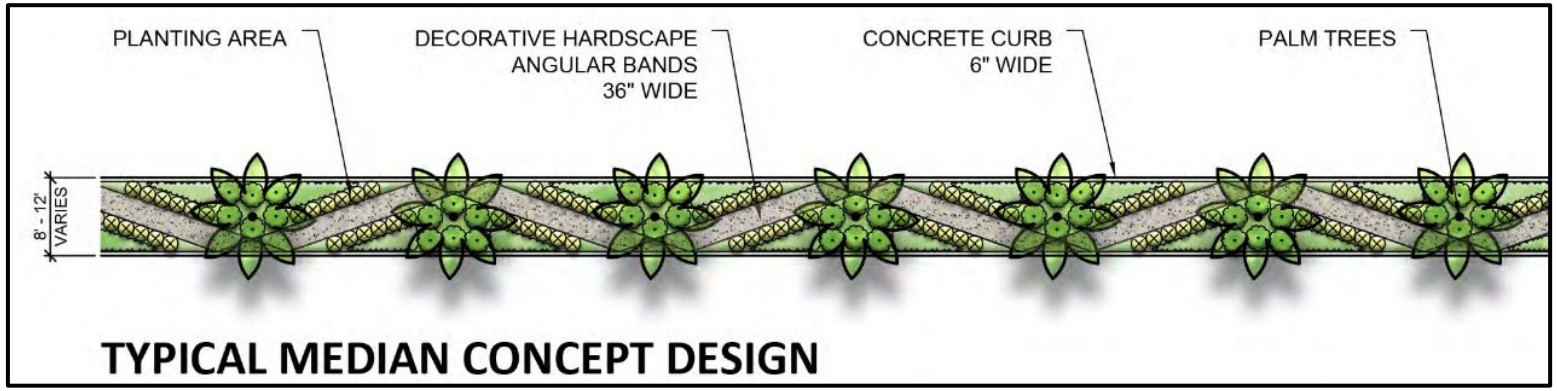




Proposed Concept - Landscaped Medians









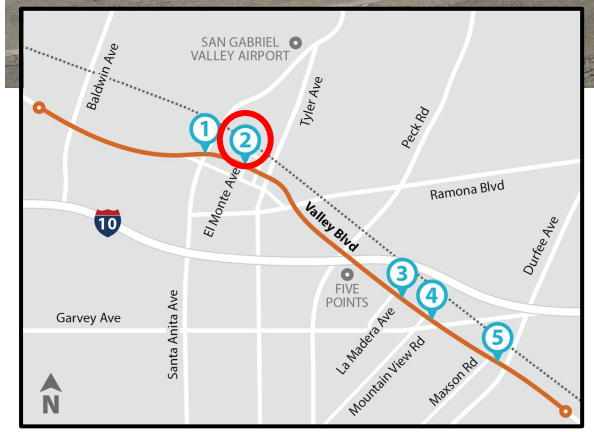
Renderings Corridor Map



Photo Renderings- *El Monte Avenue*

Before





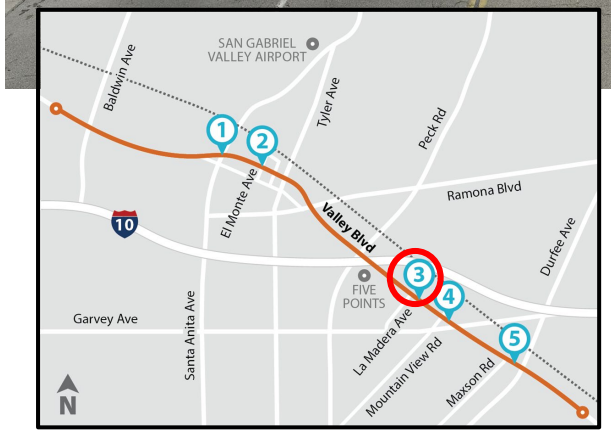
After



Photo Renderings- *Near La Madera Avenue*

Before





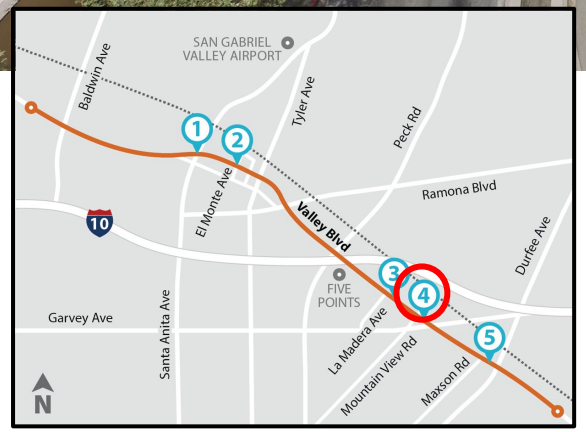
After



Photo Renderings- *Near Garvey Avenue*

Before



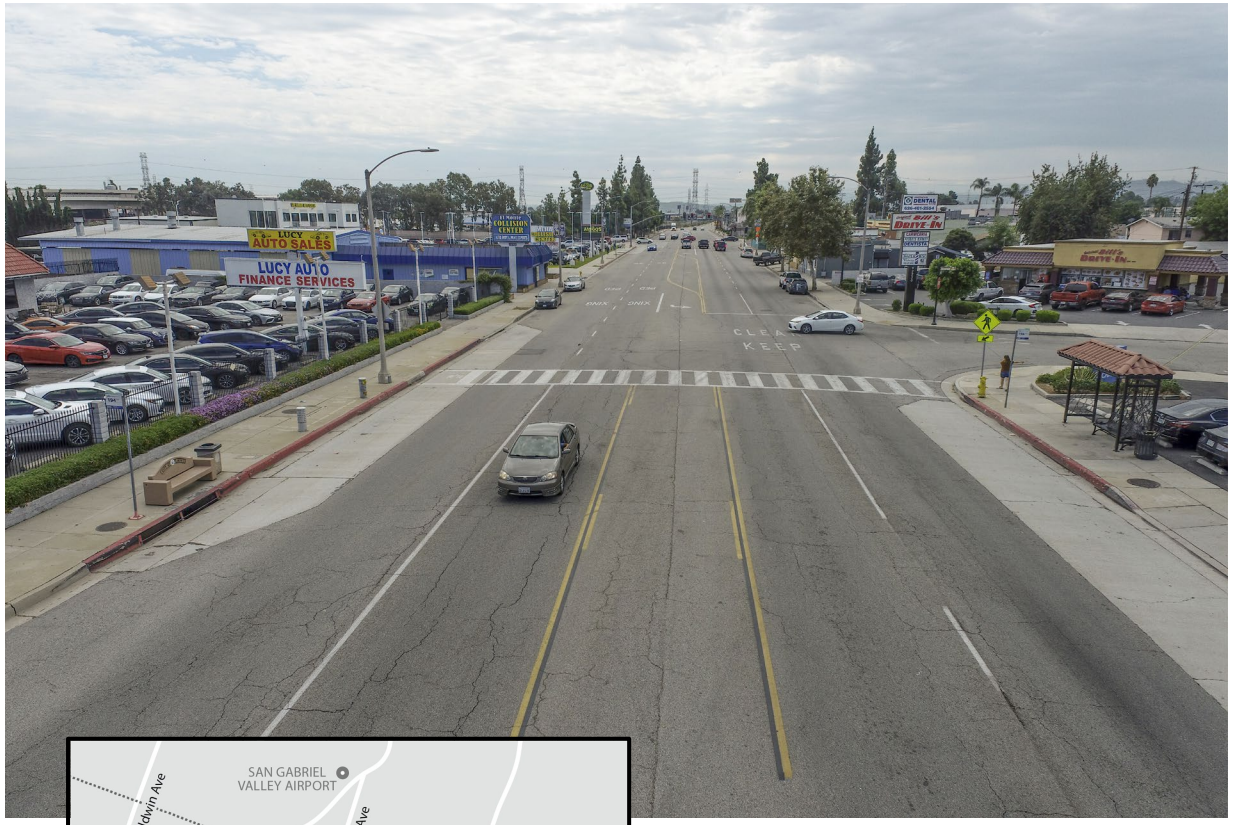


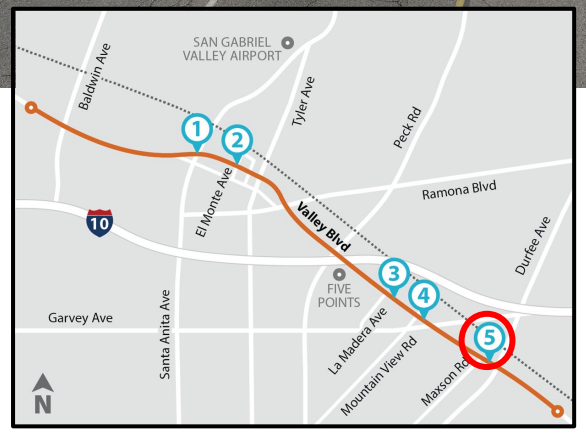
After



Photo Renderings- *Near Maxson Road*

Before





After



Poll #2

How will these improvements transform your experience on Valley Boulevard?

a. Enjoy the landscaping/streetscape
b. Makes businesses more accessible
c. I might ride my bike
d. I would feel more comfortable walking
e. Taking transit is more appealing
f. All of the above
g. None of the above
h. Other

To participate:

Go to

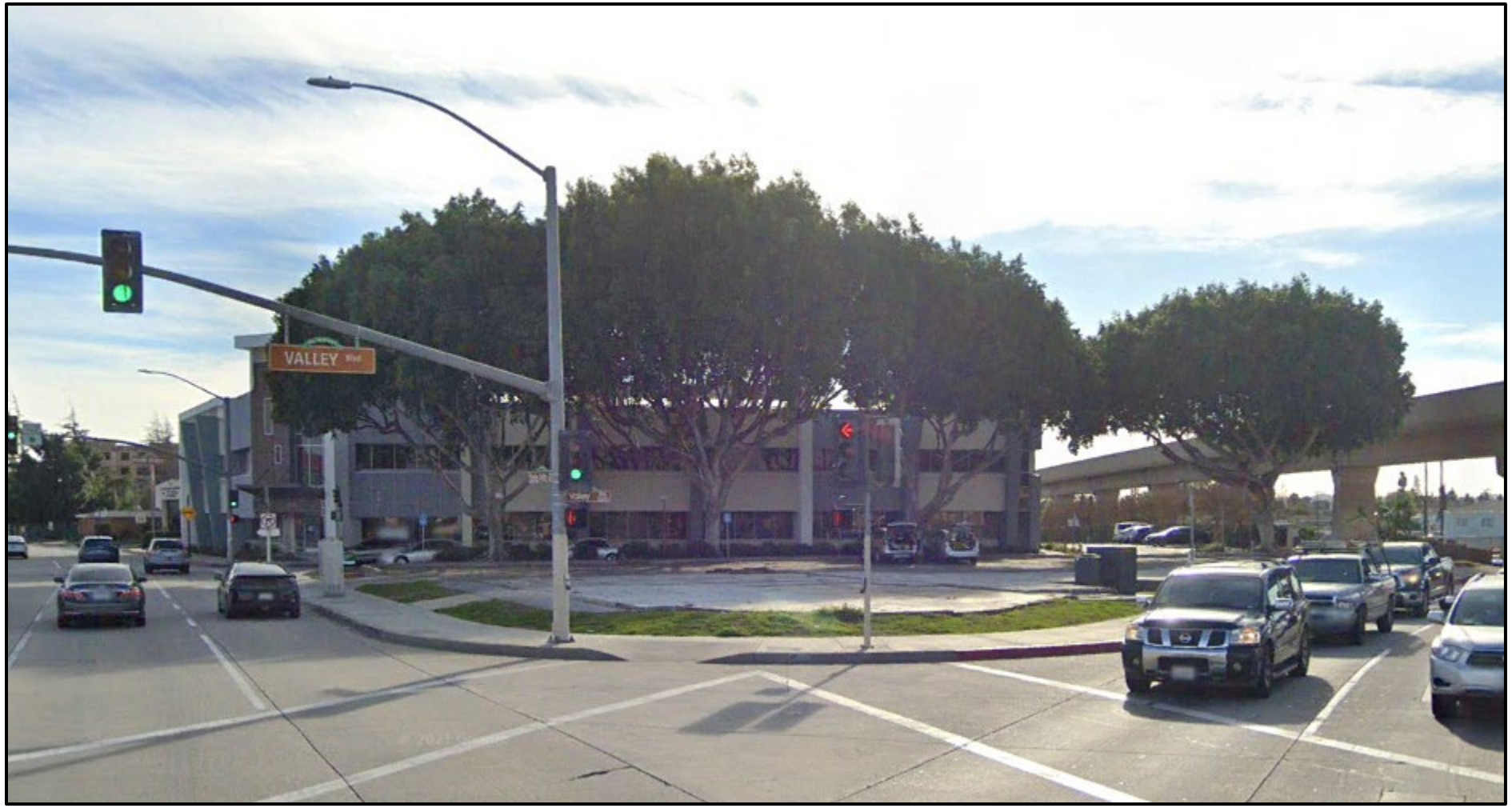
www.menti.com

Enter the code

3629 4086

Or use QR code

Existing Conditions



Poll #3

What word describes the transformation along Valley Boulevard?

To participate:

Go to

www.menti.com

Enter the code

3629 4086

Or use QR code

Option 1


RIO HONDO
RAILROAD
VALLEY BLVD
SANTA ANITA AVE
MAIN ST
LEGEND
1 BERMED LAWN AREA
2 DECORATIVE PAVING MAZE
3 DECORATIVE PAVING INSPIRED BY RIO HONDO RIVER
4 BENCHES
5 PICNIC TABLE W/ CHESS BOARDS
6 EXISTING FICUS TREES TO REMAIN
SCALE 1" = 40'

Santa Anita Mini Park

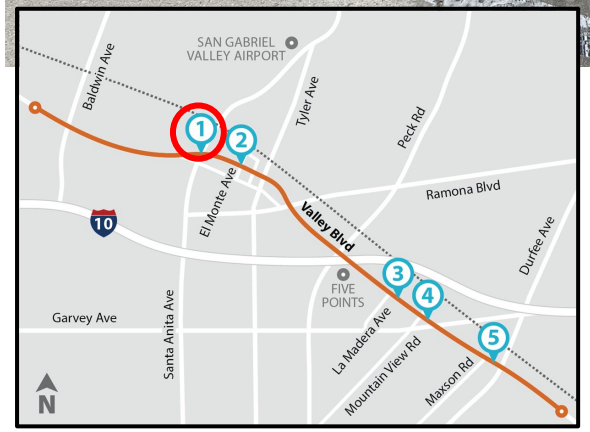
Option 2



Photo Renderings *Santa Anita Intersection*

Before





After



Poll #4

What features do you like about the mini-park options?

a. Landscaping
b. Lighting
c. Water Feature
d. Interactive Feature
e. Memorial Wall
f. Passive Space
g. All of the above
h. None of the above

To participate:

Go to

www.menti.com

Enter the code

3629 4086

Or use QR code

Poll #5

Which one of the mini-park options do you prefer?

a. Option1
b. Option 2

To participate:

Go to

www.menti.com

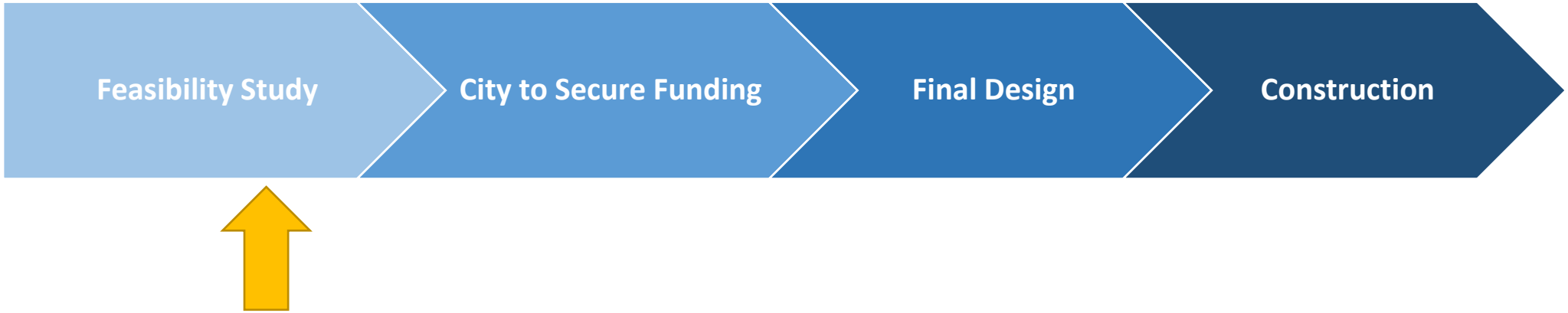
Enter the code

3629 4086

Or use QR code

Next Steps

- City Council Input
- Finalize Feasibility Study
- City to Pursue Grant Funding
- Final Design
- Construction



Stay Connected

Thank you for joining us today!

Steven Wright
City Project Manager

Lee Torres
City Engineer

Please submit comments or questions by December 15th!

EMcompletestreets.com

completestreets@elmonteca.gov

CityofElMonte

myelmonte

MyElMonte

For more information, scan the QR code with your mobile phone or visit: https://linktr.ee/emcompletestreets

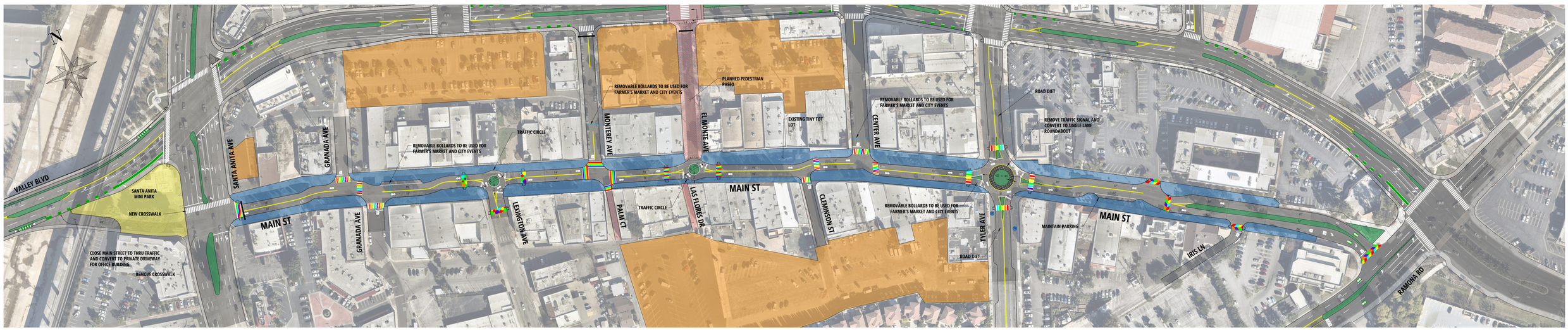
VALLEY BLVD
COMPLETE STREETS

Questions & Answers



Appendix B

Roll Plot- Main St



LEGEND

- CURB
- PROPOSED STRIPE
- BIKE LANE CONFLICT AREA
- EXISTING BUS STOP
- SIDEWALK
- RAISED MEDIAN
- PEDESTRIAN PASEO
- TRUCK APRON
- TRAFFIC SIGNAL
- PUBLIC PARKING
- SIDEWALK/LANDSCAPING /COMMUNITY SPACE
- EXISTING CURB RAMP
- PROPOSED CURB RAMP
- GATEWAY SIGN
- PERMANENT BOLLARD
- REMOVABLE BOLLARD

80 40 0

SCALE: 1"=80'

Main Street
Draft Corridor Concept Plan

Appendix C
E-Blast Notifications

Initial Eblast



Introducing Updated Concepts Based on Your Feedback!

¡Presentamos conceptos actualizados basados en sus comentarios!

Come Explore the New Proposed Concepts!
Join us for the 3rd Community Advisory Committee Meetings focusing on making Valley Boulevard and Main Street accessible for all users. Provide feedback on proposed concepts and contribute to making an impact in your community.

¡Venga a explorar los nuevos conceptos propuestos!
Acompáñenos para la tercera reunión del Comité Asesor Comunitario que se centra en hacer que Valley Boulevard y Main Street sean accesibles para todos los usuarios. Proporcione comentarios sobre los conceptos propuestos y contribuya a tener un impacto en su comunidad.



Upcoming Meetings/*Próximas reuniones*

Valley Boulevard

Join us for an engaging virtual meeting where we will discuss the new proposed concepts for Valley Blvd!

¡Acompáñenos a una reunión virtual en la que hablaremos acerca de los nuevos conceptos propuestos para Valley Boulevard!

Date/*Fecha*:
Wednesday, November 29, 2023
Miércoles, 29 de noviembre de 2023
Time/*Hora*:
1:30 - 2:30 p.m.
Location/*Ubicación*:
Zoom

Register Here/ Regístrese aquí

Main Street

Join us for a breakfast meeting where we will discuss the new proposed concepts for Main St!

¡Acompáñenos a una reunión con desayuno donde hablaremos acerca de los nuevos conceptos propuestos para Main Street!

Date/*Fecha*:
Thursday, November 30, 2023
Jueves, 30 de noviembre de 2023
Time/*Hora*:
8:00 - 9:00 a.m.
Location/*Ubicación*:
Main Street
Outside of Tiki Tiki Frozen Yogurt and Ice Cream
10815 Main St, El Monte, CA 91731

Register Here/ Regístrese aquí

Stay Connected/ *Manténgase Conectado*

For more information on this project, visit our website: EMCompleteStreets.com. If you have any questions, please contact us at completestreets@elmonteca.gov.

Para obtener más información sobre este proyecto, visite nuestro sitio web: EMCompleteStreets.com. Si tiene alguna pregunta, porfavor contáctenos en completestreets@elmonteca.gov.

Reminder #1



Introducing Updated Concepts Based on Your Feedback!

¡Presentamos conceptos actualizados basados en sus comentarios!

Come Explore the New Proposed Concepts!
Join us for the 3rd Community Advisory Committee Meetings focusing on making Valley Boulevard and Main Street accessible for all users. Provide feedback on proposed concepts and contribute to making an impact in your community.

¡Venga a explorar los nuevos conceptos propuestos!
Acompáñenos para la tercera reunión del Comité Asesor Comunitario que se centra en hacer que Valley Boulevard y Main Street sean accesibles para todos los usuarios. Proporcione comentarios sobre los conceptos propuestos y contribuya a tener un impacto en su comunidad.



Upcoming Meetings/*Próximas reuniones*

Valley Boulevard

Join us for an engaging virtual meeting where we will discuss the new proposed concepts for Valley Blvd!

¡Acompáñenos a una reunión virtual en la que hablaremos acerca de los nuevos conceptos propuestos para Valley Boulevard!

Date/*Fecha*:
Wednesday, November 29, 2023
Miércoles, 29 de noviembre de 2023
Time/*Hora*:
1:30 - 2:30 p.m.
Location/*Ubicación*:
Zoom

Register Here/ Regístrese aquí

Main Street

Join us for a breakfast meeting where we will discuss the new proposed concepts for Main St!

¡Acompáñenos a una reunión con desayuno donde hablaremos acerca de los nuevos conceptos propuestos para Main Street!

Date/*Fecha*:
Thursday, November 30, 2023
Jueves, 30 de noviembre de 2023
Time/*Hora*:
8:00 - 9:00 a.m.
Location/*Ubicación:*
Main Street
Outside of Tiki Tiki Frozen Yogurt and Ice Cream
10815 Main St, El Monte, CA 91731

Register Here/ Regístrese aquí

Stay Connected/ *Manténgase Conectado*

For more information on this project, visit our website: EMCompleteStreets.com. If you have any questions, please contact us at completestreets@elmonteca.gov.

Para obtener más información sobre este proyecto, visite nuestro sitio web: EMCompleteStreets.com. Si tiene alguna pregunta, porfavor contáctenos en completestreets@elmonteca.gov.

Reminder #2



Introducing Updated Concepts Based on Your Feedback!

¡Presentamos conceptos actualizados basados en sus comentarios!

Come Explore the New Proposed Concepts!
Join us for the 3rd Community Advisory Committee Meetings focusing on making Valley Boulevard and Main Street accessible for all users. Provide feedback on proposed concepts and contribute to making an impact in your community.

¡Venga a explorar los nuevos conceptos propuestos!
Acompáñenos para la tercera reunión del Comité Asesor Comunitario que se centra en hacer que Valley Boulevard y Main Street sean accesibles para todos los usuarios. Proporcione comentarios sobre los conceptos propuestos y contribuya a tener un impacto en su comunidad.



Upcoming Meetings/*Próximas reuniones*

Valley Boulevard

Join us for an engaging virtual meeting where we will discuss the new proposed concepts for Valley Blvd!

¡Acompáñenos a una reunión virtual en la que hablaremos acerca de los nuevos conceptos propuestos para Valley Boulevard!

Date/*Fecha*:
Wednesday, November 29, 2023
Miércoles, 29 de noviembre de 2023
Time/*Hora*:
1:30 - 2:30 p.m.
Location/*Ubicación*:
Zoom

Register Here/ Regístrese aquí

Main Street

Join us for a breakfast meeting where we will discuss the new proposed concepts for Main St!

¡Acompáñenos a una reunión con desayuno donde hablaremos acerca de los nuevos conceptos propuestos para Main Street!

Date/*Fecha*:
Thursday, November 30, 2023
Jueves, 30 de noviembre de 2023
Time/*Hora*:
8:00 - 9:00 a.m.
Location/*Ubicación*:
Main Street
Outside of Tiki Tiki Frozen Yogurt and Ice Cream
10815 Main St, El Monte, CA 91731

Register Here/ Regístrese aquí

Stay Connected/ *Manténgase Conectado*

For more information on this project, visit our website: EMCompleteStreets.com. If you have any questions, please contact us at completestreets@elmonteca.gov.

Para obtener más información sobre este proyecto, visite nuestro sitio web: EMCompleteStreets.com. Si tiene alguna pregunta, porfavor contáctenos en completestreets@elmonteca.gov.

APPENDIX F

Public Meeting #1
Summary with Appendices



Valley Boulevard and Main Street Complete Streets Feasibility Study

Public Meeting #1
Summary Report

1. Meeting Overview

As part of the planning efforts for the City of El Monte's Valley Boulevard and Main Street Complete Streets Feasibility Study, Public Meeting # 1 was held virtually to discuss the objectives of the Study and gather the public's perception of the two corridors and identify key improvement needs that will allow for safe travel along and across Valley Boulevard and Main Street for all users.

The Public Meeting #1 was held:

- **Public Meeting #1**
  Date: Tuesday, June 27, 2023
  Time: 6:00 – 7:00 p.m.
  Location: Zoom Webinar

During the meetings, the project team introduced participants to the Study overview, objectives, and a variety of complete streets features that can be considered for Valley Boulevard and Main Street. During the meeting, participants provided their input on what type of features they would like to see implemented. Additionally, live Spanish interpretation was made available throughout the meeting for participants. Both meetings were recorded and will be made available in English and Spanish to all stakeholders after the culmination of the first meeting series.

2. Meeting Agenda

The following agenda items were discussed during meeting:

- Introductions
- Study Overview
- Valley Boulevard
- Existing Conditions
- Design Elements
- Main Street
- Existing Conditions
- Design Elements
- Future Engagement Opportunities
- Stay Connected
- Questions & Answers

To view the presentation shared during the meeting, see *Appendix A*.

3. Meeting Notification

E-blasts

An e-blast was distributed to invite stakeholders part of the stakeholder database to the meeting. E-blasts were sent in English and Spanish.

Table 1. E-Blast Notification Schedule

E-blast	Date Sent
Initial Invitation	June 13, 2023
Reminder #1	June 21, 2023
Reminder #2	June 26, 2023

To view the e-blasts, please reference *Appendix B*.

Social Media

The City's social media platforms were utilized to promote the upcoming public meetings. To view the social media posts, see *Appendix C.* Social media content was posted in English and Spanish.

Table 2. Social Media Notification Schedule

Platform	Content	Date Sent
Facebook	Initial Invite	June 13, 2023
	Reminder #1	June 21, 2023
	Flyer	June 21, 2023
	Online Event	June 21, 2023
	Reminder #2	June 26, 2023
	Reminder #3	June 27, 2023
Instagram	Pinned Post	June 13, 2023
	Flyer	June 21, 2023

City Website and Calendar

In order to utilize the City's existing network, upcoming meeting information was shared on the City's main website and upcoming events calendar. Interested community members were directed to register for the event as well as navigate through key information about the Study.



Figure 1. City Website

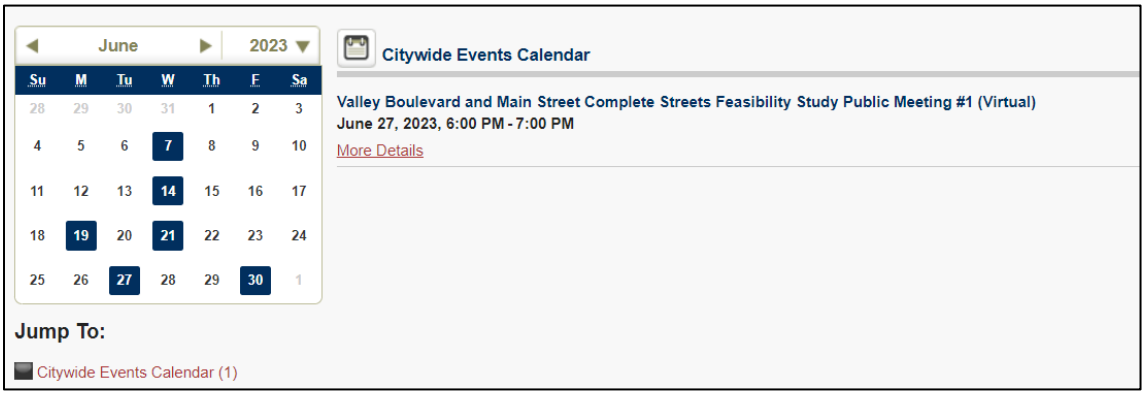


Figure 2. City Events Calendar

Business Corridor Walk

On June 14, 2023, the outreach team visited 200 businesses along Valley Boulevard and Main Street to promote project engagement. Business owners were informed of upcoming project meetings and key project collateral was shared.

See *Appendix D* for a complete summary.

Table 3. Business Corridor Walk Summary

Business Corridor Walk	
Businesses Visited	200
Contact Information Collected	32
New Businesses Contacted	17

Participation at City Events

With the objective of notifying the community of the upcoming meetings, the outreach team coordinated an informational booth at the City of El Monte's Main Street Farmer's Market. The booth attracted approximately 100 visitors and the project team was able to invite the public to the upcoming public meetings as well as collect information about community needs.

See *Appendix E* for a complete summary.



Figure 3. Main Street Farmer's Market

Meeting Flyer Distribution

A meeting flyer was developed in English, Spanish, Chinese and Vietnamese to promote upcoming meetings. Flyers were distributed on June 9, 2023, by mail to contacts part of the project's stakeholder database. See *Appendix F* for the meeting flyer.

Additionally, the flyer was distributed at key informational locations such as the City of El Monte offices, El Monte Aquatic Center, El Monte Public Library, and El Monte Community Center.

Sidewalk Decals

Sidewalk decals were installed at key locations throughout Valley Boulevard and Main Street. The sidewalk decals included a QR code that led to a Linktree containing information about the upcoming public meetings as well as other key project information.





Figure 4. Sidewalk Decal Installation

4. Attendee Reports

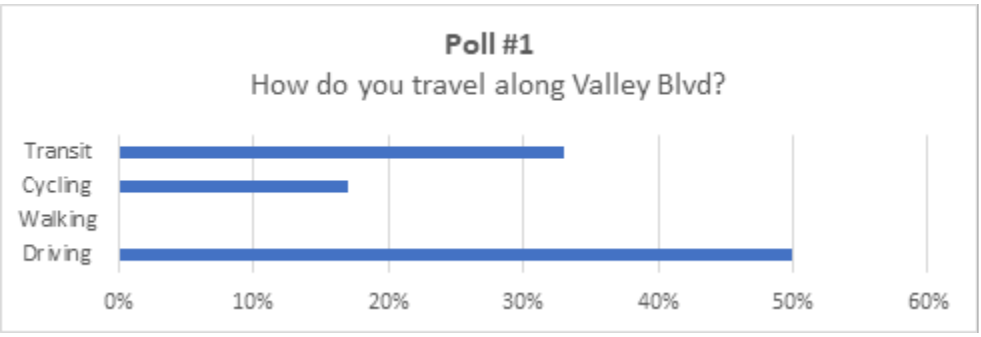
See Table 2 for a list of registrations and attendees.

Table 2. Public Meeting #1 Registrations and Attendees

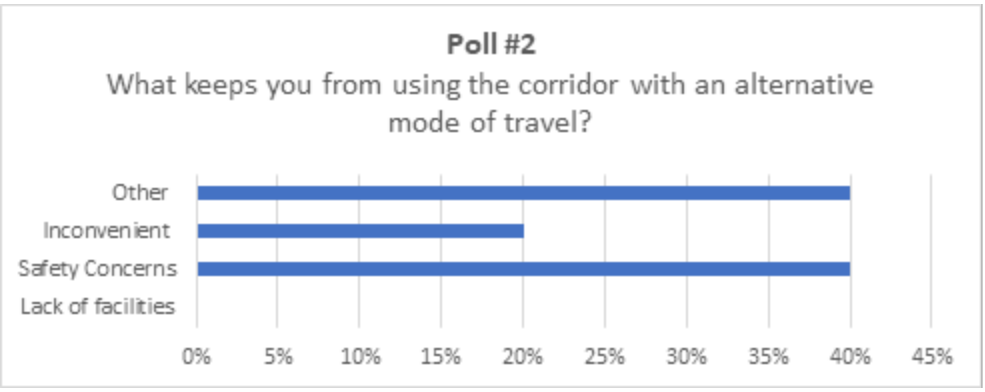
No.	Name	Organization	Registered (R) /Attended (A)
1	Edward Duong	ActiveSGV	R
2	Sal Mendez	City of El Monte	**A**
3	Robert Waddell	City of El Monte	**A**
4	Blanca Medina	Downtown El Monte Business Association	R
5	Jose Herrera	El Monte City School District	R
6	Jimmie Pitts	El Monte Police Traffic Safety Bureau	**A**
7	Henry Lopez	Foothill Transit	R
8	Naresh Bhakta	La Bonita Motel	**A**
9	Colin Wu	Marcus and Millichap	R
10	Chuck Hoff	Resident of El Monte	R
11	Edwin Arguijo	Did not state	**A**
12	John Lee	Did not state	**A**
13	David Diaz	Did not state	**A**
14	Rudy Sanchez	Did not state	**A**
15	Nathan Bui	Did not state	**A**
16	Natalia Perez	Did not state	R

5. Meeting Poll Results

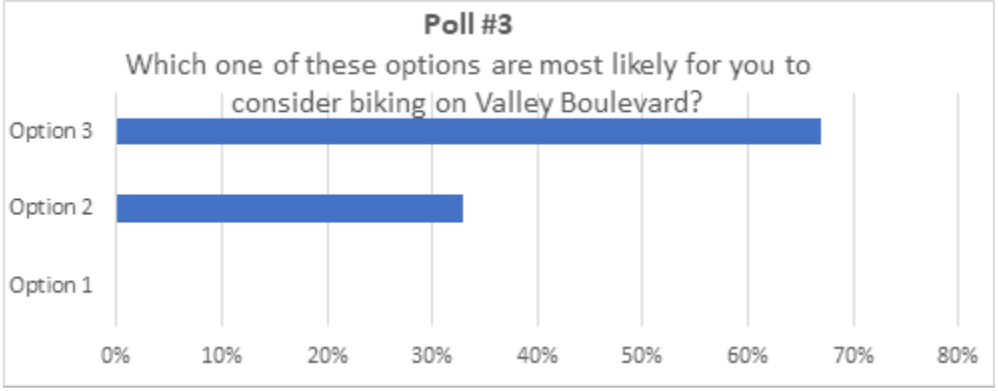
During the meeting, a series of polls were launched to understand participant's travel patterns and use of the corridor as well as their needs when traveling along Valley Boulevard and when visiting Main Street.



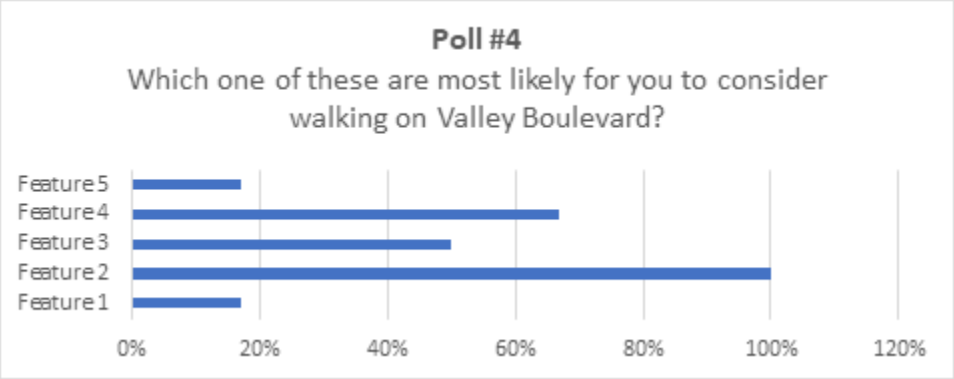
The results show that driving is the dominant mode of transportation along Valley Boulevard, while walking and transit are comparatively less popular.



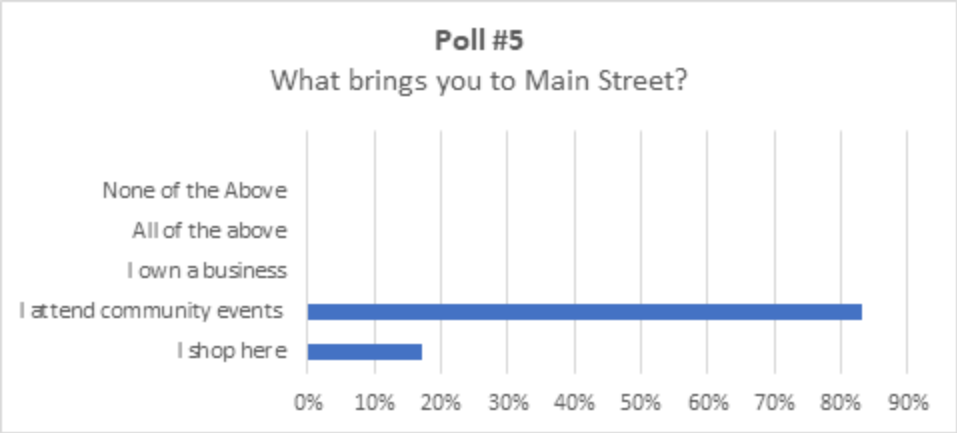
The results indicate that safety concerns and inconvenience were chosen as the primary reasons that keeps people from using Valley Boulevard.



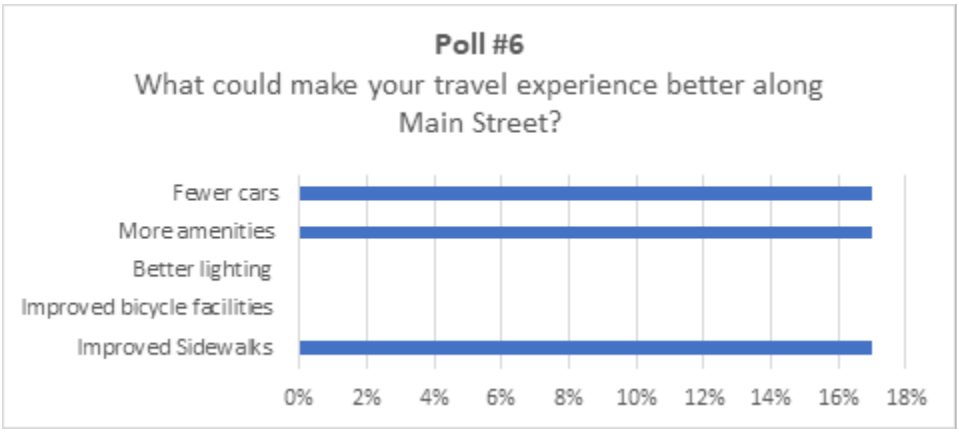
The results show that people prefer option 3 (bike lane physical buffer) and option 2 (bike lane with striped buffer) as viable options for them to consider biking along Valley Boulevard.



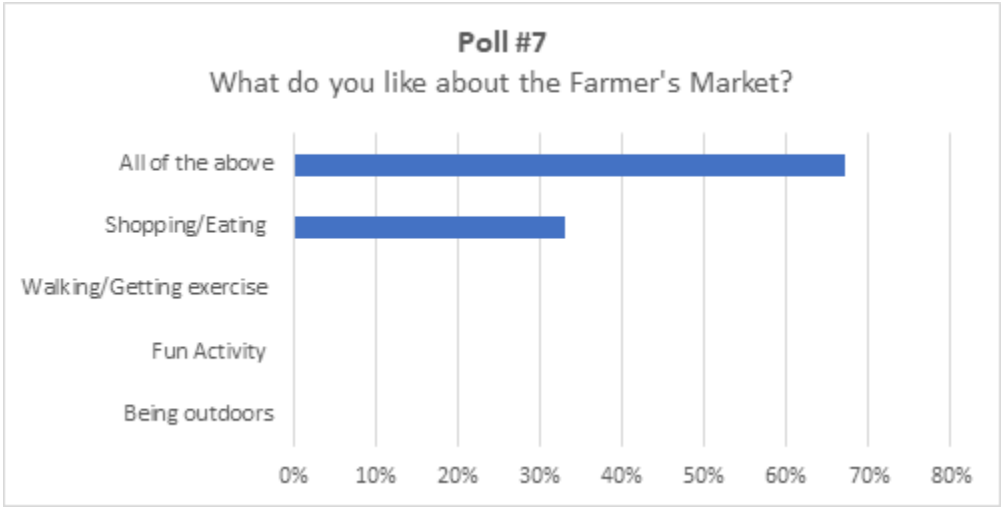
The results indicate that feature 2 (curb extension) and feature 4 (pedestrian hybrid beacon) as viable options for them to consider walking along Valley Boulevard.



The results reveal individuals visiting Main Street go to shop, while the additional reasons to visit include attending community events in the area.



The results reveal that fewer cars, improved sidewalks, and more amenities are equally favored to enhance travel experience on Main Street.



The results show that shopping/eating, walking/getting exercise, fun activities and being outdoors are all reasons people enjoy the Farmer's Market at Main Street.

6. Participant Input

Participants were able to provide input and ask questions during the breakout rooms and Q&A segment of the meeting. Below are key points discussed during both meetings.

See *Appendix G* for a comprehensive report of the discussion and participant input.

The conversation included the following key themes:

- Inclusion of bus only lanes as a complete streets component
- Closure of Main Street
- Prior complete streets efforts in other parts of Valley Boulevard
- Future complete streets efforts on Garvey Avenue
- Funding secured for Valley Boulevard
- Timeline for completion of final design of the project

7. Appendices

The appendices below are available for review at the end of the report.

- Appendix A. Presentation
- Appendix B. E-Blast Notifications
- Appendix C. Social Media Posts
- Appendix D. Business Corridor Walk Summary
- Appendix E. Farmer's Market Summary
- Appendix F. Meeting Flyer
- Appendix G. Q&A Log

APPENDIX A
Presentation

Interpretation / *Interpretación*



This meeting is transmitted in both English and Spanish. Everyone must choose a language.

Click the **Interpretation** icon in your meeting controls to enter an *English or Spanish* room.

To hear the interpreted language only, click **Mute Original Audio** (Optional).

Esta reunión se transmite tanto en inglés como en español. Todos deben elegir un idioma.

*Haga clic en el icono de **Interpretación** en los controles de sureunión para ingresar a una sala en inglés o español.*

*Para escuchar solo el idioma interpretado, haga clic en **Mute Original Audio** o **Silenciar Audio Original** (Opcional).*

1

VALLEY BLVD | MAIN STREET

COMPLETE STREETS

WELCOME!

Public Meeting #1 | Tuesday, June 27, 2023

2

VALLEY BLVD MAIN STREET COMPLETE STREETS

Introductions

Michael Baker INTERNATIONAL

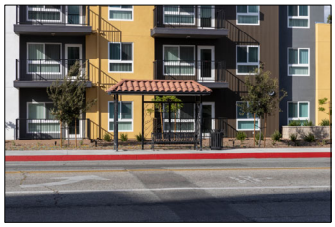
arellano associates

3

Agenda

- Introductions
- Study Overview
- Valley Boulevard
  - Existing Conditions
  - Design Elements
- Main Street
  - Existing Conditions
  - Design Elements
- Future Engagement Opportunities
- Stay Connected
- Questions & Answers









4

VALLEY BLVD MAIN STREET COMPLETE STREETS

Study Overview



5

Overview



The City of El Monte is conducting the Valley Boulevard and Main Street Complete Street Feasibility Study (Study) to enhance connectivity, accessibility and safety for all users in the community.



6

Study Objectives

Enhance multi-modal accommodations

Improve safety for all users

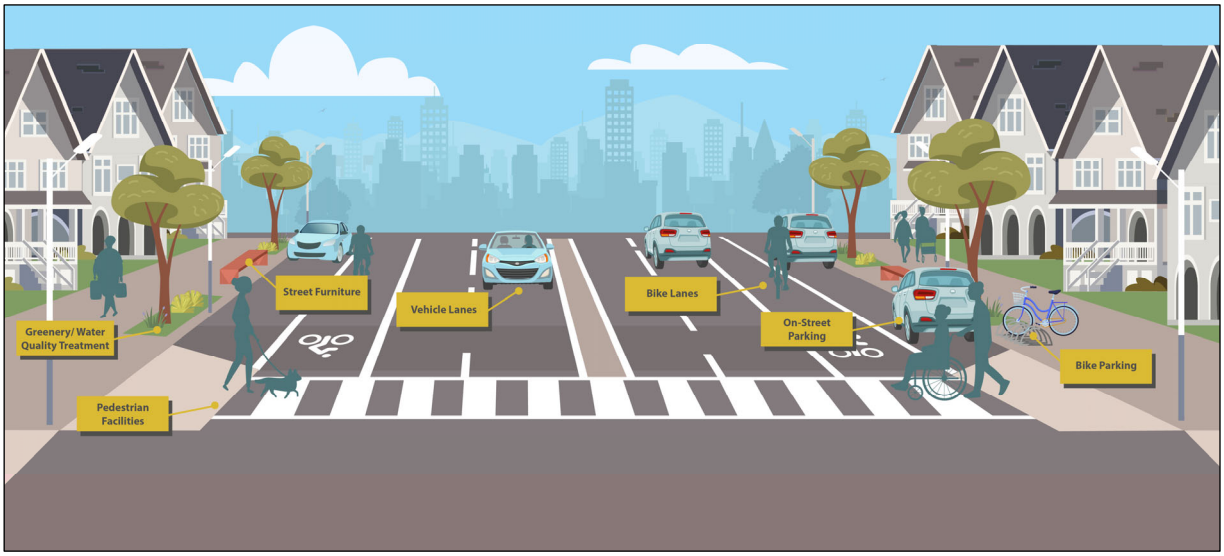
Americans with Disabilities (ADA) enhancements

Incorporate low-impact development

Improve streetscape beautification and landscaping

7

What Makes a Street "Complete"?



8

Valley Boulevard Overview

- Approximately 3.3 miles
- Major arterial serving as one of the City's primary gateways
- Serves as a critical link in the regional transit network





9

Poll Question #1

What is your favorite ice cream flavor?

a. Vanilla **b.** Chocolate **c.** Strawberry

d. Mint chip **e.** Cookie dough **f.** Other

10

Poll Question #2



How do you travel along Valley Blvd?

a. Driving **b.** Walking **c.** Cycling **d.** Transit

Poll Question #3



What keeps you from using the corridor with an alternate mode of travel?

a. Lack of facilities **b.** Safety Concerns
c. Inconvenient **d.** Other (*please state in chat*)

VALLEY BLVD COMPLETE STREETS

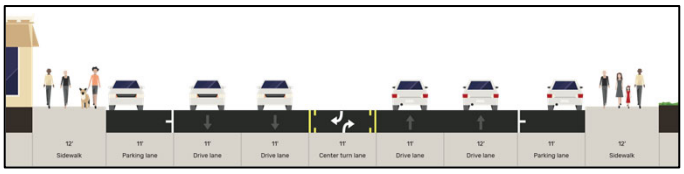
Existing Conditions- Valley Boulevard



Existing Conditions- Valley Boulevard



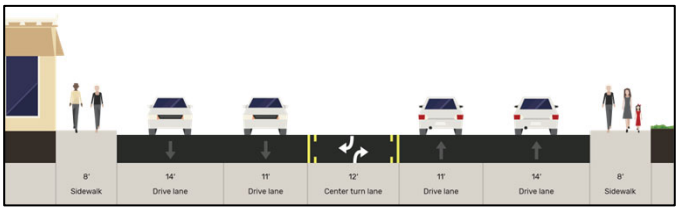
102' Width





Existing Conditions- Valley Boulevard

78' Width

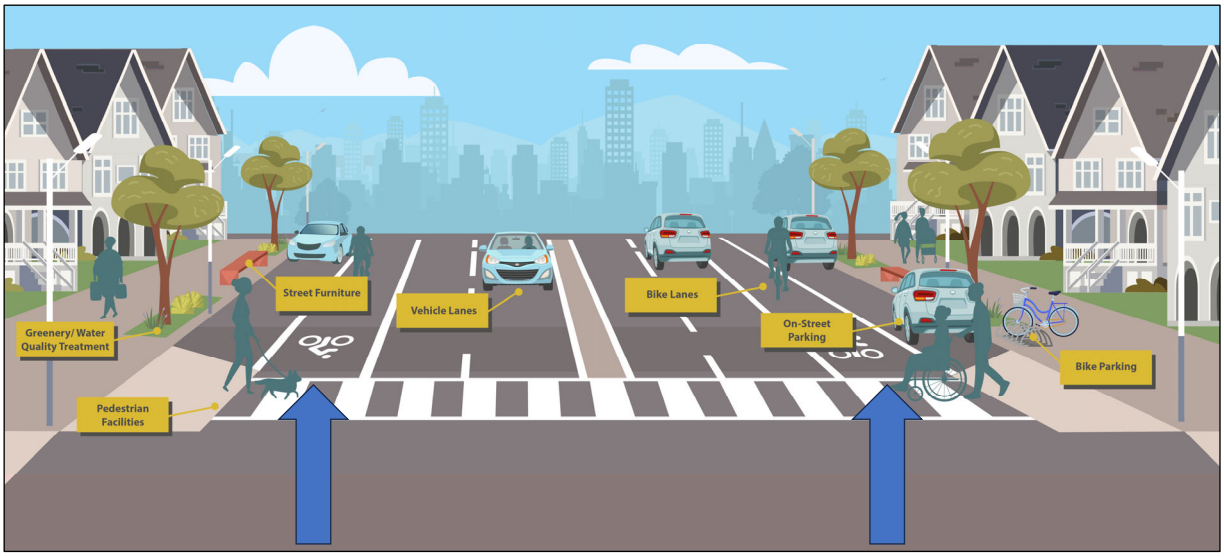




VALLEY BLVD
COMPLETE STREETS

Complete Streets Elements- Valley Boulevard

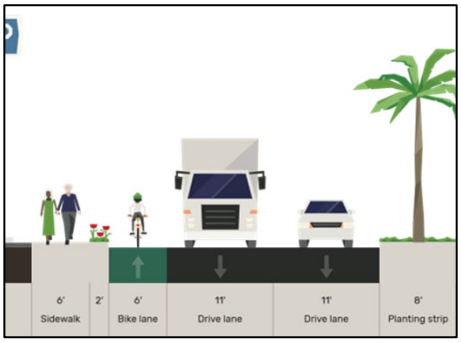
Complete Street Elements – Bicycle Facilities



17

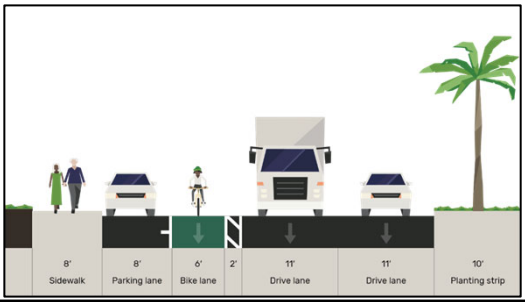
Complete Street Elements – Bicycle Facilities

Striped Bike Lane Without Buffer
Option 1





Parking Adjacent Bike Lane

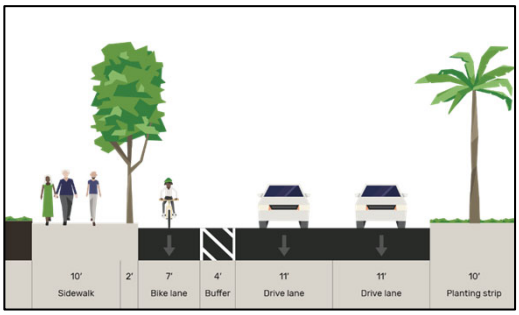


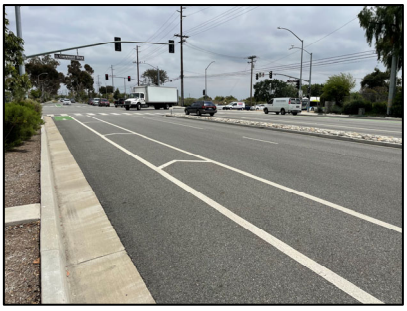


18

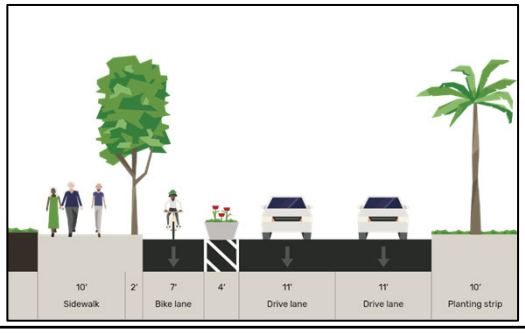
Complete Street Elements – Bicycle Facilities

Bike Lane with Striped Buffer
Option 2





Bike Lane with Physical Buffer
Option 3





19

Poll Question #4

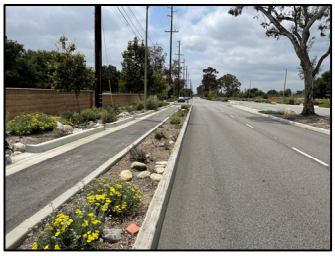
Which one of these options are most likely to have you considering biking on Valley Boulevard?
(Pick up to two)



Option 1



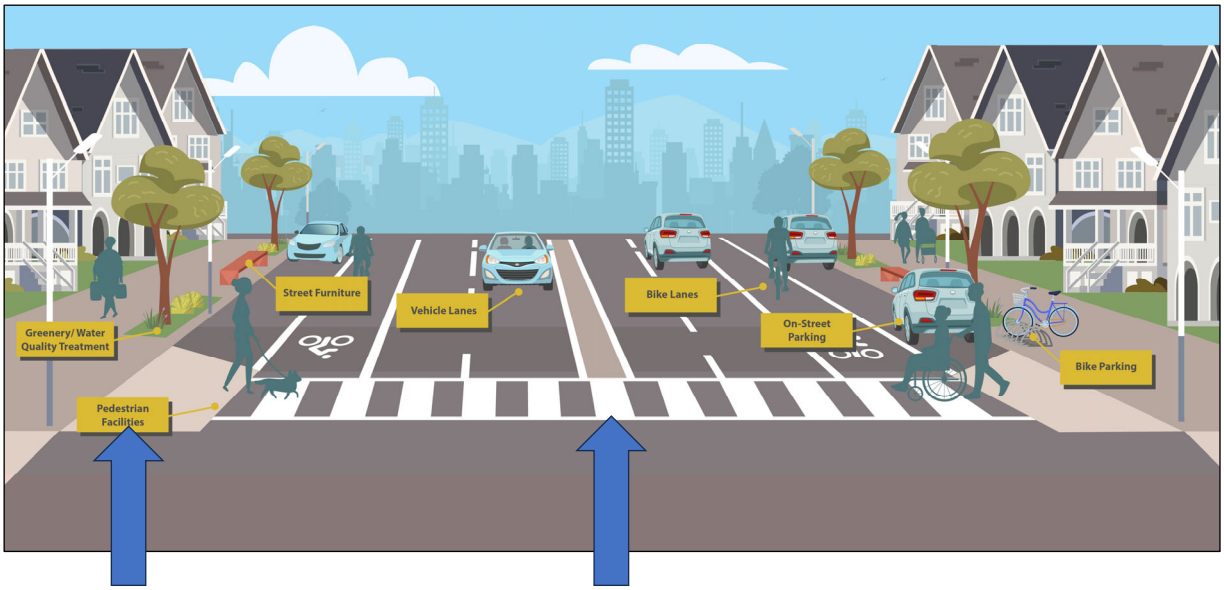
Option 2



Option 3

20

Complete Street Elements – Pedestrian Facilities



21

Complete Streets Elements – Pedestrian Facilities

High Visibility Crosswalks
Feature 1



Curb Extensions
Feature 2



Raised Median Refuge
Feature 3



22

Complete Streets Elements – Pedestrian Facilities

Pedestrian Hybrid Beacon (HAWK)
Feature 4



Rapid Rectangular Flashing Beacon (RRFB)
Feature 5



Poll Question #5

Which one of these features are most likely to have you considering walking on Valley Boulevard?

(Pick up to three)



Feature 1



Feature 2



Feature 3



Feature 4



Feature 5

MAIN STREET COMPLETE STREETS

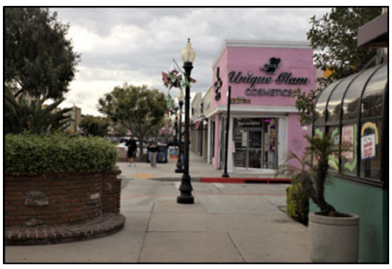
Main Street

25

Main Street Overview

- Approximately 0.5 miles
- Commercial district in the heart of El Monte's downtown area
- Popular destination for outdoor shopping and dining experiences





26

Poll Question #6



What brings you to Main Street?

a. I work here **b.** I shop here **c.** I attend community events

d. I own a business here **d.** All of the above **e.** None of the above

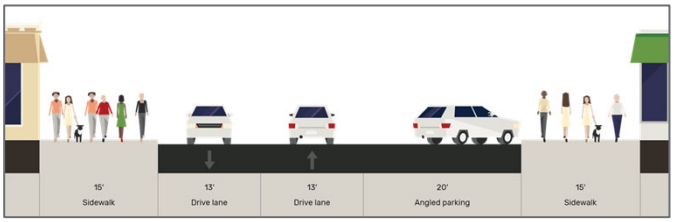
MAIN STREET COMPLETE STREETS

Existing Conditions- Main Street



Existing Conditions- Main Street

100' Width





29

MAIN STREET
COMPLETE STREETS

Complete Streets Elements- Main Street

30

Complete Streets Elements – Main Street



Bicycle Striping



Bulbouts & High Visibility Crosswalks



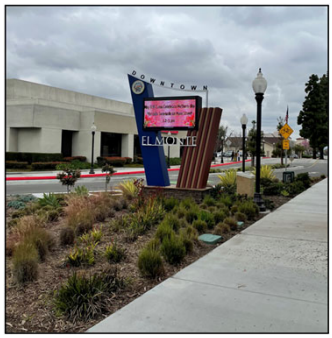
Traffic Circles

31

Complete Streets Elements – Main Street



Community Spaces



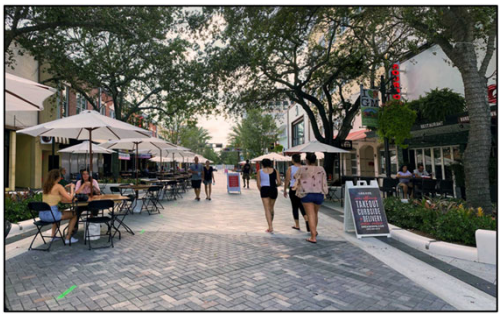
Greenery

32

Complete Streets Elements – Main Street



Gateway Feature



Pedestrian Paseo

33

Poll Question #7

What could make your travel experience better along Main Street?

a. Improved sidewalks b. Improved bicycle facilities c. Better lighting

d. More amenities e. Fewer cars f. All of the above

g. None of the above

34

Poll Question #8



What do you like about the Farmer's Market?

a. Being outdoors **b.** Fun Activity **c.** Walking/Getting Exercise

d. Shopping/Eating **e.** All of the above **f.** None of the above

Poll Question #9



I would be open to more pedestrian plazas on Main Street at the following times.

a. Thursdays only **b.** During events **c.** Weekends

d. Always **e.** Never

Future Engagement Opportunities

Upcoming Events and Meetings

Public Meeting #2

Date: Wednesday, July 12
Time: 6:00-7:00 p.m.
Location: El Monte Aquatic Center
11001 Mildred St, El Monte, CA 91731





Stay Connected

Thank you for joining us today!

Steven Wright
City Project Manager

Lee Torres
City Engineer

EMcompletestreets.com

completestreets@elmonteca.gov

CityofElMonte

myelmonte

MyElMonte

For more information, scan the QR code with your mobile phone or visit: https://linktr.ee/emcompletestreets

VALLEY BLVD MAIN STREET
COMPLETE STREETS

Questions & Answers



APPENDIX B

E-Blast Notifications

Initial Invitation



Be part of the El Monte Valley Boulevard and Main Street Complete Streets Feasibility Study!

Join us for upcoming public meetings and let us know your thoughts!

The City of El Monte is conducting the Valley Boulevard and Main Street Complete Streets Feasibility Study. This study will help identify key improvement needs that will allow for safe travel along and across Valley Boulevard and Main Street for all users, connecting the community safely to local and regional transit services, residences, businesses, parks, and other community destinations.



Upcoming Meetings

Public Meeting #1
Date: Tuesday, June 27, 2023
Time: 6:00 – 7:00 p.m.
Location: Virtual meeting via Zoom

Register Here

Public Meeting #2
Date: Wednesday, July 12
Time: 6:00 – 7:00 p.m.
Location: *El Monte Aquatic Center*- 11001 Mildred St, El Monte, CA 91731

Live Spanish interpretation will be available. Additional language interpretation can be requested 72 hours in advance at completestreets@elmonte.ca.gov.

If you can't attend the meetings, a meeting recording will be available on EMCompleteStreets.com following the conclusion of both meetings.

Take the Survey

Your voice matters in shaping the future of our streets. Participate in the survey for the City of El Monte Complete Streets project and share your valuable input to create safer, more accessible, and vibrant streets for all. To access the survey, scan the QR code with your mobile phone or visit EMCompleteStreets.com.

Stay Connected

For more information visit EMCompleteStreets.com.



¡Sea Parte del Estudio de Factibilidad de Calles Completas de Valley Boulevard y Main Street de El Monte!

¡Acompáñenos las próximas reuniones públicas y déjenos saber sus pensamientos!

La ciudad de El Monte está llevando a cabo el Estudio de Factibilidad de Calles Completas de Valley Boulevard y Main Street. Este estudio ayudará a identificar las necesidades de mejora claves que permitirán un viaje seguro a lo largo y a través de Valley Boulevard y Main Street para todos los usuarios, conectando a la comunidad de manera segura con los servicios de tránsito locales y regionales, residencias, negocios, parques y otros destinos comunitarios.



Próximas Reuniones

Reunión Pública #1
Fecha: martes, 27 de jjunio de 2023
Hora: 6:00 p.m. – 7:00 p.m.
Ubicación: Virtual vía Zoom

¡Regístrese aquí!

Reunión Pública #2
Fecha: miércoles, 12 de julio de 2023
Hora: 6:00 p.m. – 7:00 p.m.
Ubicación: El Monte Aquatic Center- 11001 Mildred St, El Monte, CA 91731

Habrá interpretación simultanea disponible en español. Podrá solicitar el servicio de interpretación en otros idiomas con 72 horas de anticipación mandando un correo electrónico a completestreets@elmonte.ca.gov.

Si no puede asistir a las reuniones, una grabación de la reunión estará disponible en EMCompleteStreets.com después de la conclusión de ambas reuniones.

Participe en la Encuesta

Su voz es importante para dar forma al futuro de nuestras calles. Participe en la encuesta para el proyecto de calles completas de la ciudad de El Monte y comparta su valioso aporte para crear calles más seguras, accesibles y vibrantes para todos. Para acceder a la encuesta, escanee el código QR con su teléfono móvil o visite EMCompleteStreets.com.

Manténgase Conectado

Para obtener más información, visite EMCompleteStreets.com.

Reminder #1



REMINDER:
Join us for the Upcoming Public Meetings!

Join us at an upcoming public meeting and let us know your thoughts! Help us identify key improvements that will allow for safe travel along and across Valley Boulevard and Main Street for all users. The Valley Boulevard and Main Street Complete Streets Feasibility Study is focused on safety improvements for pedestrians, non-motorized and motorized vehicles; multi-modal opportunities; drainage improvements; street lighting improvements; Americans with Disabilities Act (ADA) enhancements and upgrades; low impact development; and street tree and landscape improvements.

Upcoming Meetings

Public Meeting #1
Date: Tuesday, June 27, 2023
Time: 6:00 – 7:00 p.m.
Location: Virtual meeting via Zoom

Register Here

Public Meeting #2
Date: Wednesday, July 12, 2023
Time: 6:00 – 7:00 p.m.
Location: *El Monte Aquatic Center*- 11001 Mildred St, El Monte, CA 91731

Live Spanish interpretation will be available. Additional language interpretation can be requested 72 hours in advance at completestreets@elmonteca.gov.

If you can't attend the meetings, a meeting recording will be available on EMCompleteStreets.com following the conclusion of both meetings.

Take the Survey

Participate in the survey for the City of El Monte Complete Streets project and share your valuable input to create safer, more accessible, and vibrant streets for all. To access the survey, scan the QR code with your mobile phone or visit EMCompleteStreets.com.

Stay Connected

For more information visit EMCompleteStreets.com.



RECORDATORIO:

¡Acompáñenos a las próximas reuniones públicas!

¡Acompáñenos a las próximas reuniones públicas y cuéntenos lo que piensa! Ayúdenos a identificar las mejoras claves que permitirán un viaje seguro a lo largo y ancho de Valley Boulevard y Main Street para todos los usuarios. El Estudio de Factibilidad de Calles Completas de Valley Boulevard y Main Street se centra en mejoras de seguridad para peatones, vehículos motorizados y no motorizados; oportunidades multimodales; mejoras de drenaje y alumbrado público; Mejoras para estadounidenses con discapacidades acto (ADA); desarrollo de bajo impacto; y mejoras en el paisaje y los árboles de las calles.

Próximas Reuniones

Reunión Pública #1
Fecha: martes, 27 de junio de 2023
Hora: 6:00 p.m. – 7:00 p.m.
Ubicación: Virtual vía Zoom

Registar Aquí

Reunión Pública #2
Fecha: miércoles, 12 de julio de 2023
Hora: 6:00 p.m. – 7:00 p.m.
Ubicación: El Monte Aquatic Center- 11001 Mildred St, El Monte, CA 91731

Habrá interpretación simultanea disponible en español. Podrá solicitar el servicio de interpretación en otros idiomas con 72 horas de anticipación mandando un correo electrónico a completestreets@elmonteca.gov.
Si no puede asistir a las reuniones, una grabación de la reunión estará disponible en EMCompleteStreets.com después de la conclusión de ambas reuniones.

Participe en la Encuesta

Participe en la encuesta para el proyecto de calles completas de la ciudad de El Monte y comparta su valioso aporte para crear calles más seguras, accesibles y vibrantes para todos. Para acceder a la encuesta, escanee el código QR con su teléfono móvil o visite EMCompleteStreets.com

Manténgase Conectado

Para obtener más información, visite EMCompleteStreets.com.

Reminder #2



REMINDER:
Join us for the Upcoming Public Meetings!

Join us at an upcoming public meeting and let us know your thoughts! Help us identify key improvements that will allow for safe travel along and across Valley Boulevard and Main Street for all users. The Valley Boulevard and Main Street Complete Streets Feasibility Study is focused on safety improvements for pedestrians, non-motorized and motorized vehicles; multi-modal opportunities; drainage improvements; street lighting improvements; Americans with Disabilities Act (ADA) enhancements and upgrades; low impact development; and street tree and landscape improvements.

Upcoming Meetings

Public Meeting #1
Date: Tuesday, June 27, 2023
Time: 6:00 – 7:00 p.m.
Location: Virtual meeting via Zoom

Register Here

Public Meeting #2
Date: Wednesday, July 12, 2023
Time: 6:00 – 7:00 p.m.
Location: *El Monte Aquatic Center*- 11001 Mildred St, El Monte, CA 91731

Live Spanish interpretation will be available. Additional language interpretation can be requested 72 hours in advance at completestreets@elmonteca.gov.

If you can't attend the meetings, a meeting recording will be available on EMCompleteStreets.com following the conclusion of both meetings.

Take the Survey

Participate in the survey for the City of El Monte Complete Streets project and share your valuable input to create safer, more accessible, and vibrant streets for all. To access the survey, scan the QR code with your mobile phone or visit EMCompleteStreets.com.

Stay Connected

For more information visit EMCompleteStreets.com.



RECORDATORIO:

¡Acompáñenos a las próximas reuniones públicas!

¡Acompáñenos a las próximas reuniones públicas y cuéntenos lo que piensa! Ayúdenos a identificar las mejoras claves que permitirán un viaje seguro a lo largo y ancho de Valley Boulevard y Main Street para todos los usuarios. El Estudio de Factibilidad de Calles Completas de Valley Boulevard y Main Street se centra en mejoras de seguridad para peatones, vehículos motorizados y no motorizados; oportunidades multimodales; mejoras de drenaje y alumbrado público; Mejoras para estadounidenses con discapacidades acto (ADA); desarrollo de bajo impacto; y mejoras en el paisaje y los árboles de las calles.

Próximas Reuniones

Reunión Pública #1
Fecha: martes, 27 de junio de 2023
Hora: 6:00 p.m. – 7:00 p.m.
Ubicación: Virtual vía Zoom

Registar Aquí

Reunión Pública #2
Fecha: miércoles, 12 de julio de 2023
Hora: 6:00 p.m. – 7:00 p.m.
Ubicación: El Monte Aquatic Center- 11001 Mildred St, El Monte, CA 91731

Habrá interpretación simultanea disponible en español. Podrá solicitar el servicio de interpretación en otros idiomas con 72 horas de anticipación mandando un correo electrónico a completestreets@elmonteca.gov.
Si no puede asistir a las reuniones, una grabación de la reunión estará disponible en EMCompleteStreets.com después de la conclusión de ambas reuniones.

Participe en la Encuesta

Participe en la encuesta para el proyecto de calles completas de la ciudad de El Monte y comparta su valioso aporte para crear calles más seguras, accesibles y vibrantes para todos. Para acceder a la encuesta, escanee el código QR con su teléfono móvil o visite EMCompleteStreets.com

Manténgase Conectado

Para obtener más información, visite EMCompleteStreets.com.

APPENDIX C

Social Media Posts

Facebook

City of El Monte CA Government

Jun 13 ·

Be part of the Valley Boulevard and Main Street Complete Streets Feasibility Study!

... See more



7 2 comments

Like Comment Share

City of El Monte CA Government

Jun 21 ·

Join us virtually on Tuesday, 6/27 and in-person on Wednesday, 7/12 from 6-7 p.m. and let us know how we can improve connectivity, accessibility and saf... See more



4

Like Comment Share

City of El Monte CA Government

Jun 21 ·



BE PART OF THE VALLEY BOULEVARD & MAIN STREET COMPLETE STREETS FEASIBILITY STUDY!

The City of El Monte is conducting the Valley Boulevard and Main Street Complete Streets **Feasibility Study as part of its planning efforts.** This study will help identify key improvements needs to ensure safe travels along and across Valley Boulevard and Main Street for all users, **which will offer a direct and secure link between** the neighborhood and regional and national transit services, business, parks, and other community destinations.

Join us for the upcoming public meetings and let us know your thoughts on how we can improve Valley Boulevard and Main Street.



UPCOMING MEETINGS

PUBLIC MEETING #1 (VIRTUAL)

Date: Tuesday, June 27, 2023
Time: 6:00 p.m. – 7:00 p.m.
Register here: *https://linktr.ee/emcompletestreets*

PUBLIC MEETING #2

Date: Wednesday, July 12, 2023
Time: 6:00 p.m. – 7:00 p.m.
Location: El Monte Aquatic Center
11001 Mildred St, El Monte, CA 91731

Live Spanish interpretation will be available during both public meetings. Additional language interpretation can be requested 72 hours in advance at *completestreets@elmonteca.gov.*

STAY ENGAGED

We want to ensure we know how you use the corridor and ways we can improve it. Please scan the QR code to take a survey and provide your thoughts.

STAY CONNECTED

Connect with us using any of the methods below:

completestreets@elmonteca.gov EMCompleteStreets.com facebook.com/CityofElMonte @MyElMonte

8

Like Comment Share

City of El Monte CA Government created an online **event.**

Jun 21 ·



BE PART OF THE VALLEY BOULEVARD & MAIN STREET COMPLETE STREETS FEASIBILITY STUDY!

The City of El Monte is conducting the Valley Boulevard and Main Street Complete Streets **Feasibility Study as part of its planning efforts.** This study will help identify key improvements needs to ensure safe travels along and across Valley Boulevard and Main Street for all users, **which will offer a direct and secure link between** the neighborhood and regional and national transit services, business, parks, and other community destinations.

Join us for the upcoming public meetings and let us know your thoughts on how we can improve Valley Boulevard and Main Street.



UPCOMING MEETINGS

PUBLIC MEETING #1 (VIRTUAL)

Date: Tuesday, June 27, 2023
Time: 6:00 p.m. – 7:00 p.m.
Register here: *https://linktr.ee/emcompletestreets*

PUBLIC MEETING #2

Date: Wednesday, July 12, 2023
Time: 6:00 p.m. – 7:00 p.m.
Location: El Monte Aquatic Center
11001 Mildred St, El Monte, CA 91731

Live Spanish interpretation will be available during both public meetings. Additional language interpretation can be requested 72 hours in advance at *completestreets@elmonteca.gov.*

STAY ENGAGED

We want to ensure we know how you use the corridor and ways we can improve it. Please scan the QR code to take a survey and provide your thoughts.

STAY CONNECTED

Connect with us using any of the methods below:

completestreets@elmonteca.gov · EMCompleteStreets.com · facebook.com/CityofElMonte · @MyElMonte

TUE, JUN 27

Valley Boulevard and Main Street Complete Streets Feasibility Study Pu...

☆ Interested

City of El Monte CA Government

Jun 26 ·

Let us know how we can improve Valley Boulevard and Main Street. Join us tomorrow from 6-7 p.m. for a virtual pu... See more



BE PART OF THE VALLEY BOULEVARD & MAIN STREET COMPLETE STREETS FEASIBILITY STUDY!

The City of El Monte is conducting the Valley Boulevard and Main Street Complete Streets **Feasibility Study as part of its planning efforts.** This study will help identify key improvements needs to ensure safe travels along and across Valley Boulevard and Main Street for all users, **which will offer a direct and secure link between** the neighborhood and regional and national transit services, business, parks, and other community destinations.

Join us for the upcoming public meetings and let us know your thoughts on how we can improve Valley Boulevard and Main Street.



UPCOMING MEETINGS

PUBLIC MEETING #1 (VIRTUAL)

Date: Tuesday, June 27, 2023
Time: 6:00 p.m. – 7:00 p.m.
Register here: *https://linktr.ee/emcompletestreets*

PUBLIC MEETING #2

Date: Wednesday, July 12, 2023
Time: 6:00 p.m. – 7:00 p.m.
Location: El Monte Aquatic Center
11001 Mildred St, El Monte, CA 91731

Live Spanish interpretation will be available during both public meetings. Additional language interpretation can be requested 72 hours in advance at *completestreets@elmonteca.gov.*

STAY ENGAGED

We want to ensure we know how you use the corridor and ways we can improve it. Please scan the QR code to take a survey and provide your thoughts.

STAY CONNECTED

Connect with us using any of the methods below:

completestreets@elmonteca.gov EMCompleteStreets.com facebook.com/CityofElMonte @MyElMonte

3 1 share

City of El Monte CA Government
Jun 27 ·

City of El Monte CA Government · Follow
Jun 26 ·

Let us know how we can improve Valley Boulevard and Main Street. Join us tomorrow from 6-7 p.m. for a virtual pu... See more



BE PART OF THE VALLEY BOULEVARD & MAIN STREET COMPLETE STREETS FEASIBILITY STUDY!

The City of El Monte is conducting the Valley Boulevard and Main Street Complete Streets **Feasibility Study as part of its planning efforts.** This study will help identify key improvements needs to ensure safe travels along and across Valley Boulevard and Main Street for all users, **which will offer a direct and secure link between** the neighborhood and regional and national transit services, business, parks, and other community destinations.

Join us for the upcoming public meetings and let us know your thoughts on how we can improve Valley Boulevard and Main Street.



UPCOMING MEETINGS

PUBLIC MEETING #1 (VIRTUAL)

Date: Tuesday, June 27, 2023
Time: 6:00 p.m. – 7:00 p.m.
Register here: *https://linktr.ee/emcompletestreets*

PUBLIC MEETING #2

Date: Wednesday, July 12, 2023
Time: 6:00 p.m. – 7:00 p.m.
Location: El Monte Aquatic Center
11001 Mildred St, El Monte, CA 91731

Live Spanish interpretation will be available during both public meetings. Additional language interpretation can be requested 72 hours in advance at *completestreets@elmonteca.gov.*

STAY ENGAGED

We want to ensure we know how you use the corridor and ways we can improve it. Please scan the QR code to take a survey and provide your thoughts.

STAY CONNECTED

Connect with us using any of the methods below:

Instagram

myelmonte



Liked by jule_1958 and **others**

myelmonte Be part of the Valley Boulevard & Main Street Complete Streets Feasibility Study! Join us virtually on Tuesday, 6/27 and in-person on Wednesday, 7/12 from 6-7 p.m... more

View 1 comment

June 13 · **See translation**

myelmonte



BE PART OF THE VALLEY BOULEVARD & MAIN STREET COMPLETE STREETS FEASIBILITY STUDY!

The City of El Monte is conducting the Valley Boulevard and Main Street Complete Streets **Feasibility Study as part of its planning efforts.** This study will help identify key improvements needs to ensure safe travels along and across Valley Boulevard and Main Street for all users, **which will offer a direct and secure link between** the neighborhood and regional and national transit services, business, parks, and other community destinations.

Join us for the upcoming public meetings and let us know your thoughts on how we can improve Valley Boulevard and Main Street.



UPCOMING MEETINGS

PUBLIC MEETING #1 (VIRTUAL)

Date: Tuesday, June 27, 2023
Time: 6:00 p.m. – 7:00 p.m.
Register here: *https://linktr.ee/emcompletestreets*

PUBLIC MEETING #2

Date: Wednesday, July 12, 2023
Time: 6:00 p.m. – 7:00 p.m.
Location: El Monte Aquatic Center
11001 Mildred St, El Monte, CA 91731

Live Spanish interpretation will be available during both public meetings. Additional language interpretation can be requested 72 hours in advance at *completestreets@elmonteca.gov.*

STAY ENGAGED

We want to ensure we know how you use the corridor and ways we can improve it. Please scan the QR code to take a survey and provide your thoughts.

STAY CONNECTED

Connect with us using any of the methods below:

completestreets@elmonteca.gov EMCompleteStreets.com facebook.com/CityofElMonte @MyElMonte

Liked by **jule_1958** and **others**

View all 2 comments

June 21

APPENDIX D

Business Corridor Walk Summary



Event Summary Report
Valley Boulevard and Main Street Business Corridor Walk

Date	Wednesday, June 14, 2023
Location	Valley Boulevard and Main Street, El Monte, California
Event Time	10:00 am – 6:00 pm
Staff	Allison Crook (AA) Eric Davidan (AA)
Businesses Visited	200
Contact Information Collected	32
New Businesses	17
CAC Interest	The Plug for Barbers – 10423 Valley Blvd Ste D1, El Monte, CA 91731 Jose's Travel – 10053 Valley Blvd Ste 12 El Monte, CA 91731

On Wednesday, June 14, the outreach team conducted a comprehensive outreach effort for the Valley Boulevard and Main Street Complete Streets Feasibility Study by visiting a total of 200 businesses to provide them with crucial information regarding the project. The primary objective was to inform business owners about the upcoming project meetings and distribute relevant materials to facilitate their understanding and engagement.

During the outreach initiative, a packet that included a meeting flyer and two fact sheets (Valley Boulevard and Main Street) was distributed detailing the key aspects of the Study. These materials served as a valuable resource for businesses to stay informed about the project's scope, timeline, and potential impacts.

To ensure inclusivity and effective communication, we prepared flyers in multiple languages. In addition to English, we had flyers available in Spanish, Vietnamese, and Chinese. This allowed us to engage with a diverse range of business owners and address language barriers, ensuring that crucial information about the project was accessible to all.

This outreach effort aimed to establish clear lines of communication, build relationships with local businesses, and foster an environment of collaboration and understanding. By proactively visiting businesses and providing them with detailed project information in their preferred language, we sought to encourage their active involvement and participation in the decision-making process. This effort was well received among business owners as they shared appreciation for the in-person effort to share important information about City efforts.

APPENDIX E

Farmer's Market Summary

VALLEY BLVD MAIN STREET

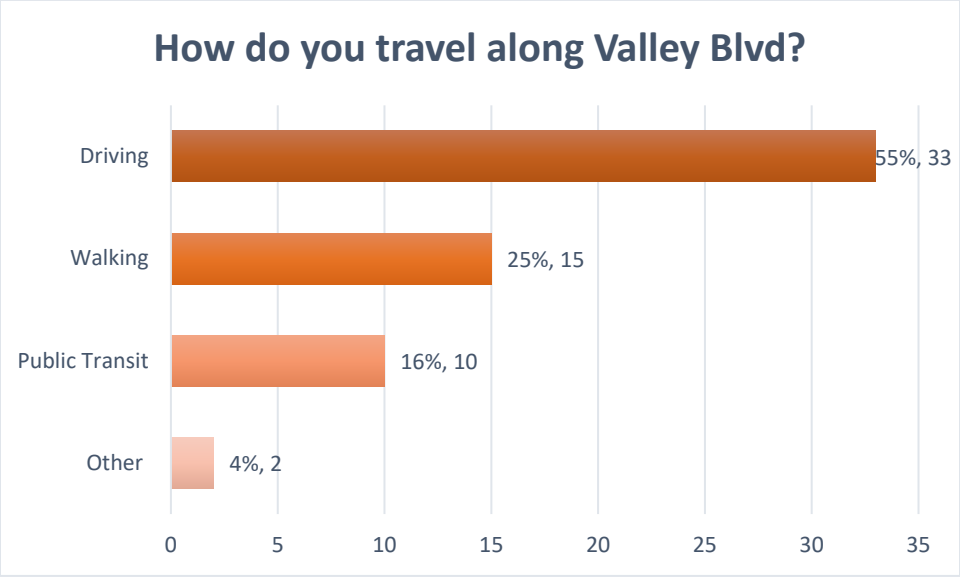
COMPLETE STREETS

Event Summary Report
City of El Monte Main Street Farmers Market

Date	Thursday, June 15, 2023
Location	Main Street, El Monte, California
Event Time	5:00 pm – 9:00 pm
Set Up Time	3:30 pm
Staff	Marlena Perez (MBI) Allison Crook (AA) Eric Davidian (AA)
Booth Visitors	100

The project team coordinated an informational booth at the City of El Monte's Main Street Farmers Market, which attracted an estimated attendance of 100 booth visitors. Our booth included three boards asking questions about Main Street and Valley Boulevard. Members of the public answered them by placing a sticker under their choice. Our outreach efforts identified several areas of improvement in both the Main Street and Valley Blvd areas recommended by the public.

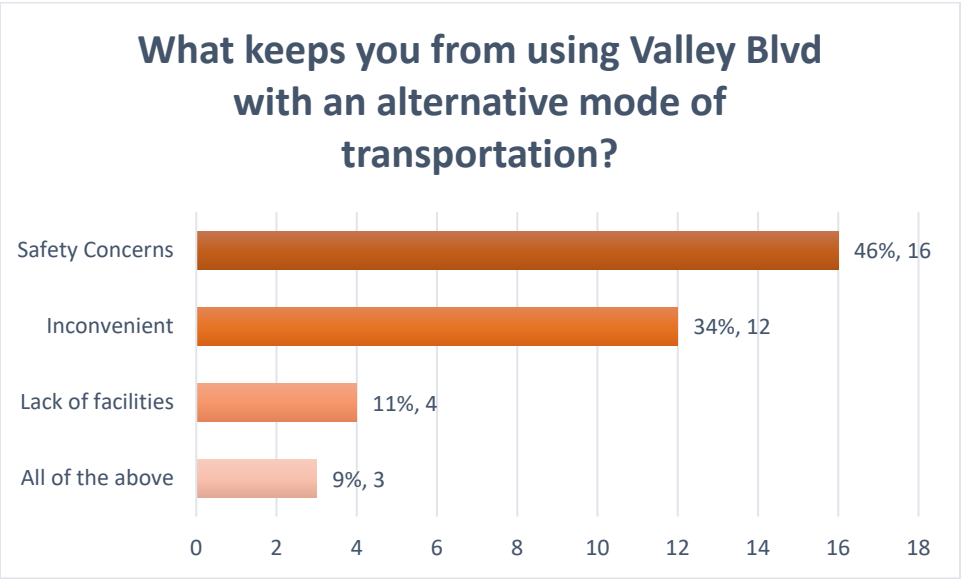
Board Activity Results- Valley Boulevard



VALLEY BLVD MAIN STREET

COMPLETE STREETS





Summary- Valley Boulevard

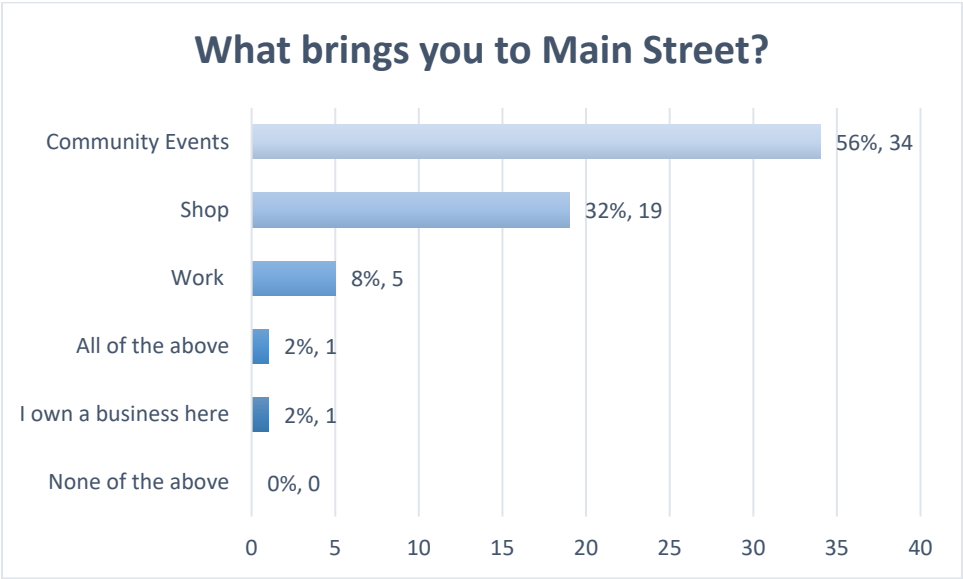
Valley Boulevard Improvements	
Bus Shade	Installing shade structures at bus stops along Valley Blvd.
Pothole Repair	Addressing the issue of potholes on Valley Blvd through timely repairs to ensure a smooth driving experience.
Sidewalk Improvements	Ensuring sidewalks are available on both sides of Valley Blvd.
ADA Accessibility	Implementing measures to ensure compliance with the Americans with Disabilities Act (ADA) and improve accessibility for individuals with disabilities along Valley Blvd.
Traffic and Speeding	Implementing traffic management strategies and speed reduction measures to improve Valley Blvd road safety and traffic flow.
Frequent Bus Service	Enhancing the frequency of bus services along Valley Blvd.
Class 4 Bike Lanes	Adding dedicated Class 4 bike lanes on Valley Blvd to facilitate safer cycling and promote alternative modes of transportation

VALLEY BLVD MAIN STREET

COMPLETE STREETS



Board Activity Results- Main Street



Summary- Main Street

Main Street Improvements	
Lighting	Enhancing the lighting infrastructure on Main Street to improve visibility and safety.
Advertising Opportunities	Implementing additional advertising opportunities on Main Street to promote local businesses.
Community Activities	Increase the number of community activities on Main Street; with an Emphasis on Latino Community.
More Stores	Encouraging the opening of new stores and businesses on Main Street to attract more visitors.
Road Pavement	Addressing the need for road pavement to improve the overall quality of the street and ensure a smooth driving and walking experience.
Trash Cans	Installing additional trash cans along Main Street to maintain cleanliness.
Pedestrian-Only Street	Turn Main Street into a pedestrian-only space for enhanced safety and community interaction.
More Park Areas:	Create additional parking areas or green spaces along Main Street to provide recreational opportunities and improve the area's aesthetic appeal.

VALLEY BLVD MAIN STREET

COMPLETE STREETS

Summary- Shared Improvements, Valley Boulevard and Main Street

Valley Boulevard and Main Street Areas of Common Improvement	
Community Internet	Addressing the need for community-wide internet access to give residents access to online resources.
Security	Enhancing security measures in both Main Street and Valley Blvd

Event Photos



VALLEY BLVD | MAIN STREET

COMPLETE STREETS

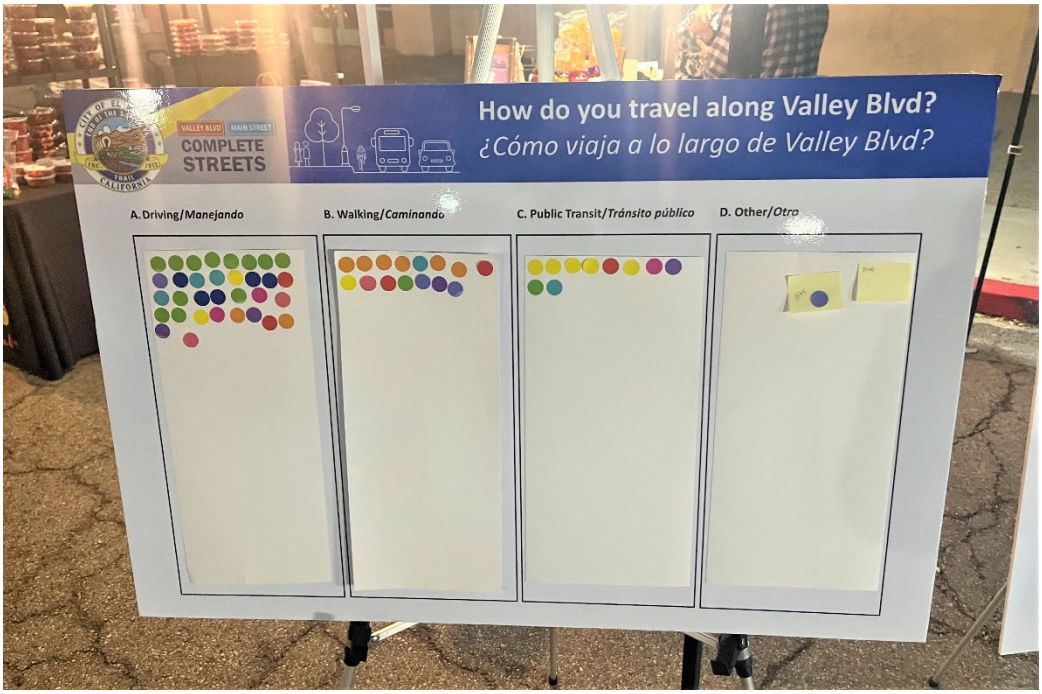




VALLEY BLVD | MAIN STREET

COMPLETE STREETS

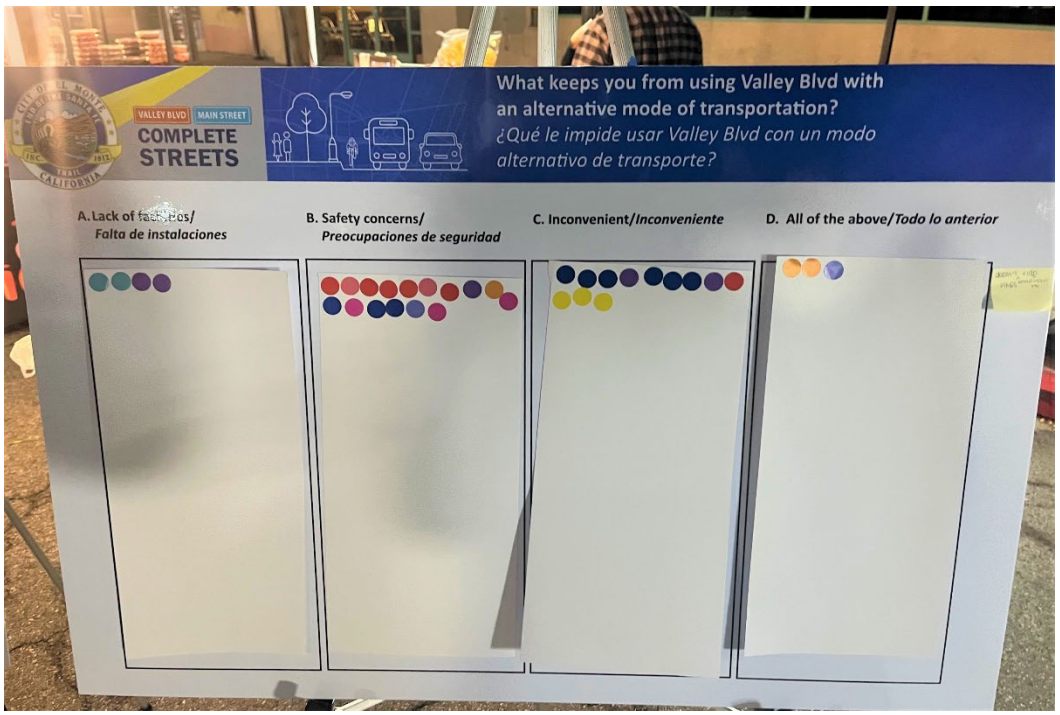


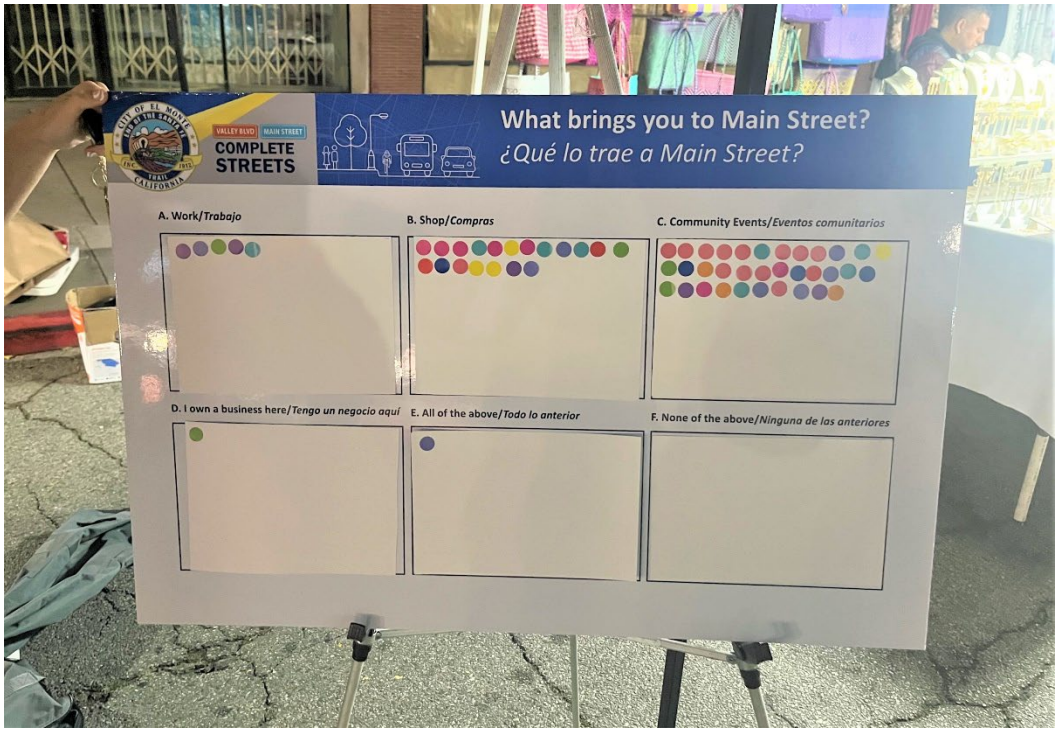


VALLEY BLVD | MAIN STREET

COMPLETE STREETS







APPENDIX F
Meeting Flyer

VALLEY BLVD | MAIN STREET

COMPLETE STREETS



BE PART OF THE VALLEY BOULEVARD & MAIN STREET COMPLETE STREETS FEASIBILITY STUDY!

The City of El Monte is conducting the Valley Boulevard and Main Street Complete Streets Feasibility Study as part of its planning efforts. This study will help identify key improvements needs to ensure safe travels along and across Valley Boulevard and Main Street for all users, which will offer a direct and secure link between the neighborhood and regional and national transit services, business, parks, and other community destinations.

Join us for the upcoming public meetings and let us know your thoughts on how we can improve Valley Boulevard and Main Street.



UPCOMING MEETINGS

PUBLIC MEETING #1 (VIRTUAL)

Date: Tuesday, June 27, 2023
Time: 6:00 p.m. – 7:00 p.m.
Register here: *https://linktr.ee/emcompletestreets*

PUBLIC MEETING #2

Date: Wednesday, July 12, 2023
Time: 6:00 p.m. – 7:00 p.m.
Location: El Monte Aquatic Center
11001 Mildred St, El Monte, CA 91731

Live Spanish interpretation will be available during both public meetings. Additional language interpretation can be requested 72 hours in advance at *completestreets@elmonteca.gov.*

STAY ENGAGED

We want to ensure we know how you use the corridor and ways we can improve it. Please scan the QR code to take a survey and provide your thoughts.

STAY CONNECTED

Connect with us using any of the methods below:

completestreets@elmonteca.gov | EMCompleteStreets.com | facebook.com/CityofElMonte | @MyElMonte

VALLEY BLVD | MAIN STREET

CALLES COMPLETAS



¡SEA PARTE DEL ESTUDIO DE FACTIBILIDAD DE CALLES COMPLETAS DE VALLEY BOULEVARD Y MAIN STREET!

La ciudad de El Monte está llevando a cabo el Estudio de Factibilidad de Calles Completas de Valley Boulevard y Main Street como parte de sus esfuerzos de planificación. Este estudio contribuirá a identificar las necesidades de mejora claves a fin de garantizar que todos los usuarios puedan desplazarse de manera segura por las calles de Valley Boulevard y Main Street, que ofrecerán un nuevo enlace directo y seguro entre el vecindario y los servicios de transporte público regional y nacional, los comercios, los parques y otros destinos de la comunidad.

Acompáñenos en las próximas reuniones públicas y comparta con nosotros su opinión sobre cómo podríamos mejorar Valley Boulevard y Main Street.



PRÓXIMAS REUNIONES

REUNIÓN PÚBLICA #1 (VIRTUAL)

Fecha: 27 de junio de 2023

Hora: 6:00 p.m. – 7:00 p.m.

Regístrese aquí: *https://linktr.ee/emcompletestreets*

REUNIÓN PÚBLICA #2

Fecha: 12 de julio de 2023

Hora: 6:00 p.m. – 7:00 p.m.

Lugar: El Monte Aquatic Center

11001 Mildred St, El Monte, CA 91731

Habrá servicio de interpretación simultánea disponible en español durante ambas reuniones públicas. Podrá solicitar el servicio de interpretación en otros idiomas con 72 horas de anticipación mandando un correo electrónico a *completestreets@elmonteca.gov*.

MANTÉNGASE COMPROMETIDO

Queremos asegurarnos de conocer cómo utiliza el corredor y las formas de mejorarlo. Por favor escanee el código QR para responder a la encuesta y compartir su opinión.

MANTÉNGASE CONECTADO

Comuníquese con nosotros por cualquiera de estas vías:

completestreets@elmonteca.gov | EMCompleteStreets.com | facebook.com/CityofElMonte | @MyElMonte

VALLEY BLVD | MAIN STREET

完整街道



成为山谷大道和主街完整街道可行性研究的一部分！

作为其规划工作的一部分，埃尔蒙特市正在进行山谷大道和主街完整街道的可行性研究。这项研究将有助于确定关键的改进需求，以确保所有用户能够安全地沿着山谷大道和主街出行和穿越这些街道，这将在邻里与地区和国家交通服务、商业、公园和其他社区目的之间提供直接和安全的联系。

请加参加我们参加即将举行的公开会议，让我们知道您对如何改善山谷大道和主街的想法。



即将举行的会议

公开会议#1（虚拟）
日期：2023 年 6 月 27 日，星期二
时间：晚上 6 时至7时
在这里注册： *https://linktr.ee/emcompletestreets*

公开会议 #2
日期：2023 年 7 月 12 日，星期三
时间：晚上 6 时至7时
地点：埃尔蒙特水上运⊠中心
11001 Mildred St, El Monte, CA 91731

两次公开会议期间都将提供现场西班牙语口译服务。可提前 72 小时通过 *completestreets@elmonteca.gov* 要求其他语言翻译。

保持参与

我们想确保我们知道您如何使用该走廊以及我们可以改进它的方式。请扫描二维码参与问卷调查并提出您的想法。

保持联系

使用以下任何方法与我们联系：

completestreets@elmonteca.gov | EMCompleteStreets.com | facebook.com/CityofElMonte | @MyElMonte

VALLEY BLVD | MAIN STREET

TOÀN BỘ ĐƯỜNG PHỐ



HÃY THAM GIA CUỘC NGHIÊN CỨU TÍNH KHẢ THI CỦA TOÀN BỘ ĐƯỜNG PHỐ VALLEY BOULEVARD & MAIN STREET!

Thành phố El Monte đang tiến hành Cuộc Nghiên cứu Tính Khả thi của Toàn bộ Đường phố Valley Boulevard và Main Street như một phần trong nỗ lực lập kế hoạch của thành phố. Cuộc nghiên cứu này sẽ trợ giúp việc nhận định các nhu cầu cải tiến chính yếu để đảm bảo việc đi lại an toàn dọc theo và bang ngang qua Valley Boulevard và Main Street cho tất cả các người sử dụng, điều này sẽ cung cấp mối liên kết trực tiếp và an toàn giữa vùng lân cận với các dịch vụ vận chuyển khu vực và quốc gia, doanh nghiệp, công viên và các điểm đến khác của cộng đồng.

Hãy tham gia với chúng tôi trong các cuộc họp công khai sắp tới và cho chúng tôi biết suy nghĩ của quý vị về cách chúng tôi có thể cải thiện Valley Boulevard và Main Street.



CÁC CUỘC HỌP SẮP TỚI

CUỘC HỌP CÔNG KHAI #1 (TRÊN MẠNG)

Ngày: Thứ Ba, ngày 27 tháng 6 năm 2023

Thời gian: 6:00 p.m. - 7:00 p.m.

Đăng ký tại đây: *https://linktr.ee/emcompletestreets*

CUỘC HỌP CÔNG KHAI #2

Ngày: Thứ Tư, ngày 12 tháng 7 năm 2023

Thời gian: 6:00 p.m. - 7:00 p.m.

Địa điểm: **El Monte Aquatic Center**

11001 Mildred St, El Monte, CA 91731

Thông dịch tiếng Tây Ban Nha trực tiếp sẽ có sẵn trong cả hai cuộc họp công khai. Có thể yêu cầu thông dịch viên cho các ngôn ngữ khác trước 72 giờ tại *completestreets@elmonteca.gov*.

HÃY TIẾP TỤC THAM GIA

Chúng tôi muốn đảm bảo rằng chúng tôi biết cách quý vị sử dụng hành lang và những cách thức chúng tôi có thể cải thiện. Vui lòng quét mã QR để thực hiện khảo sát và cho biết suy nghĩ của quý vị.

HÃY TIẾP TỤC GIỮ LIÊN LẠC

Kết nối với chúng tôi bằng bất kỳ phương pháp nào dưới đây:

completestreets@elmonteca.gov | EMCompleteStreets.com | facebook.com/CityofElMonte | @MyElMonte

APPENDIX G

Q&A Log

Public Meeting #1
Tuesday, June 27, 2023 | 6-7 p.m.

AGENDA	NAME	QUESTION/COMMENT	COMMENT TYPE	RESPONSE
Poll Questions (Valley)	Rudy Sanchez	Could a bus only lane become apart of the Complete Street?	Chat	Valley is a heavily traveled transit corridor. We are considering a number of options including bus lanes and other transit enhancements.
Poll Questions (Valley)	Jimmie Pitts	How many are attending this meeting?	Chat	Right now we have 8 people in the meeting, but it has flucuated between 9 and 7.
Poll Questions (Main)	David Diaz	Would it be possible for y'all to consider shutting down Main St to cars permanently? Walking promenade, median businesses, and park amenities?	Chat	I'm glad you asked! We are exploring options to create pedestrian plazas along the corridor, which include restricting auto access on parts of the corridor.
Q&A Segment	Rudy Sanchez	Could a bus only lane become a part of the complete street?	Chat	So we understand that Valley Boulevard is a heavily trans-traveled transit corridor, so that's one option we're looking at as part of this study. But along with that, we're looking at other general transit enhancements. So to answer your question, yes, that's part that's under consideration and we'll be exploring that future in future development of the project.
Q&A Segment	Rudy Sanchez	Have Complete Streets been implemented in other sections of Valley Blvd? If so how have those gone?	Chat	Yes, there have been complete street elements incorporated. Portions of valley boulevard have been more isolated and directed to specific intersections. And not. A more comprehensive look at it. So there are developments that have occurred along the streets. There have been requests for enhanced safety at crosswalks. And some of these complete street elements that we're discussing. Today has been implemented—more as a reactive approach to safety pedestrian safety, bicycle safety, etc. but mostly centered around pedestrian safety. But here we are looking at a more comprehensive look at the quarter. So this will be a much deeper dive than we've done. Not specific to. Development is not specific to a particular intersection or a safety issue, but this will be a more holistic report approach to the quarter.
Q&A Segment	Naresh Bhakta	Any development similar on Garvey? In future…?	Chat	It is, but I attend the staff meetings, and we are doing a Garvey complete project. We recently received proposals. We're in the selection process. So we'll have a consultant on board sometime this year. And we'll go through a similar approach as we're doing here for the Garvey Quarter. These two quarters will be tracking ahead of that particular quarter, but it is already in the works, and you will get additional information as that project kicks off.
Q&A Segment	Anonymous	How much funding has been secured for Valley Blvd?	Chat	To comply, complete the studies as part of the studies and as part of Michael Baker's task is to make recommendations to us that are competitive in areas where we can apply for grant opportunities to fund. We look at this as part of our feasibility study, and we'll be discussing the city is different grant programs that are out there that this project could qualify for and helping guide the city through that process. To secure funding for future phases and construction down the line. So that'll all be looked at, but that'll be more of a behind-the-scenes between us and the city we'll be working on as we progress this project.
Q&A Segment	Rudy Sanchez	I voted for closing Main Street on weekends only. Say this were to come true, would that decision be permanent? Could the decision be extended to closing it permanently?	Chat	Yeah, I can take that one. So that's actually really good question. And one thing we're looking at is If we do go the route of a partial closure on Main Street.Do we wanna look we're looking at options for doing that on a temporary basis potentially to start and seeing how that is received and how the space is utilized and then potentially doing that in the more long term or we could alternatively if there's the appetite to do the more permanent closures now. We could go that route to begin with, but that's something that we're still kind of waiting to see how. You know, this is just our first meeting. We're waiting to see once we actually have concepts and take that to a larger public audience. The reception of that along the corridor, but that's definitely something that's an option is doing a more temporary one and then maybe in a year or 2 checking back and seeing how people like that option and if they wanna explore something more permanent like that on Main Street.
Q&A Segment	Anonymous	When do you anticipate completing the final design?	Chat	Currently we are just doing, we're just doing feasibility. So, for our portion of this project, we're taking this to the concept level design stages and that'll be done by the end of this year. But final design is really contingent upon funding the future phases. So that's kind of up in the air until the funding for those is secured and the timeframe for that hasn't really been established yet. But we will have concepts. Approved by the end of this year likely.

APPENDIX G

Public Meeting #2
Summary with Appendices

VALLEY BLVD MAIN STREET
COMPLETE STREETS

Valley Boulevard and Main Street Complete Streets Feasibility Study
Public Meeting #2
Summary Report

1. Meeting Overview

As part of the planning efforts for the City of El Monte's Valley Boulevard and Main Street Complete Streets Feasibility Study, the community Update meeting was held to discuss the public's perception of the two corridors and to help identify key improvement needs that will allow for safe travel along and across Valley Boulevard and Main Street for all users.

The Public Meeting #2 was held:

- **Public Meeting #2**
  Date: Wednesday, July 12, 2023
  Time: 6:00 – 7:00 p.m.
  Location: El Monte Aquatic Center (1101 Mildred St. El Monte, CA 91731)

During the meetings, the project team shared a presentation that introduced the Study and its objectives. Following the presentation, participants were able to visit different stations and interact with project staff. The following stations were available:

- Project Overview
- Valley Boulevard
  - Existing Conditions
  - Proposed Concepts
- Main Street
  - Existing Conditions
  - Proposed Concepts
  - Santa Anita Mini Park

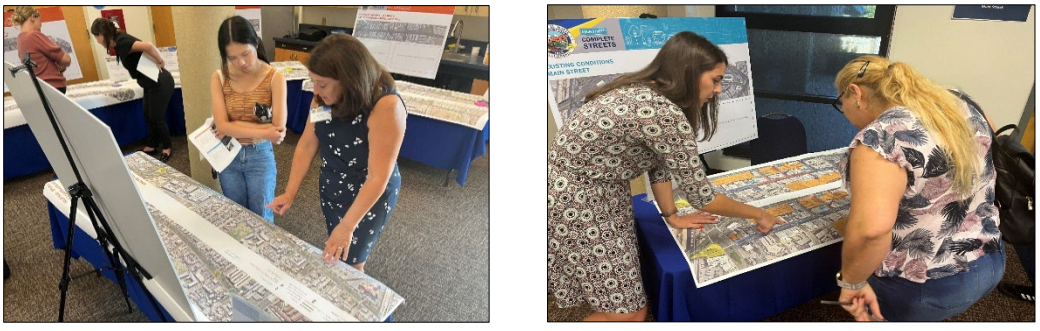


Figure 1. Public Meeting #2 Stations

At each station, participants provided their input on the proposed concepts and what features they would like to see along Valley Boulevard and Main Street. Additionally, live Spanish interpretation was made available throughout the meeting for participants.

See *Appendix A* for the presentation and *Appendix B* for the display boards.

2. Meeting Agenda

The following agenda items were discussed during the meeting:

- Introductions
- Study Overview
- Valley Boulevard
- Main Street
- Stay Connected
- Explore the Stations

3. Meeting Notification

E-blasts

An e-blast was distributed to invite stakeholders who are part of the stakeholder database to the meeting. E-Blasts were sent out in English and Spanish. See *Appendix C* for the e-blast content.

Table 1. E-Blast Notification Schedule

E-blast	Date Sent
Initial	June 13, 2023
Reminder #1	June 21, 2023
Reminder #2	June 26, 2023
Reminder #3	July 6, 2023
Reminder #4	July 11, 2023

Social Media

The City's social media platforms were utilized to promote the upcoming public meetings. To view the social media posts, see *Appendix D* Social media content was posted in English and Spanish.

Platform	Content	Date Sent
Facebook	Initial Invite	June 13, 2023
	Reminder #1	June 21, 2023
	Flyer	June 21, 2023
	Online Event	June 21, 2023
	Reminder #2	July 11, 2023
Instagram	Pinned Post	June 13, 2023
	Flyer	June 21, 2023

City Website and Calendar

In order to utilize the City's existing network, upcoming meeting information was shared on the City's main website and upcoming events calendar. Interested community members were directed to register for the event as well as navigate through key information about the Study.



Figure 2. City Website

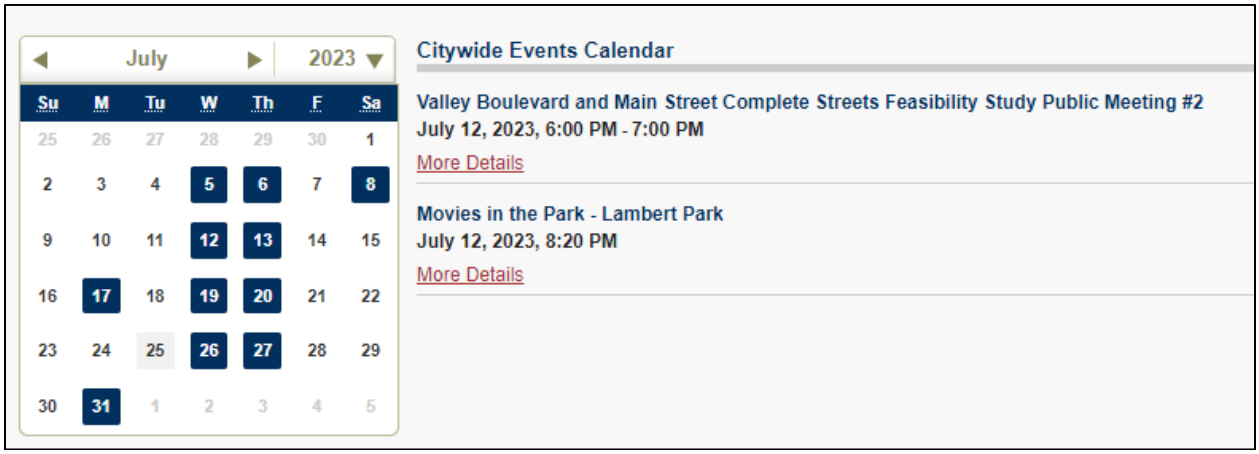


Figure 3. City Events Calendar

Business Corridor Walk

On June 14, 2023, the outreach team visited 200 businesses along Valley Boulevard and Main Street to promote project engagement. Business owners were informed of upcoming project meetings and key project collateral was shared.

See *Appendix E* for a complete summary.

Table 3. Business Corridor Walk Summary

Business Corridor Walk	
Businesses Visited	200
Contact Information Collected	32
New Businesses Contacted	17

Participation at City Events

With the objective of notifying the community of the upcoming meetings, the outreach team coordinated an informational booth at the City of El Monte's Main Street Farmer's Market. The booth attracted approximately 100 visitors and the project team was able to invite the public to the upcoming public meetings as well as collect information about community needs.
See *Appendix F* for a complete summary.



Figure 4. Farmer's Market

Meeting Flyer Distribution

A meeting flyer was developed in English, Spanish, Chinese and Vietnamese to promote upcoming meetings. Flyers were distributed on June 9, 2023, by mail to contacts part of the project's stakeholder database. See *Appendix G* for the meeting flyer.
Additionally, the flyer was distributed at key informational locations such as the City of El Monte offices, El Monte Aquatic Center, El Monte Public Library, and El Monte Community Center.

Sidewalk Decals

Sidewalk decals were installed at key locations throughout Valley Boulevard and Main Street. The sidewalk decals included a QR code that led to a Linktree containing information about the upcoming public meetings as well as other key project information.



Figure 5. Sidewalk Decals

Business Card Drop Off

On July 7, 2023, the outreach team visited businesses along Valley Boulevard and Main Street that have previously expressed interest in engaging with the project. A business card was created that featured a QR Code to access the survey and the upcoming meetings.



Figure 5. Business Cards

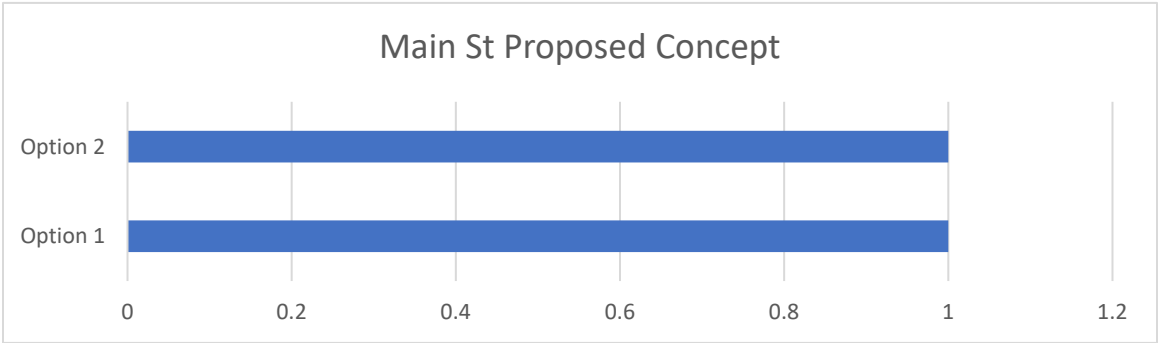
Attendee Report

No.	Name	Organization	Registered (R) /Attended (A)
1	Chris Greenspon	StreetsBlog LA	A
2	Blanca Medina	Downtown El Monte Business Association	A
3	Nguyen Tran	Did Not State	A

Station Engagement

Participants had the opportunity to obtain additional information by visiting each station and selecting their preferred option by placing a sticker on the board. See *Appendix B* for more details on the option participants referenced to make their selection.

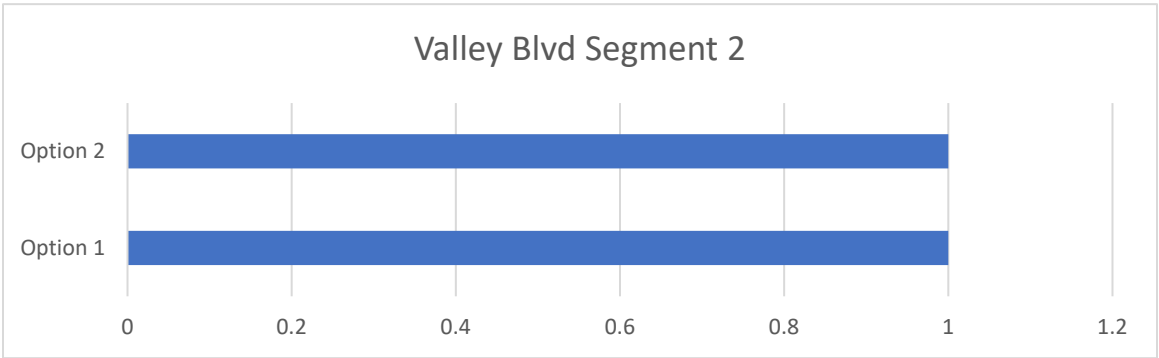
Main Street- Proposed Concepts



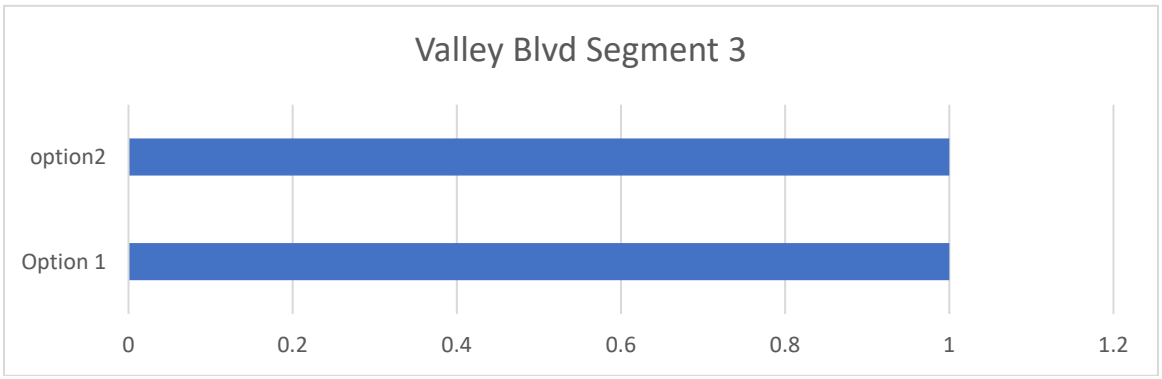
Valley Boulevard – Proposed Concepts, Segment 1 Rowland Ave to Santa Anita Ave

No voting occurred here.

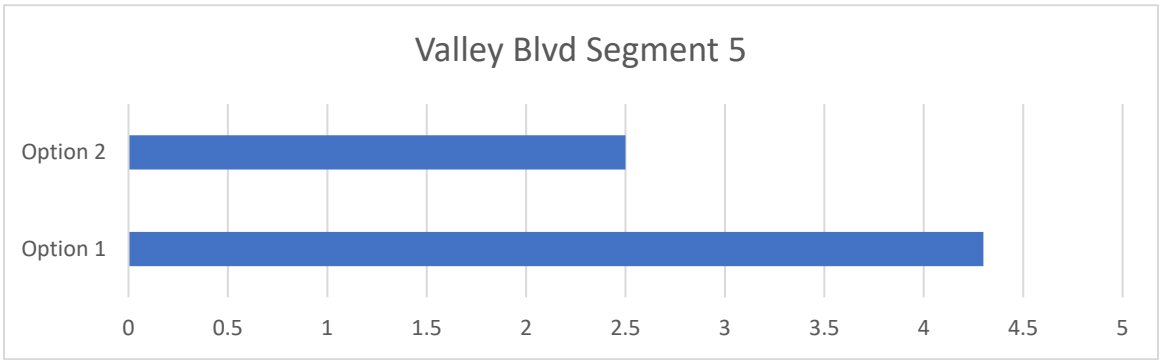
Valley Boulevard – Proposed Concepts, Segment 2 Santa Anita Ave to Ramona Boulevard



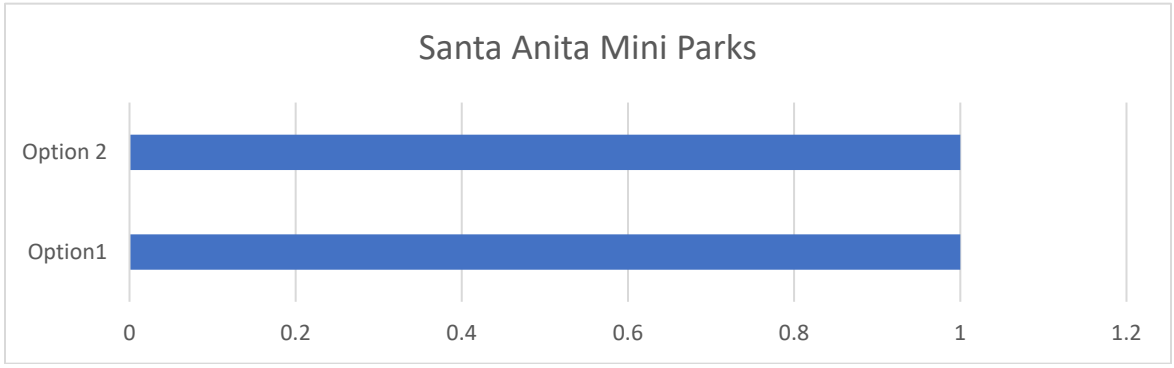
Valley Boulevard – Proposed Concepts, Segment 3 Ramona Boulevard to Mountain View Road



Valley Boulevard – Proposed Concepts, Segment 5 Garvey Ave to San Gabriel River Trail



Santa Anita Mini Parks



6. Participant Input

Participants were able to provide input and ask questions during the meeting. Below are key points discussed during both meetings. The conversation included the following key themes:

- Concerns about unhoused community utilizing the mini parks.

- Against closing Main Street and prefers to keep vehicle traffic.
- Considers closing Main Street a good option but there are concerns about accessibility and knowledge of area.
- Parking on Valley Boulevard is well utilized however, Main Street is not.
- Use intersection for stages for events.

7. Appendices

The appendices below are available for review at the end of the report.

- Appendix A. Presentation English/Spanish
- Appendix B. Display Boards English/Spanish
- Appendix C. E-Blast Notifications
- Appendix D. Social Media Posts
- Appendix E. Business Corridor Walk Summary
- Appendix F. Farmer's Market Summary
- Appendix G. Meeting Flyer

Appendix A

Presentation English/Spanish

VALLEY BLVD | MAIN STREET

COMPLETE STREETS

WELCOME!

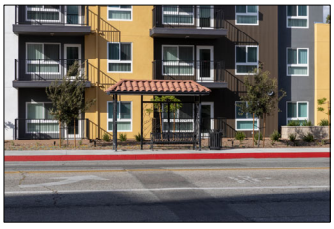
Public Meeting #2 | Wednesday, July 12, 2023

1

Agenda

- Introductions
- Study Overview
- Valley Boulevard
- Main Street
- Stay Connected
- Stations









2

VALLEY BLVD | MAIN STREET
COMPLETE STREETS

Introductions

Michael Baker INTERNATIONAL

arellano associates

3

Study Overview

The City of El Monte is conducting the Valley Boulevard and Main Street Complete Street Feasibility Study (Study) to enhance connectivity, accessibility and safety for all users in the community.



4

Study Objectives

Enhance multi-modal accommodations

Improve safety for all users

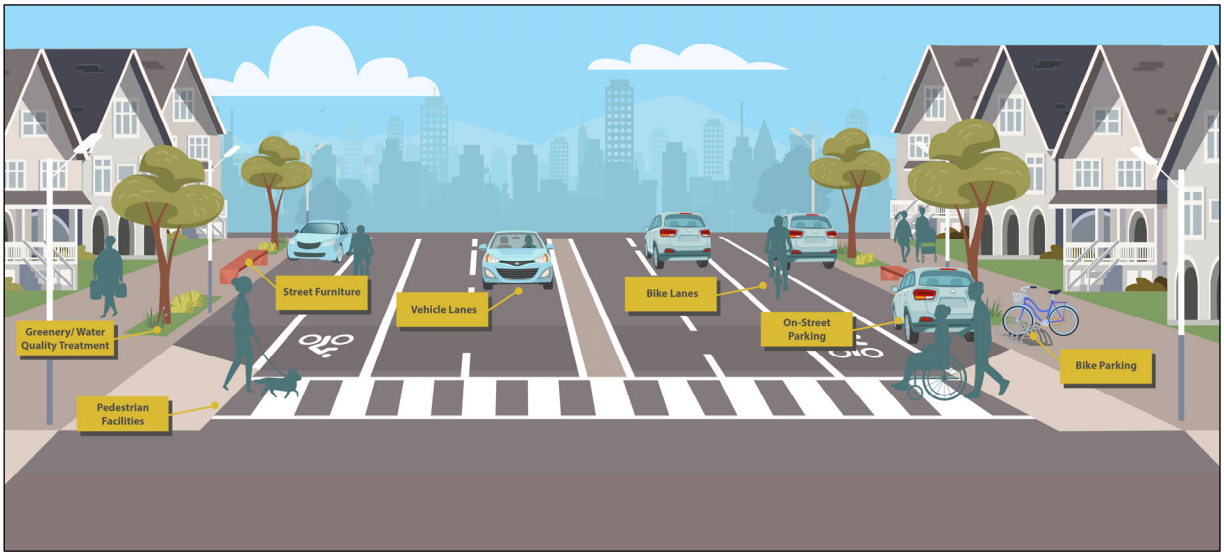
Americans with Disabilities Act (ADA) improvements

Incorporate low-impact development

Improve streetscape beautification and landscaping

5

What Makes a Street "Complete"?



6

Valley Boulevard Overview

- Approximately 3.3 miles
- Major arterial serving as one of the City's primary gateways
- Serves as a critical link in the regional transit network





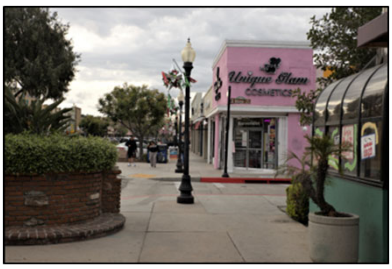
7

7

Main Street Overview

- Approximately 0.5 miles
- Commercial district in the heart of El Monte's downtown area
- Popular destination for outdoor shopping and dining experiences





8

8

Stay Connected

Thank you for joining us today!

Steven Wright
City Project Manager

Lee Torres
City Engineer

EMcompletestreets.com

completestreets@elmonteca.gov

CityofElMonte

myelmonte

MyElMonte

For more information, scan the QR code with your mobile phone or visit: https://linktr.ee/emcompletestreets

9

Stations

Learn more about the Study by visiting each station!

Study Overview

- Study Objectives
- Project Map
- Complete Streets
- Interactive Map

Valley Boulevard

- Existing Conditions
- Proposed Concepts
- Mini Park Concepts

Main Street

- Existing Conditions
- Proposed Concepts

For more information and to participate in the surveys, scan the QR code with your mobile phone or visit: https://linktr.ee/emcompletestreets

10

VALLEY BLVD | MAIN STREET

COMPLETE STREETS

¡BIENVENIDO!

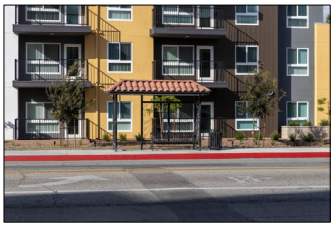
Reunión Pública #2 | miércoles, 12 de julio de 2023

11

Agenda

- Introducciones
- Descripción general del estudio
- Valley Boulevard
- Main Street
- Manténgase conectado
- Estaciones









12

VALLEY BLVD | MAIN STREET
COMPLETE STREETS

Introducciones

Michael Baker INTERNATIONAL

arellano associates

13

Descripción general del estudio

La Ciudad de El Monte está llevando a cabo el Estudio de Factibilidad de Calles Completas de Valley Boulevard y Main Street (Estudio) para mejorar la conectividad, accesibilidad y seguridad para todos los usuarios de la comunidad.



14

Objetivos del estudio

Mejorar el alojamiento multimodal

Mejorar la seguridad de todos los usuarios

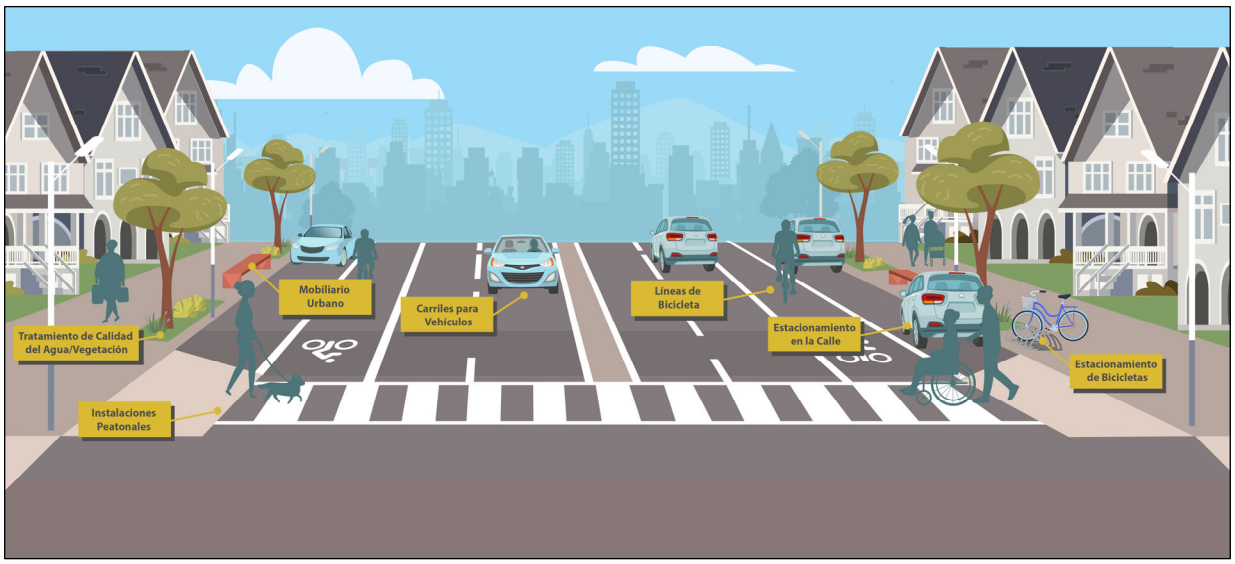
Mejoras del acta de estadounidenses con discapacidades (ADA)

Incorporar desarrollo de bajo impacto

Mejorar el embellecimiento del paisaje urbano y el paisajismo

15

¿Qué hace que una calle sea "completa"?



16

Descripción General de Valley Boulevard

- Aproximadamente 3.3 millas
- La arteria principal sirve como una de las principales puertas de entrada de la Ciudad
- Sirve como un enlace crítico en la red de tránsito regional





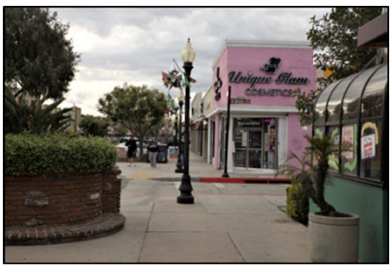
17

17

Descripción General de Main Street

- Aproximadamente 0.5 millas
- Distrito comercial en el corazón del centro de El Monte
- Destino popular para compras al aire libre y experiencias gastronómicas





18

18

Manténgase Conectado

¡Gracias por acompañarnos hoy!

Steven Wright
Gerente de Proyectos de la Ciudad

Lee Torres
Ingeniero de la Ciudad

EMcompletestreets.com

completestreets@elmonteca.gov

CityofElMonte

myelmonte

MyElMonte

Para obtener más información, escanee el código QR con su teléfono móvil o visite: https://linktr.ee/emcompletestreets

19

Estaciones

¡Aprenda más sobre el Estudio visitando cada estación!

Descripción General

- Objetivos
- Mapa del proyecto
- Calles completas
- Mapa interactivo

Valley Boulevard

- Condiciones existentes
- Conceptos propuestos
- Conceptos de parques "mini"

Main Street

- Condiciones existentes
- Conceptos propuestos

Para obtener más información y para participar en la encuesta, escanee el código QR con su teléfono móvil o visite: https://linktr.ee/emcompletestreets

20

Appendix B

Display Boards English/Spanish

VALLEY BLVD

COMPLETE STREETS

EXISTING CONDITIONS – SEGMENT 1
ROWLAND AVE TO SANTA ANITA AVE



IF YOU PREFER PROPOSED CONCEPT #1, PLACE STICKER HERE

IF YOU PREFER PROPOSED CONCEPT #2, PLACE STICKER HERE

VALLEY BLVD – OPTION 1
ROWLAND AVE TO SANTA ANITA AVE



LEGEND

- CURB
- PROPOSED STRIPE
- BIKE LANE CONFLICT AREA
- BUFFER
- PUBLIC PARKING
- SIDEWALK
- RAISED MEDIAN
- PEDESTRIAN PASEO
- EXISTING BUS STOP
- RELOCATED BUS STOP
- TRAFFIC SIGNAL
- RAPID RECTANGULAR FLASHING BEACON (RRFB)
- PROPOSED BOLLARD
- EXISTING CURB RAMP
- PROPOSED CURB RAMP

VALLEY BLVD – OPTION 2
ROWLAND AVE TO SANTA ANITA AVE



VALLEY BLVD

COMPLETE STREETS

EXISTING CONDITIONS – SEGMENT 2
SANTA ANITA AVE TO RAMONA BLVD



IF YOU PREFER PROPOSED CONCEPT #1, PLACE STICKER HERE

IF YOU PREFER PROPOSED CONCEPT #2, PLACE STICKER HERE

VALLEY BLVD – OPTION 1
SANTA ANITA AVE TO RAMONA BLVD



VALLEY BLVD – OPTION 2
SANTA ANITA AVE TO RAMONA BLVD



VALLEY BLVD

COMPLETE STREETS

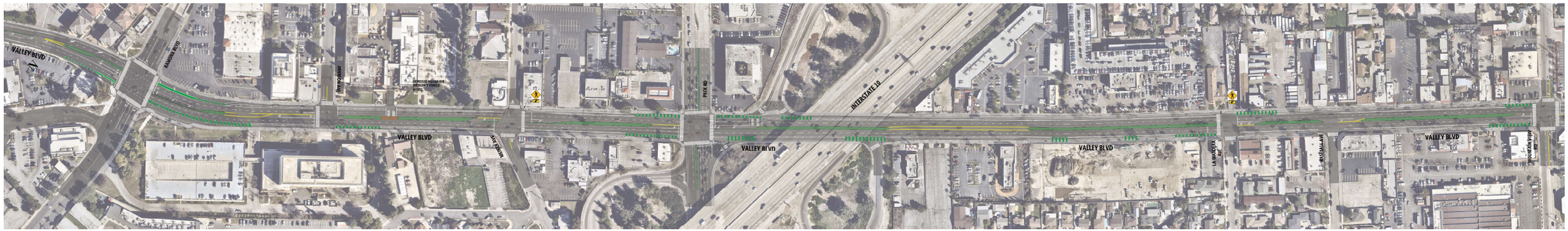
EXISTING CONDITIONS – SEGMENT 3
RAMONA BLVD TO MOUNTAIN VIEW RD



IF YOU PREFER PROPOSED CONCEPT #1, PLACE STICKER HERE

IF YOU PREFER PROPOSED CONCEPT #2, PLACE STICKER HERE

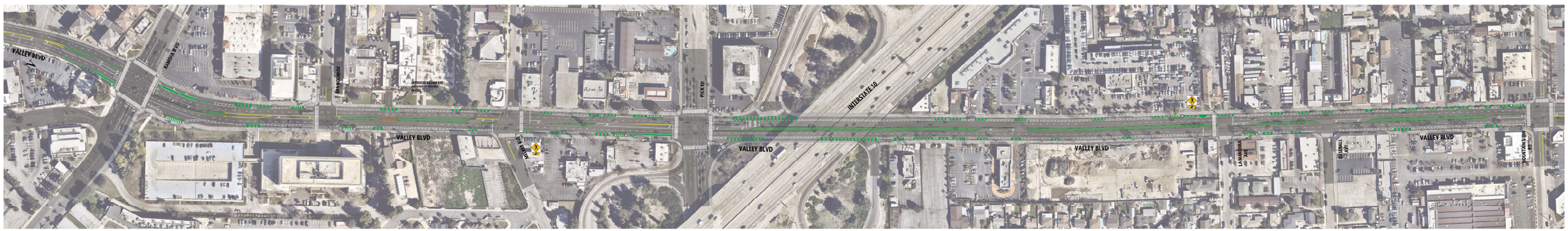
VALLEY BLVD – OPTION 1
RAMONA BLVD TO MOUNTAIN VIEW RD



LEGEND

- CURB
- PROPOSED STRIPE
- BIKE LANE CONFLICT AREA
- BUFFER
- PUBLIC PARKING
- SIDEWALK
- RAISED MEDIAN
- PEDESTRIAN PASEO
- EXISTING BUS STOP
- RELOCATED BUS STOP
- TRAFFIC SIGNAL
- RAPID RECTANGULAR FLASHING BEACON (RRFB)
- PROPOSED BOLLARD
- EXISTING CURB RAMP
- PROPOSED CURB RAMP

VALLEY BLVD – OPTION 2
RAMONA BLVD TO MOUNTAIN VIEW RD



VALLEY BLVD
COMPLETE STREETS

EXISTING CONDITIONS – SEGMENT 5
GARVEY AVE TO SAN GABRIEL RIVER TRAIL



IF YOU PREFER PROPOSED CONCEPT #1, PLACE STICKER HERE

IF YOU PREFER PROPOSED CONCEPT #2, PLACE STICKER HERE

VALLEY BLVD – OPTION 1
GARVEY AVE TO SAN GABRIEL RIVER TRAIL



LEGEND

- CURB
- PROPOSED STRIPE
- BIKE LANE CONFLICT AREA
- BUFFER
- PUBLIC PARKING
- SIDEWALK
- RAISED MEDIAN
- PEDESTRIAN PASEO
- EXISTING BUS STOP
- RELOCATED BUS STOP
- TRAFFIC SIGNAL
- RAPID RECTANGULAR FLASHING BEACON (RRFB)
- PROPOSED BOLLARD
- EXISTING CURB RAMP
- PROPOSED CURB RAMP

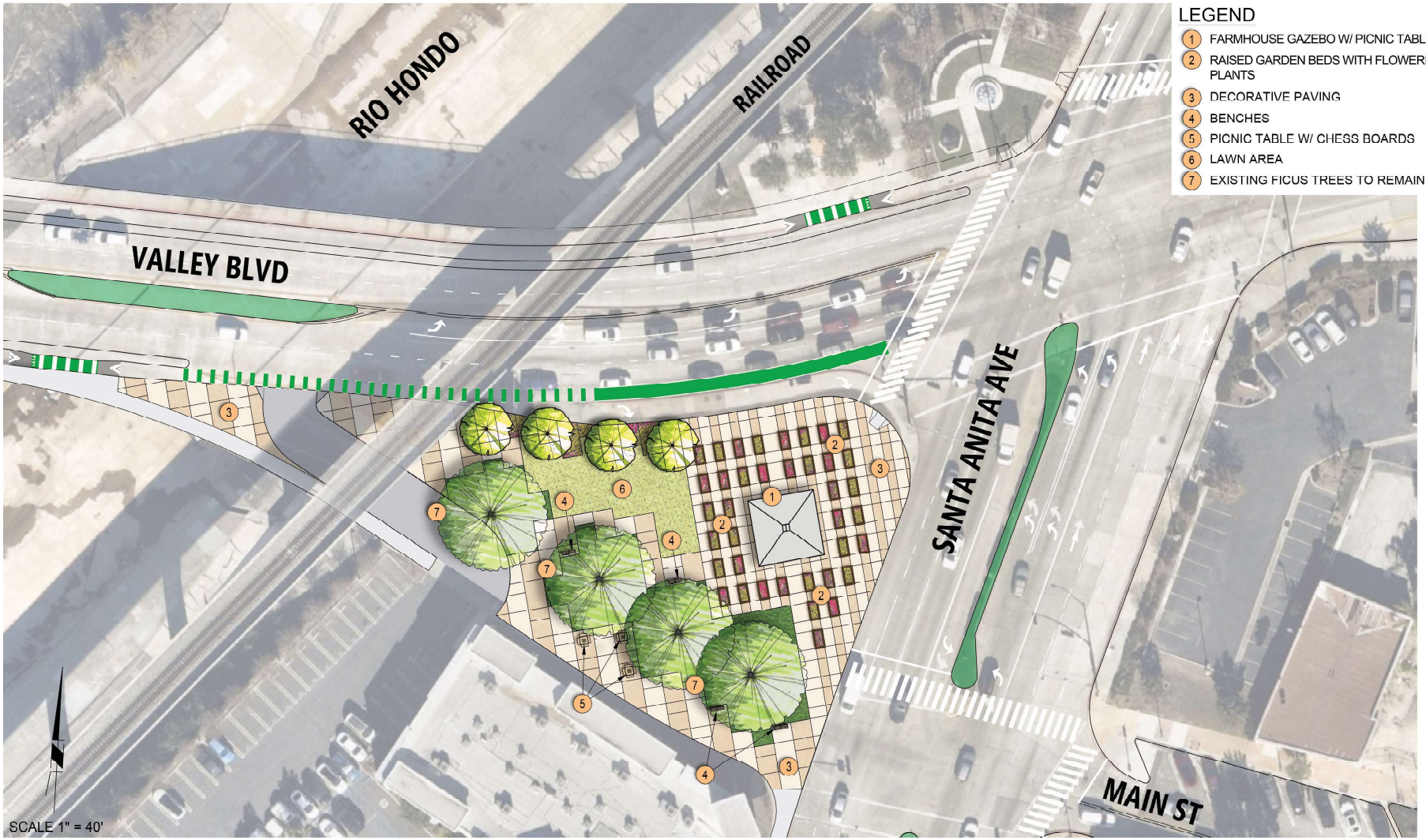
VALLEY BLVD – OPTION 2
GARVEY AVE TO SAN GABRIEL RIVER TRAIL



VALLEY BLVD | MAIN STREET

COMPLETE STREETS

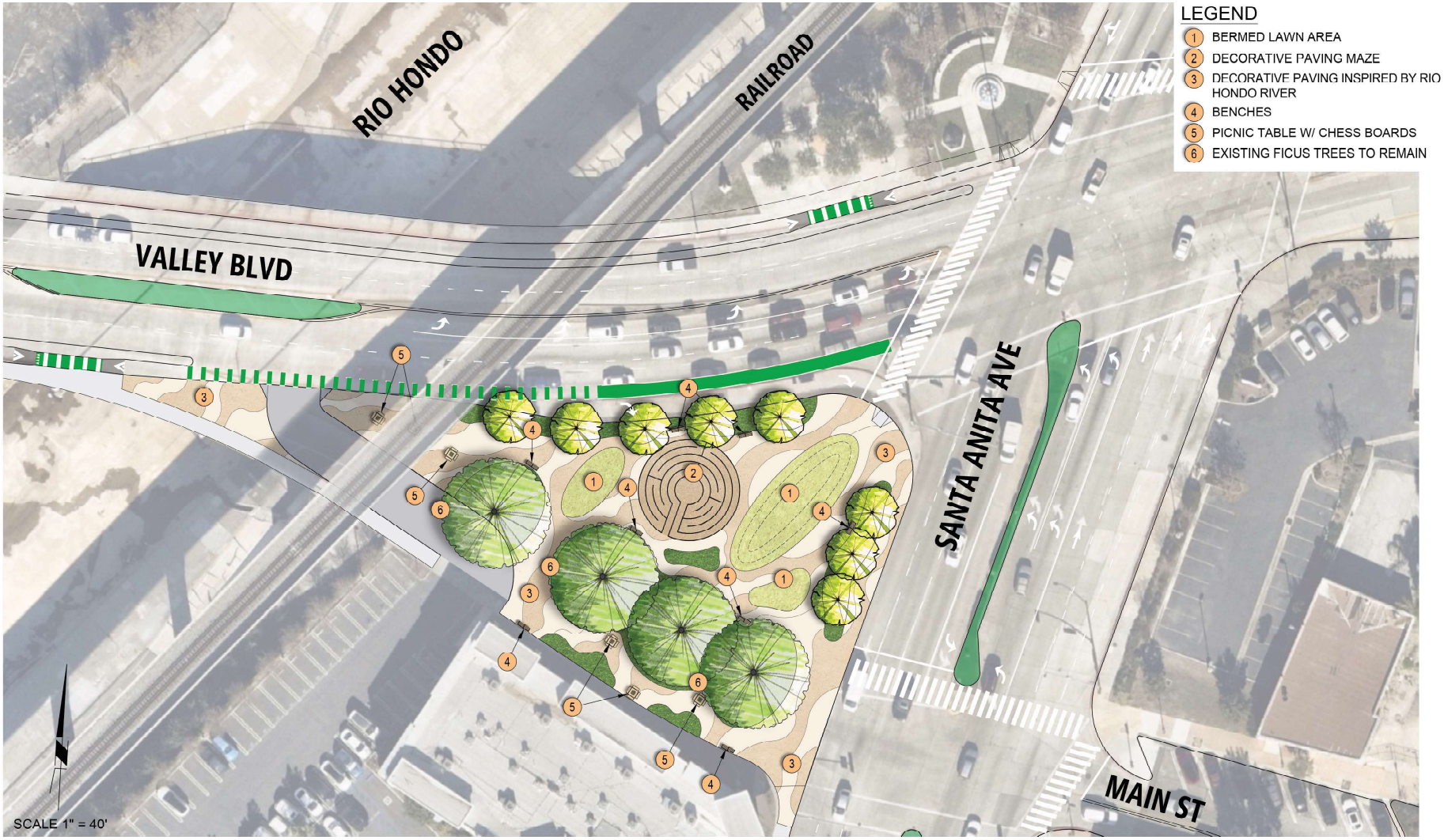
SANTA ANITA MINI PARK – OPTION 1



VALLEY BLVD | MAIN STREET

COMPLETE STREETS

SANTA ANITA MINI PARK – OPTION 2



MAIN STREET

COMPLETE STREETS

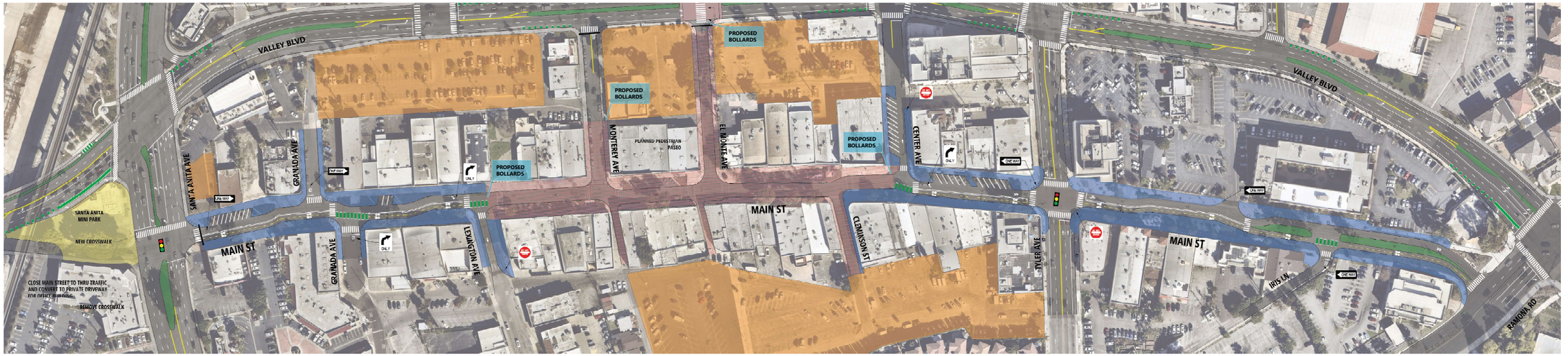
EXISTING CONDITIONS
MAIN STREET



IF YOU PREFER PROPOSED CONCEPT #1, PLACE STICKER HERE

IF YOU PREFER PROPOSED CONCEPT #2, PLACE STICKER HERE

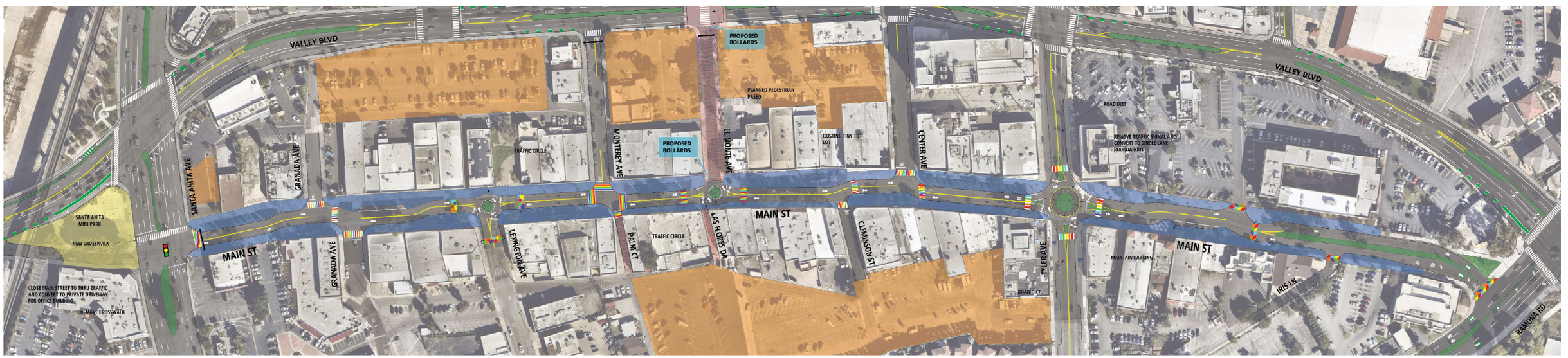
MAIN STREET – OPTION 1



LEGEND

CURB
PROPOSED STRIPE
BUFFER
BIKE LANE CONFLICT AREA
SIDEWALK
RAISED MEDIAN
PEDESTRIAN PASEO
PROPOSED BOLLARD
TRAFFIC SIGNAL
PUBLIC PARKING
SIDEWALK/LANDSCAPING/ COMMUNITY SPACE
EXISTING CURB RAMP
PROPOSED CURB RAMP
GATEWAY FEATURE
EXISTING BUS STOP

MAIN STREET – OPTION 2



VALLEY BLVD

COMPLETE STREETS

CONDICIONES EXISTENTES – SEGMENTO 1
ROWLAND AVE TO SANTA ANITA AVE



SI PREFIERE EL CONCEPTO PROPUESTO #1, COLOQUE LA ETIQUETA AQUÍ

SI PREFIERE EL CONCEPTO PROPUESTO #2, COLOQUE LA ETIQUETA AQUÍ

VALLEY BLVD – OPTION 1
ROWLAND AVE TO SANTA ANITA AVE



LEGEND

- CURB
- PROPOSED STRIPE
- BIKE LANE CONFLICT AREA
- BUFFER
- PUBLIC PARKING
- SIDEWALK
- RAISED MEDIAN
- PEDESTRIAN PASEO
- EXISTING BUS STOP
- RELOCATED BUS STOP
- TRAFFIC SIGNAL
- RAPID RECTANGULAR FLASHING BEACON (RRFB)
- PROPOSED BOLLARD
- EXISTING CURB RAMP
- PROPOSED CURB RAMP

VALLEY BLVD – OPTION 2
ROWLAND AVE TO SANTA ANITA AVE



VALLEY BLVD

COMPLETE STREETS

CONDICIONES EXISTENTES – SEGMENTO 2
SANTA ANITA AVE TO RAMONA BLVD



SI PREFIERE EL CONCEPTO PROPUESTO #1, COLOQUE LA ETIQUETA AQUÍ

SI PREFIERE EL CONCEPTO PROPUESTO #2, COLOQUE LA ETIQUETA AQUÍ

VALLEY BLVD – OPTION 1
SANTA ANITA AVE TO RAMONA BLVD



VALLEY BLVD – OPTION 2
SANTA ANITA AVE TO RAMONA BLVD



VALLEY BLVD

COMPLETE STREETS

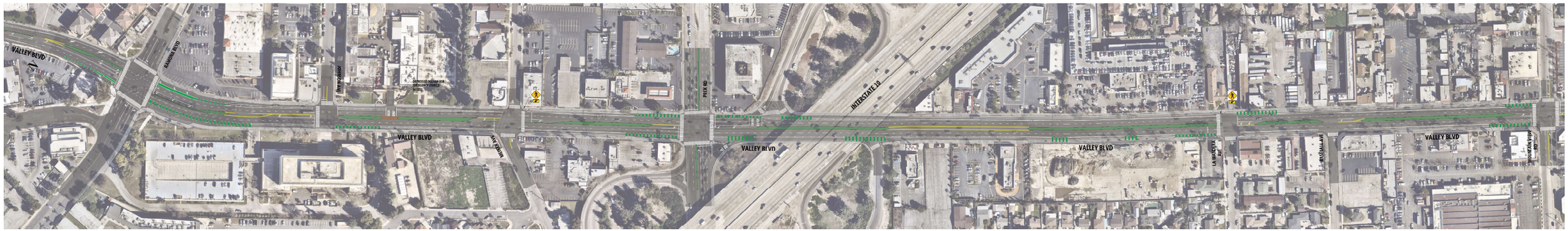
CONDICIONES EXISTENTES – SEGMENTO 3
RAMONA BLVD TO MOUNTAIN VIEW RD



SI PREFIERE EL CONCEPTO PROPUESTO #1, COLOQUE LA ETIQUETA AQUÍ

SI PREFIERE EL CONCEPTO PROPUESTO #2, COLOQUE LA ETIQUETA AQUÍ

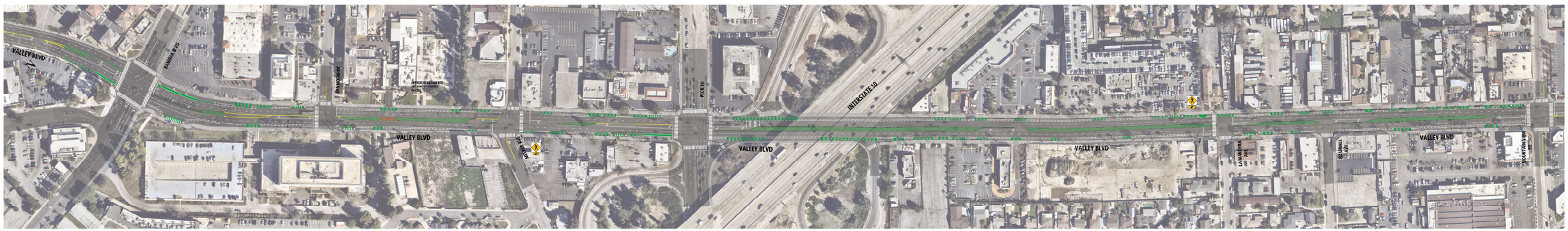
VALLEY BLVD – OPTION 1
RAMONA BLVD TO MOUNTAIN VIEW RD



LEGEND

- CURB
- PROPOSED STRIPE
- BIKE LANE CONFLICT AREA
- BUFFER
- PUBLIC PARKING
- SIDEWALK
- RAISED MEDIAN
- PEDESTRIAN PASEO
- EXISTING BUS STOP
- RELOCATED BUS STOP
- TRAFFIC SIGNAL
- RAPID RECTANGULAR FLASHING BEACON (RRFB)
- PROPOSED BOLLARD
- EXISTING CURB RAMP
- PROPOSED CURB RAMP

VALLEY BLVD – OPTION 2
RAMONA BLVD TO MOUNTAIN VIEW RD



VALLEY BLVD
COMPLETE STREETS

CONDICIONES EXISTENTES – SEGMENTO 5
GARVEY AVE TO SAN GABRIEL RIVER TRAIL



SI PREFIERE EL CONCEPTO PROPUESTO #1, COLOQUE LA ETIQUETA AQUÍ

SI PREFIERE EL CONCEPTO PROPUESTO #2, COLOQUE LA ETIQUETA AQUÍ

VALLEY BLVD – OPTION 1
GARVEY AVE TO SAN GABRIEL RIVER TRAIL



LEGEND

- CURB
- PROPOSED STRIPE
- BIKE LANE CONFLICT AREA
- BUFFER
- PUBLIC PARKING
- SIDEWALK
- RAISED MEDIAN
- PEDESTRIAN PASEO
- EXISTING BUS STOP
- RELOCATED BUS STOP
- TRAFFIC SIGNAL
- RAPID RECTANGULAR FLASHING BEACON (RRFB)
- PROPOSED BOLLARD
- EXISTING CURB RAMP
- PROPOSED CURB RAMP

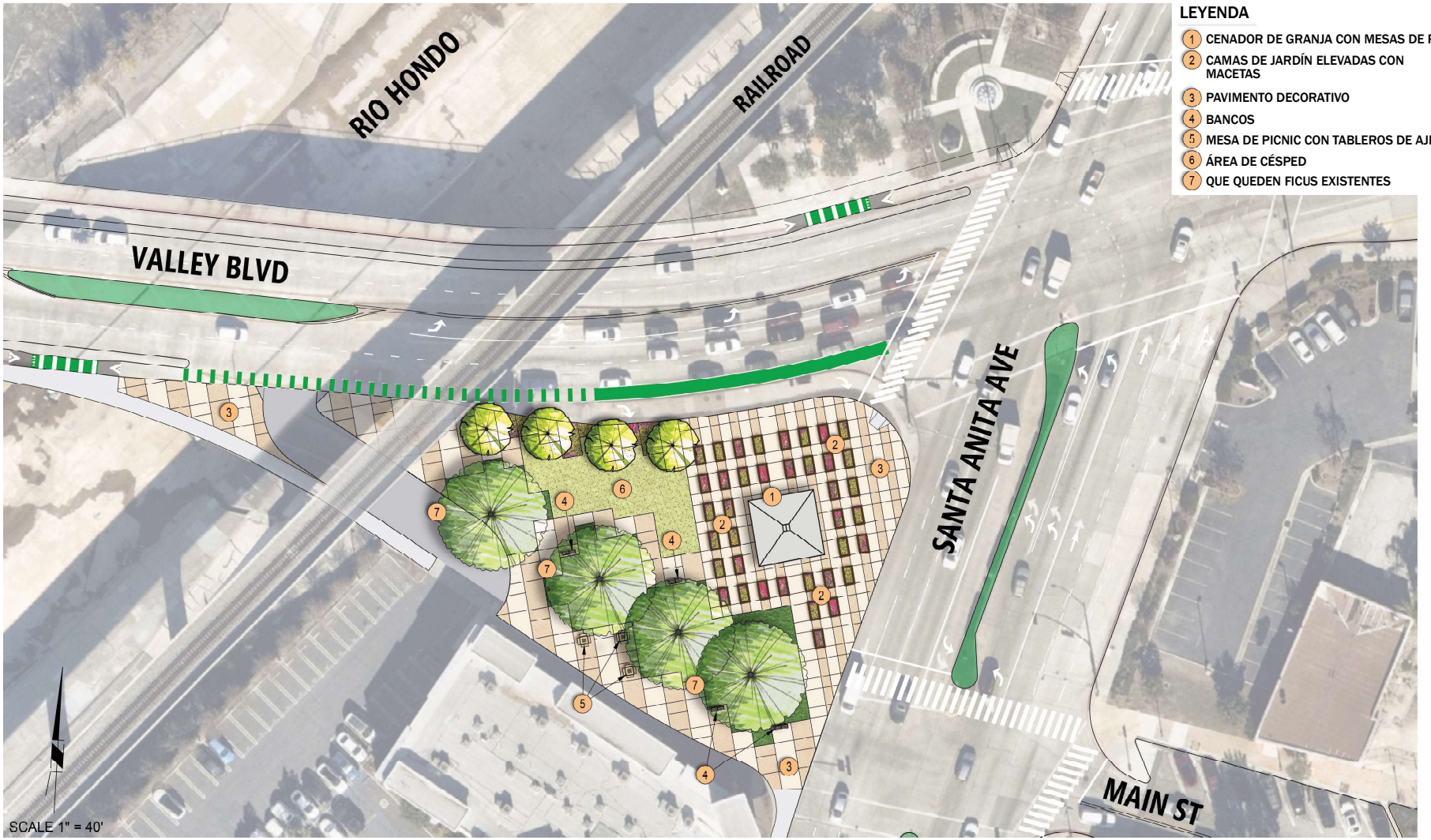
VALLEY BLVD – OPTION 2
GARVEY AVE TO SAN GABRIEL RIVER TRAIL



VALLEY BLVD | MAIN STREET

COMPLETE STREETS

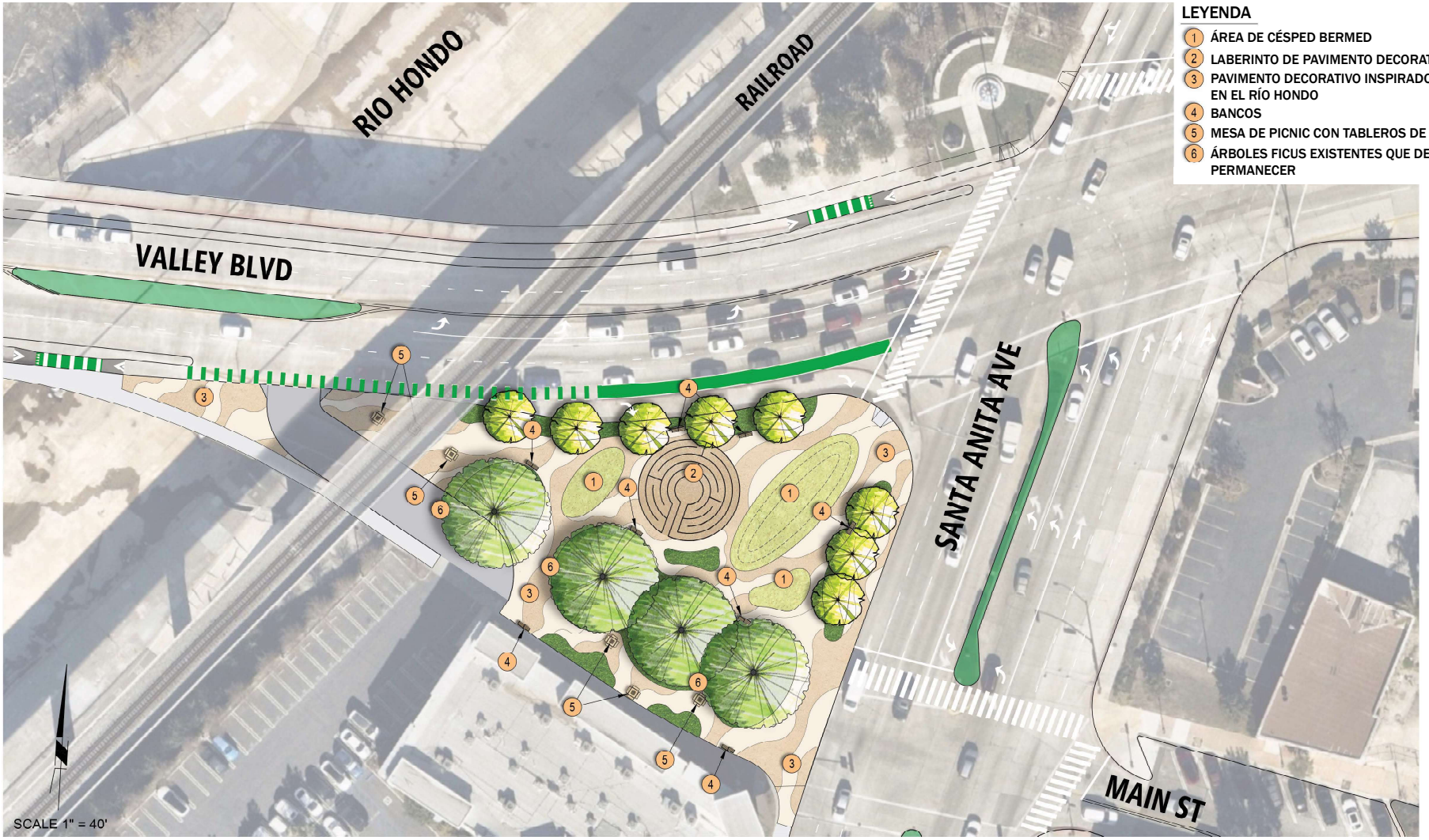
PARQUE MINI DE SANTA ANITA – OPCIÓN 1



VALLEY BLVD | MAIN STREET

COMPLETE STREETS

PARQUE MINI DE SANTA ANITA – OPCIÓN 2



LEYENDA

1. ÁREA DE CÉSPED BERMED
2. LABERINTO DE PAVIMENTO DECORATIVO
3. PAVIMENTO DECORATIVO INSPIRADO EN EL RÍO HONDO
4. BANCOS
5. MESA DE PICNIC CON TABLEROS DE AJEDREZ
6. ÁRBOLES FICUS EXISTENTES QUE DEBEN PERMANECER

MAIN STREET

COMPLETE STREETS

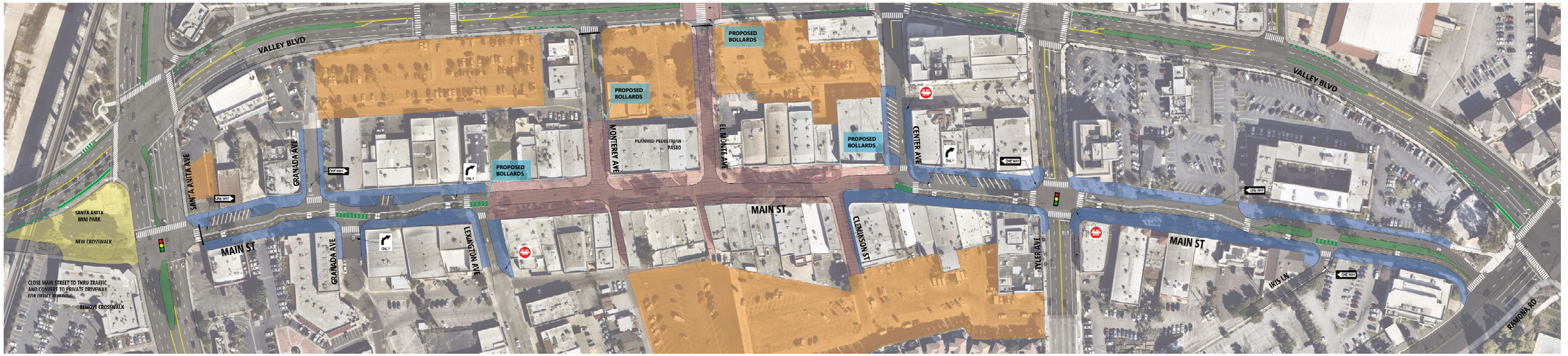
CONDICIONES EXISTENTES DE MAIN STREET



SI PREFIERE EL CONCEPTO PROPUESTO #1, COLOQUE LA ETIQUETA AQUÍ

SI PREFIERE EL CONCEPTO PROPUESTO #2, COLOQUE LA ETIQUETA AQUÍ

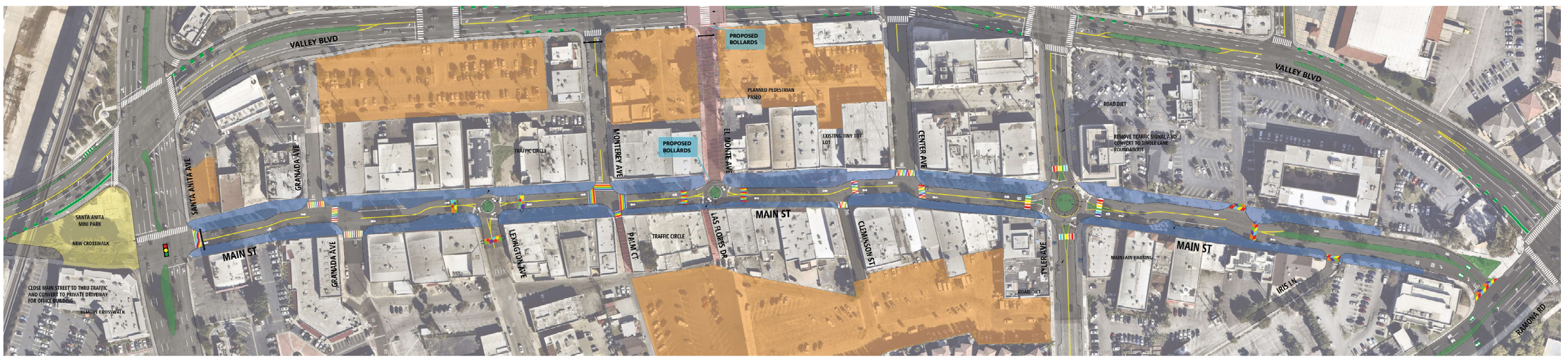
MAIN STREET – OPTION 1



LEGEND

CURB
PROPOSED STRIPE
BUFFER
BIKE LANE CONFLICT AREA
SIDEWALK
RAISED MEDIAN
PEDESTRIAN PASEO
PROPOSED BOLLARD
TRAFFIC SIGNAL
PUBLIC PARKING
SIDEWALK/LANDSCAPING/ COMMUNITY SPACE
EXISTING CURB RAMP
PROPOSED CURB RAMP
GATEWAY FEATURE
EXISTING BUS STOP

MAIN STREET – OPTION 2



Appendix C

E-Blast Notifications

Initial Invitation



Be part of the El Monte Valley Boulevard and Main Street Complete Streets Feasibility Study!

Join us for upcoming public meetings and let us know your thoughts!

The City of El Monte is conducting the Valley Boulevard and Main Street Complete Streets Feasibility Study. This study will help identify key improvement needs that will allow for safe travel along and across Valley Boulevard and Main Street for all users, connecting the community safely to local and regional transit services, residences, businesses, parks, and other community destinations.



Upcoming Meetings

Public Meeting #1
Date: Tuesday, June 27, 2023
Time: 6:00 – 7:00 p.m.
Location: Virtual meeting via Zoom

Register Here

Public Meeting #2
Date: Wednesday, July 12
Time: 6:00 – 7:00 p.m.
Location: *El Monte Aquatic Center*- 11001 Mildred St, El Monte, CA 91731

Live Spanish interpretation will be available. Additional language interpretation can be requested 72 hours in advance at completestreets@elmonte.ca.gov.

If you can't attend the meetings, a meeting recording will be available on EMCompleteStreets.com following the conclusion of both meetings.

Take the Survey

Your voice matters in shaping the future of our streets. Participate in the survey for the City of El Monte Complete Streets project and share your valuable input to create safer, more accessible, and vibrant streets for all. To access the survey, scan the QR code with your mobile phone or visit EMCompleteStreets.com.

Stay Connected

For more information visit EMCompleteStreets.com.



¡Sea Parte del Estudio de Factibilidad de Calles Completas de Valley Boulevard y Main Street de El Monte!

¡Acompáñenos las próximas reuniones públicas y déjenos saber sus pensamientos!

La ciudad de El Monte está llevando a cabo el Estudio de Factibilidad de Calles Completas de Valley Boulevard y Main Street. Este estudio ayudará a identificar las necesidades de mejora claves que permitirán un viaje seguro a lo largo y a través de Valley Boulevard y Main Street para todos los usuarios, conectando a la comunidad de manera segura con los servicios de tránsito locales y regionales, residencias, negocios, parques y otros destinos comunitarios.



Próximas Reuniones

Reunión Pública #1
Fecha: martes, 27 de jjunio de 2023
Hora: 6:00 p.m. – 7:00 p.m.
Ubicación: Virtual vía Zoom

¡Regístrese aquí!

Reunión Pública #2
Fecha: miércoles, 12 de julio de 2023
Hora: 6:00 p.m. – 7:00 p.m.
Ubicación: El Monte Aquatic Center- 11001 Mildred St, El Monte, CA 91731

Habrá interpretación simultanea disponible en español. Podrá solicitar el servicio de interpretación en otros idiomas con 72 horas de anticipación mandando un correo electrónico a completestreets@elmonte.ca.gov.

Si no puede asistir a las reuniones, una grabación de la reunión estará disponible en EMCompleteStreets.com después de la conclusión de ambas reuniones.

Participe en la Encuesta

Su voz es importante para dar forma al futuro de nuestras calles. Participe en la encuesta para el proyecto de calles completas de la ciudad de El Monte y comparta su valioso aporte para crear calles más seguras, accesibles y vibrantes para todos. Para acceder a la encuesta, escanee el código QR con su teléfono móvil o visite EMCompleteStreets.com.

Manténgase Conectado

Para obtener más información, visite EMCompleteStreets.com.

Reminder #1



REMINDER:
Join us for the Upcoming Public Meetings!

Join us at an upcoming public meeting and let us know your thoughts! Help us identify key improvements that will allow for safe travel along and across Valley Boulevard and Main Street for all users. The Valley Boulevard and Main Street Complete Streets Feasibility Study is focused on safety improvements for pedestrians, non-motorized and motorized vehicles; multi-modal opportunities; drainage improvements; street lighting improvements; Americans with Disabilities Act (ADA) enhancements and upgrades; low impact development; and street tree and landscape improvements.

Upcoming Meetings

Public Meeting #1
Date: Tuesday, June 27, 2023
Time: 6:00 – 7:00 p.m.
Location: Virtual meeting via Zoom

Register Here

Public Meeting #2
Date: Wednesday, July 12, 2023
Time: 6:00 – 7:00 p.m.
Location: *El Monte Aquatic Center*- 11001 Mildred St, El Monte, CA 91731

Live Spanish interpretation will be available. Additional language interpretation can be requested 72 hours in advance at completestreets@elmonteca.gov.

If you can't attend the meetings, a meeting recording will be available on EMCompleteStreets.com following the conclusion of both meetings.

Take the Survey

Participate in the survey for the City of El Monte Complete Streets project and share your valuable input to create safer, more accessible, and vibrant streets for all. To access the survey, scan the QR code with your mobile phone or visit EMCompleteStreets.com.

Stay Connected

For more information visit EMCompleteStreets.com.



RECORDATORIO:

¡Acompáñenos a las próximas reuniones públicas!

¡Acompáñenos a las próximas reuniones públicas y cuéntenos lo que piensa! Ayúdenos a identificar las mejoras claves que permitirán un viaje seguro a lo largo y ancho de Valley Boulevard y Main Street para todos los usuarios. El Estudio de Factibilidad de Calles Completas de Valley Boulevard y Main Street se centra en mejoras de seguridad para peatones, vehículos motorizados y no motorizados; oportunidades multimodales; mejoras de drenaje y alumbrado público; Mejoras para estadounidenses con discapacidades acto (ADA); desarrollo de bajo impacto; y mejoras en el paisaje y los árboles de las calles.

Próximas Reuniones

Reunión Pública #1
Fecha: martes, 27 de junio de 2023
Hora: 6:00 p.m. – 7:00 p.m.
Ubicación: Virtual vía Zoom

Registar Aquí

Reunión Pública #2
Fecha: miércoles, 12 de julio de 2023
Hora: 6:00 p.m. – 7:00 p.m.
Ubicación: El Monte Aquatic Center- 11001 Mildred St, El Monte, CA 91731

Habrá interpretación simultanea disponible en español. Podrá solicitar el servicio de interpretación en otros idiomas con 72 horas de anticipación mandando un correo electrónico a completestreets@elmonteca.gov.
Si no puede asistir a las reuniones, una grabación de la reunión estará disponible en EMCompleteStreets.com después de la conclusión de ambas reuniones.

Participe en la Encuesta

Participe en la encuesta para el proyecto de calles completas de la ciudad de El Monte y comparta su valioso aporte para crear calles más seguras, accesibles y vibrantes para todos. Para acceder a la encuesta, escanee el código QR con su teléfono móvil o visite EMCompleteStreets.com

Manténgase Conectado

Para obtener más información, visite EMCompleteStreets.com.

Reminder #2



REMINDER:
Join us for the Upcoming Public Meetings!

Join us at an upcoming public meeting and let us know your thoughts! Help us identify key improvements that will allow for safe travel along and across Valley Boulevard and Main Street for all users. The Valley Boulevard and Main Street Complete Streets Feasibility Study is focused on safety improvements for pedestrians, non-motorized and motorized vehicles; multi-modal opportunities; drainage improvements; street lighting improvements; Americans with Disabilities Act (ADA) enhancements and upgrades; low impact development; and street tree and landscape improvements.

Upcoming Meetings

Public Meeting #1
Date: Tuesday, June 27, 2023
Time: 6:00 – 7:00 p.m.
Location: Virtual meeting via Zoom

Register Here

Public Meeting #2
Date: Wednesday, July 12, 2023
Time: 6:00 – 7:00 p.m.
Location: *El Monte Aquatic Center*- 11001 Mildred St, El Monte, CA 91731

Live Spanish interpretation will be available. Additional language interpretation can be requested 72 hours in advance at completestreets@elmonteca.gov.

If you can't attend the meetings, a meeting recording will be available on EMCompleteStreets.com following the conclusion of both meetings.

Take the Survey

Participate in the survey for the City of El Monte Complete Streets project and share your valuable input to create safer, more accessible, and vibrant streets for all. To access the survey, scan the QR code with your mobile phone or visit EMCompleteStreets.com.

Stay Connected

For more information visit EMCompleteStreets.com.



RECORDATORIO:

¡Acompáñenos a las próximas reuniones públicas!

¡Acompáñenos a las próximas reuniones públicas y cuéntenos lo que piensa! Ayúdenos a identificar las mejoras claves que permitirán un viaje seguro a lo largo y ancho de Valley Boulevard y Main Street para todos los usuarios. El Estudio de Factibilidad de Calles Completas de Valley Boulevard y Main Street se centra en mejoras de seguridad para peatones, vehículos motorizados y no motorizados; oportunidades multimodales; mejoras de drenaje y alumbrado público; Mejoras para estadounidenses con discapacidades acto (ADA); desarrollo de bajo impacto; y mejoras en el paisaje y los árboles de las calles.

Próximas Reuniones

Reunión Pública #1
Fecha: martes, 27 de junio de 2023
Hora: 6:00 p.m. – 7:00 p.m.
Ubicación: Virtual vía Zoom

Registar Aquí

Reunión Pública #2
Fecha: miércoles, 12 de julio de 2023
Hora: 6:00 p.m. – 7:00 p.m.
Ubicación: El Monte Aquatic Center- 11001 Mildred St, El Monte, CA 91731

Habrá interpretación simultanea disponible en español. Podrá solicitar el servicio de interpretación en otros idiomas con 72 horas de anticipación mandando un correo electrónico a completestreets@elmonteca.gov.
Si no puede asistir a las reuniones, una grabación de la reunión estará disponible en EMCompleteStreets.com después de la conclusión de ambas reuniones.

Participe en la Encuesta

Participe en la encuesta para el proyecto de calles completas de la ciudad de El Monte y comparta su valioso aporte para crear calles más seguras, accesibles y vibrantes para todos. Para acceder a la encuesta, escanee el código QR con su teléfono móvil o visite EMCompleteStreets.com

Manténgase Conectado

Para obtener más información, visite EMCompleteStreets.com.

Reminder #3



Be Part of the Upcoming In-Person Public Meeting!

Join us at an upcoming public meeting to provide your input and identify key improvements that will allow for safe travel along and across Valley Boulevard and Main Street for all users. The study will focus on safety improvements for pedestrians, non-motorized and motorized vehicles; multi-modal opportunities; drainage improvements; street lighting improvements; Americans with Disabilities (ADA) enhancements and upgrades; low impact development; and street tree and landscape improvements.

Public Meeting #2
Date: Wednesday, July 12, 2023
Time: 6:00 – 7:00 p.m.
Location: *El Monte Aquatic Center*- 11001 Mildred St, El Monte, CA 91731

Live Spanish interpretation will be available. Additional language interpretation can be requested 72 hours in advance at completestreets@elmonte.ca.gov.

If you can't attend the meetings, a meeting recording will be available on EMCompleteStreets.com following the conclusion of both meetings.

Take the Survey

Participate in the survey for the City of El Monte Complete Streets project and share your valuable input to create safer, more accessible, and vibrant streets for all. To access the survey, scan the QR code with your mobile phone or visit EMCompleteStreets.com.

Stay Connected

For more information visit EMCompleteStreets.com.



¡Sea parte de la próxima reunión pública en persona!

Acompáñenos a la próxima reunión pública para brindar su opinión e identificar mejoras claves que permitirán un viaje seguro a lo largo y a través de Valley Boulevard y Main Street para todos los usuarios. El estudio se centrará en mejoras de seguridad para peatones, vehículos motorizados y no motorizados; oportunidades multimodales; mejoras de drenaje y alumbrado público; Mejoras para estadounidenses con discapacidades (ADA); desarrollo de bajo impacto; y mejoras en el paisaje y los árboles de las calles.

Reunión Pública #2
Fecha: miércoles, 12 de julio de 2023
Hora: 6:00 - 7:00 pm.
Ubicación: *El Monte Aquatic Center*- 11001 Mildred St, El Monte, CA 91731

Habrá interpretación simultanea disponible en español. Podrá solicitar el servicio de interpretación en otros idiomas con 72 horas de anticipación mandando un correo electrónico a completestreets@elmonte.ca.gov.

Si no puede asistir a las reuniones, una grabación de la reunión estará disponible en EMCompleteStreets.com después de la conclusión de ambas reuniones.

Participe en la Encuesta

Participe en la encuesta para el proyecto de calles completas de la ciudad de El Monte y comparta su valioso aporte para crear calles más seguras, accesibles y vibrantes para todos. Para acceder a la encuesta, escanee el código QR con su teléfono móvil o visite EMCompleteStreets.com.

Manténgase Conectado

Para obtener más información, visite EMCompleteStreets.com

Reminder #4



Join us Tomorrow for the Upcoming In-Person Public Meeting!

Join us at an upcoming public meeting to provide your input and identify key improvements that will allow for safe travel along and across Valley Boulevard and Main Street for all users. The study will focus on safety improvements for pedestrians, non-motorized and motorized vehicles; multi-modal opportunities; drainage improvements; street lighting improvements; Americans with Disabilities (ADA) enhancements and upgrades; low impact development; and street tree and landscape improvements.

Public Meeting #2
Date: Wednesday, July 12, 2023
Time: 6:00 – 7:00 p.m.
Location: *El Monte Aquatic Center*- 11001 Mildred St, El Monte, CA 91731

Live Spanish interpretation will be available. Additional language interpretation can be requested 72 hours in advance at completestreets@elmonte.ca.gov.

If you can't attend the meetings, a meeting recording will be available on EMCompleteStreets.com following the conclusion of both meetings.

Take the Survey

Participate in the survey for the City of El Monte Complete Streets project and share your valuable input to create safer, more accessible, and vibrant streets for all. To access the survey, scan the QR code with your mobile phone or visit EMCompleteStreets.com.

Stay Connected

For more information visit EMCompleteStreets.com.



¡Acompáñenos mañana para la próxima reunión pública en persona!

Acompáñenos a la próxima reunión pública para brindar su opinión e identificar mejoras clave que permitirán un viaje seguro a lo largo y a través de Valley Boulevard y Main Street para todos los usuarios. El estudio se centrará en mejoras de seguridad para peatones, vehículos motorizados y no motorizados; oportunidades multimodales; mejoras de drenaje; mejoras en el alumbrado público; Mejoras y mejoras para estadounidenses con discapacidades (ADA); desarrollo de bajo impacto; y mejoras en el paisaje y los árboles de las calles.

Reunión Pública #2
Fecha: miércoles, 12 de julio de 2023
Hora: 6:00 - 7:00 pm.
Ubicación: *El Monte Aquatic Center*- 11001 Mildred St, El Monte, CA 91731

Habrá interpretación simultanea disponible en español. Podrá solicitar el servicio de interpretación en otros idiomas con 72 horas de anticipación mandando un correo electrónico acompletestreets@elmonte.ca.gov.

Si no puede asistir a las reuniones, una grabación de la reunión estará disponible en EMCompleteStreets.com después de la conclusión de ambas reuniones.

Participe en la Encuesta

Participe en la encuesta para el proyecto de calles completas de la ciudad de El Monte y comparta su valioso aporte para crear calles más seguras, accesibles y vibrantes para todos. Para acceder a la encuesta, escanee el código QR con su teléfono móvil o visite EMCompleteStreets.com.

Manténgase Conectado

Para obtener más información, visite EMCompleteStreets.com

Appendix D

Social Media Posts

Facebook

City of El Monte CA Government

Jun 13 ·

Be part of the Valley Boulevard and Main Street Complete Streets Feasibility Study!

... See more



7 2 comments

Like Comment Share

City of El Monte CA Government

Jun 21 ·

Join us virtually on Tuesday, 6/27 and in-person on Wednesday, 7/12 from 6-7 p.m. and let us know how we can improve connectivity, accessibility and saf... See more



4

Like Comment Share

City of El Monte CA Government

Jun 21 ·



BE PART OF THE VALLEY BOULEVARD & MAIN STREET COMPLETE STREETS FEASIBILITY STUDY!

The City of El Monte is conducting the Valley Boulevard and Main Street Complete Streets **Feasibility Study as part of its planning efforts.** This study will help identify key improvements needs to ensure safe travels along and across Valley Boulevard and Main Street for all users, **which will offer a direct and secure link between** the neighborhood and regional and national transit services, business, parks, and other community destinations.

Join us for the upcoming public meetings and let us know your thoughts on how we can improve Valley Boulevard and Main Street.



UPCOMING MEETINGS

PUBLIC MEETING #1 (VIRTUAL)

Date: Tuesday, June 27, 2023
Time: 6:00 p.m. – 7:00 p.m.
Register here: *https://linktr.ee/emcompletestreets*

PUBLIC MEETING #2

Date: Wednesday, July 12, 2023
Time: 6:00 p.m. – 7:00 p.m.
Location: El Monte Aquatic Center
11001 Mildred St, El Monte, CA 91731

Live Spanish interpretation will be available during both public meetings. Additional language interpretation can be requested 72 hours in advance at *completestreets@elmonteca.gov.*

STAY ENGAGED

We want to ensure we know how you use the corridor and ways we can improve it. Please scan the QR code to take a survey and provide your thoughts.

STAY CONNECTED

Connect with us using any of the methods below:

completestreets@elmonteca.gov EMCompleteStreets.com facebook.com/CityofElMonte @MyElMonte

8

Like Comment Share

City of El Monte CA Government created an event.
June 21 ·



WED, JUL 12

Valley Boulevard and Main Street Complete Streets Feasibility Study Public Meeting #2

El Monte, CA

2 people went

3

Like Comment Share

City of El Monte CA Government

July 11 at 9:19 AM ·

Join us tomorrow from 6-7 p.m. at the El Monte Aquatic Center and let us know how we can improve Valley Boulevard and Main Street.

For more information about the public meetings visit https://linktr.ee/emcompletestreets

For more information about the project visit EMCompleteStreets.com

... See more





4

Like Comment

Instagram

myelmonte



Liked by jule_1958 and **others**

myelmonte Be part of the Valley Boulevard & Main Street Complete Streets Feasibility Study! Join us virtually on Tuesday, 6/27 and in-person on Wednesday, 7/12 from 6-7 p.m... more

View 1 comment

June 13 · **See translation**

myelmonte



BE PART OF THE VALLEY BOULEVARD & MAIN STREET COMPLETE STREETS FEASIBILITY STUDY!

The City of El Monte is conducting the Valley Boulevard and Main Street Complete Streets **Feasibility Study as part of its planning efforts.** This study will help identify key improvements needs to ensure safe travels along and across Valley Boulevard and Main Street for all users, **which will offer a direct and secure link between** the neighborhood and regional and national transit services, business, parks, and other community destinations.

Join us for the upcoming public meetings and let us know your thoughts on how we can improve Valley Boulevard and Main Street.



UPCOMING MEETINGS

PUBLIC MEETING #1 (VIRTUAL)

Date: Tuesday, June 27, 2023
Time: 6:00 p.m. – 7:00 p.m.
Register here: *https://linktr.ee/emcompletestreets*

PUBLIC MEETING #2

Date: Wednesday, July 12, 2023
Time: 6:00 p.m. – 7:00 p.m.
Location: El Monte Aquatic Center
11001 Mildred St, El Monte, CA 91731

Live Spanish interpretation will be available during both public meetings. Additional language interpretation can be requested 72 hours in advance at *completestreets@elmonteca.gov.*

STAY ENGAGED

We want to ensure we know how you use the corridor and ways we can improve it. Please scan the QR code to take a survey and provide your thoughts.

STAY CONNECTED

Connect with us using any of the methods below:

completestreets@elmonteca.gov EMCompleteStreets.com facebook.com/CityofElMonte @MyElMonte

Liked by **jule_1958** and **others**

View all 2 comments

June 21

Appendix E

Business Corridor Walk Summary



Event Summary Report
Valley Boulevard and Main Street Business Corridor Walk

Date	Wednesday, June 14, 2023
Location	Valley Boulevard and Main Street, El Monte, California
Event Time	10:00 am – 6:00 pm
Staff	Allison Crook (AA) Eric Davidan (AA)
Businesses Visited	200
Contact Information Collected	32
New Businesses	17
CAC Interest	The Plug for Barbers – 10423 Valley Blvd Ste D1, El Monte, CA 91731 Jose's Travel – 10053 Valley Blvd Ste 12 El Monte, CA 91731

On Wednesday, June 14, the outreach team conducted a comprehensive outreach effort for the Valley Boulevard and Main Street Complete Streets Feasibility Study by visiting a total of 200 businesses to provide them with crucial information regarding the project. The primary objective was to inform business owners about the upcoming project meetings and distribute relevant materials to facilitate their understanding and engagement.

During the outreach initiative, a packet that included a meeting flyer and two fact sheets (Valley Boulevard and Main Street) was distributed detailing the key aspects of the Study. These materials served as a valuable resource for businesses to stay informed about the project's scope, timeline, and potential impacts.

To ensure inclusivity and effective communication, we prepared flyers in multiple languages. In addition to English, we had flyers available in Spanish, Vietnamese, and Chinese. This allowed us to engage with a diverse range of business owners and address language barriers, ensuring that crucial information about the project was accessible to all.

This outreach effort aimed to establish clear lines of communication, build relationships with local businesses, and foster an environment of collaboration and understanding. By proactively visiting businesses and providing them with detailed project information in their preferred language, we sought to encourage their active involvement and participation in the decision-making process. This effort was well received among business owners as they shared appreciation for the in-person effort to share important information about City efforts.

Appendix F

Farmer's Market Summary

VALLEY BLVD MAIN STREET

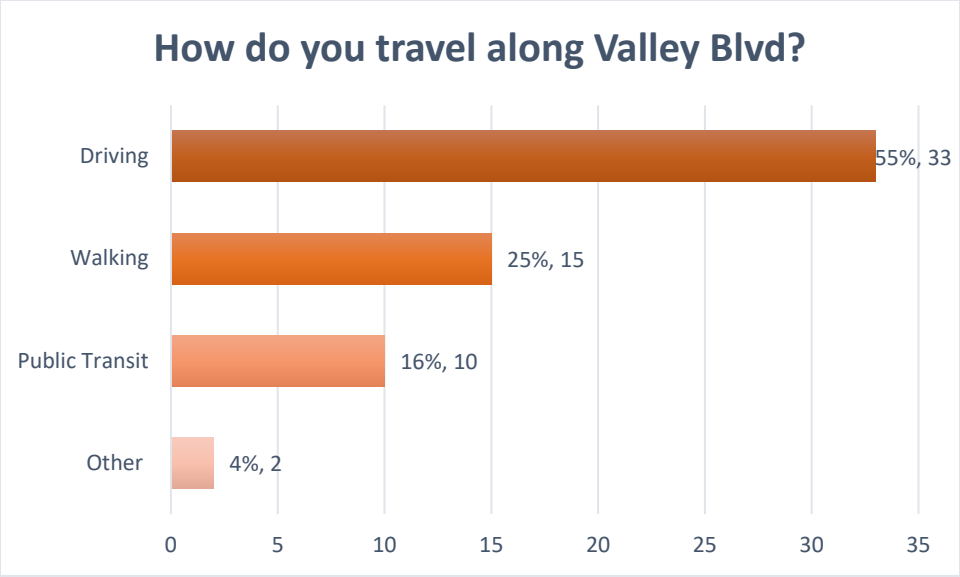
COMPLETE STREETS

Event Summary Report
City of El Monte Main Street Farmers Market

Date	Thursday, June 15, 2023
Location	Main Street, El Monte, California
Event Time	5:00 pm – 9:00 pm
Set Up Time	3:30 pm
Staff	Marlena Perez (MBI) Allison Crook (AA) Eric Davidian (AA)
Booth Visitors	100

The project team coordinated an informational booth at the City of El Monte's Main Street Farmers Market, which attracted an estimated attendance of 100 booth visitors. Our booth included three boards asking questions about Main Street and Valley Boulevard. Members of the public answered them by placing a sticker under their choice. Our outreach efforts identified several areas of improvement in both the Main Street and Valley Blvd areas recommended by the public.

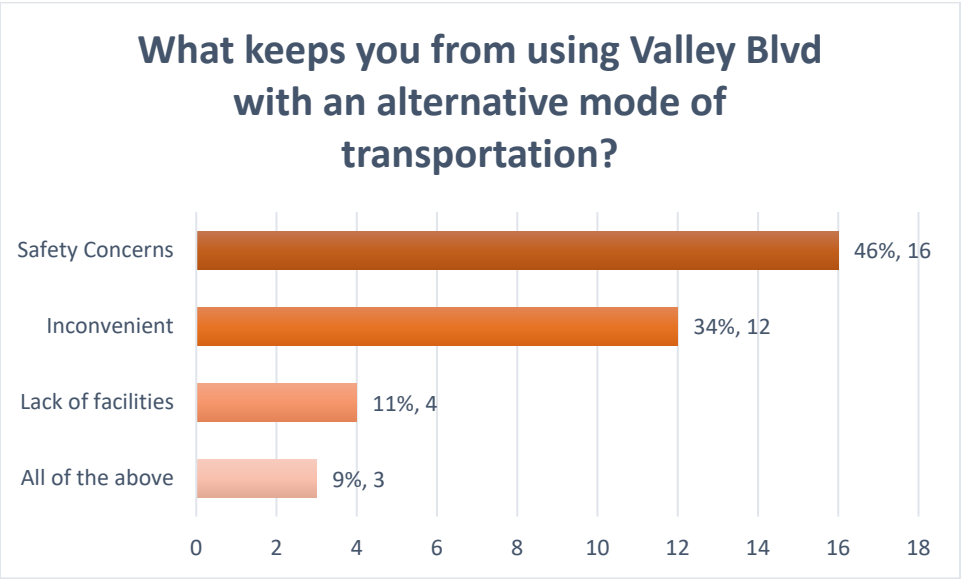
Board Activity Results- Valley Boulevard



VALLEY BLVD MAIN STREET

COMPLETE STREETS





Summary- Valley Boulevard

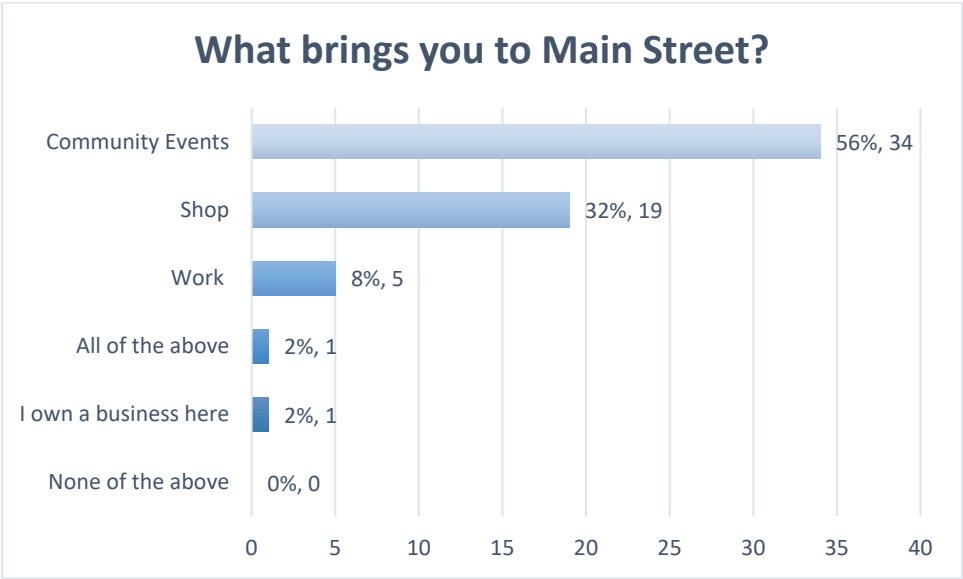
Valley Boulevard Improvements	
Bus Shade	Installing shade structures at bus stops along Valley Blvd.
Pothole Repair	Addressing the issue of potholes on Valley Blvd through timely repairs to ensure a smooth driving experience.
Sidewalk Improvements	Ensuring sidewalks are available on both sides of Valley Blvd.
ADA Accessibility	Implementing measures to ensure compliance with the Americans with Disabilities Act (ADA) and improve accessibility for individuals with disabilities along Valley Blvd.
Traffic and Speeding	Implementing traffic management strategies and speed reduction measures to improve Valley Blvd road safety and traffic flow.
Frequent Bus Service	Enhancing the frequency of bus services along Valley Blvd.
Class 4 Bike Lanes	Adding dedicated Class 4 bike lanes on Valley Blvd to facilitate safer cycling and promote alternative modes of transportation

VALLEY BLVD MAIN STREET

COMPLETE STREETS



Board Activity Results- Main Street



Summary- Main Street

Main Street Improvements	
Lighting	Enhancing the lighting infrastructure on Main Street to improve visibility and safety.
Advertising Opportunities	Implementing additional advertising opportunities on Main Street to promote local businesses.
Community Activities	Increase the number of community activities on Main Street; with an Emphasis on Latino Community.
More Stores	Encouraging the opening of new stores and businesses on Main Street to attract more visitors.
Road Pavement	Addressing the need for road pavement to improve the overall quality of the street and ensure a smooth driving and walking experience.
Trash Cans	Installing additional trash cans along Main Street to maintain cleanliness.
Pedestrian-Only Street	Turn Main Street into a pedestrian-only space for enhanced safety and community interaction.
More Park Areas:	Create additional parking areas or green spaces along Main Street to provide recreational opportunities and improve the area's aesthetic appeal.

VALLEY BLVD MAIN STREET

COMPLETE STREETS

Summary- Shared Improvements, Valley Boulevard and Main Street

Valley Boulevard and Main Street Areas of Common Improvement	
Community Internet	Addressing the need for community-wide internet access to give residents access to online resources.
Security	Enhancing security measures in both Main Street and Valley Blvd

Event Photos



VALLEY BLVD | MAIN STREET

COMPLETE STREETS

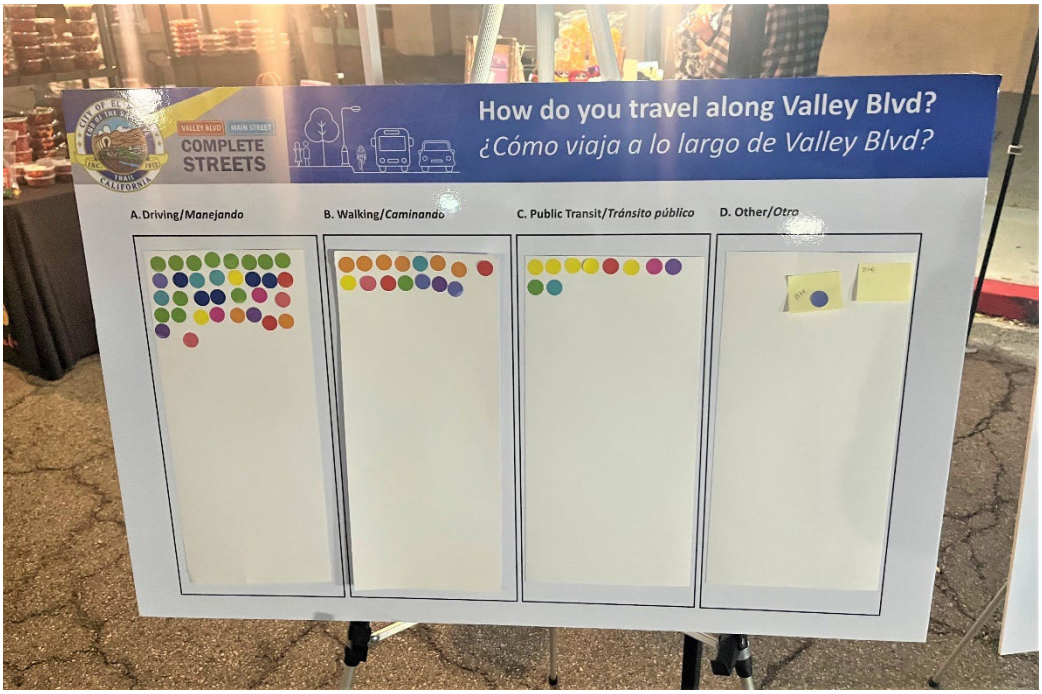




VALLEY BLVD | MAIN STREET

COMPLETE STREETS

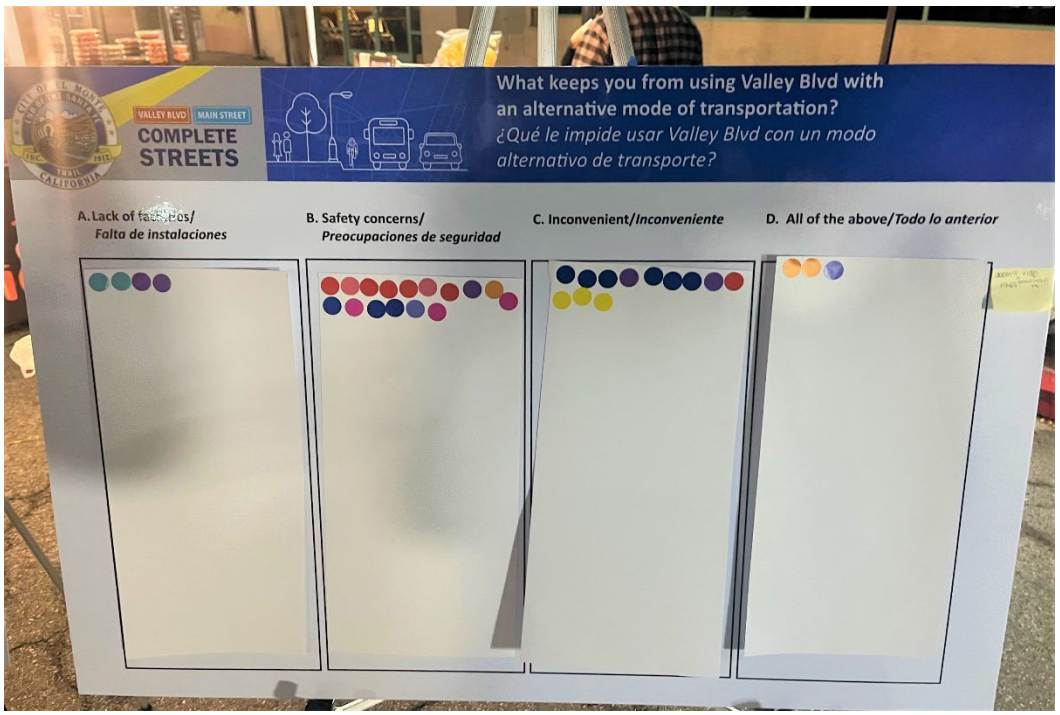


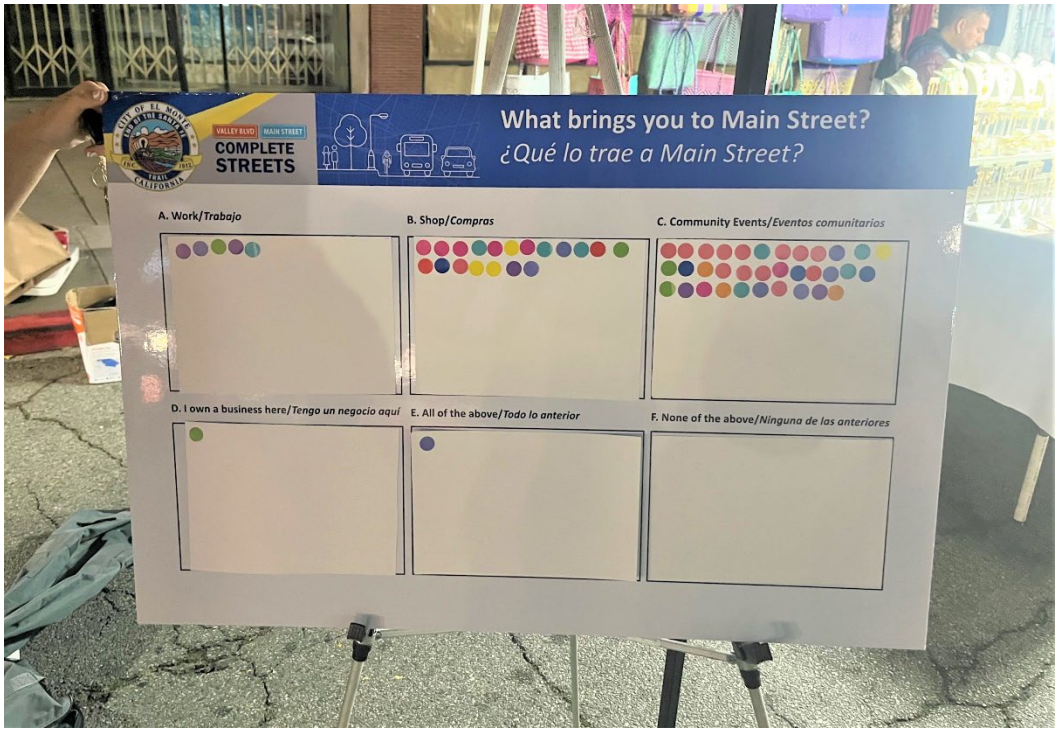


VALLEY BLVD | MAIN STREET

COMPLETE STREETS







Appendix G

Meeting Flyer

VALLEY BLVD | MAIN STREET

COMPLETE STREETS



BE PART OF THE VALLEY BOULEVARD & MAIN STREET COMPLETE STREETS FEASIBILITY STUDY!

The City of El Monte is conducting the Valley Boulevard and Main Street Complete Streets Feasibility Study as part of its planning efforts. This study will help identify key improvements needs to ensure safe travels along and across Valley Boulevard and Main Street for all users, which will offer a direct and secure link between the neighborhood and regional and national transit services, business, parks, and other community destinations.

Join us for the upcoming public meetings and let us know your thoughts on how we can improve Valley Boulevard and Main Street.



UPCOMING MEETINGS

PUBLIC MEETING #1 (VIRTUAL)

Date: Tuesday, June 27, 2023
Time: 6:00 p.m. – 7:00 p.m.
Register here: *https://linktr.ee/emcompletestreets*

PUBLIC MEETING #2

Date: Wednesday, July 12, 2023
Time: 6:00 p.m. – 7:00 p.m.
Location: El Monte Aquatic Center
11001 Mildred St, El Monte, CA 91731

Live Spanish interpretation will be available during both public meetings. Additional language interpretation can be requested 72 hours in advance at *completestreets@elmonteca.gov.*

STAY ENGAGED

We want to ensure we know how you use the corridor and ways we can improve it. Please scan the QR code to take a survey and provide your thoughts.

STAY CONNECTED

Connect with us using any of the methods below:

completestreets@elmonteca.gov | EMCompleteStreets.com | facebook.com/CityofElMonte | @MyElMonte

VALLEY BLVD | MAIN STREET

CALLES COMPLETAS



¡SEA PARTE DEL ESTUDIO DE FACTIBILIDAD DE CALLES COMPLETAS DE VALLEY BOULEVARD Y MAIN STREET!

La ciudad de El Monte está llevando a cabo el Estudio de Factibilidad de Calles Completas de Valley Boulevard y Main Street como parte de sus esfuerzos de planificación. Este estudio contribuirá a identificar las necesidades de mejora claves a fin de garantizar que todos los usuarios puedan desplazarse de manera segura por las calles de Valley Boulevard y Main Street, que ofrecerán un nuevo enlace directo y seguro entre el vecindario y los servicios de transporte público regional y nacional, los comercios, los parques y otros destinos de la comunidad.

Acompáñenos en las próximas reuniones públicas y comparta con nosotros su opinión sobre cómo podríamos mejorar Valley Boulevard y Main Street.



PRÓXIMAS REUNIONES

REUNIÓN PÚBLICA #1 (VIRTUAL)

Fecha: 27 de junio de 2023

Hora: 6:00 p.m. – 7:00 p.m.

Regístrese aquí: *https://linktr.ee/emcompletestreets*

REUNIÓN PÚBLICA #2

Fecha: 12 de julio de 2023

Hora: 6:00 p.m. – 7:00 p.m.

Lugar: El Monte Aquatic Center

11001 Mildred St, El Monte, CA 91731

Habrá servicio de interpretación simultánea disponible en español durante ambas reuniones públicas. Podrá solicitar el servicio de interpretación en otros idiomas con 72 horas de anticipación mandando un correo electrónico a *completestreets@elmonteca.gov*.

MANTÉNGASE COMPROMETIDO

Queremos asegurarnos de conocer cómo utiliza el corredor y las formas de mejorarlo. Por favor escanee el código QR para responder a la encuesta y compartir su opinión.

MANTÉNGASE CONECTADO

Comuníquese con nosotros por cualquiera de estas vías:

completestreets@elmonteca.gov | EMCompleteStreets.com | facebook.com/CityofElMonte | @MyElMonte

VALLEY BLVD | MAIN STREET

完整街道



成为山谷大道和主街完整街道可行性研究的一部分！

作为其规划工作的一部分，埃尔蒙特市正在进行山谷大道和主街完整街道的可行性研究。这项研究将有助于确定关键的改进需求，以确保所有用户能够安全地沿着山谷大道和主街出行和穿越这些街道，这将在邻里与地区和国家交通服务、商业、公园和其他社区目的之间提供直接和安全的联系。

请加参加我们参加即将举行的公开会议，让我们知道您对如何改善山谷大道和主街的想法。



即将举行的会议

公开会议#1（虚拟）
日期：2023 年 6 月 27 日，星期二
时间：晚上 6 时至7时
在这里注册： *https://linktr.ee/emcompletestreets*

公开会议 #2
日期：2023 年 7 月 12 日，星期三
时间：晚上 6 时至7时
地点：埃尔蒙特水上运⊠中心
11001 Mildred St, El Monte, CA 91731

两次公开会议期间都将提供现场西班牙语口译服务。可提前 72 小时通过 *completestreets@elmonteca.gov* 要求其他语言翻译。

保持参与

我们想确保我们知道您如何使用该走廊以及我们可以改进它的方式。请扫描二维码参与问卷调查并提出您的想法。

保持联系

使用以下任何方法与我们联系：

completestreets@elmonteca.gov | EMCompleteStreets.com | facebook.com/CityofElMonte | @MyElMonte

VALLEY BLVD | MAIN STREET

TOÀN BỘ ĐƯỜNG PHỐ



HÃY THAM GIA CUỘC NGHIÊN CỨU TÍNH KHẢ THI CỦA TOÀN BỘ ĐƯỜNG PHỐ VALLEY BOULEVARD & MAIN STREET!

Thành phố El Monte đang tiến hành Cuộc Nghiên cứu Tính Khả thi của Toàn bộ Đường phố Valley Boulevard và Main Street như một phần trong nỗ lực lập kế hoạch của thành phố. Cuộc nghiên cứu này sẽ trợ giúp việc nhận định các nhu cầu cải tiến chính yếu để đảm bảo việc đi lại an toàn dọc theo và bang ngang qua Valley Boulevard và Main Street cho tất cả các người sử dụng, điều này sẽ cung cấp mối liên kết trực tiếp và an toàn giữa vùng lân cận với các dịch vụ vận chuyển khu vực và quốc gia, doanh nghiệp, công viên và các điểm đến khác của cộng đồng.

Hãy tham gia với chúng tôi trong các cuộc họp công khai sắp tới và cho chúng tôi biết suy nghĩ của quý vị về cách chúng tôi có thể cải thiện Valley Boulevard và Main Street.



CÁC CUỘC HỌP SẮP TỚI

CUỘC HỌP CÔNG KHAI #1 (TRÊN MẠNG)

Ngày: Thứ Ba, ngày 27 tháng 6 năm 2023

Thời gian: 6:00 p.m. - 7:00 p.m.

Đăng ký tại đây: *https://linktr.ee/emcompletestreets*

CUỘC HỌP CÔNG KHAI #2

Ngày: Thứ Tư, ngày 12 tháng 7 năm 2023

Thời gian: 6:00 p.m. - 7:00 p.m.

Địa điểm: **El Monte Aquatic Center**

11001 Mildred St, El Monte, CA 91731

Thông dịch tiếng Tây Ban Nha trực tiếp sẽ có sẵn trong cả hai cuộc họp công khai. Có thể yêu cầu thông dịch viên cho các ngôn ngữ khác trước 72 giờ tại *completestreets@elmonteca.gov*.

HÃY TIẾP TỤC THAM GIA

Chúng tôi muốn đảm bảo rằng chúng tôi biết cách quý vị sử dụng hành lang và những cách thức chúng tôi có thể cải thiện. Vui lòng quét mã QR để thực hiện khảo sát và cho biết suy nghĩ của quý vị.

HÃY TIẾP TỤC GIỮ LIÊN LẠC

Kết nối với chúng tôi bằng bất kỳ phương pháp nào dưới đây:

completestreets@elmonteca.gov | EMCompleteStreets.com | facebook.com/CityofElMonte | @MyElMonte

APPENDIX H

Pop-Up Events Round #1 Summary

VALLEY BLVD | MAIN STREET

COMPLETE STREETS

Event Summary Report
City of El Monte Main Street Farmers Market

Date	Thursday, August 3, 2023
Location	Main Street, El Monte, California
Event Time	5:00 pm – 9:00 pm
Set Up Time	3:30 pm
Staff	Marlena Perez | MBI Alejandro Tapia | MBI | SPA Laura Hernandez | AA | SPA Allison Crook | AA
Booth Visitors	150

The project team coordinated an informational booth at the City of El Monte's Main Street Farmers Market, which attracted an estimated attendance of 150 booth visitors. Our booth included three stations: Santa Anita Mini Park, Valley Boulevard, and Main Street. Each station included a combination of boards presenting the existing conditions and roll plots presenting the proposed concepts. Booth visitors were able to place a sticker on their preferred concept as well as provide additional feedback on what they would like to see along the corridor.



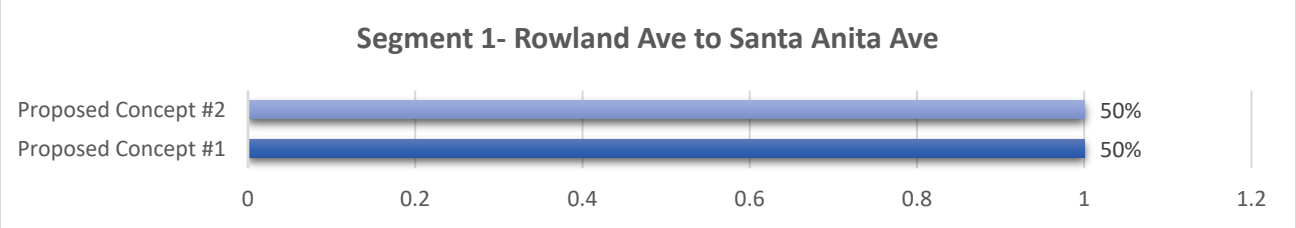


VALLEY BLVD MAIN STREET

COMPLETE STREETS

Board Activity Results

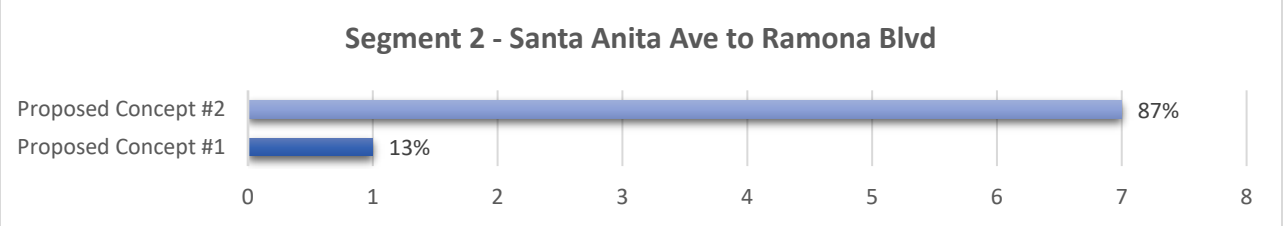
Valley Boulevard – Existing Conditions, Segment 1



Proposed Concepts #1	
Parking	• Parking is required on Valley especially if Man Street is closed

Proposed Concept #2	
Safety	• The bike lanes with the physical barrier provide more safety
Parking	• Parking is required on Valley especially if Man Street is closed

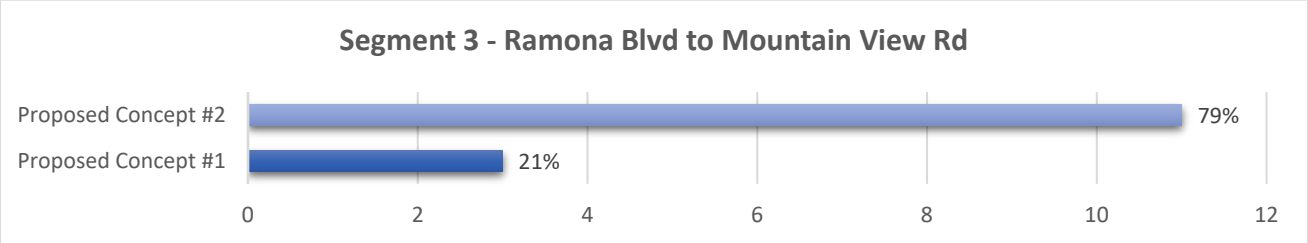
Valley Boulevard – Existing Conditions, Segment 2



Proposed Concept #1	
Parking	• Parking is required on Valley especially if Man Street is closed

Proposed Concept #2	
Safety	• The bike lanes with the physical barrier provide more safety
Parking	• Parking is required on Valley especially if Man Street is closed

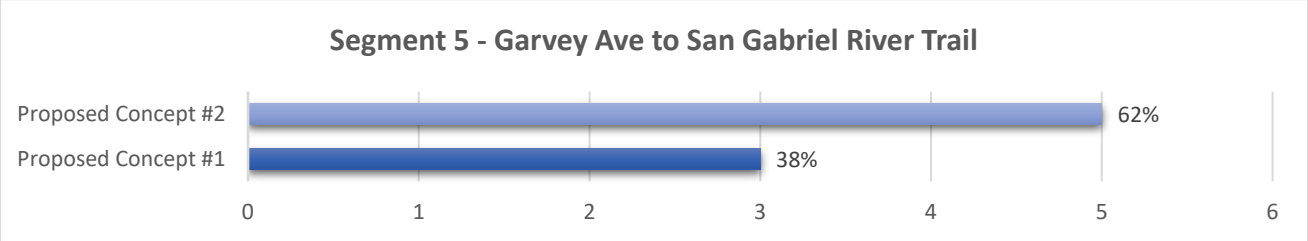
Valley Boulevard – Existing Conditions, Segment 3



Proposed Concept #1	
Traffic	• Slowing down traffic is good, it will improve safety

Proposed Concept #2	
Safety	• Add landscapes near sidewalk to protect pedestrians • Concerns with vehicle speed

Valley Boulevard – Existing Conditions, Segment 5



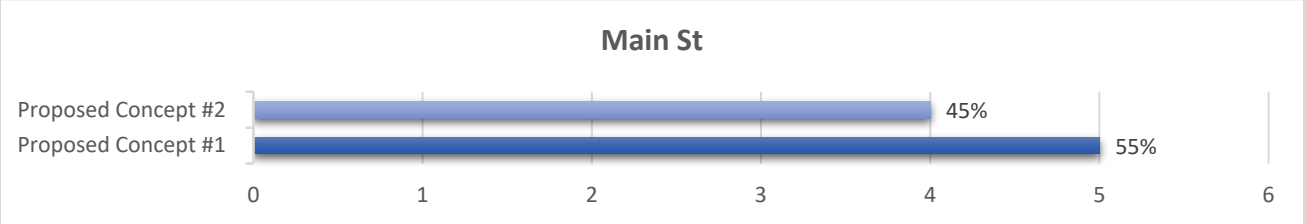
Proposed Concept #1	
Street Design	• Median causes concerns for Fire Department • Does not like Class IV • Do not narrow Sidewalk

Proposed Concept #2	
Safety	• Median causes concerns for Fire Department • Does not like Class IV • Likes the size

VALLEY BLVD MAIN STREET

COMPLETE STREETS

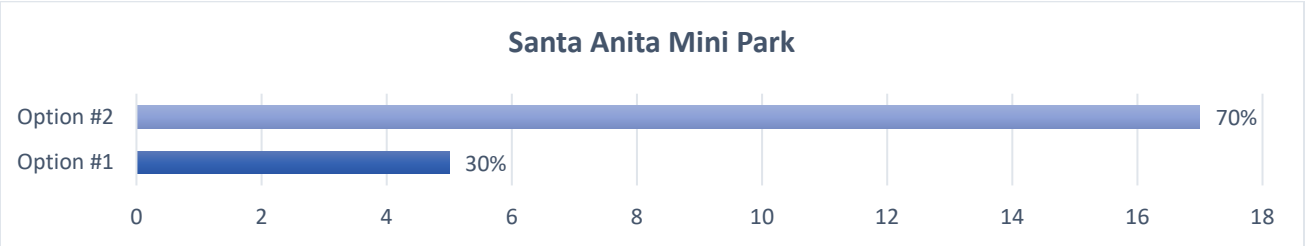
Main Street



Proposed Concepts #1	
Safety	• Making Main Street a pedestrian only would enhance safety for the community, especially children • Fire Department is concerned about access through the side streets
Signage	• Include wayfinding signs on Main Street, would be beneficial for visitors
Businesses	• Would making Main Street pedestrian only require full business involvement or closure?

Proposed Concept #2	
Traffic	• The Fire Department and Businesses prefer vehicle traffic
Accessibility	• Increase in accessibility features, add a Gateway feature

Santa Anita Mini Park



Santa Anita Mini Park – Option 1	
Parking	• Parking is necessary to use the Mini Park
Park Design	• Add a playground • Gazebo is a nice feature • Install a bike tire station • Include hydration station for cyclist • Rio Hondo Park Connections and mid-point stop for trail

Santa Anita Mini Park – Option 2	
Park Design	• Rio Hondo Park Connections and mid-point stop for trail • Install a bike tire station • Include hydration station for cyclist
Parking	• Parking is necessary to use the Mini Park

VALLEY BLVD MAIN STREET

COMPLETE STREETS

Event Photos





VALLEY BLVD | MAIN STREET

COMPLETE STREETS





VALLEY BLVD | MAIN STREET

COMPLETE STREETS





VALLEY BLVD MAIN STREET

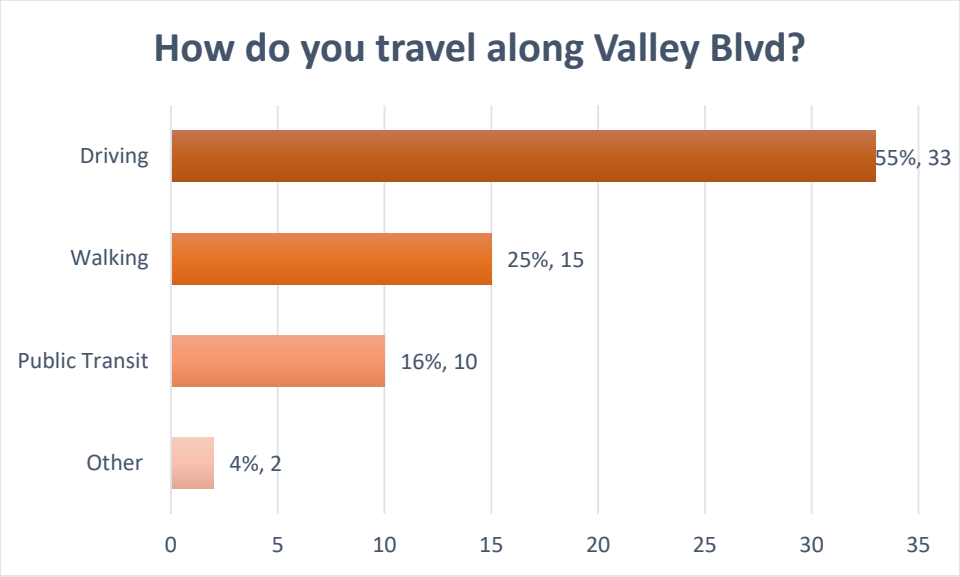
COMPLETE STREETS

Event Summary Report
City of El Monte Main Street Farmers Market

Date	Thursday, June 15, 2023
Location	Main Street, El Monte, California
Event Time	5:00 pm – 9:00 pm
Set Up Time	3:30 pm
Staff	Marlena Perez (MBI) Allison Crook (AA) Eric Davidian (AA)
Booth Visitors	100

The project team coordinated an informational booth at the City of El Monte's Main Street Farmers Market, which attracted an estimated attendance of 100 booth visitors. Our booth included three boards asking questions about Main Street and Valley Boulevard. Members of the public answered them by placing a sticker under their choice. Our outreach efforts identified several areas of improvement in both the Main Street and Valley Blvd areas recommended by the public.

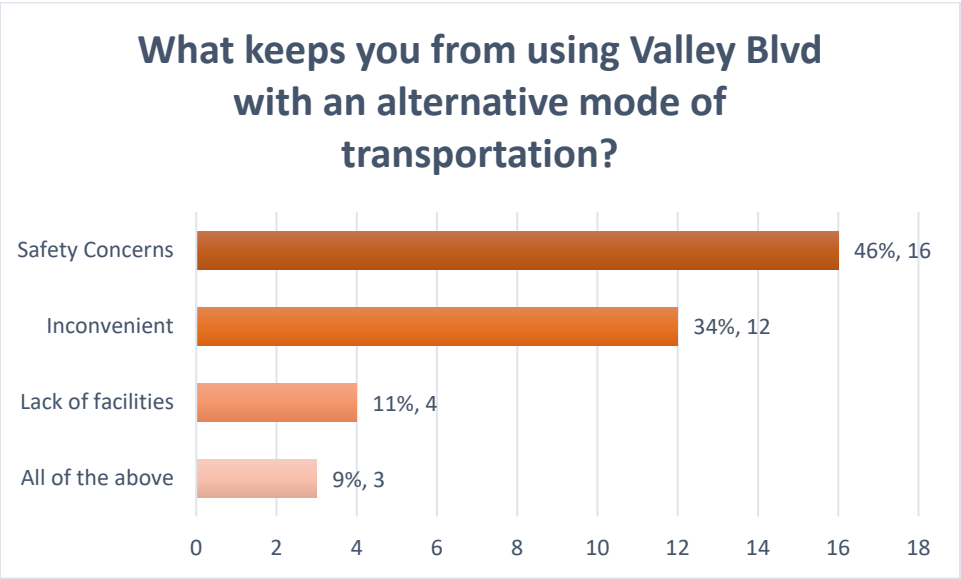
Board Activity Results- Valley Boulevard



VALLEY BLVD MAIN STREET

COMPLETE STREETS





Summary- Valley Boulevard

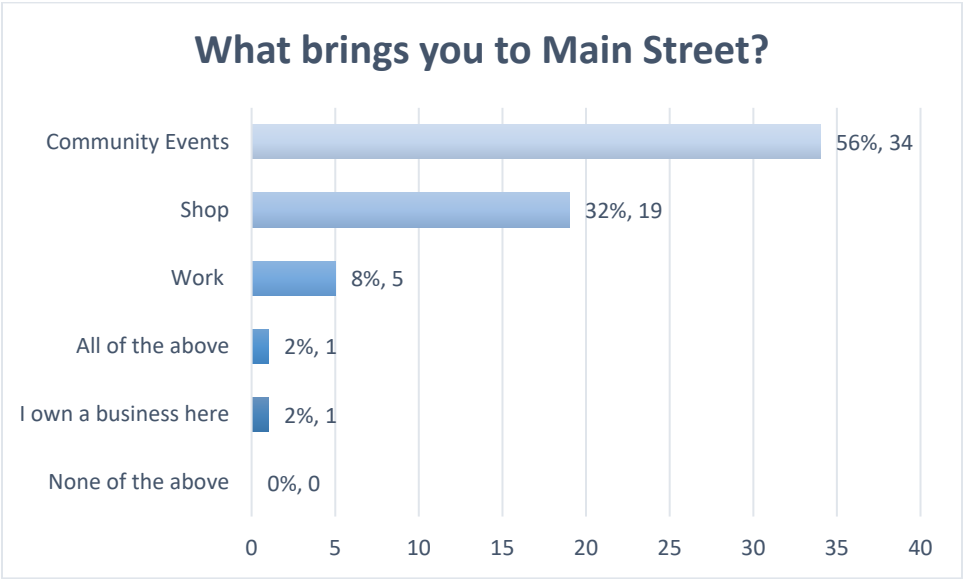
Valley Boulevard Improvements	
Bus Shade	Installing shade structures at bus stops along Valley Blvd.
Pothole Repair	Addressing the issue of potholes on Valley Blvd through timely repairs to ensure a smooth driving experience.
Sidewalk Improvements	Ensuring sidewalks are available on both sides of Valley Blvd.
ADA Accessibility	Implementing measures to ensure compliance with the Americans with Disabilities Act (ADA) and improve accessibility for individuals with disabilities along Valley Blvd.
Traffic and Speeding	Implementing traffic management strategies and speed reduction measures to improve Valley Blvd road safety and traffic flow.
Frequent Bus Service	Enhancing the frequency of bus services along Valley Blvd.
Class 4 Bike Lanes	Adding dedicated Class 4 bike lanes on Valley Blvd to facilitate safer cycling and promote alternative modes of transportation

VALLEY BLVD MAIN STREET

COMPLETE STREETS



Board Activity Results- Main Street



Summary- Main Street

Main Street Improvements	
Lighting	Enhancing the lighting infrastructure on Main Street to improve visibility and safety.
Advertising Opportunities	Implementing additional advertising opportunities on Main Street to promote local businesses.
Community Activities	Increase the number of community activities on Main Street; with an Emphasis on Latino Community.
More Stores	Encouraging the opening of new stores and businesses on Main Street to attract more visitors.
Road Pavement	Addressing the need for road pavement to improve the overall quality of the street and ensure a smooth driving and walking experience.
Trash Cans	Installing additional trash cans along Main Street to maintain cleanliness.
Pedestrian-Only Street	Turn Main Street into a pedestrian-only space for enhanced safety and community interaction.
More Park Areas:	Create additional parking areas or green spaces along Main Street to provide recreational opportunities and improve the area's aesthetic appeal.

VALLEY BLVD MAIN STREET

COMPLETE STREETS

Summary- Shared Improvements, Valley Boulevard and Main Street

Valley Boulevard and Main Street Areas of Common Improvement	
Community Internet	Addressing the need for community-wide internet access to give residents access to online resources.
Security	Enhancing security measures in both Main Street and Valley Blvd

Event Photos



VALLEY BLVD | MAIN STREET

COMPLETE STREETS

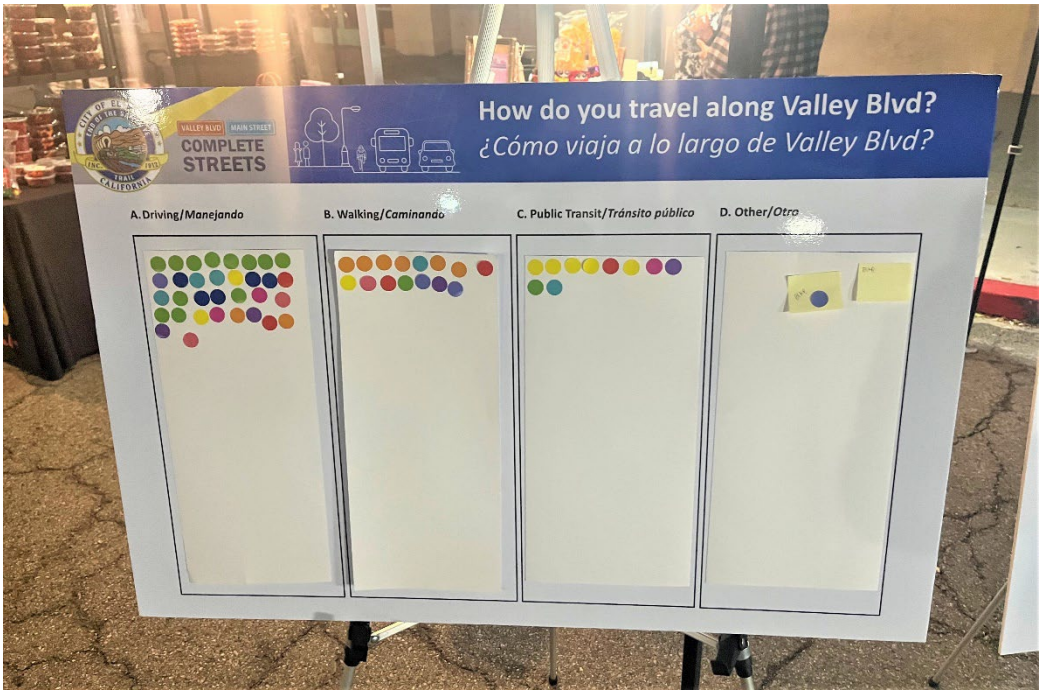




VALLEY BLVD | MAIN STREET

COMPLETE STREETS

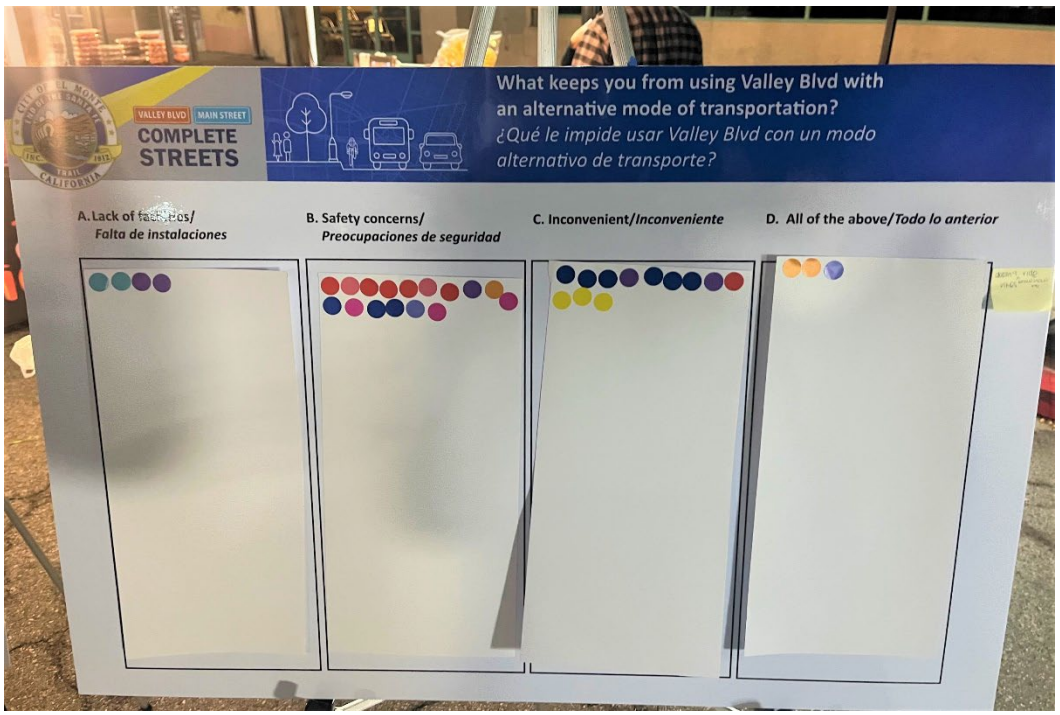


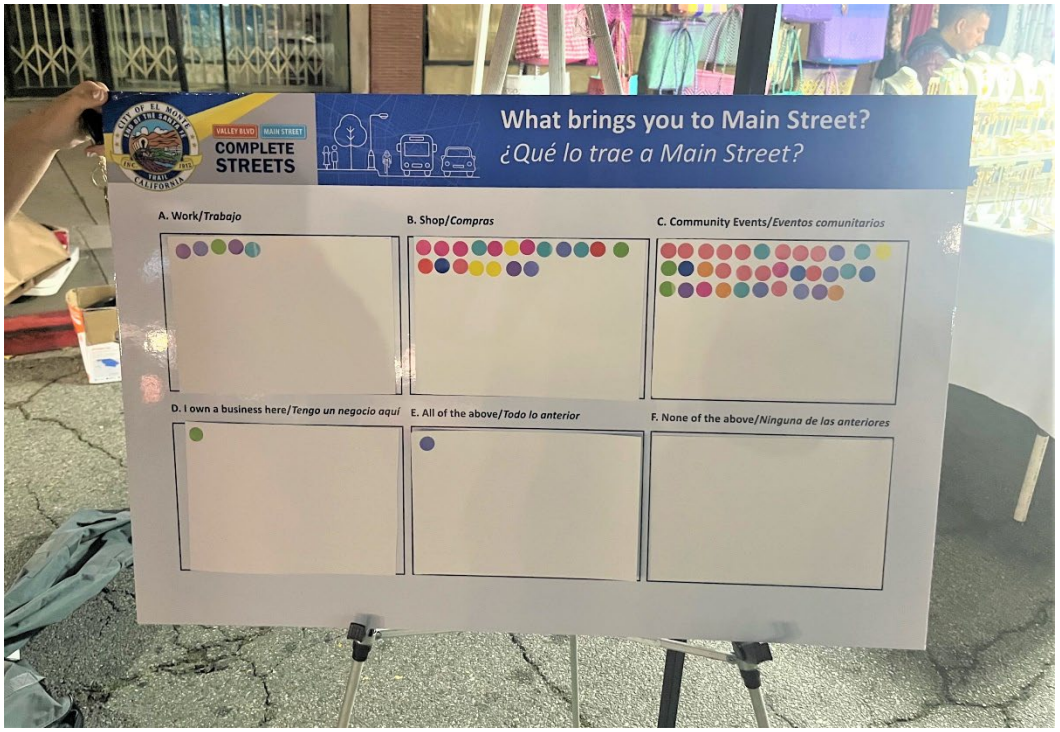


VALLEY BLVD | MAIN STREET

COMPLETE STREETS







APPENDIX I

Public Meeting #3
Summary with Appendices



Valley Boulevard and Main Street Complete Streets Feasibility Study
Public Meeting #3
Summary Report

1. Meeting Overview

As part of the planning efforts for the City of El Monte's Valley Boulevard and Main Street Complete Streets Feasibility Study, the community Update meeting was held to discuss the public's perception of the two corridors and to help identify key improvement needs that will allow for safe travel along and across Valley Boulevard and Main Street for all users.

The Public Meeting #3 was held:

- **Public Meeting #3**
  Date: Wednesday, October 11, 2023
  Time: 6:00 – 7:30 p.m.
  Location: Virtual

The project team shared a presentation during the meetings introducing the Study and its objectives. During the presentation, participants could take and ask the project staff questions.

Participants provided input on the proposed concepts and what features they would like to see along Valley Boulevard and Main Street using polls. Additionally, live Spanish interpretation was made available throughout the meeting for participants.

See *Appendix A* for the presentation.

2. Meeting Agenda

The following agenda items were discussed during the meeting:

- Introductions
- Study Overview

- Valley Boulevard



E-blasts

An e-blast was distributed to invite stakeholders in the stakeholder database to the meeting. E-Blasts were sent out in English and Spanish. See *Appendix C* for the e-blast content.

Table 1. E-Blast Notification Schedule

E-blast	Date Sent
Initial	September 27, 2023
Reminder #1	October 5, 2023
Reminder #2	October 10, 2023

Social Media

The City's social media platforms were utilized to promote the upcoming public meetings. To view the social media posts, see *Appendix D* Social media content was posted in English and Spanish.

Platform	Content	Date Sent
Facebook	Initial Invite	September 27, 2023
Instagram	Pinned Post	September 27, 2023

City Website and Calendar

To utilize the City's existing network, upcoming meeting information was shared on the City's main website and upcoming events calendar. Interested community members were directed to register for the event and navigate through key information about the Study.

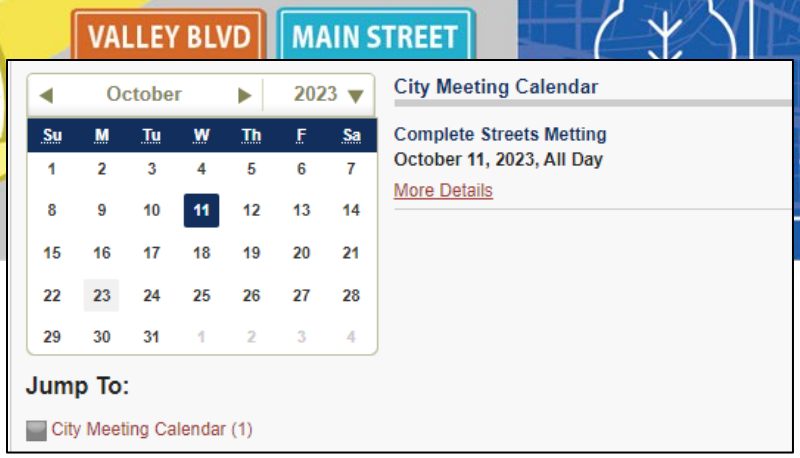


Figure 3. City Events Calendar

Walking Man Flyer Distribution

A meeting flyer was developed in English, Spanish, Chinese, and Vietnamese to promote upcoming meetings. 1,600 meeting notices were distributed on September 27 at properties and parked cars along the project corridor. See *Appendix G* for the meeting flyer.
Additionally, the flyer was distributed at key informational locations such as the City of El Monte offices, El Monte Aquatic Center, El Monte Public Library, and El Monte Community Center.

Sidewalk Decals

The existing sidewalk decals were leveraged to promote the new meeting series. The sidewalk decals included a QR code that led to a Linktree containing information about the upcoming public meetings and other key project information.



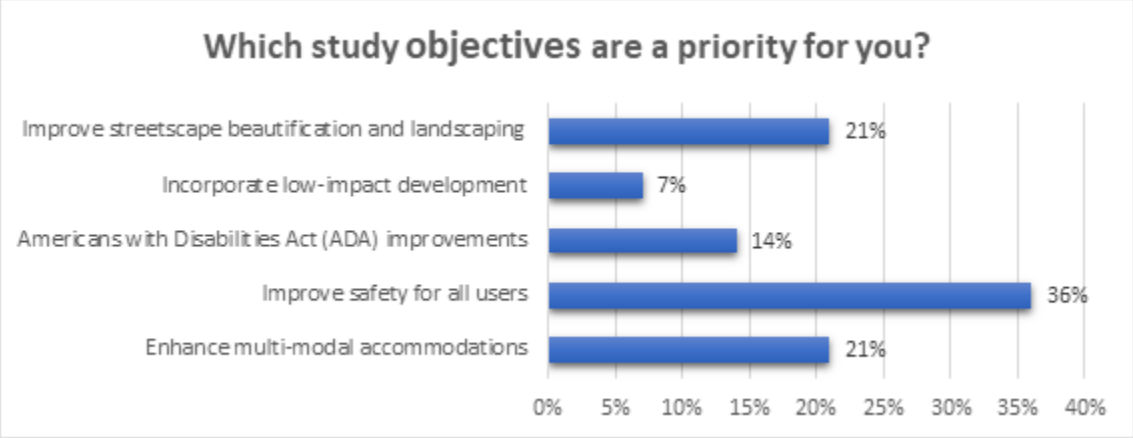
Figure 5. Sidewalk Decals

Attendee Report

No.	Name	Organization	Registered (R) /Attended (A)
1	Naresh Bhkata	La Bonita Motel	R
2	John L	Did Not Disclose	A
3	Blanca Medina	DEMBA	R
4	Pauline Cazares	DEMBA	R
5	Jerry Ho	Did Not Disclose	R
6	George	The Plug 4 Barbers	R
7	Andrew Mora	El Monte Police Department	A
8	Edward Duong	Active SGV	R
9	Chris Greenspon	SGV Reporter	A
10	Jose Nava	David's Jewelers	A
11	Rossana Meza	Meza's Jewelry	A
12	David Diaz	Active SGV	R
13	Darin DeKnikker	Mountain View Elementary School District	A
14	Ada Li	Did Not Disclose	A
15	Laura Landin	Did Not Disclose	A
16	Miguel Meza	Meza's Jewelry	A
17	Raul Miya	Did Not Disclose	A

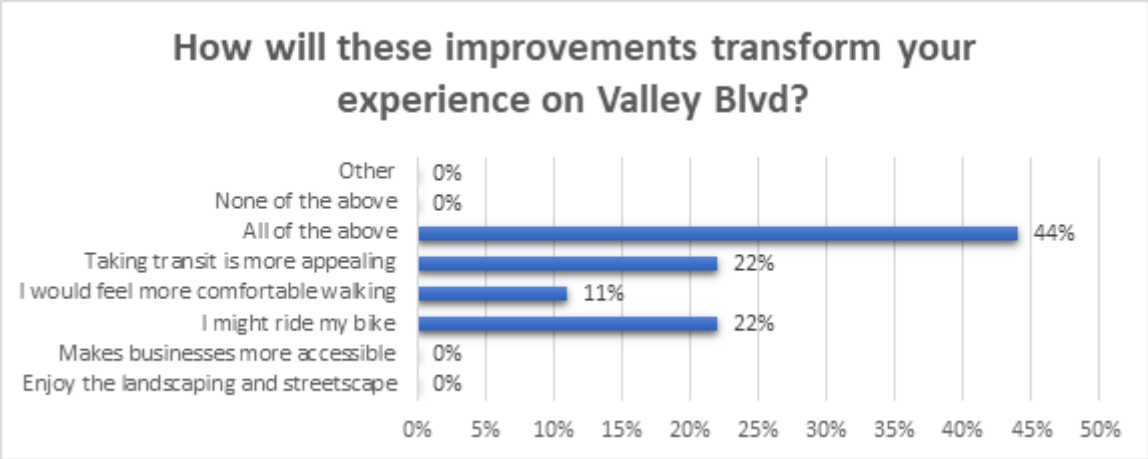
Valley Boulevard Proposed Concepts

Poll #1



The respondents value all users (36%) the most. There is also a large interest in enhancing multi-modal accommodations (21%) and improving streetscape beautification and landscaping (20%). Americans with Disabilities Act (ADA) improvements (14%) and low-impact development (7%) are also valued but at a lower volume.

Poll #2



The poll suggests that a portion (44%) of respondents believed all the listed improvements would transform their experience on Valley Blvd. Additionally, 22% expressed an increased interest in bike riding, and a similar percentage (22%) found public transit more appealing, while 11% expected to feel more comfortable walking due to these enhancements.

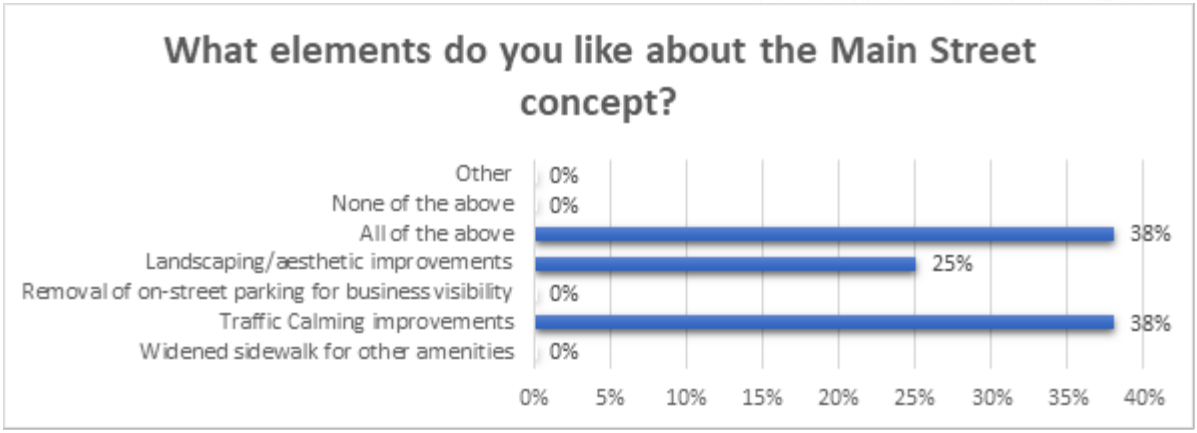
Poll #3



The word cloud shows that the respondents think that the word to describe the transformation of Valley is safety. The word appears larger because they were entered multiple times by respondents.

Main Street Proposed Concepts

Poll #4



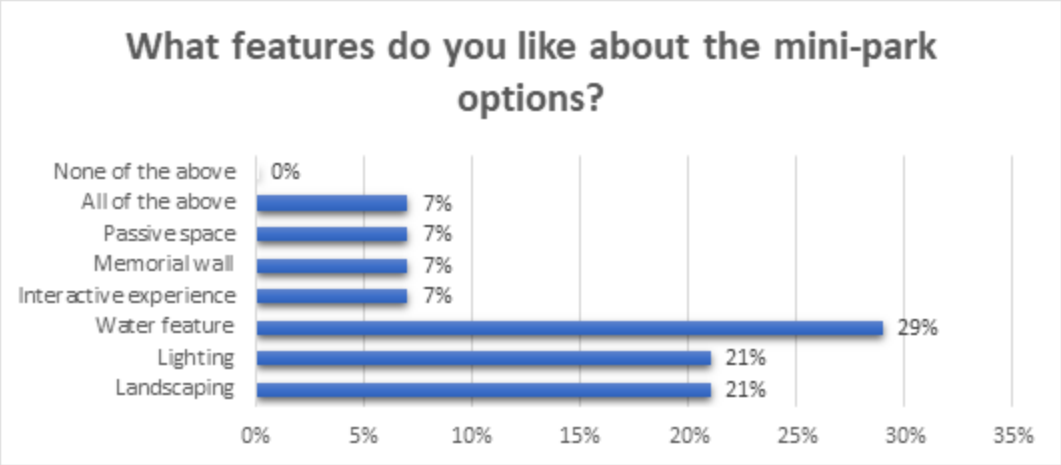
In summary, according to the survey, the most liked elements of the Main Street concept were traffic calming improvements and landscaping/aesthetic enhancements, each receiving support from 38% and 25% of the respondents, respectively. A significant portion (38%) also favored all listed elements.

Poll #5



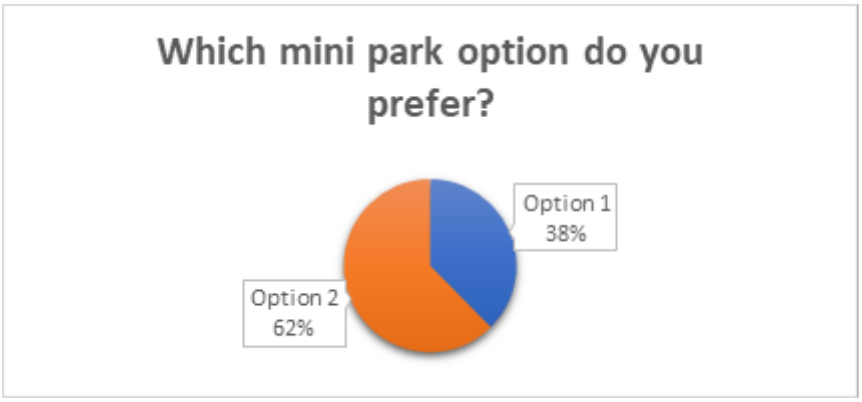
The word cloud shows that the respondents think that the words to describe the transformation on Main Street are improvement, safety, and better. These words appear larger because they were entered multiple times by respondents.

Poll #6



The results reveal that a water feature (29%) received the highest preference among respondents for the mini-park options. Landscaping and lighting (each 21%) were also popular choices. Additionally, interactive experiences, memorial walls, passive spaces, and selecting all the listed features were each valued the same (each 7%)

Poll #7



The results indicate that the respondents prefer mini-park option 2 (62%) over mini-park option 1 (38%).

6. Participant Input

Participants were able to provide input and ask questions during the meeting. Below are key points discussed during both meetings. The conversation included the following key themes:

- Emphasis on Safety Along Valley Blvd: The meeting attendees strongly emphasized safety while traveling along Valley Blvd. This community's top priority is ensuring that Valley Blvd is a safe and user-friendly street.
- Safety Concerns on Main Street: Business owners along Main Street voiced safety concerns, emphasizing the need for an increased police presence. This highlights a shared community interest in ensuring a safe environment for residents and businesses.
- Pedestrian-Focused Preferences: Main Street business owners preferred pedestrian-focused improvements over the proposed options. This indicates a desire for measures that prioritize the safety and convenience of pedestrians, which aligns with the need for enhanced safety.
- The community meeting highlighted the significance of safety and security on Main Street and along Valley Blvd as a shared concern among residents, business owners, and meeting attendees. Additionally, the preference for pedestrian-oriented improvements indicates a desire for measures that enhance safety and accessibility for walkers and cyclists in the community.

7. Appendices

The appendices below are available for review at the end of the report.

- Appendix A. Presentation English/Spanish
- Appendix B. E-Blast Notifications
- Appendix C. Social Media Posts
- Appendix D. Meeting Flyer

Appendix A

Presentation English/Spanish

Interpretation / *Interpretación*



This meeting is transmitted in both English and Spanish. Everyone must choose a language.

Click the **Interpretation** icon in your meeting controls to enter an *English or Spanish* room.

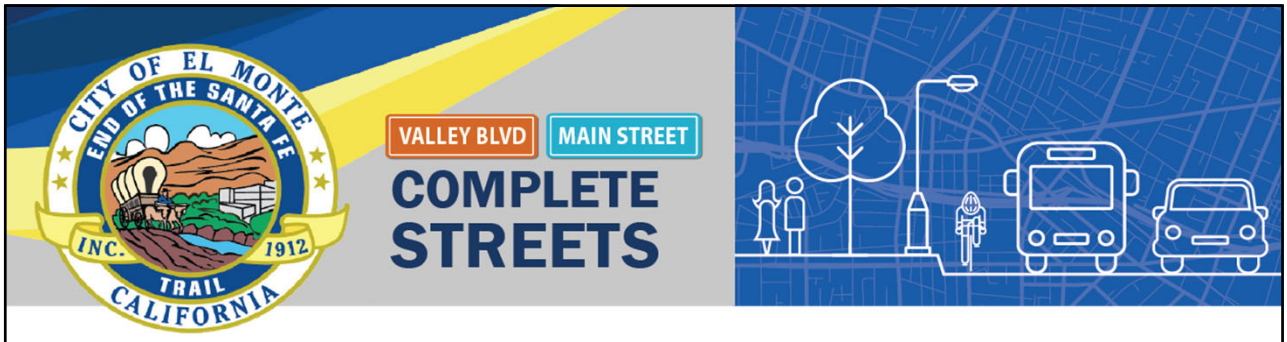
To hear the interpreted language only, click **Mute Original Audio** (Optional).

Esta reunión se transmite tanto en inglés como en español. Todos deben elegir un idioma.

*Haga clic en el icono de **Interpretación** en los controles de sureunión para ingresar a una sala en inglés o español.*

*Para escuchar solo el idioma interpretado, haga clic en **Mute Original Audio** o **Silenciar Audio Original** (Opcional).*

1



WELCOME!

Public Meeting #3 | Wednesday, October 11, 2023

2

VALLEY BLVD MAIN STREET COMPLETE STREETS

Introductions

Michael Baker INTERNATIONAL

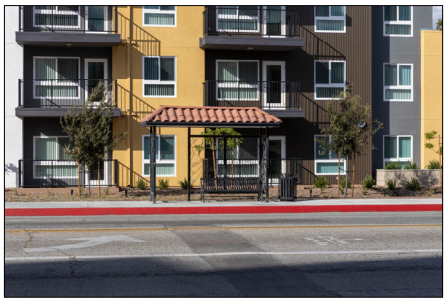
arellano associates

3

Agenda

- Introductions
- Study Overview
- Valley Boulevard
- Main Street
- Santa Anita Mini Park
- Next Steps
- Stay Connected
- Q&A Segment





4

Mentimeter Polling Activity

To participate:

Go to

www.menti.com

Enter the code

7998 2802



Or use QR code

5

Mentimeter Poll #1

How did you hear about this meeting?

To participate:

Go to

www.menti.com

Enter the code

7998 2802



Or use QR code

6

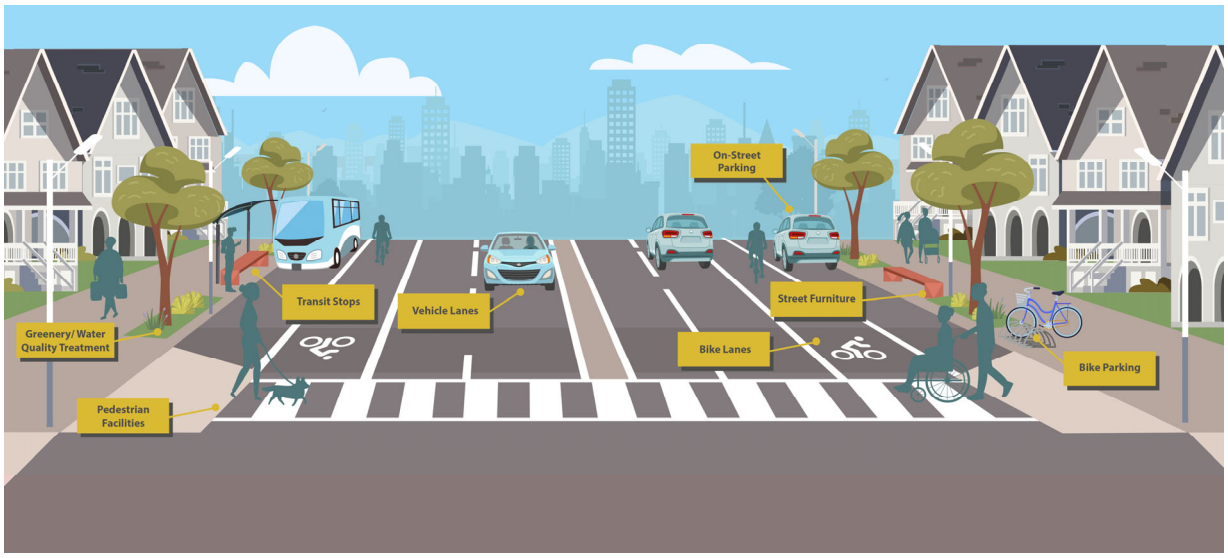
Study Overview

The City of El Monte is conducting the Valley Boulevard and Main Street Complete Street Feasibility Study (Study) to enhance connectivity, accessibility and safety for all users in the community.



7

What Makes a Street "Complete"?



8

Study Objectives



Enhance multi-modal accommodations



Improve safety for all users



Americans with Disabilities Act (ADA) improvements



Incorporate low-impact development



Improve streetscape beautification and landscaping

9

Mentimeter Poll #2

Which study objectives are a priority for you?

a. Enhance multi-modal accommodations
b. Improve safety for all users
c. Americans with Disabilities Act (ADA) improvements
d. Incorporate low-impact development
e. Improve streetscape beautification and landscaping

To participate:

Go to
www.menti.com
Enter the code

7998 2802

Or use QR code

10

VALLEY BLVD COMPLETE STREETS

Valley Boulevard

11

Valley Boulevard Overview

- Approximately 3.3 miles
- Major arterial serving as one of the City's primary gateways
- Serves as a critical link in the regional transit network

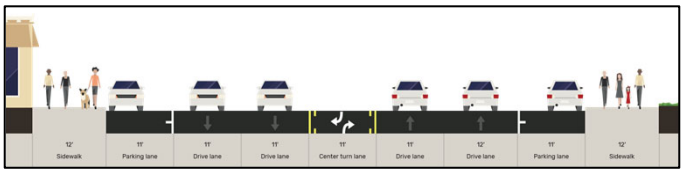




12

Existing Conditions- Valley Boulevard

102' Width

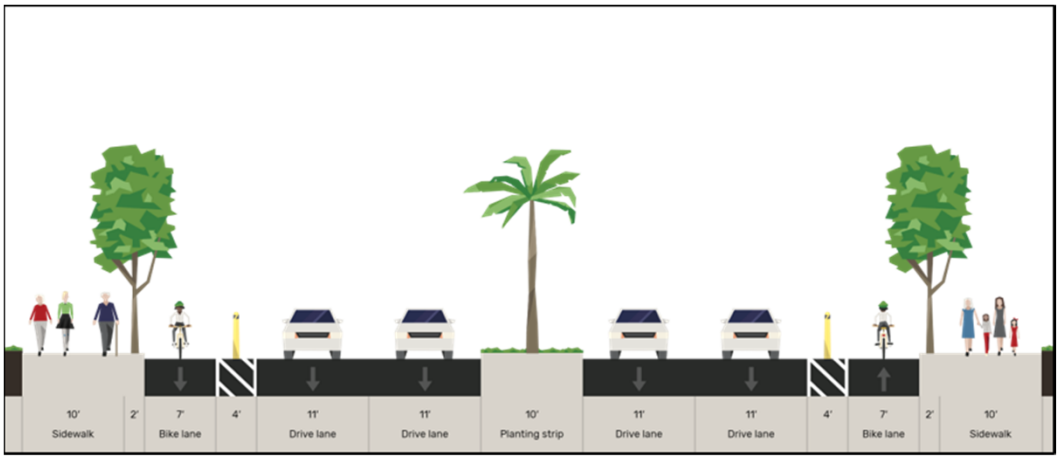




13

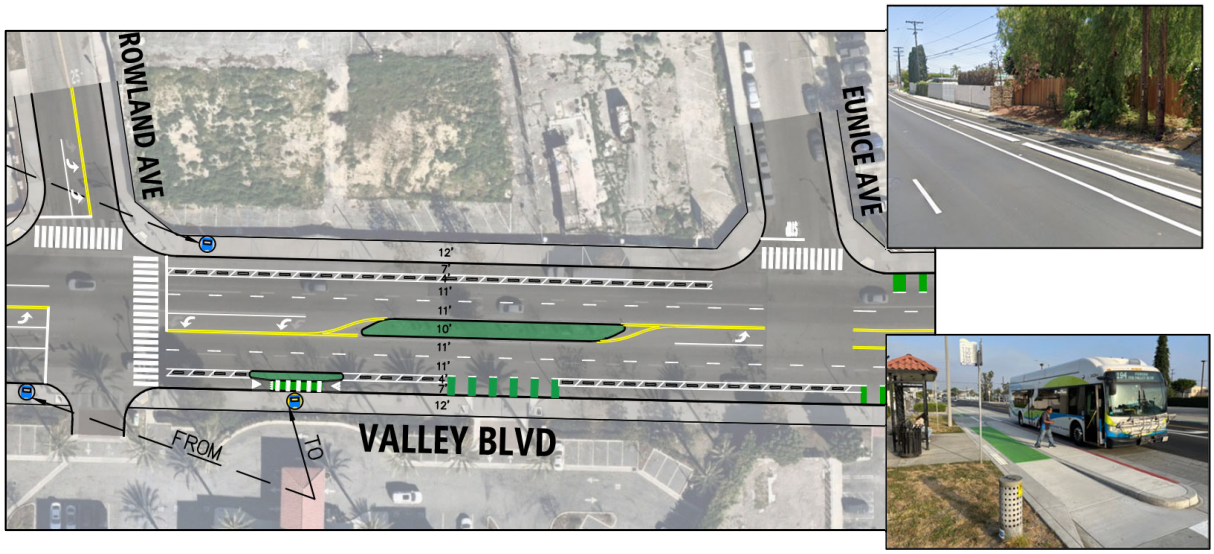
Proposed Concept – Key Features

Cross Section

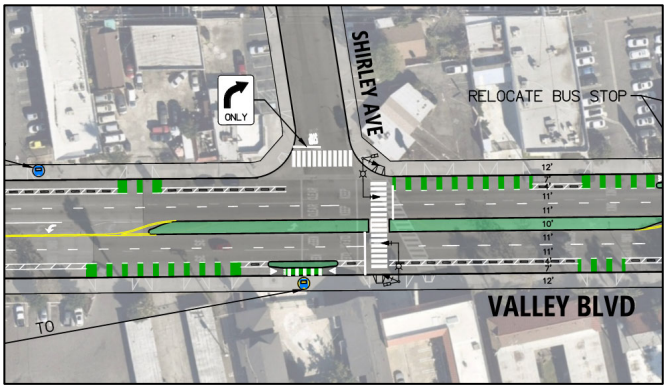


14

Proposed Concept – Key Features

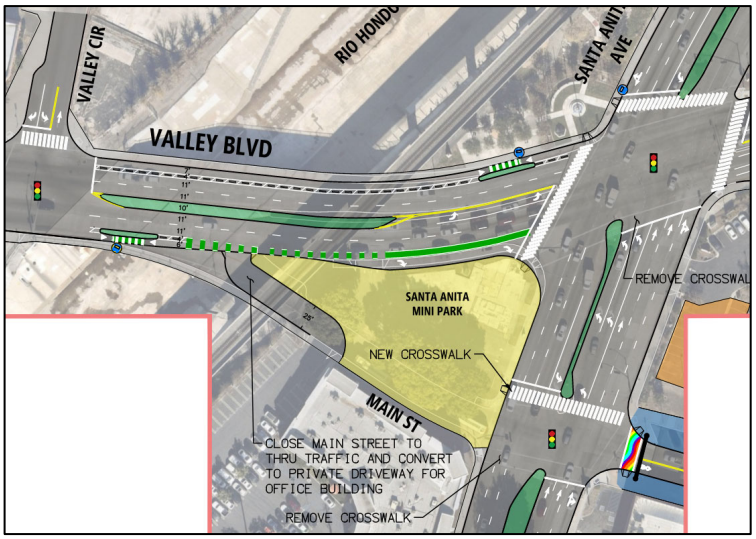


Proposed Concept – Key Features





Proposed Concept – Key Features



17

Renderings Corridor Map



18

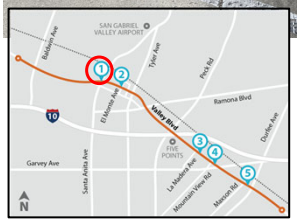
Photo Renderings *Santa Anita Intersection*

Before



After





19

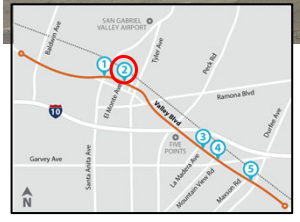
Photo Renderings *El Monte Avenue*

Before



After





20

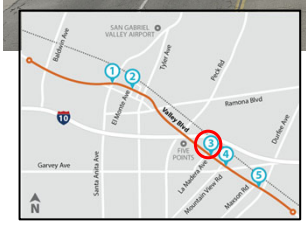
Photo Renderings *Near La Madera Avenue*

Before



After





21

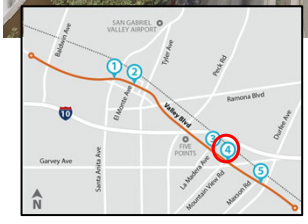
Photo Renderings *Near Garvey Avenue*

Before



After

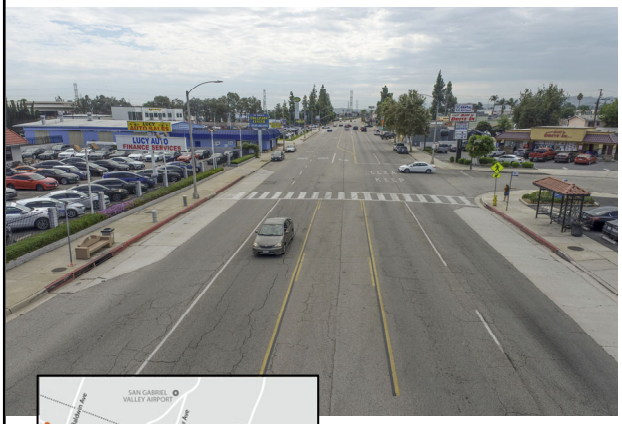


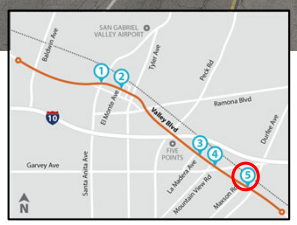


22

Photo Renderings *Near Maxson Road*

Before





After



23

Mentimeter Poll #3

How will these improvements transform your experience on Valley Boulevard?

a. Enjoy the landscaping/streetscape
b. Makes businesses more accessible
c. I might ride my bike
d. I would feel more comfortable walking
e. Taking transit is more appealing
f. All of the above
g. None of the above
h. Other

To participate:

Go to
www.menti.com
Enter the code

7998 2802

Or use QR code

24

Mentimeter Poll #4

What one word describes the transformation along Valley Boulevard?

LH0

To participate:

Go to
www.menti.com

Enter the code

7998 2802

Or use QR code

25

MAIN STREET
COMPLETE STREETS

Main Street

26

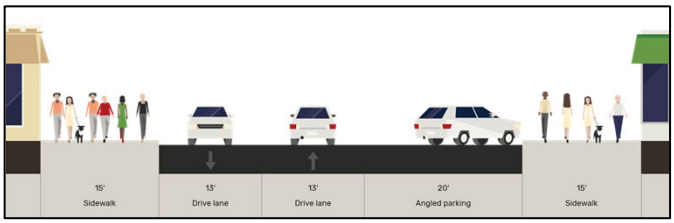
Main Street Overview

- Approximately 0.5 miles
- Commercial district in the heart of El Monte's downtown area
- Popular destination for outdoor shopping and dining experiences





Existing Conditions- Main Street



76' Width

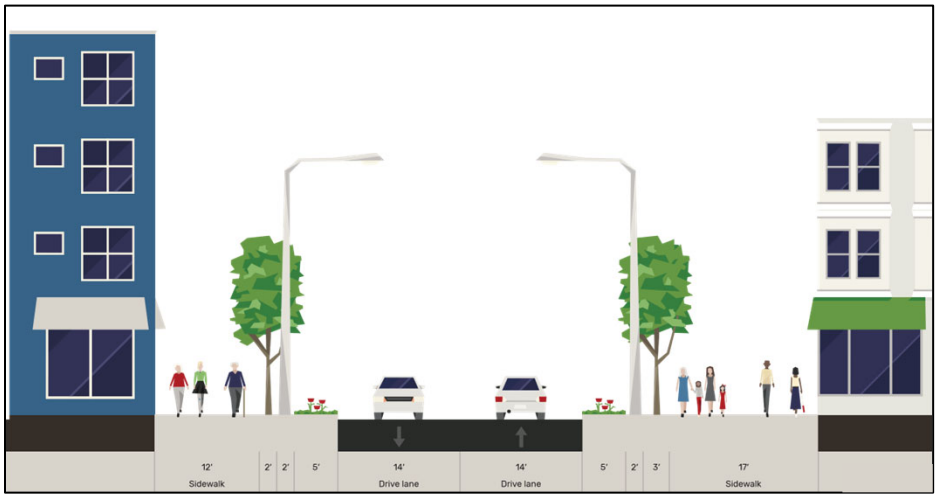


Main Street Themes:

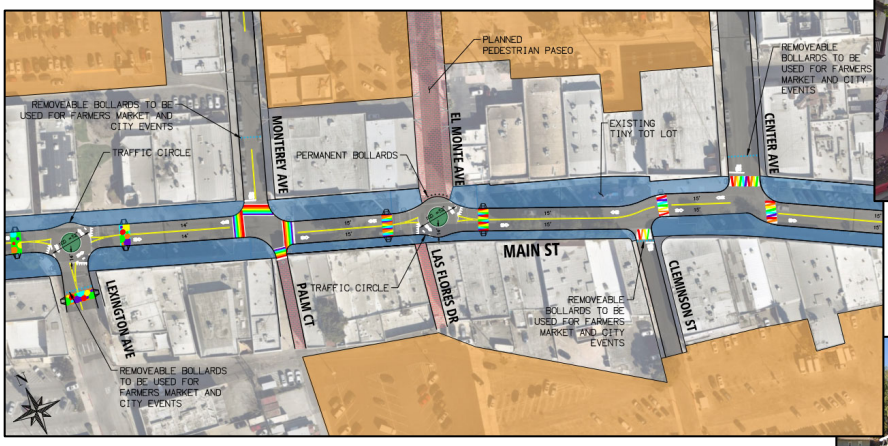
- Safety concerns with parking
- Trees are problematic
- Limited visibility for businesses
- Community enjoys Farmer's Market

Proposed Concepts – Key Features

Cross Section



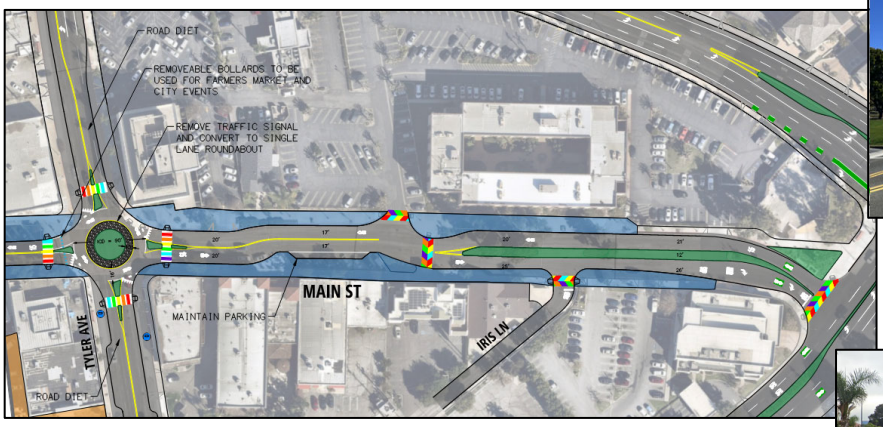
Proposed Concepts – Key Features







Proposed Concepts – Key Features







31

Mentimeter Poll #5

What elements do you like about the Main Street concept?

a. Widened sidewalk for other amenities
b. Traffic Calming improvements
c. Removal of on-street parking for business visibility
d. Landscaping/aesthetic improvements
e. All of the above
f. None of the above
g. Other

If any elements concern you, please put a note in the chat.

To participate:

Go to
www.menti.com
Enter the code

7998 2802

Or use QR code

32

Mentimeter Poll #6



What one word describes the transformation along Main Street?

To participate:

Go to
www.menti.com

Enter the code

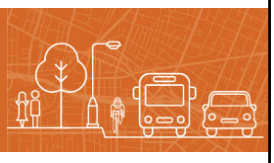
7998 2802

Or use QR code

33

VALLEY BLVD
COMPLETE STREETS

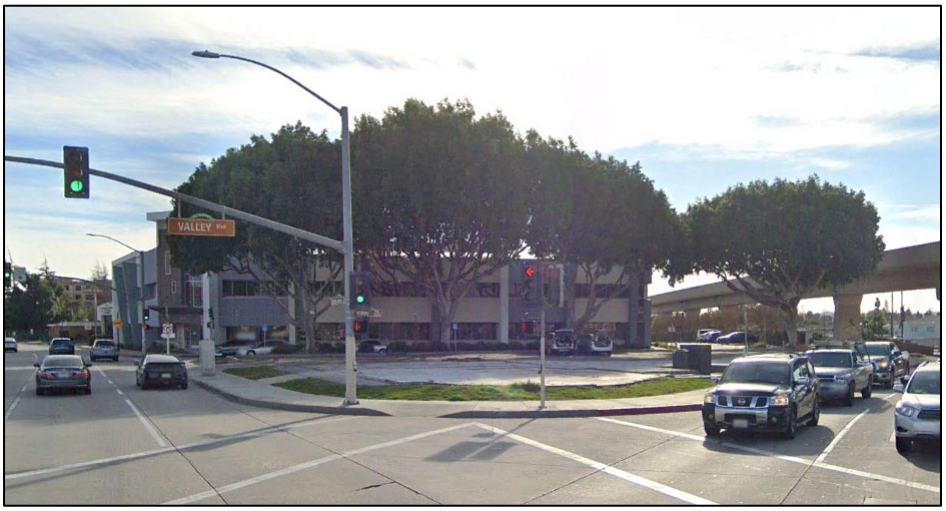
Santa Anita Mini Park



34

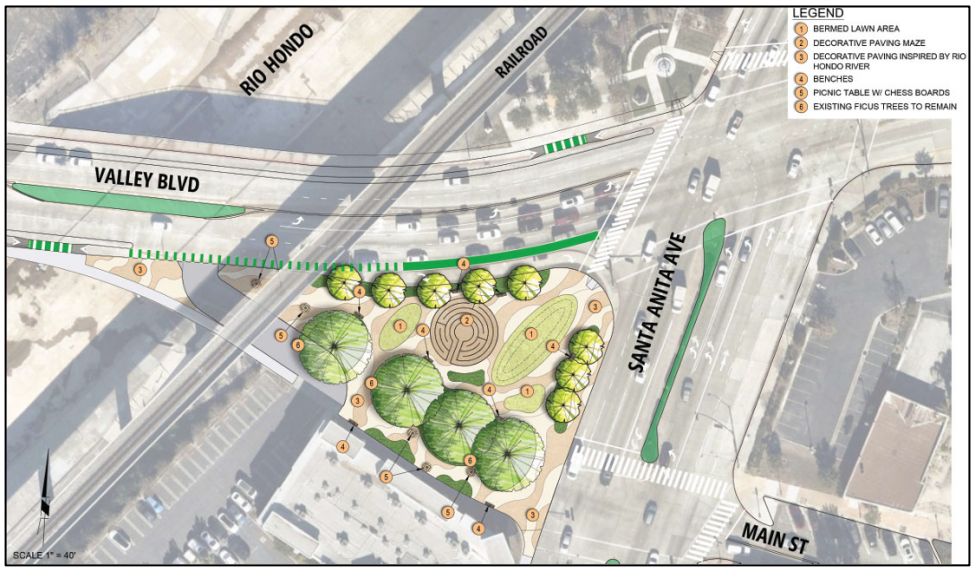
Santa Anita Mini Park

Existing Conditions



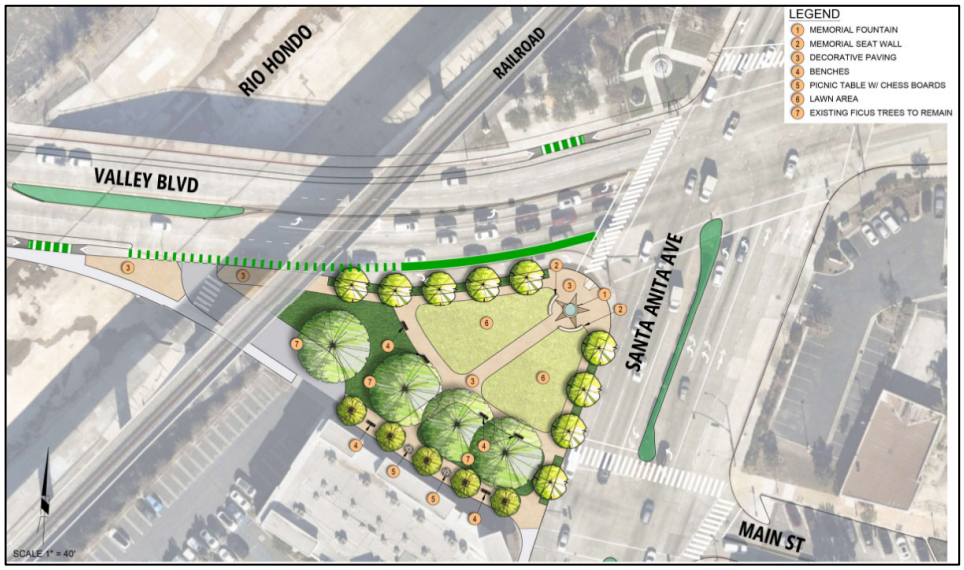
Proposed Concepts - Santa Anita Mini Park

Option 1



Proposed Concepts - Santa Anita Mini Park

Option 2



LH0

Mentimeter Poll #7

What features do you like about the mini-park options?

a. Landscaping
b. Lighting
c. Water Feature
d. Interactive Feature
e. Memorial Wall
f. Passive Space
g. All of the above
h. None of the above

To participate:

Go to
www.menti.com
Enter the code

7998 2802

Or use QR code

Mentimeter Poll #8

To participate:

Go to
www.menti.com
Enter the code
7998 2802

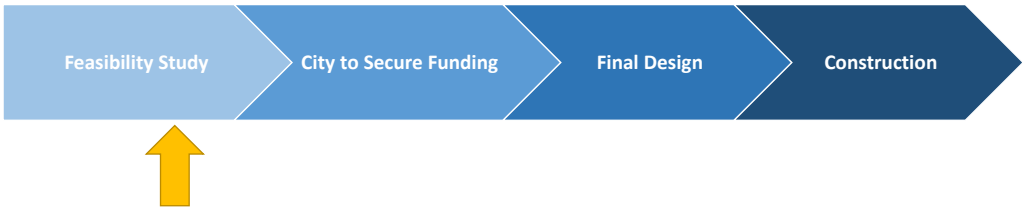
Or use QR code

Which one of the mini-park options do you prefer?

a. Option1
b. Option 2

Next Steps

- City Council Input
- Finalize feasibility study
- City to pursue grant funding
- Final design
- Construction



Upcoming Engagement Opportunities

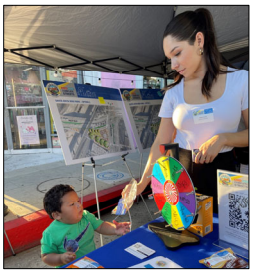
Howl-O-Ween Bark Bash Dog Parade

Date: Wednesday, October 18, 2023
Time: 4:00 p.m. - 7:00 p.m.
Location: Fletcher "Fetch" Dog Park
3404 Fletcher Parkway, El Monte, CA, 91731

Day of the Dead

Date: Saturday, October 21, 2023
Time: 11:00 a.m. - 4:00 p.m.
Location: Main Street, El Monte, CA, 91731







Stay Connected

Thank you for joining us today!

Steven Wright
City Project Manager

Lee Torres
City Engineer

Please submit comments or questions by November 1st!

EMcompletestreets.com

completestreets@elmonteca.gov

CityofElMonte

myelmonte

MyElMonte

For more information, scan the QR code with your mobile phone or visit: https://linktr.ee/emcompletestreets

VALLEY BLVD MAIN STREET
COMPLETE STREETS

Questions & Answers



Interpretation / *Interpretación*



This meeting is transmitted in both English and Spanish. Everyone must choose a language.

Click the **Interpretation** icon in your meeting controls to enter an *English or Spanish* room.

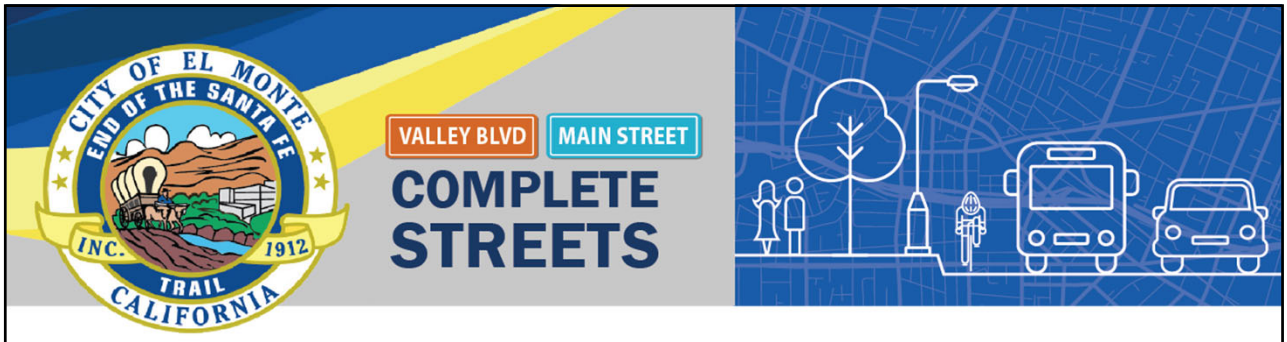
To hear the interpreted language only, click **Mute Original Audio** (Optional).

Esta reunión se transmite tanto en inglés como en español. Todos deben elegir un idioma.

*Haga clic en el icono de **Interpretación** en los controles de sureunión para ingresar a una sala en inglés o español.*

*Para escuchar solo el idioma interpretado, haga clic en **Mute Original Audio** o **Silenciar Audio Original** (Opcional).*

1



¡BIENVENIDO!

Reunión Publica #3 | miércoles, 11 de octubre de 2023

2

VALLEY BLVD MAIN STREET COMPLETE STREETS

Introducciones

Michael Baker INTERNATIONAL

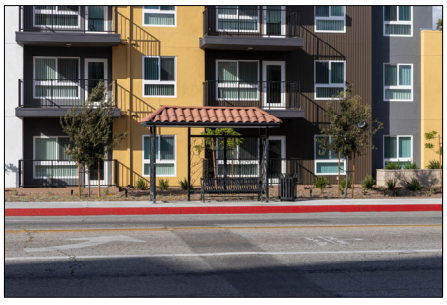
arellano associates

3

Agenda

- Introducciones
- Descripción General del Estudio
- Valley Boulevard
- Main Street
- Mini Parque Santa Anita
- Próximos Pasos
- Manténgase Conectado
- Preguntas y Respuestas





4

Mentimeter Actividad de Sondeo

Para participar:

Ingrese a

www.menti.com

Ingrese el código

7998 2802

O utilize el código QR

5

Mentimeter Pregunta #1

¿Cómo se enteró de esta reunión?

Para participar:

Ingrese a

www.menti.com

Ingrese el código

7998 2802

O utilize el código QR

6

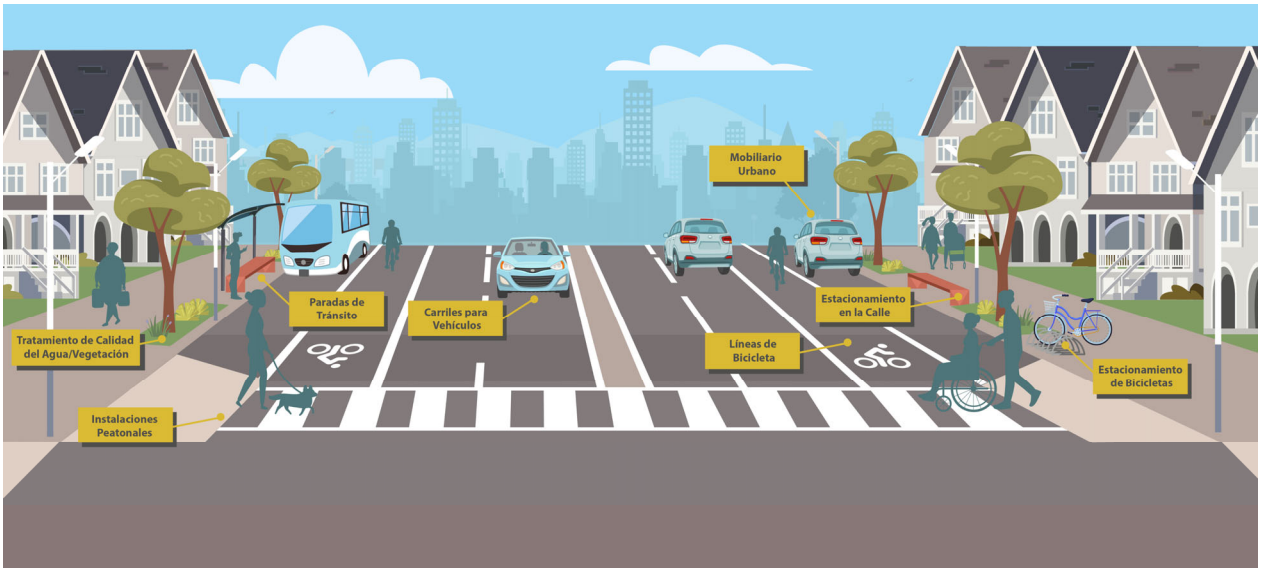
Descripción General del Estudio

La Ciudad de El Monte está llevando a cabo el Estudio de Factibilidad de Calles Completas de Valley Boulevard y Main Street (Estudio) para mejorar la conectividad, accesibilidad y seguridad para todos los usuarios de la comunidad.



7

¿Qué Hace Que Una Calle Sea “Completa"?



8

Objetivos del Estudio



Mejorar el alojamiento multimodal



Mejorar la seguridad de todos los usuarios



Mejoras del acta de estadounidenses con discapacidades (ADA)



Incorporar desarrollo de bajo impacto



Mejorar el embellecimiento del paisaje urbano y el paisajismo

9

Mentimeter Pregunta #2

¿Qué objetivos de estudio son una prioridad para usted?

a. Mejorar los alojamientos multimodales
b. Mejorar la seguridad para todos los usuarios
c. Mejoras en la Ley de Estadounidenses con Discapacidades (ADA, por sus siglas en inglés)
d. Incorporar el desarrollo de bajo impacto
e. Mejorar el embellecimiento del paisaje urbano y el paisajismo

Para participar:

Ingrese a
www.menti.com
Ingrese el código

7998 2802

O utilize el código QR

10

VALLEY BLVD COMPLETE STREETS

Valley Boulevard

11

Descripción General de Valley Boulevard

- Aproximadamente 3.3 millas
- La arteria principal sirve como una de las principales puertas de entrada de la Ciudad
- Sirve como un enlace crítico en la red de tránsito regional

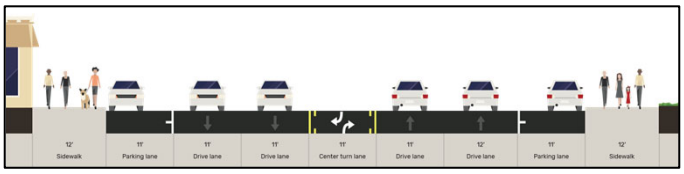




12

Condiciones Existentes- Valley Boulevard

102' Ancho

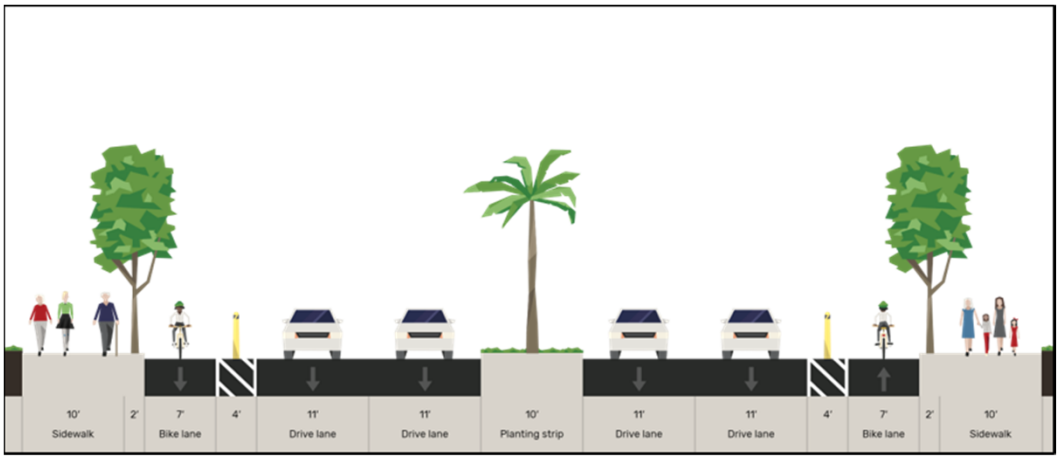




13

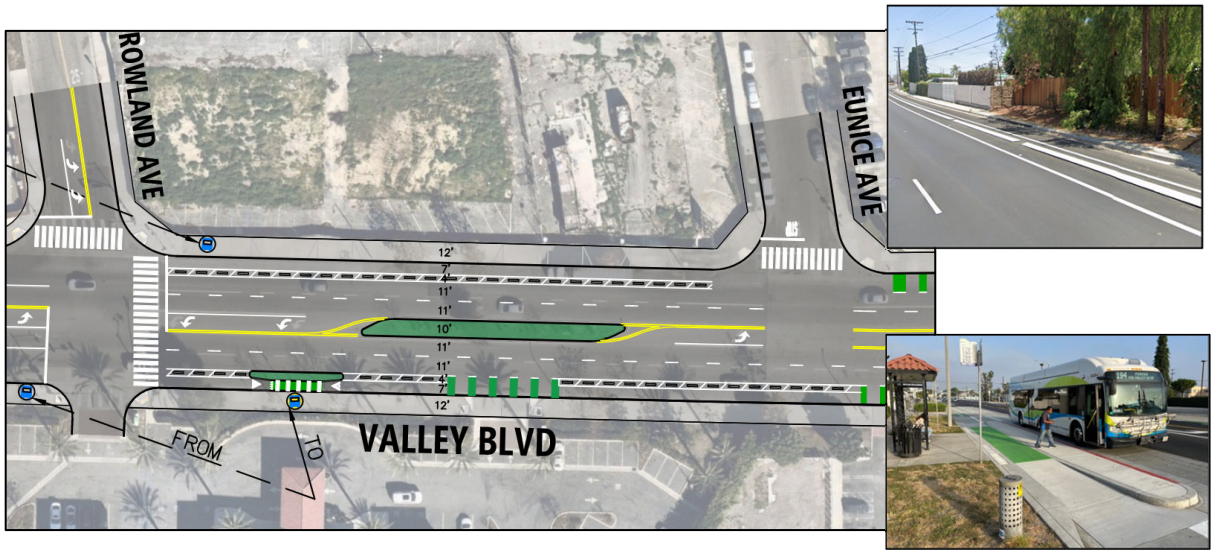
Concepto Propuesto – Características Principales

Sección de cruce

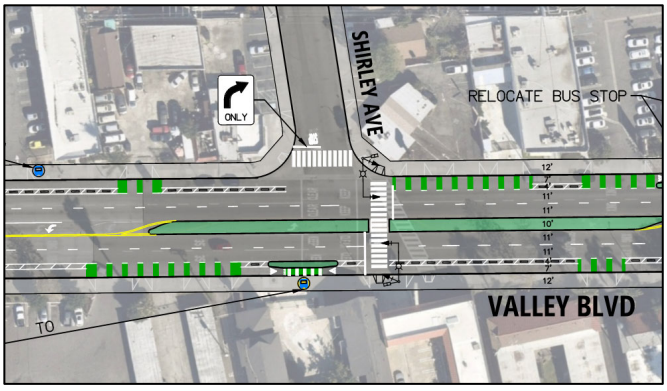


14

Concepto Propuesto – Características Principales

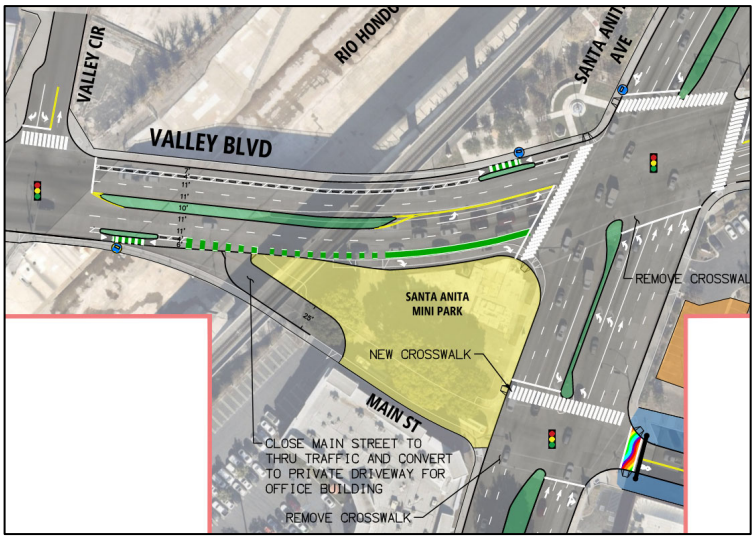


Concepto Propuesto – Características Principales





Concepto Propuesto – Características Principales



17

Mapa de Corridor- Representaciones

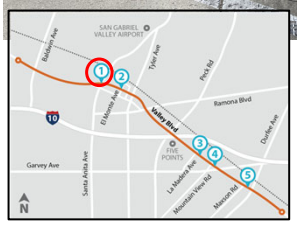


18

Representaciones Fotográficas- *Intersección en Santa Anita*

Antes





Después

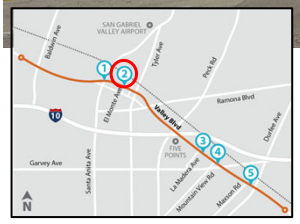


19

Representaciones Fotográficas- *El Monte Avenue*

Antes





Después

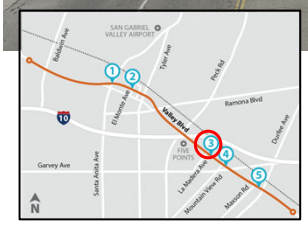


20

Representaciones Fotográficas- *Cerca a La Madera Avenue*

Antes





Después

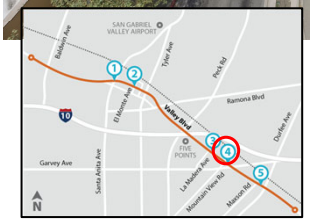


21

Representaciones Fotográficas- *Cerca a Garvey Avenue*

Antes





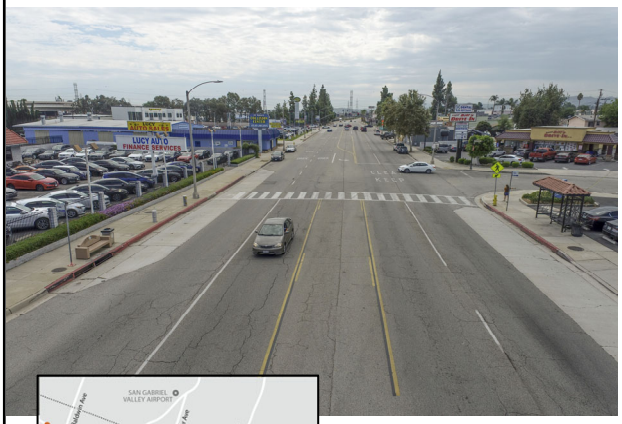
Después

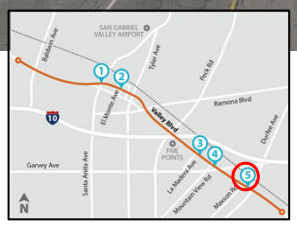


22

Representaciones Fotográficas- *Cerca a Maxson Road*

Antes





Después



Mentimeter Pregunta #3

¿Cómo transformarán estas mejoras su experiencia en Valley Boulevard?

a. Disfrute del paisajismo / paisaje urbano
b. Hace que las empresas sean más accesibles
c. I might ride my bike
d. Me sentiría más cómodo caminando
e. Tomar el transporte público es más atractivo
f. Todo lo anterior
g. Ninguna de las anteriores
h. Otro

Para participar:

Ingrese a
www.menti.com
Ingrese el código

7998 2802

O utilize el código QR

Mentimeter Pregunta #4



¿Qué palabra describe la transformación a lo largo de Valley Boulevard?

Para participar:

Ingrese a

www.menti.com

Ingrese el código

7998 2802

O utilize el código QR

25

MAIN STREET COMPLETE STREETS

Main Street



26

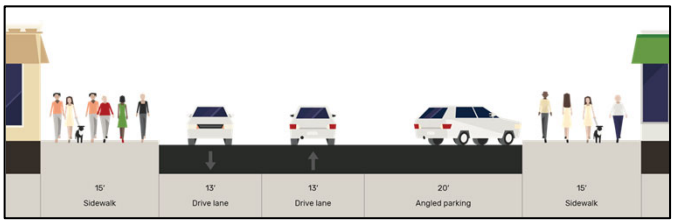
Descripción General de Main Street

- Aproximadamente 0.5 millas
- Distrito comercial en el corazón del centro de El Monte
- Destino popular para compras al aire libre y experiencias gastronómicas





Condiciones Existentes- Main Street



76’ Ancho

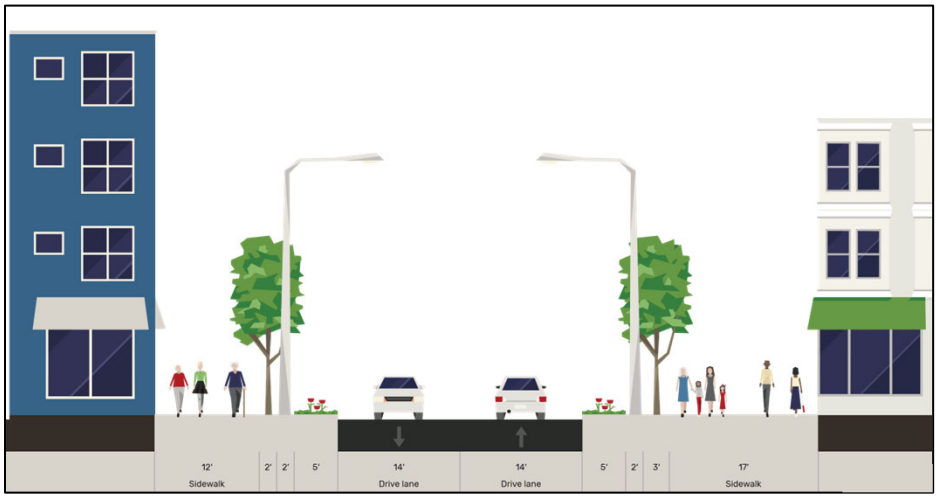


Temas de Main Street:

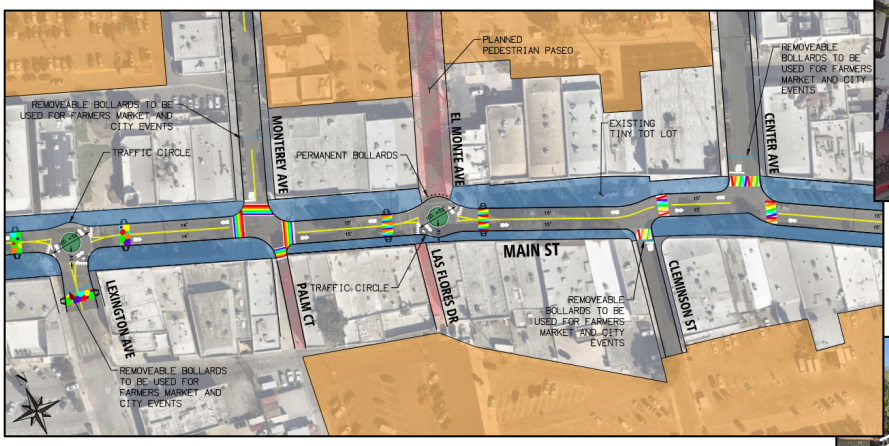
- Problemas de seguridad con el estacionamiento
- Los árboles son problemáticos
- Visibilidad limitada para las empresas
- La comunidad disfruta del mercado de agricultores

Concepto Propuesto – Características Principales

Sección de cruce



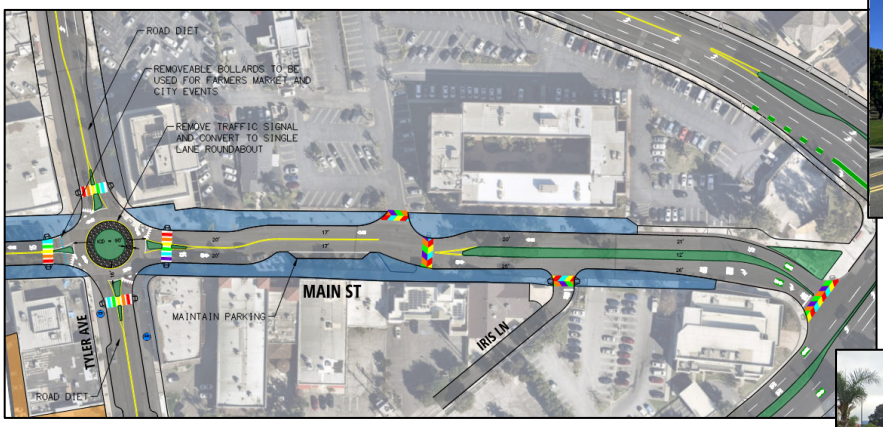
Concepto Propuesto – Características Principales







Concepto Propuesto – Características Principales







31

Mentimeter Pregunta #5

¿Qué elementos le gustan del concepto Main Street?

a. Acera ensanchada para otras comodidades
b. Mejoras para calmar el tráfico
c. Eliminación del estacionamiento en la calle para la visibilidad de los negocios
d. Mejoras al paisajismo/estéticas
e. Todo lo anterior
f. Ninguna de las anteriores
g. Otro

Si algún elemento le preocupa, por favor ponga una nota en el chat.

Para participar:

Ingrese a
www.menti.com
Ingrese el código

7998 2802

O utilize el código QR

32

Mentimeter Pregunta #6

¿Qué palabra describe la transformación a lo largo de Main Street?

Para participar:

Ingrese a

www.menti.com

Ingrese el código

7998 2802

O utilize el código QR

33

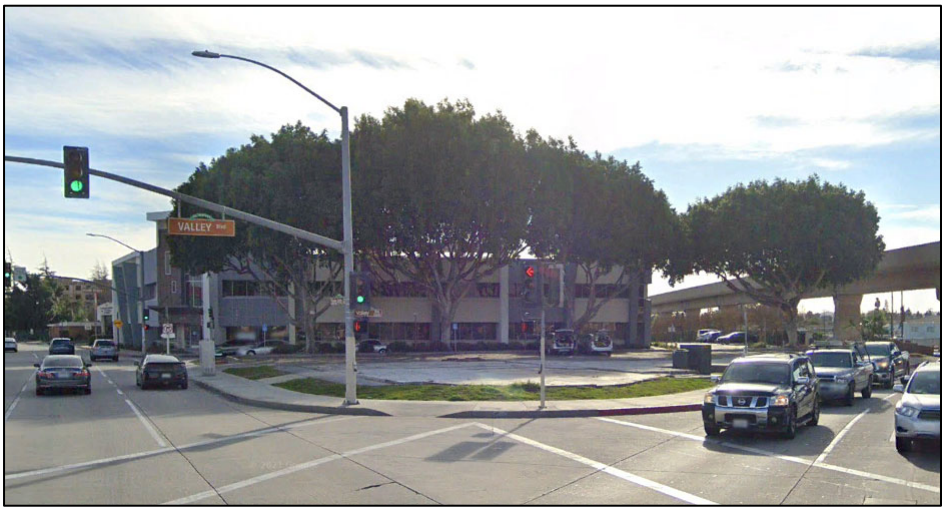
VALLEY BLVD COMPLETE STREETS

Mini Parque de Santa Anita

34

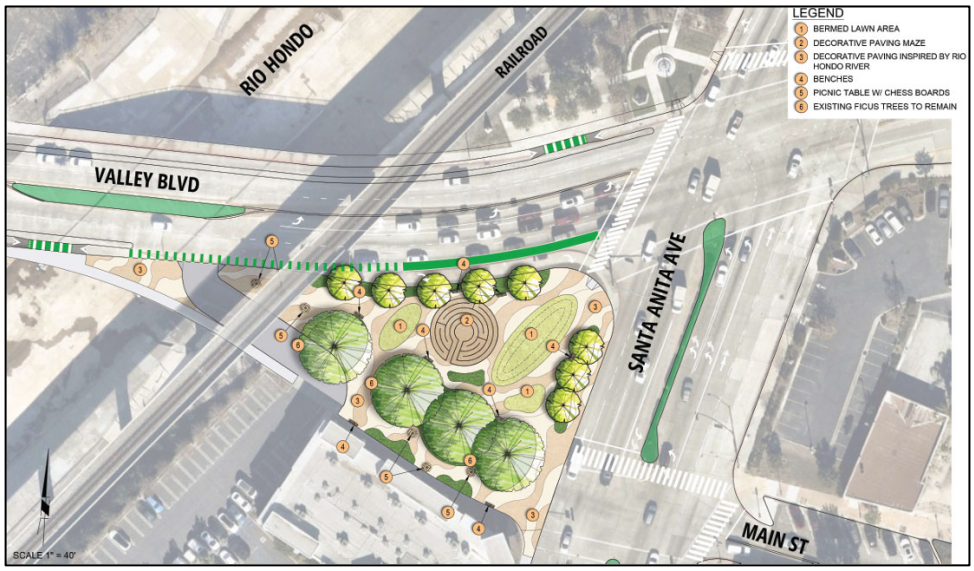
Mini Parque de Santa Anita

Condiciones Existentes



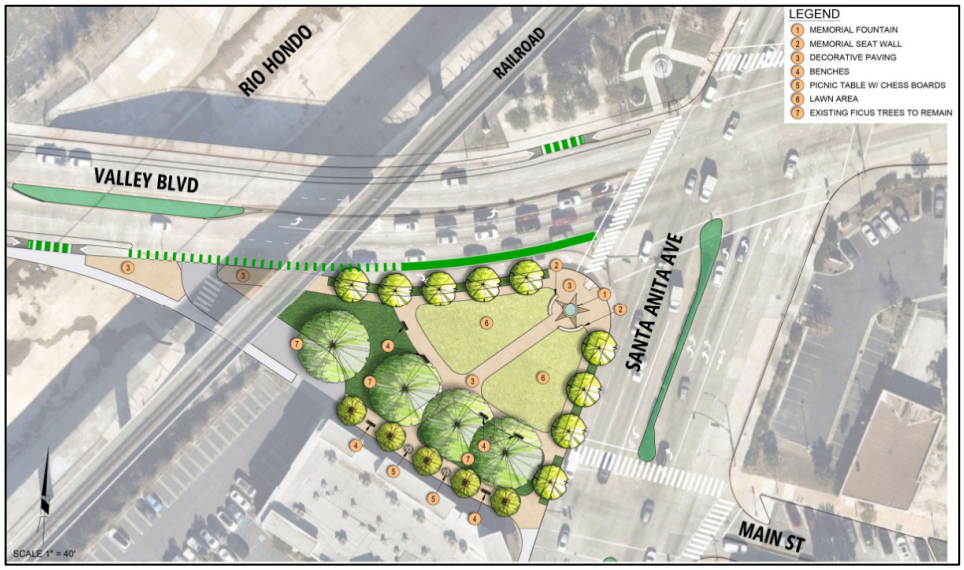
Conceptos Propuestos- Mini Parque de Santa Anita

Opción 1



Conceptos Propuestos- Mini Parque de Santa Anita

Opción 2



Mentimeter Pregunta #7

¿Qué características le gustan de las opciones de mini parque?

a. Paisajismo
b. Iluminación
c. Fuente de agua
d. Función interactiva
e. Muro conmemorativo
f. Espacio pasivo
g. Todo lo anterior
h. Ninguno de los anteriores

Para participar:

Ingrese a
www.menti.com
Ingrese el código

7998 2802

O utilize el código QR

Mentimeter Pregunta #8

¿Con cuál de las opciones de mini parque te quedas?

a. Opción1
b. Opción 2

Para participar:

Ingrese a
www.menti.com
Ingrese el código

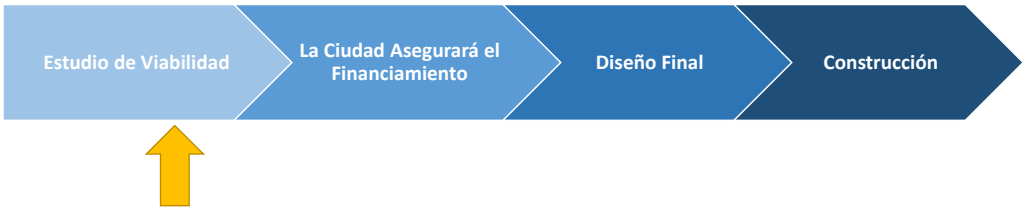
7998 2802

O utilize el código QR

39

Próximos Pasos

- Aportes del Concejo Municipal
- Finalizar el estudio de viabilidad
- La ciudad buscará fondos de subvención
- Diseño final
- Construcción



40

Próximas Oportunidades de Participación

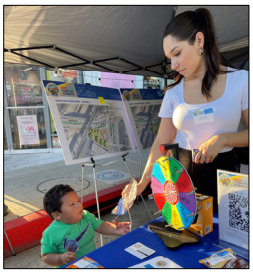
Howl-O-Ween Bark Bash Dog Parade

Fecha: miércoles, 18 de octubre de 2023
Hora: 4:00 p.m. - 7:00 p.m.
Ubicación: Fletcher “Fetch” Dog Park
3404 Fletcher Parkway, El Monte, CA, 91731

Day of the Dead

Fecha: sábado, 21 de octubre de 2023
Hora: 11:00 a.m. - 4:00 p.m.
Ubicación : Main Street, El Monte, CA, 91731







41

Manténgase Conectado

¡Gracias por acompañarnos hoy!

Steven Wright
Gerente de Proyectos de la Ciudad

Lee Torres
Ingeniero de la Ciudad

¡Envíe sus comentarios o preguntas antes del 1 de noviembre!

EMcompletestreets.com

completestreets@elmonteca.gov

CityofElMonte

myelmonte

MyElMonte

Para obtener más información, escanee el código QR con su teléfono móvil o visite: https://linktr.ee/emcompletestreets

42

VALLEY BLVD MAIN STREET
COMPLETE STREETS

Preguntas y Respuestas



Appendix B
E-Blast Notifications

Initial Invite



We want your input on how to improve Valley Boulevard and Main Street!

Join us at an upcoming virtual Public Meeting to provide your input and identify key improvements that will allow for safe travel along and across Valley Boulevard and Main Street for all users. The study will focus on safety improvements for pedestrians, non-motorized and motorized vehicles; multi-modal opportunities; drainage improvements; street lighting improvements; Americans with Disabilities Act (ADA) enhancements and upgrades; low impact development; and street tree and landscape improvements.

Virtual Public Meeting
Date: Wednesday, October 11, 2023
Time: 6:00 – 7:30 p.m.
Location: Via Zoom

Register Here

Live Spanish interpretation will be available during the public meeting. Additional language interpretation can be requested 72 hours in advance at completestreets@elmonteca.gov.

Upcoming Events

Catch us at our booth! Our team will be present at local events to share the latest updates. Find us at any of the events below.

Howl-O-Ween Bark Bash Dog Parade
Date: Wednesday, October 18, 2023
Time: 4:00 p.m. – 7:00 p.m.
Location: Fletcher "Fetch" Dog Park
3404 Fletcher Parkway, El Monte, CA, 91731

Day of the Dead
Date: Saturday, October 21, 2023
Time: 11:00 a.m. – 4:00 p.m.
Location: Main Street, El Monte, CA 91731





Stay Connected

For more information visit EMCompleteStreets.com.



¡Queremos su opinión sobre cómo mejorar Valley Boulevard y Main Street!

Acompáñenos a la próxima reunión pública virtual para brindar su opinión e identificar mejoras claves que permitirán un viaje seguro para todos los usuarios a lo largo y ancho de Valley Boulevard y Main Street. El estudio se centrará en mejoras de seguridad para peatones, vehículos motorizados y no motorizados; oportunidades multimodales; mejoras de drenaje; mejoras en el alumbrado público; mejoras y actualizaciones para el Acta de Estadounidenses con Discapacidades (ADA); desarrollo de bajo impacto; y mejoras de árboles y paisajes en las calles.

Reunión Pública Virtual
Fecha: Miércoles, 11 de octubre de 2023
Hora: 6:00 – 7:30 p.m.
Ubicación: Vía Zoom

Regístrese aquí

Habrá interpretación en vivo en español disponible durante la reunión pública. Se puede solicitar interpretación de idiomas adicionales con 72 horas de anticipación en completestreets@elmonteca.gov.

Próximos Eventos

¡Visitenos en nuestro stand! Nuestro equipo estará presente en eventos locales para compartir las últimas actualizaciones. Encuéntrenos en cualquiera de los eventos a continuación.

Howl-O-Ween Bark Bash Dog Parade
Fecha: miércoles, 11 de octubre, 2023
Hora: 4:00 – 7:00p
Ubicación: Fletcher "Fetch" Dog Park
3404 Fletcher Parkway, El Monte, CA, 91731

Día de los Muertos
Fecha: sábado, 21 de octubre, 2023
Hora: 11:00 a.m. – 4:00 p.m.
Ubicación: Main Street, El Monte, CA 91731





Manténgase conectado

Para más información visite EMCompleteStreets.com.

Reminder #1



We want your input on how to improve Valley Boulevard and Main Street!

Join us at an upcoming virtual Public Meeting to provide your input and identify key improvements that will allow for safe travel along and across Valley Boulevard and Main Street for all users. The study will focus on safety improvements for pedestrians, non-motorized and motorized vehicles; multi-modal opportunities; drainage improvements; street lighting improvements; Americans with Disabilities Act (ADA) enhancements and upgrades; low impact development; and street tree and landscape improvements.

Virtual Public Meeting
Date: Wednesday, October 11, 2023
Time: 6:00 – 7:30 p.m.
Location: Via Zoom

Register Here

Live Spanish interpretation will be available during the public meeting. Additional language interpretation can be requested 72 hours in advance at completestreets@elmonteca.gov.

Upcoming Events

Catch us at our booth! Our team will be present at local events to share the latest updates. Find us at any of the events below.

Howl-O-Ween Bark Bash Dog Parade
Date: Wednesday, October 18, 2023
Time: 4:00 p.m. – 7:00 p.m.
Location: Fletcher "Fetch" Dog Park
3404 Fletcher Parkway, El Monte, CA, 91731

Day of the Dead
Date: Saturday, October 21, 2023
Time: 11:00 a.m. – 4:00 p.m.
Location: Main Street, El Monte, CA 91731





Stay Connected

For more information visit EMCompleteStreets.com.



¡Queremos su opinión sobre cómo mejorar Valley Boulevard y Main Street!

Acompáñenos a la próxima reunión pública virtual para brindar su opinión e identificar mejoras claves que permitirán un viaje seguro para todos los usuarios a lo largo y ancho de Valley Boulevard y Main Street. El estudio se centrará en mejoras de seguridad para peatones, vehículos motorizados y no motorizados; oportunidades multimodales; mejoras de drenaje; mejoras en el alumbrado público; mejoras y actualizaciones para el Acta de Estadounidenses con Discapacidades (ADA); desarrollo de bajo impacto; y mejoras de árboles y paisajes en las calles.

Reunión Pública Virtual
Fecha: Miércoles, 11 de octubre de 2023
Hora: 6:00 – 7:30 p.m.
Ubicación: Vía Zoom

Regístrese aquí

Habrá interpretación en vivo en español disponible durante la reunión pública. Se puede solicitar interpretación de idiomas adicionales con 72 horas de anticipación en completestreets@elmonteca.gov.

Próximos Eventos

¡Visítenos en nuestro stand! Nuestro equipo estará presente en eventos locales para compartir las últimas actualizaciones. Encuéntrenos en cualquiera de los eventos a continuación.

Howl-O-Ween Bark Bash Dog Parade
Fecha: miércoles, 11 de octubre, 2023
Hora: 4:00 – 7:00p
Ubicación: Fletcher "Fetch" Dog Park
3404 Fletcher Parkway, El Monte, CA, 91731

Día de los Muertos
Fecha: sábado, 21 de octubre, 2023
Hora: 11:00 a.m. – 4:00 p.m.
Ubicación: Main Street, El Monte, CA 91731





Manténgase conectado

Para más información visite EMCompleteStreets.com.

Reminder #2



We want your input on how to improve Valley Boulevard and Main Street!

Join us tomorrow for the virtual Public Meeting to provide your input and identify key improvements that will allow for safe travel along and across Valley Boulevard and Main Street for all users. The study will focus on safety improvements for pedestrians, non-motorized and motorized vehicles; multi-modal opportunities; drainage improvements; street lighting improvements; Americans with Disabilities Act (ADA) enhancements and upgrades; low impact development; and street tree and landscape improvements.

Virtual Public Meeting
Date: Wednesday, October 11, 2023
Time: 6:00 – 7:30 p.m.
Location: Via Zoom

Register Here

Live Spanish interpretation will be available during the public meeting. Additional language interpretation can be requested 72 hours in advance at completestreets@elmonteca.gov.

Upcoming Events

Catch us at our booth! Our team will be present at local events to share the latest updates. Find us at any of the events below.

Howl-O-Ween Bark Bash Dog Parade
Date: Wednesday, October 18, 2023
Time: 4:00 p.m. – 7:00 p.m.
Location: Fletcher "Fetch" Dog Park
3404 Fletcher Parkway, El Monte, CA, 91731

Day of the Dead
Date: Saturday, October 21, 2023
Time: 11:00 a.m. – 4:00 p.m.
Location: Main Street, El Monte, CA 91731





Stay Connected

For more information visit EMCompleteStreets.com.



¡Queremos su opinión sobre cómo mejorar Valley Boulevard y Main Street!

Acompáñenos mañana para la reunión pública virtual para brindar su opinión e identificar mejoras claves que permitirán un viaje seguro para todos los usuarios a lo largo y ancho de Valley Boulevard y Main Street. El estudio se centrará en mejoras de seguridad para peatones, vehículos motorizados y no motorizados; oportunidades multimodales; mejoras de drenaje; mejoras en el alumbrado público; mejoras y actualizaciones para el Acta de Estadounidenses con Discapacidades (ADA); desarrollo de bajo impacto; y mejoras de árboles y paisajes en las calles.

Reunión Pública Virtual
Fecha: Miércoles, 11 de octubre de 2023
Hora: 6:00 – 7:30 p.m.
Ubicación: Vía Zoom

Regístrese aquí

Habrá interpretación en vivo en español disponible durante la reunión pública. Se puede solicitar interpretación de idiomas adicionales con 72 horas de anticipación en completestreets@elmonteca.gov.

Próximos Eventos

¡Visítenos en nuestro stand! Nuestro equipo estará presente en eventos locales para compartir las últimas actualizaciones. Encuéntrenos en cualquiera de los eventos a continuación.

Howl-O-Ween Bark Bash Dog Parade
Fecha: miércoles, 11 de octubre, 2023
Hora: 4:00 – 7:00p
Ubicación: Fletcher "Fetch" Dog Park
3404 Fletcher Parkway, El Monte, CA, 91731

Día de los Muertos
Fecha: sábado, 21 de octubre, 2023
Hora: 11:00 a.m. – 4:00 p.m.
Ubicación: Main Street, El Monte, CA 91731





Manténgase conectado

Para más información visite EMCompleteStreets.com.

Appendix C

Social Media Posts

Facebook

City of El Monte CA Government
September 27 at 2:45 PM ·

Join us at an upcoming virtual public meeting on Wednesday, 10/11 from 6-7:30pm to provide your input and identify key improvements that will allow for safe travel along and across Valley Boulevard and Main Street for all users. The study focuses on safety improvements for pedestrians, non-motorized and motorized vehicles; multi-modal opportunities; drainage improvements; street lighting improvements; Americans with Disabilities Act (ADA) enhancements and upgrades; low impact development; and street tree and landscape improvements.

For more information about the virtual community meeting and other opportunities to stay engaged, visit:
https://linktr.ee/emcompletestreets

Acompáñenos a la próxima reunión pública virtual el miércoles, 10/11 de 6-7:30pm para dar su opinión e identificar mejoras claves que permitirán un viaje seguro para todos los usuarios a lo largo y a través de Valley Boulevard y Main Street. El estudio se centra en las mejoras de seguridad para peatones, vehículos no motorizados y motorizados; oportunidades multimodales; mejoras en el drenaje; mejoras en el alumbrado público; mejoras y mejoras del acta de los estadounidenses con discapacidades (ADA); desarrollo de bajo impacto; y mejoras en los árboles y el paisaje de las calles.

Para obtener más información sobre la reunión virtual y otras oportunidades para mantenerse informado, visite:
https://linktr.ee/emcompletestreets



City of El Monte CA Government
Government Organization
Call now

23 7

Instagram



myelmonte • Follow

myelmonte Join us at an upcoming virtual public meeting on Wednesday, 10/11 from 6-7:30pm to provide your input and identify key improvements that will allow for safe travel along and across Valley Boulevard and Main Street for all users. The study focuses on safety improvements for pedestrians, non-motorized and motorized vehicles; multi-modal opportunities; drainage improvements; street lighting improvements; Americans with Disabilities Act (ADA) enhancements and upgrades; low impact development; and street tree and landscape improvements.
For more information about the virtual community meeting and other opportunities to stay engaged, visit link in bio.

32 likes
SEPTEMBER 27

Log in to like or comment.

APPENDIX J

Pop-Up Events Round #1 Summary

VALLEY BLVD | MAIN STREET

COMPLETE STREETS

Event Summary Report
Downtown El Monte Business Association's Day of the Dead

Date	Saturday, October 21, 2023
Location	Main Street, El Monte, California
Event Time	11:00 am – 4:00 pm
Set Up Time	9:00 am
Staff	Alejandro Tapia | MBI | SPA Laura Hernandez | AA | SPA Allison Crook | AA
Booth Visitors	80

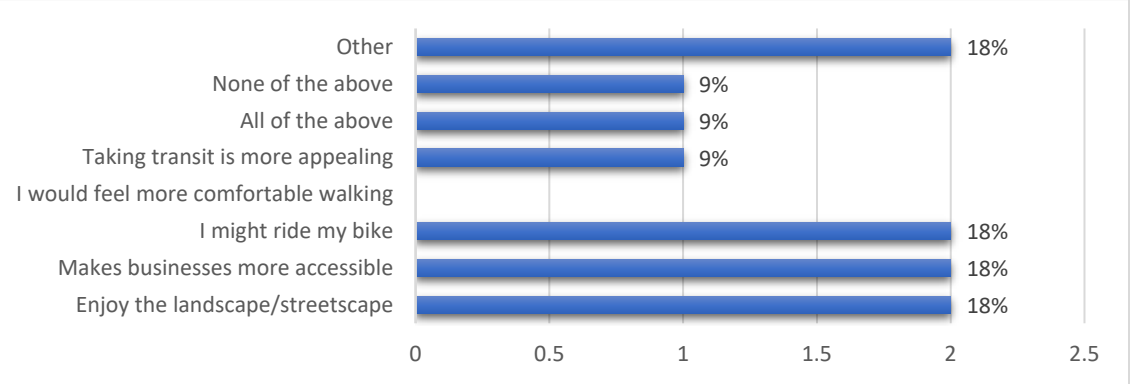
The project team coordinated an informational booth at the Downtown El Monte Business Association's Day of the Dead which attracted an estimated attendance of 80 booth visitors. Our booth included three stations: Santa Anita Mini Park, Valley Boulevard, and Main Street. Each station included a combination of boards presenting the existing conditions, roll plots and/or a tv screen presenting the proposed concepts. Booth visitors were able to take a survey where they would share their preferred improvements along the corridor.

Survey Results

A total of eight (8) surveys were collected during the event. See below for the results.

Valley Boulevard

1. **How will these improvements transform your experience on Valley Boulevard?**





Other	• Do not like medians • Add more crosswalks

2. **How would you describe this transformation along Valley Boulevard in a few words?**

Positive	• Safer • Day and Night • Awesome
Negative	• Needs work

Main Street

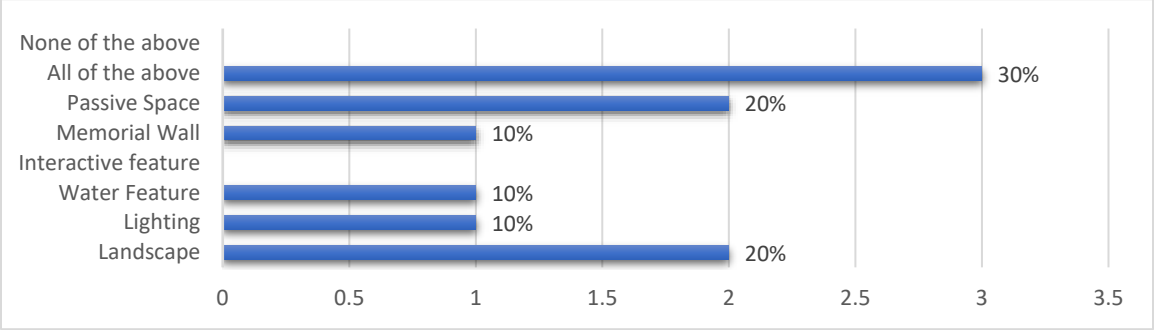
3. **What elements do you like about the Main Street concept?**

4. **How would you describe the transformation along Main Street in a few words?**

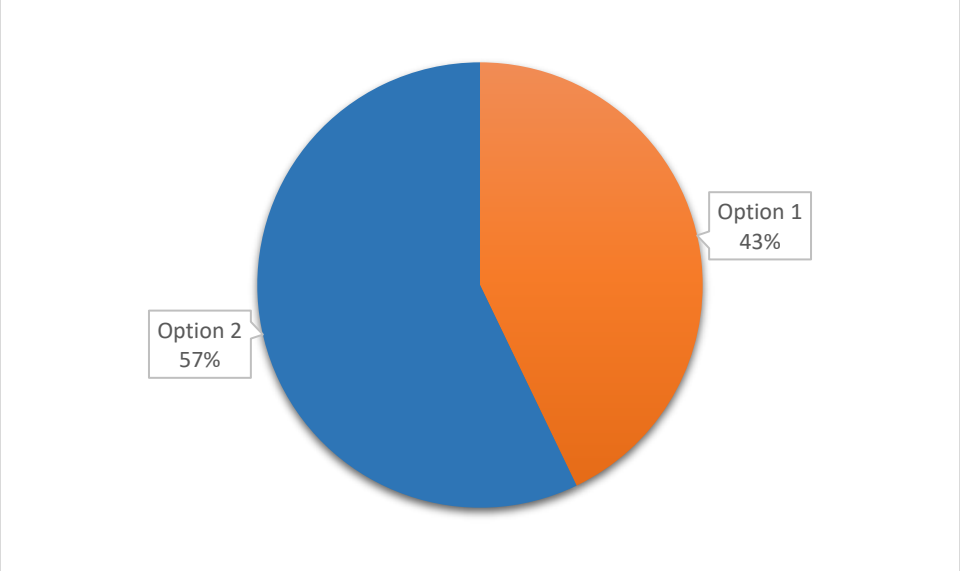
Positive	• Safer • Walkable • A breath of fresh air • Accessible for all
Negative	• Needs work

Santa Anita Mini Park

5. What features do you like about the mini-park option?



6. Which one of the mini-park options do you prefer?



VALLEY BLVD MAIN STREET

COMPLETE STREETS

Event Photos





VALLEY BLVD | MAIN STREET

COMPLETE STREETS

Event Summary Report
City of El Monte Howl-O-Ween Bark Bash Dog Parade

Date	Wednesday, October 18, 2023
Location	Fletcher "Fetch" Dog Park, El Monte, California
Event Time	4:00 pm – 7:00 pm
Set Up Time	3:30 pm
Staff	Steven Wright | City of El Monte Marlena Perez | MBI Alejandro Tapia | MBI | SPA Laura Hernandez | AA | SPA Allison Crook | AA
Booth Visitors	100

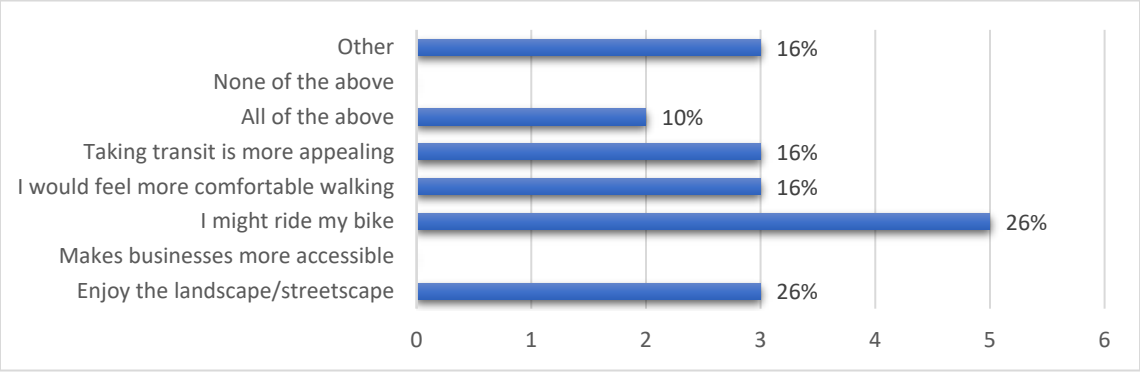
The project team coordinated an informational booth at the City of El Monte's Howl-O-Ween Bark Bash Dog Parade which attracted an estimated attendance of 100 booth visitors. Our booth included three stations: Santa Anita Mini Park, Valley Boulevard, and Main Street. Each station included a combination of boards presenting the existing conditions, roll plots and/or a tv screen presenting the proposed concepts. Booth visitors were able to take a survey where they would share their preferred improvements along the corridor.

Survey Results

A total of seven (7) surveys were collected during the event. See below for the results.

Valley Boulevard

1. **How will these improvements transform your experience on Valley Boulevard?**



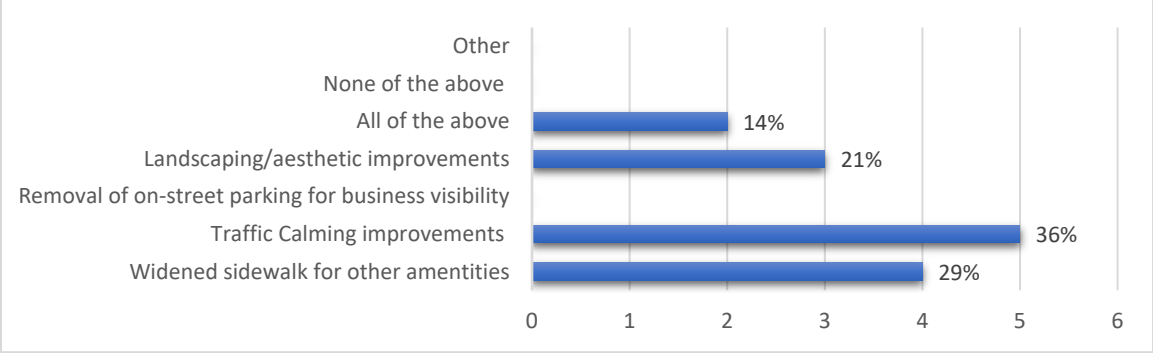
Other	• More outdoor spaces • Do not like medians • Add more trees

2. **How would you describe this transformation along Valley Boulevard in a few words?**

Positive	• Safety • Beneficial • Enjoyable • Much needed • Like the idea
Negative	• Not convenient

Main Street

3. **What elements do you like about the Main Street concept?**



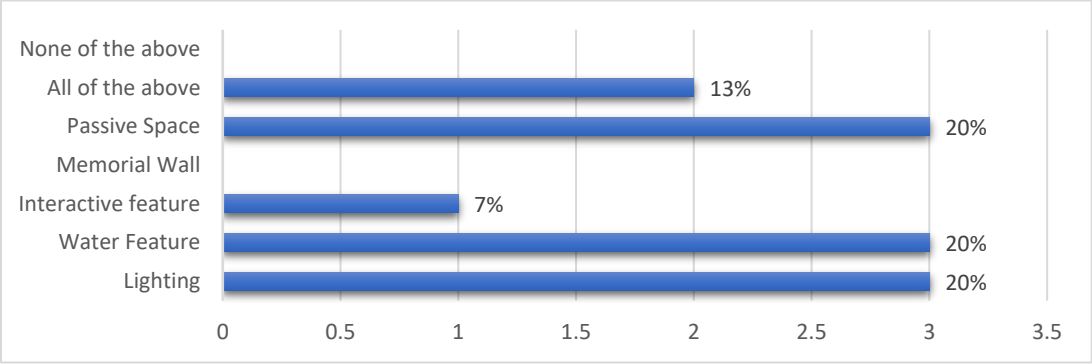
Other	• Food trucks • Pet friendly

4. **How would you describe the transformation along Main Street in a few words?**

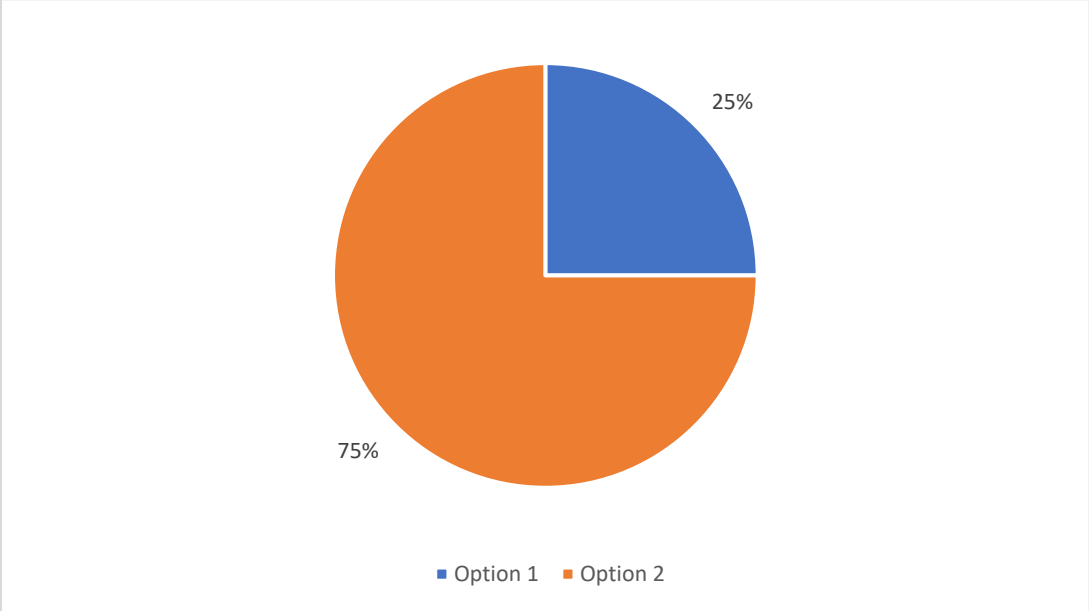
Positive	• Progressive • Useful • It will enhance the community • Long awaited
Negative	• Less parking options • Concerned about bike lanes

Santa Anita Mini Park

5. What features do you like about the mini-park option?



6. Which one of the mini-park options do you prefer?



VALLEY BLVD MAIN STREET

COMPLETE STREETS

Event Photos



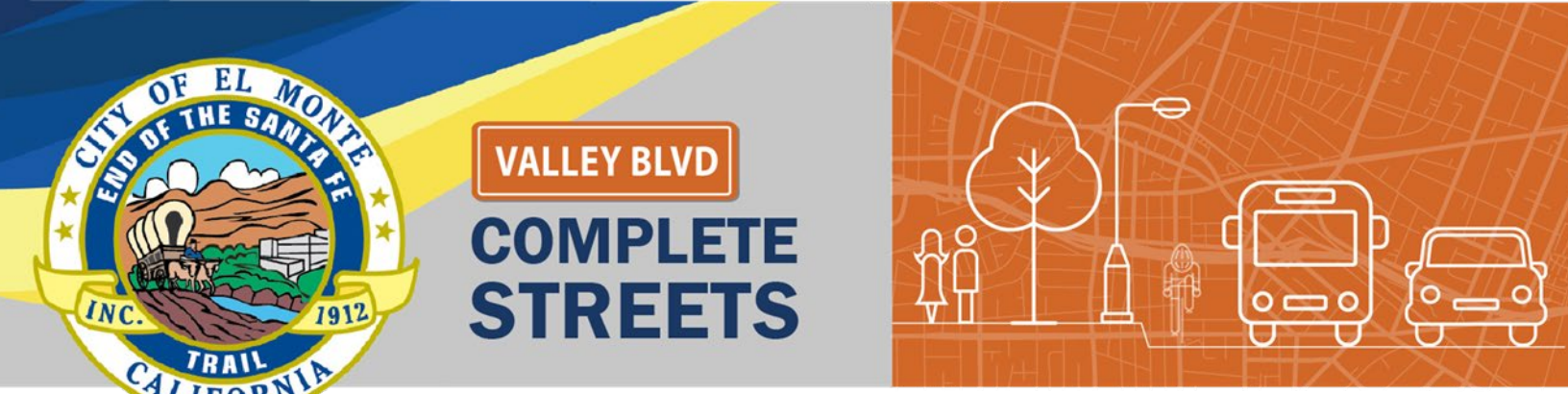






APPENDIX K

Business Workshop Summary



Valley Boulevard Complete Streets Feasibility Study
Valley Boulevard – Business Workshop
Summary Report
Norm's Restaurant
Tuesday, October 17, 2023
8:00 am – 9:30 am

Registration & Attendee Report

No.	Name	Organization	Registered (R)/Attended (A)
1	Lee Kwang	Leeco Transmission	(A)
2	Millie Martinez	Dr. Martinez Dentistry	(A)
3	Mike Ortega	IDOtech	(A)
4	Jose Torres	Jose's Modern Upholstery	(A)
5	Helen Leung	ArTech Building Plus	(A)
6	William Sidaros	LA Auto Wrecking	(A)

Breakout Group

Facilitators: Dawn Wilson & Marlena Perez

Topic	Key Themes
General Questions	During the event, several key topics were discussed: • Feasibility Study: It was mentioned that a feasibility study is required for the proposed changes. • Timelines: The proposed project is still a few years away from implementation, emphasizing the need for careful planning. • Time-Consuming: Participants acknowledged that this project may be time-consuming.
Concerns	Several concerns were raised during the event: • Speed Limit: Concerns were expressed regarding the existing speed limit and its impact on safety. • Parking: The issue of parking, particularly the potential removal of on-street parking, raised concerns. Businesses with limited parking may be adversely affected. • Parking Violations: Discussion on parking violations and enforcement issues were noted.



Topic	Key Themes
	• Safety Concerns: There were concerns about the safety of turning out of businesses, especially when visibility is limited.
Solutions	Participants proposed several solutions to address the concerns: • Changing Time Duration: It was suggested that the duration for parking be reduced from one hour to 20 minutes. • Pay-for-Parking: Consideration of a pay-for-parking system was put forth. • Exploring Parking Pockets: The idea of creating parking pockets aligned with businesses was discussed. • Vision for Bike Lanes: Some participants liked the dedicated bike lanes, so their vision would not be blocked while traveling along Valley Blvd. • Left Turns: There was a desire to modify the design to allow left turns at certain locations.
Feedback	• Feedback from participants included the following: • Parking Pockets: There was a request for more information on how parking pockets would be structured, a preference for assigned parking in these pockets, and the consideration of time limits. • Bike Lanes: Suggestions were made to enhance safety in bike lanes, including the addition of protective measures and modifications to speed limits and enforcement. • Modifying Left Turns: Participants expressed concerns about making full U-turns on Valley Blvd and the difficulty of making left turns out of La Madera. • Proposed Design: Specific feedback on the proposed design included the introduction of a left U-turn between Baseball Road and La Madera, emphasizing addressing the difficulty of left turns.

VALLEY BLVD

COMPLETE STREETS

Photos:





