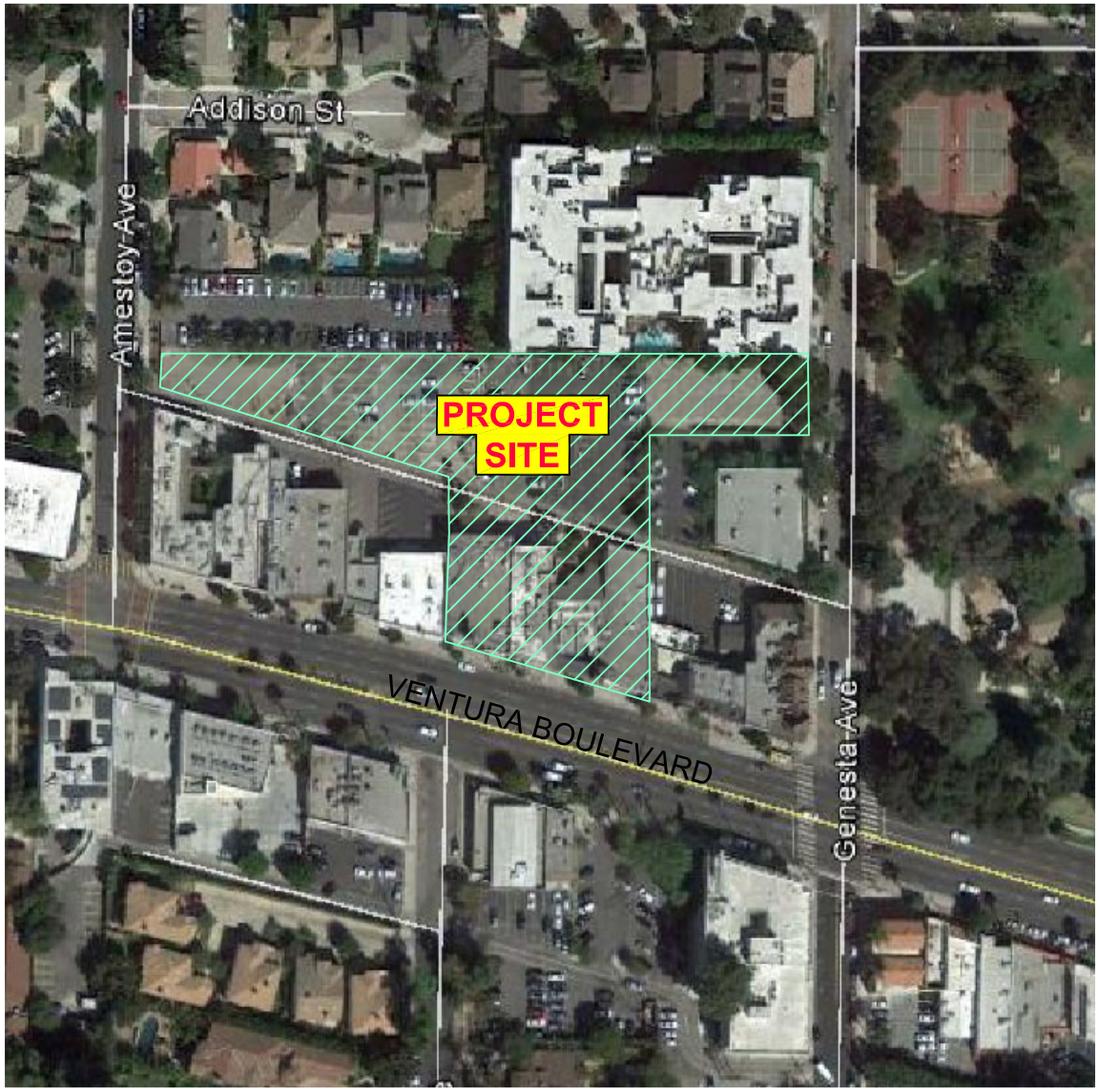
Overland Traffic Consultants, Inc.

TRANSPORTATION ASSESSMENT FOR A PROPOSED MIXED - USE DEVELOPMENT

Located at 17017 - 31 Ventura Boulevard, 4929 Genesta Avenue and 5018 Amestoy Avenue in the City of Los Angeles



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August 2020

TRANSPORTATION ASSESSMENT
FOR MIXED - USE (ELDERCARE AND MEDICAL OFFICE) PROJECT

Located at 17017-31 Ventura Boulevard, 4929 Genesta Avenue,
and 5018 Amestoy Avenue
in the Encino - Tarzana Community Plan Area
of the City of Los Angeles

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EXECUTIVE SUMMARY

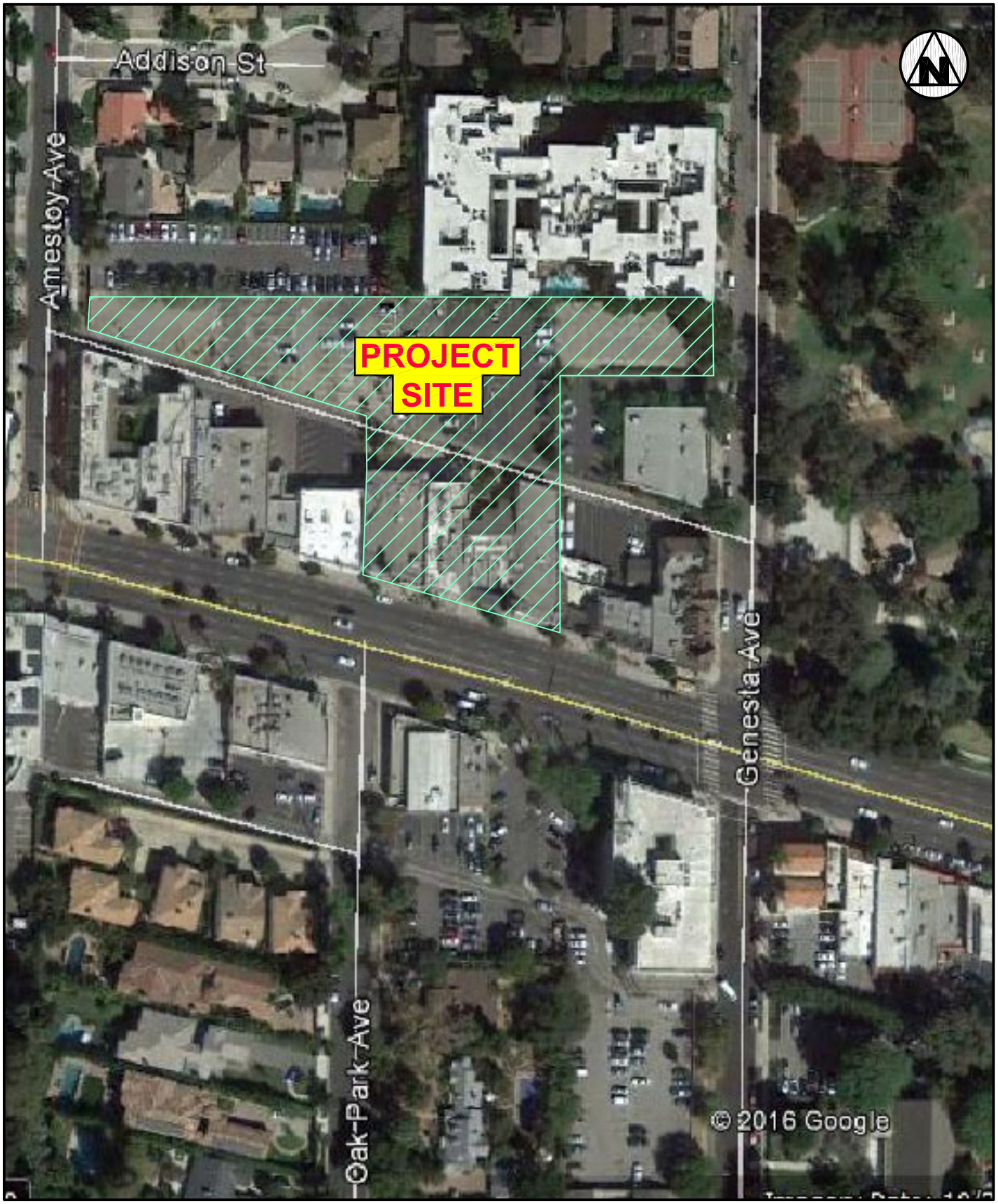
Introduction

Overland Traffic Consultants has prepared this assessment of the potential CEQA transportation impacts for a proposed mixed - use project located at 17017-31 Ventura Boulevard, 4929 Genesta Avenue, and 5018 Amestoy Avenue in the Encino - Tarzana Community Plan Area (Project Site), see the following aerial view for the project's location.

Background

The Los Angeles Department of Transportation (LADOT) previously reviewed and approved a mixed-use project for this location on June 27, 2019 (DOT Case No. VEN19-08327). The LADOT approval consisted of removing the existing commercial uses on Ventura Boulevard and constructing a 37,400 square foot health club, alley adjacent parking structure, and a 90-unit eldercare building on Genesta Avenue (Project). No significant traffic impacts were identified in the review of this Project (see LADOT approval letter Appendix A).

The purpose of this Transportation Assessment (TA) is to update the CEQA and non-CEQA transportation impacts / deficiencies associated with a modified Project that replaces the proposed health club use with a medical office use of approximately 55,416 square feet with no changes to the proposed eldercare facility and parking structure. The TAG establishes procedures and methods for Project review pursuant to the California Environmental Quality Act (CEQA) guidelines.



7/2020

PROJECT SETTING

Overland Traffic Consultants, Inc.
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Modified Project Description

The Modified Project will consist of a medical office building on the northside of Ventura Boulevard, an eldercare living facility on the westside of Genesta Avenue and a parking garage along the northside of the east-west alley, north of Ventura Boulevard between Genesta Avenue and Amestoy Avenue.

The first site (17017-31 Ventura Boulevard), which fronts the northside of Ventura Boulevard ("Commercial Site") will be developed with a commercial building occupied by a medical office use of approximately 55,416 square feet.

The second site (4929 Genesta Avenue), which is on the westside of Genesta Avenue, north of the proposed Commercial Site across the alley ("Eldercare Site"), will be remain as previously approved for an eldercare facility with assisted living and Alzheimer's/Dementia residents. The eldercare facility will contain 66 senior assisted living guest rooms and 24 Alzheimer's/Dementia guest rooms in a five-story building with approximately 80,225 square feet.

Project Parking and Access

Project parking will remain as previously proposed from the northside of the alley in a surface lot and in a garage with 3 subterranean parking levels. A total of 364 parking spaces will be provided (39 spaces for the eldercare and 325 spaces for the commercial use). Approximately 12 parking spaces are located on the surface lot with 352 spaces on 3 sublevels (105 spaces level B1, 123 spaces level B2 and 124 spaces level B3).

Vehicle access to the parking will be remain via the alley with two points of access. An additional passenger loading and drop off area will also be provided for the eldercare building from a driveway loop to/from Genesta Avenue.

A total of sixty-four (64) bicycle parking spaces are proposed with 36 long-term bicycle parking spaces and 28 short-term bicycle parking spaces.

Transportation Assessment CEQA and NON – CEQA Review

On July 30, 2019, the City of Los Angeles adopted vehicle miles traveled (VMT) as its criterion for determining transportation impacts under the State's California Environmental Quality Act (CEQA). These changes are mandated by requirements of the State of California Senate Bill 743 (SB 743) and the State's CEQA Guidelines.

The new CEQA guidelines for evaluating transportation impacts no longer focus on measuring automobile delay and level of service (LOS). Instead, SB 743 directed lead agencies to revise transportation assessment guidelines to include a transportation performance metric that promotes: the reduction of greenhouse gas emissions, the development of multimodal networks, and access to diverse land uses. By state law, VMT must be adopted by the local agencies by July 2020.

The updated LADOT TAG is the City document providing guidance for conducting both CEQA and non-CEQA transportation analyses for land development projects. The TAG identifies three CEQA thresholds for identifying significant transportation impacts in accordance with SB 743 that are applicable to the Project.

- Threshold T-1: Conflicting with Plans, Programs, Ordinances, or Policies
- Threshold T-2.1: Causing Substantial Vehicle Miles Traveled (VMT)
- Threshold T-3: Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use

The City's adopted process also requires additional non-CEQA analysis and review for land development projects. The purpose of this review is to evaluate how projects affect vehicular access, circulation, and safety for all users of the transportation system.

Initial Screening

The first step in evaluating whether conditions exist that might indicate an environmental impact, a project is reviewed through a series of screening criteria to determine whether further CEQA analysis is required to address the threshold

questions.

If the development project requires a discretionary action, and the answer is yes to any of the following threshold questions, further analysis will be required to assess whether the proposed Project would negatively affect the transportation system for all travel modes including pedestrian, bicycle, or transit facilities

1. Does the Project involve a discretionary action that would be under review by the Department of Planning?

Yes, Project is requesting a Vesting Zone Change, Unified Permit for Eldercare Facility, Site Plan Review, Project Compliance Review for the Specific Plan, waiver of dedication along Amestoy Avenue, and Specific Plan Exceptions.

2. Would the Project generate a net increase of 250 or more daily vehicle trips?

Yes, using the LADOT VMT calculator (version 1.3) for screening purposes, the Project will generate an increase of 1,359 more daily vehicle trips (1,948 Project trips minus 589 existing trips) without any Transportation Demand Management (TDM) strategies. TDM strategies are not considered in the screening criteria.

3. Is the Project proposing to, or required to, make any voluntary or required, modifications to the public right-of-way (i.e., street dedications, reconfigurations of curb lines, etc.)?

Yes, according to the Mobility Element Street standards for Amestoy Avenue, a 3 - foot dedication and 1 - 2-foot widening would be necessary along the project frontage to satisfy the Collector street standards. No other street dedications or improvements are required by the Project to serve long-term mobility needs identified in the Mobility Plan 2035.

4. Is the Project's frontage along a street classified as an Avenue, Boulevard or Collector (as designated in the City's General Plan) 250 linear feet or more, or is the Project's frontage encompassing an entire block along an Avenue or Boulevard (as designated in the City's General Plan)?

Yes, the portion of Ventura Boulevard adjacent to the Project Site is designated a Boulevard II roadway. The Project's Ventura Boulevard frontage is approximately 186.63 feet in length.

5. Would the Project generate a net increase in daily VMT?

Yes, using the LADOT VMT calculator, the Project would generate 10,234 daily VMT (14,712 Project VMT minus 4,478 existing VMT). TDM strategies are not considered in the screening criteria. Appendix H contains the VMT reports.

6. Would the Project located within a one-half mile of a fixed-rail or fixed-guideway transit station replace an existing number of residential units with a smaller number of residential units?

No, the location of the Project is not within a half mile of any rail or guideway station. Furthermore, the Project will not replace residential units with a smaller number of residential units, in fact, the Project will add 90 elderly care guest rooms.

7. Is the project proposing new driveways, or introducing new vehicle access to the property from the public right-of-way?

Yes, the project is proposing to remove 1 driveway on Genesta Avenue and install 1 driveway on Genesta Avenue.

8. Does the land use project include the construction, 50 dwelling units or guest rooms or combination thereof or 50,0000 square feet of non-residential space?

Yes, the Project includes the construction of an eldercare building with 90 eldercare guest rooms and approximately 55,416 square feet of medical office. The eldercare facility will contain 66 senior assisted living guest rooms and 24 Alzheimer's/Dementia guest rooms. The Project will remove 25,000 square feet of commercial uses on Ventura Boulevard

TAG also provides screening criteria for consistency in accordance with CEQA Section 15064.3 subdivision (b)(2) on VMT impacts from Transportation Projects. The screening criteria for Transportation Projects is determined from the following question below.

Criteria for Transportation Projects - Would the Transportation Project include the addition of through traffic lanes on existing or new highways, including general purpose lanes, high-occupancy vehicle (HOV) lanes, peak period lanes, auxiliary lanes, and lanes through grade-separated interchanges (except managed lanes, transit lanes, and auxiliary lanes of less than one mile in length designed to improve roadway safety)?

This analysis for Transportation Projects is not applicable to land development projects and the Project is not a transportation project because the Project is a land development project, therefore, the transportation project analysis is not part of the Project's CEQA review.

Based on the above Screening Criteria for land development projects, further analysis is required to assess whether the Project would negatively affect the transportation system. Screening criteria presented in the TAG document specific to each area of analysis is contained in Appendix B.

TDM Program

Specifically, the Project's TDM program includes education and encouragement programs, ride-shared programs and bike parking strategies which are all part of the Project's design features. These strategies as described by LADOT'S TAG are listed below:

- EDUCATION & ENCOURAGEMENT – Provide Promotions and Marketing - This strategy involves the use of marketing and promotional tools to educate and inform travelers about site-specific transportation options and the effects of their travel choices. This strategy includes passive educational and promotional materials, such as posters, info boards, or a website with information that a traveler could choose to read at their own leisure.

- COMMUTE TRIP REDUCTION STRATEGY – Ride-Share Program - This strategy increases vehicle occupancy by providing ride-share matching services, designating preferred parking for ride-share participants, designing adequate passenger loading/unloading and waiting areas for ride-share vehicles, and providing a website or message board to connect riders and coordinate rides.
- BICYCLE INFRASTRUCTURE – Include Bike Parking per LAMC - This strategy involves implementation of short and long-term bicycle parking to support safe and comfortable bicycle travel by providing parking facilities at destinations under existing LAMC regulations applicable to the Project (LAMC Section 12.21.A.16). The Project provides bicycle parking consistent with LAMC Section 12.21.A.16 - The Project will provide the required 36 long-term bicycle parking spaces and 28 short-term bicycle parking spaces for a total of 64 bike parking spaces.

The effectiveness of each of the TDM strategies included in the VMT Calculator is based primarily on research documented in the 2010 California Air Pollution Control Officers Association (CAPCOA) publication, Quantifying Greenhouse Gas Mitigation Measures (CAPCOA, 2010).

Furthermore, potential conflicts with other proposed projects have been reviewed to assess cumulative impacts that may result from the proposed Project in combination with other development projects. No cumulative development project impacts have been identified that would preclude the City's ability to provide transportation mobility in the area.

Findings

Based on the following review discussed in Chapters 2 and 3, no unmitigated significant CEQA impacts or significant circulation, access, and safety deficiencies (non-CEQA) were identified for the Project. The Project's VMT reduction measures include TDM measures that reduce vehicle trips and VMT through TDM strategies selected in the VMT calculator.

Furthermore, potential conflicts with other proposed land development projects have been reviewed to assess cumulative impacts that may result from the proposed Project in combination with other development projects in the study area. No cumulative development project impacts have been identified that would preclude the City's ability to provide transportation mobility in the area.

TABLE OF CONTENTS

Chapter 1 - Project Description 1
Chapter 2 - CEQA Transportation Assessment 4
Conflicting with Plans, Programs, Ordinances, or Policies 4
Cumulative Consistency Check 7
Causing Substantial Vehicle Miles Traveled (VMT) 7
TDM Program 9
Cumulative VMT Consistency Check 10
Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use 11
Chapter 3 – Non-CEQA Transportation Assessment 12
Environmental Setting 12
Land Use 12
Transportation Facilities 13
Transit Information 16
Complete Streets Mobility Networks 17
Project Traffic Generation 20
Pedestrian, Bicycle and Transit Access Assessment 22
Removal or Degradation of Facilities 22
Project Intensification of Use 23
High Injury Network 23
Project Access, Safety and Circulation Evaluation 24
Operational Evaluation 24
Analysis of Existing and Future Traffic Conditions 25
Safety Evaluation 28
Passenger Loading Evaluation 28
Construction Overview 29
Residential Street Cut-Through Analysis 30
Interim Guidance for Freeway Safety Analysis 32

Appendices

Appendix A – LADOT Traffic Assessment Approval (June 27, 2019)
Appendix B – Screening Criteria
Appendix C – Plans, Programs, Ordinances and Policies
Appendix D – Community Plan Land Use Map
Appendix E – Street Standards, Circulation & High Injury Network Maps
Appendix F – Transit Routes
Appendix G – Mobility Network and Walkability Index Maps
Appendix H – VMT Report
Appendix I – Related Project Information
Appendix J – Traffic Volume Data, Figures and Level of Service Worksheets

LIST OF FIGURES

Figure 1 Project Location 2
Figure 2 Project Site Plan 3

The following figures are provided in Appendix J.

Figure 3 Study Intersection Lane Configuration and Traffic Control .....
Figure 4 Project Distribution Percentages .....
Figure 5 Project Assignment Percentages .....
Figure 6 Project Peak Hour Trip Assignment .....
Figure 7 Existing (2020) AM Traffic Volume .....
Figure 8 Existing (2020) PM Traffic Volume .....
Figure 9 Existing + Project AM Traffic Volume .....
Figure 10 Existing + Project AM Traffic Volume .....
Figure 11 Related Project Information .....
Figure 12 Future (2024) Without Project AM Traffic Volume .....
Figure 13 Future (2024) Without Project PM Traffic Volume .....
Figure 14 Future (2024) With Project AM Traffic Volume .....
Figure 15 Future (2024) With Project PM Traffic Volume .....

LIST OF TABLES

Table 1 Consistency Check with Plans, Programs, Ordinances or Policies..... 5 - 6

Table 2 Project Trip Generation Rates 21

Table 3 Estimated Project Traffic Generation 21

Table 4 Level of Service Definitions..... 25

Table 5 Existing Traffic Conditions - Without and With Project..... 26

Table 6 Future Traffic Conditions - Without and With Project 27

Table 7 Significant Residential Street Impact Thresholds..... 31

Table 8 Neighborhood Traffic Impact Analysis 32

CHAPTER 1 PROJECT DESCRIPTION

The Project consists of a medical office building on Ventura Boulevard, an eldercare living facility on Genesta Avenue and a parking garage along the northside of the east-west alley north of Ventura Boulevard, between Genesta Avenue and Amestoy Avenue (Project Site), as shown in Figure 1.

The first site (17017-31 Ventura Boulevard), which fronts the northside of Ventura Boulevard ("Commercial Site") will be developed with a commercial building occupied by a medical office building of approximately 55,416 square feet.

The second site (4929 Genesta Avenue), which is to the north of the proposed Commercial Site across the alley ("Eldercare Site"), will be remain as proposed for eldercare assisted living and Alzheimer's/Dementia residents. The eldercare facility will contain 66 senior assisted living guest rooms and 24 Alzheimer's/Dementia guest rooms in a five-story building with approximately 80,225 square feet.

Project Parking and Access

Parking - Project parking will remain as proposed north of the alley in a surface lot and 3 subterranean parking levels garage. A total of 364 parking spaces will be provided (39 spaces for the eldercare and 325 spaces for the commercial use. Approximately 12 parking spaces are located on the surface lot with 352 spaces on 3 sublevels (105 spaces level B1, 123 spaces level B2 and 124 spaces level B3).

Bike Parking - A total of sixty-four (64) bicycle parking spaces are proposed with 36 long-term bicycle parking spaces and 28 short-term bicycle parking spaces.

Access - Vehicle access to the parking will be remain via the alley with two points of access. An additional passenger loading and drop off area will also be provided for the eldercare building from a driveway loop to/from Genesta Avenue.

Figure 2 illustrates the Project Site plan.

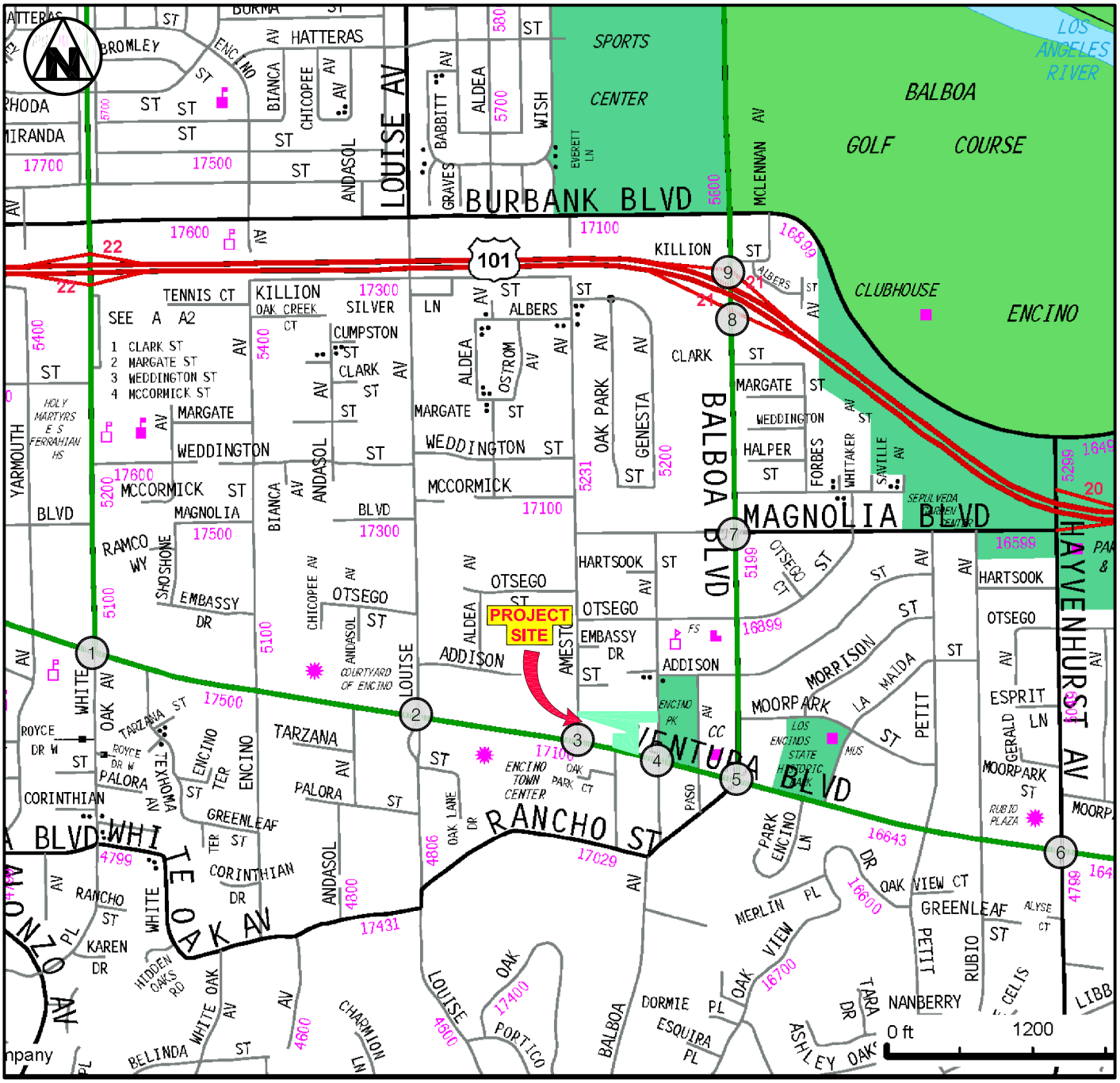

FIGURE 1

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PROJECT LOCATION AND STUDY INTERSECTIONS

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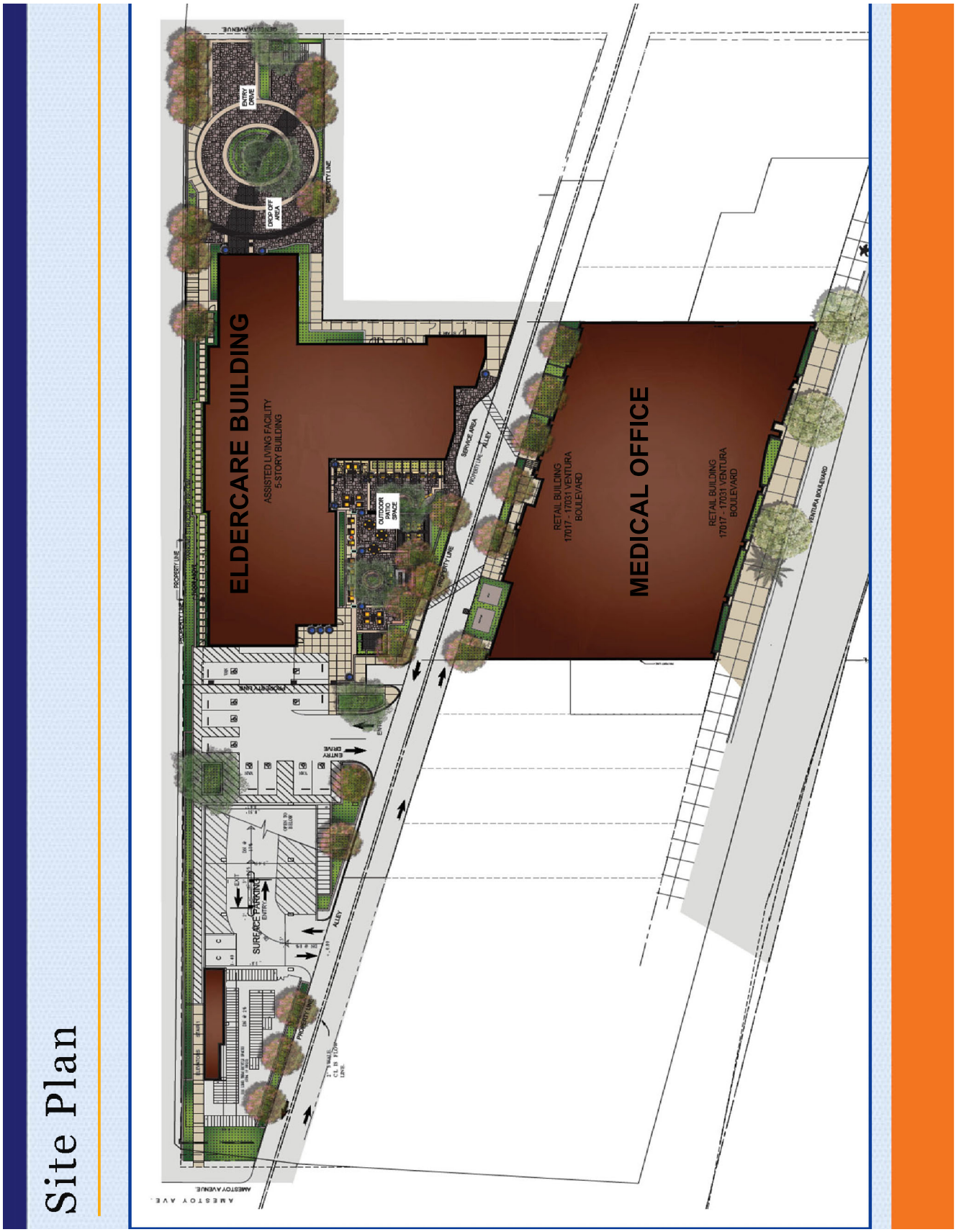

FIGURE 2

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CONCEPTUAL PROJECT SITE PLAN

Overland Traffic Consultants, Inc.
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The scope for this study was reviewed and approved by LADOT in accordance with the City CEQA requirements as contained in the LADOT TAG, adopted in July 2020.

The TAG is the City document that establishes procedures and methods for conducting CEQA transportation analyses for land development projects. The TAG identifies three CEQA thresholds for identifying significant transportation impacts in accordance with SB 743 that are applicable to the Project.

- Threshold T-1: Conflicting with Plans, Programs, Ordinances, or Policies
- Threshold T-2.1: Causing Substantial Vehicle Miles Traveled (VMT)
- Threshold T-3: Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use

I. Conflicts with Plans, Programs, Ordinances or Policies (Threshold T-1)

To guide the City's Mobility Plan 2035 (Transportation Element of the General Plan), the City adopted programs, plans, ordinances, and policies that establish the transportation planning framework for all travel modes, including vehicular, transit, bicycle, and pedestrian facilities. Land development projects shall be evaluated for conformance with these City adopted transportation plans, programs, and policies.

Per the TAG guidelines, a project would not be shown to result in an impact merely based on whether a project would not implement a program, policy, or plan. Rather, it is the intention of this threshold test to ensure that proposed development does not conflict with nor preclude the City from implementing adopted programs, plans, and policies.

The TAG provides a list of key City plans, policies, programs, and ordinances for consistency review, see Table 1. Projects that generally conform with and do not conflict with the City's development policies and standards addressing the circulation system, will generally be considered consistent.

Table 1
Consistency Check with Key City Plans, Programs, Ordinances or Policies

TAG Table 2.1-1: City Documents that Establish the Regulatory Framework				
	Plan or Policy	Consistent?	Notes	Preclude City Implementation?
1.	LA Mobility Plan 2035	Yes	The Project complies with the Mobility Plan 2035 street standard for Ventura Boulevard, a Boulevard II roadway. No other Boulevard or Avenue street dedications or improvements are required by the Project to serve long-term mobility needs identified in the Mobility Plan 2035.	No
2.	Plan for Healthy LA	Yes	The Project would support Policy 5.7, Land Use Planning for Public Health and Greenhouse Gas (GHG) Emission Reduction, by reducing single-occupant vehicle trips by its proximity to transit service. The Project would include both electric charging stations and pre-wiring spaces for potential future electric vehicle charging (Ord. 186485). The Project would not conflict with other policies in the Plan for Healthy LA.	No
3.	Land Use Element of the General Plan (35 Community Plans)	Yes	The Project is in the Encino-Tarzana Community Plan area. The Project would be in substantial conformance with the purposes, intent, and provisions of the General Plan, and the Community Plan.	No
4.	Specific Plans	No	The Project is in the Ventura - Cahuenga Boulevard Corridor Specific Plan area and applied for several entitlement requests: LAMC Section 14.3.1 and Eldercare Facility Unified Permit, LAMC Section 11.5.7.C a Project Permit Compliance Review, and LAMC Section 11.5.7.F a Specific Plan Exception as part of the Project application.	No
5.	LAMC Section 12.21A.16 (Bicycle Parking)	Yes	The Project complies with the ratio of short- and long-term bicycle parking pursuant to LAMC Section 12.21. A.16.	No
6.	LAMC Section 12.26J (TDM Ordinance)	Yes	LAMC Section 12.26J for Transportation Demand Management and Trip Reduction Measures applies only to the construction of new non-residential floor area greater than 25,000 s.f. The Project provides approximately 55,416 s.f. of commercial floor area and will comply with the TDM ordinance.	No

	Plan or Policy	Consistent?	Notes	Preclude City Implementation?
7.	LAMC Section 12.37 (Waivers of Dedications and Improvement)	No	According to the Mobility Element Street standards for Amestoy Avenue, a 3 - foot dedication and1 - 2-foot widening would be necessary along the project frontage to satisfy the Collector street standards. The Project is seeking a waiver of the dedication and widening for Amestoy Avenue.	No
8.	Vision Zero Action Plan	Yes	No new driveways are proposed along Ventura Boulevard. The Project would not preclude or conflict with the implementation of future Vision Zero projects in the public right-of-way.	No
9.	Vision Zero Corridor Plan	Yes	The Project would not preclude or conflict with the implementation of future Vision Zero projects in the public right-of-way	No
10.	Citywide Design guidelines	Yes		No
	Guideline 1: Promote a safe, comfortable, and accessible pedestrian experience for all	Yes	The Project will create a continuous and straight sidewalk clear of obstructions for pedestrian travel. The Project will provide adequate sidewalk width and right-of-way that accommodates pedestrian flow and activity. The Project would activate pedestrian activity and promote the safety of pedestrians with the location of ground level commercial uses. Pedestrian access will be provided at street level with direct access to the surrounding neighborhood and amenities.	No
	Guideline 2: Carefully incorporate vehicular access such that it does not degrade the pedestrian experience.	Yes	The Project complies with the Citywide Design Guidelines incorporating vehicle access locations that do not discourage and/or inhibit the pedestrian experience. Vehicular access and parking are located on the alley away from the public street right-of-way. The Project vehicular access complies with driveway location standards by locating access on the adjacent alley. No vehicular access is provided on Ventura Boulevard.	No
	Guideline 3: Design projects to actively engage with streets and public space and maintain human scale.	Yes	The building design uses attractive architectural elements that promotes neighborhood pride and reduces the perceived mass. The Project would not preclude or conflict with the implementation of future streetscape projects in the public right-of-way.	No

As summarized above in Table 1, the Project would not conflict with these key City planning documents, and potential impacts would be less than significant. The TAG also provides a list of questions to guide the Project's consistency review. These questions and answers relative to the Project are provided in Appendix C

Cumulative Consistency Check

Pursuant to the TAG, each of the plans, programs, ordinances, and policies to assess potential conflicts with proposed projects should be reviewed to assess cumulative impacts that may result from the Project in combination with other nearby development projects.

A cumulative impact could occur if the Project, with other future development projects located on the same block were to cumulatively preclude the City's ability to serve transportation user needs as defined by the City's transportation policy framework.

No cumulative impact has been identified with this project that would preclude the City's implementation of any transportation related policies, programs, or standards.

Therefore, the Project does not have a significant transportation impact under CEQA Threshold T-1 (Conflicting with Plans, Programs, Ordinances, or Policies).

II. Causing Substantial Vehicle Miles Traveled (Threshold T - 2.1)

The intent of this threshold question is to assess whether a land development project causes a substantial VMT impact. CEQA Guidelines Section 15064.3(b) relates to use of VMT as the methodology for analyzing transportation impacts.

The commercial portion of the Project is on Ventura Boulevard which is identified on the Transit Enhanced Network. The Project has a Walk Score of 83 out of 100 where most errands can be accomplished on foot.

To address this question, LADOT's TAG identified significant VMT impact thresholds for each of seven Area Planning Commission (APC) sub-areas in the City. A project's VMT is compared against the City's APC threshold goals for household VMT per capita and work VMT per employee to evaluate the significance of the project's VMT.

A development project will have a potential impact if the development project would generate VMT exceeding 15% below the existing average VMT for the Area Planning Commission (APC) area in which the project is located per TAG Table 2.2-1.

The Project is in the South Valley APC sub - area which limits daily household VMT per capita to a threshold value of 9.4 and a daily work VMT per employee threshold value of 11.6 (15% below the existing VMT for the South Valley APC).

Results of the Project's VMT calculation provides an estimate based on the Project's land uses, size and TDM program strategies that are included as Project design features. Project's household VMT per capita was estimated to be 4.6. The Project's work VMT per employee was estimated to be 7.3. Both below the South Valley APC VMT thresholds.

Thus, the Project does not have a significant impact on household VMT or work VMT in the South Valley APC under CEQA Threshold T-2.1 (Causing Substantial Vehicle Miles Traveled).

The Project's VMT analysis is provided in Appendix H.

TDM Program

The Project includes TDM measures that reduce trips and VMT through TDM strategies included in the VMT analysis for the Project. These TDM project features as described by LADOT'S TAG are listed below:

- EDUCATION & ENCOURAGEMENT – Provide Promotions and Marketing - This strategy involves the use of marketing and promotional tools to educate and inform travelers about site-specific transportation options and the effects of their travel choices. This strategy includes passive educational and promotional materials, such as posters, info boards, or a website with information that a traveler could choose to read at their own leisure.
- COMMUTE TRIP REDUCTION STRATEGY – Ride-Share Program - This strategy increases vehicle occupancy by providing ride-share matching services, designating preferred parking for ride-share participants, designing adequate passenger loading/unloading and waiting areas for ride-share vehicles, and providing a website or message board to connect riders and coordinate rides.
- BICYCLE INFRASTRUCTURE – Include Bike Parking per LAMC - This strategy involves implementation of short and long-term bicycle parking to support safe and comfortable bicycle travel by providing parking facilities at destinations under existing LAMC regulations applicable to the Project (LAMC Section 12.21.A.16). The Project provides bicycle parking consistent with LAMC Section 12.21.A.16 - The Project will provide the required 36 long-term bicycle parking spaces and 28 short-term bicycle parking spaces for a total of 64 bike parking spaces.

The effectiveness of each of the TDM strategies included in the VMT Calculator is based primarily on research documented in the 2010 California Air Pollution Control Officers Association (CAPCOA) publication, Quantifying Greenhouse Gas Mitigation Measures (CAPCOA, 2010).

Cumulative VMT Consistency Check

Cumulative VMT impacts are evaluated through a consistency check with the Southern California Association of Governments' (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (2016-2040 RTP/SCS) plan. The RTP/SCS is the regional plan that demonstrates compliance with air quality conformity requirements and greenhouse gas (GHG) reduction targets.

Per the City's TAG, projects that are consistent with the RTP/SCS plan in terms of development location and density are part of the regional solution for meeting air pollution and GHG goals. Projects that have less than a significant VMT impact are deemed to be consistent with the SCAG's 2016-2040 RTP/SCS and would have a less-than-significant cumulative impact on VMT.

Per the City's TAG, projects that are consistent with the RTP/SCS plan in terms of development location and density are part of the regional solution for meeting air pollution and GHG goals. Projects that have less than a significant VMT impact are deemed to be consistent with the SCAG's 2016-2040 RTP/SCS and would have a less-than-significant cumulative impact on VMT.

As shown, the Project VMT impact would not exceed the City's South Valley APC VMT impact thresholds and as such, the Project's contribution to the cumulative VMT impact is adequate to demonstrate there is no cumulative VMT impact.

III. Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use (Threshold T- 3.1)

Impacts regarding the potential increase of hazards due to a geometric design feature generally relate to the design of access points to and from the project site, and may include safety, operational, or capacity impacts. Impacts can be related to vehicle conflicts as well as to operational delays caused by vehicles slowing and/or queuing to access a project site.

No deficiencies are apparent in the site access plans which would be considered significant. This determination considers the following factors:

1. Vehicle access to the parking will be via the alley with two points of access. An additional passenger loading and drop off area will also be provided for the elder care building from a driveway loop to/from Genesta Avenue. Access to the Project parking will be provided from the adjacent alley, thereby improving street movement of vehicles, pedestrians, and future bike lanes. Vehicular alley access does not present any safety issues regarding potential conflicts with pedestrians and vehicles in the alley.
2. No new driveways will be introduced on Ventura Boulevard, a Boulevard II roadway and designated as part of the High Injury Network System.
3. The adjacent east - west alley is currently 20 feet in width. No dedication would be needed along the project alley frontage.
4. The Project's alley access is consistent with LADOT driveway placement and location per LADOT Manual of Policies and Procedures, Section 321, Driveway Design.

A review of the Project Site plans does not present any hazardous geometric design features. Therefore, the Project does not have a significant transportation impact under CEQA Threshold T-3.1 (Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use).

CHAPTER 3 NON-CEQA TRANSPORTATION ASSESSMENT

In addition to conducting a CEQA review of development projects pursuant to SB743, LAMC Section 16.05 (Site Plan Review) authorizes a non-CEQA transportation analysis of development projects to identify deficiencies that may have an adverse effect of the environment. LADOT retains the ability to impose development conditions to improve operational safety and access around a project site and to better assess how proposed projects may affect the City's transportation system under the non-CEQA assessment.

Pursuant to the TAG, a delay-based analysis has been used to evaluate if the Project would contribute to potential circulation and access deficiencies that require specific operational improvements to the circulation system.

To assist in the non-CEQA evaluation, the following information provides the environmental conditions in which the Project is located.

ENVIRONMENTAL SETTING

Land Use

The project site is in the Encino – Tarzana Community Plan area located approximately 16 miles northwest of downtown Los Angeles. This community plan is generally bounded by Corbin Avenue on the west, Victory Boulevard on the north, Mulholland Drive on the south, and the San Diego Freeway on the east. The Project is also located in the Ventura - Cahuenga Boulevard Corridor Specific Plan area.

The Community Plan area contains 13,023 acres consisting of 6,931 acres (53.2 %) of residential use, 420 acres (3.3 %) of multi - family use, 339 acres (2.6 %) of commercial use, 27 acres (0.2 %) of industrial use, 3,728 acres (28.6 %) of open space/public facilities and 1,578 acres (12.1 %) for streets. Appendix D contains the Encino - Tarzana community land use map and summary table.

Transportation Facilities

The City of Los Angeles has adopted the Mobility Plan 2035 as an update to the City's General Plan Transportation Element to incorporate the complete streets principles for integrating multi - mode transportation networks. The Mobility Plan 2035 dictates the street standards and designations for all users.

Pursuant to the City of Los Angeles Mobility Element, arterial roadways are designated Boulevards and Avenues. Boulevards represent the City's widest streets that typically provide regional access to major destinations; the roadway standard for a Boulevard II roadway is a right - of - way width of 110 feet and a roadway width of 80 feet. Avenues may vary in their land use context, with some streets passing through both residential and commercial areas; the roadway standard for an Avenue II roadway is a right - of - way width of 86 feet and a roadway width of 56 feet.

Non - arterial roadways connect arterial roadways to local residential neighborhoods or industrial areas. Non - arterial roadways are designated collector or local streets. The standard for a collector street is a right - of - way width of 66 feet and a roadway width of 40 feet; and the standard for a local street is a right - of - way width of 60 feet and a roadway width of 36 feet.

Regional access to project area is provided by the Ventura Freeway (US-101) and the San Diego Freeway (I-405). The Ventura Freeway is regionally a north - south freeway but operates in the east - west direction in the San Fernando Valley. The Ventura Freeway is approximately 3/4 mile north of the Project Site and accessible from on / off ramps at Balboa Boulevard and at White Oak Avenue, a westbound off ramp and eastbound on ramp at Hayvenhurst Avenue also provide 101 Freeway access.

The north - south San Diego Freeway is located approximately 2 miles east of the Project. The San Diego Freeway is accessible via a southbound on - ramp at Ventura Boulevard, a northbound on and off ramp on Sepulveda Boulevard south of Ventura Boulevard at Greenleaf Street.

The Ventura Freeway carries approximately 309,000 vehicles per day (VPD) with 27,000 vehicles per hour (VPH) at Balboa Boulevard. The San Diego Freeway carries approximately 294,000 VPD with 18,300 VPH near the junction with the Ventura Freeway. Freeway traffic volumes are provided by Caltrans in the 2017 Traffic Volumes Book. Both freeways are congested during the morning and afternoon commute hours.

Major roadways in the San Fernando Valley generally follow a grid pattern. Key east - west streets providing access to the project area include Ventura Boulevard and Burbank Boulevard. Key north - south streets serving the study area include Balboa Boulevard, White Oak Avenue and Hayvenhurst Avenue.

Ventura Boulevard is an east - west roadway designated a Boulevard II, Scenic Highway, part of the Pedestrian Enhanced Network, Bike Enhanced Network (Tier 3), and Transit Enhanced Street (Moderate Plus Transit) in the Mobility Plan 2035. Ventura Boulevard is also identified on the High Injury Network. Adjacent to the Project Site, three (3) traffic lanes in each direction are provided. On Ventura Boulevard in the Encino / Tarzana area, the curb parking lane provides 2-hour metered parking with parking prohibited between 6 am to 9 am and from 3:30 pm to 7 pm for peak hour lanes.

Genesta Avenue is a north - south 2 - lane residential Local Street. North of Ventura Boulevard, Genesta Avenue extends to Magnolia Boulevard. South of Ventura Boulevard, Genesta Avenue extends to Balboa Avenue. A traffic signal controls traffic at its intersection with Ventura Boulevard.

Traffic volume on Genesta Avenue, north of Ventura Boulevard and south of Addison Street, was recently measured at 1,777 vehicles per day with 799 southbound and 978 northbound. Morning peak hour volume was 68 vehicles per hour (VPH) southbound with 98 VPH northbound. Afternoon peak hour volume was measured at 78 VPH southbound with 96 VPH northbound (traffic volume data is provided in Appendix J).

Amestoy Avenue is a north - south roadway designated a Collector Street. North of Ventura Boulevard, Amestoy Avenue extends to the 101 Freeway where it terminates

and turns west to Killion Street. Amestoy Street provides one lane in each direction with neighborhood speed tables north of Otsego Avenue. A traffic signal controls traffic at its intersection with Ventura Boulevard.

Traffic volume on Amestoy Avenue south of Addison Street was recently measured at 3,132 vehicles per day with 1,269 southbound and 1,863 northbound. Morning peak hour volume was 111 vehicles per hour (VPH) southbound with 286 VPH northbound. Afternoon peak hour volume was measured at 105 VPH southbound with 122 VPH northbound.

Louise Avenue is a north - south roadway designated a Collector Street. Louise Avenue provides one lane in each direction with neighborhood speed tables north of Ventura Boulevard. A traffic signal controls traffic at its intersection with Ventura Boulevard.

White Oak Avenue is a north - south Boulevard II roadway north of Ventura Boulevard and a Collector Street south of Ventura Boulevard. White Oak Avenue provides two lanes in each direction, median left turn land, bike lanes and on – street parking north of Ventura Boulevard. South of Ventura Boulevard one lane in each direction is provided. A traffic signal controls traffic at its intersection with Ventura Boulevard.

Balboa Boulevard is a north - south roadway designated a Boulevard II street north of Ventura Boulevard, and included in the Vehicle Enhanced Network and Bike Network. South of Ventura Boulevard, the roadway changes to Balboa Avenue and is designated a Collector Street. Two lanes in each direction are provided north of Ventura Boulevard with one lane in each direction south of Ventura Boulevard. A full ramp interchange for eastbound and westbound 101 Freeway is provided on Balboa Boulevard.

Hayvenhurst Avenue is a north - south roadway east of the project site. Hayvenhurst Avenue is designated an Avenue I north of Ventura Boulevard and an Avenue III south of Ventura Boulevard. In the study area, Hayvenhurst Avenue extends

from Burbank Boulevard to south of Calneva Drive. Two lanes in each direction are provided north of Ventura Boulevard with eastbound 101 Freeway on - ramp access and westbound 101 Freeway off - ramp access. One lane in each direction is provided south of Ventura Boulevard. Hayvenhurst Avenue is listed as part of the Mobility Plan 2035 Neighborhood Enhanced Network.

Figure 3, in Appendix J, illustrates the study locations, type of intersection traffic control and lane configurations for the project traffic analysis.

Transit Information

Public transportation in the study area is provided by the Metropolitan Transportation Authority (Metro) and the City of Los Angeles Commuter Express.

The Metro Orange Line is a bus rapid transit line in the Metro Busway network. It operates between Chatsworth and the North Hollywood Metro Station in the San Fernando Valley where it connects with the Metro Red Line on the Metro Rail system for Downtown Los Angeles. There is a stop at Balboa Boulevard and Victory Boulevard approximately 2 miles to the northeast of the Project Site. Another station is located at Reseda Boulevard and Oxnard Street.

Ventura Boulevard is identified as a Moderate Plus Transit Enhanced Street in the Mobility Plan 2035, a network of streets prioritized for transit. Along Ventura Boulevard, Metro operates a local line 150/240 and Rapid Lines 744 & 750. LADOT Commuter Express service operates line CE549.

The transit service maps briefly described below are illustrated in Appendix F.

Metro Local Transit

- Metro Local Line 150/240 (24 - hour Owl bus line) provides service eastbound to Studio City and westbound to Canoga Park along Ventura Boulevard and Reseda Boulevard. There is a stop at Ventura Boulevard and Amestoy Avenue near the Project Site and at Ventura Boulevard and Balboa Boulevard east of the Project Site.

- Metro Local Line 236 provides service from the Sylmar Metrolink Station to Encino on Glenoaks Boulevard, Foothill Boulevard and Balboa Boulevard. There is a stop at Ventura Boulevard and Balboa Boulevard east of the project site.

Metro Rapid Transit

- Metro Rapid Line 744 provides minimum stops for faster service operations between Northridge, Encino, Sherman Oaks and Pacoima along Reseda Boulevard, Ventura Boulevard and Van Nuys Boulevard. There are stops at Ventura Boulevard at its intersection with White Oak Avenue and at Balboa Boulevard.
- Metro Rapid Line 750 provides minimum stop services for faster operations between Universal City and Warner Center along Topanga Canyon Boulevard and Ventura Boulevard. There are stops at Ventura Boulevard at its intersection with White Oak Avenue and at Balboa Boulevard.

Commuter Express Transit

- LADOT Commuter Express Line 549 operates along Ventura Boulevard in the study area with service between the San Fernando Valley, Burbank Media District, Glendale, and Pasadena. There is a stop at Ventura Boulevard and Hayvenhurst Avenue.
- LADOT Commuter Express Line 573 operates along Balboa Boulevard in the study area with service between Mission Hills in the San Fernando Valley, Westwood, and Century City in West LA. There is a stop at the Encino Park and Ride located at Magnolia Boulevard and Hayvenhurst Avenue.

Complete Streets Mobility Networks (Vehicle, Bicycle, Transit and Neighborhood)

The Mobility Plan Element establishes a layered network of street standards that are designed to emphasize mobility modes within the larger system. This approach maintains the primary function of the streets that exist but identifies streets for potential alternative transportation modes providing a range of options available when selecting

the appropriate design elements. Street may be listed in several networks with the goal of selecting a variety of mobility enhancements.

Network layers have been created for the Complete Street Network that prioritizes a certain mode within each layer with the goal of providing better connectivity. The network layers are: Vehicle – Enhanced network, Transit – Enhanced network, Bicycle – Enhanced network and Neighborhood – Enhanced network. Definitions of these networks per the Complete Street Design Guidelines are provide below. Mobility Element maps and Walkability Index Maps are included in Appendix G.

Vehicle – Enhanced Network (VEN) - The VEN includes a select number of arterials that carry high volume of traffic for long distance travel on corridors with freeway access. Moderate enhancements typically include technology upgrades and peak - hour restrictions for parking and turning movements. Comprehensive enhancements can include improvements to access management, all - day lane conversions of parking, and all - day turning movement restrictions or permanent access control.

- Balboa Boulevard is designated a Vehicle Enhanced Street in the VEN.

Transit – Enhanced Network (TEN) - The TEN is comprised of streets that prioritize travel for transit riders.

- Ventura Boulevard is designated a Moderate Plus Transit Enhanced Street.

Bicycle – Enhanced Network (BEN) – The BEN is comprised of a network of low – stressed protected bike lanes (Tier 1) and bike paths prioritize bicycle travel by providing specific bicycle facilities and improvements. The BEN proposes bike facilities on arterial roadways with a striped separation. Tier 1 corresponding to protected bicycle lanes, and Tier 2 and Tier 3 bicycle lanes on arterial roads with a striped separation that are differentiated only by their potential implementation phasing - the difference between Tier 2 and Tier 3 implies probability that some lanes are not expected to be implemented by 2035.

The City of Los Angeles adopted a 2010 Bicycle Master Plan to encourage alternative modes of transportation throughout the City of Los Angeles. The Master Plan

was developed to provide a network system that is safe and efficient to use in coordination with the vehicle and pedestrian traffic on the City street systems. The Master Plan has mapped out the existing, funded, and potential future Bicycle Paths, Bicycle Lanes, and Bicycle Routes. Copies of the Bicycle Plan maps dated 2010 are provided in Appendix G for reference. A brief definition of the bicycle facilities is provided below:

Bicycle Path – A bicycle path is facility that is separated from the vehicular traffic for the exclusive use of the cyclist (although sometimes combined with a pedestrian lane). The designated path can be completely separated from vehicular traffic or cross the vehicular traffic with right - of - way assigned through signals or stop signs.

- Bike paths are provided in the Sepulveda Basin Recreation Area Park.

Bicycle Lane – A bicycle lane is typically provided on street with a designated lane stripped on the street for the exclusive use of the cyclist. The bicycle lanes are occasionally curbside, outside the parking lane, or along a right turn lane at intersections.

- Ventura Boulevard is listed on the Bicycle Lane Network map as Tier 3 bicycle lane street.
- Balboa Boulevard between 101 Freeway and Ventura Boulevard is listed on the Bicycle Lane Network map as Tier 2 bicycle lane street.
- White Oak Avenue north of Ventura Boulevard is listed on the Bicycle Lane Network map as Tier 2 bicycle lane street.

Bicycle Route – A bicycle route is a designated route in a cycling system where the cyclist shares the lane with the vehicle. Cyclist would follow the route and share the right - of - way with the vehicle.

Neighborhood Enhanced Network (NEN) - NEN is comprised of local streets intended to benefit from pedestrian and bicycle related safety enhancements for more localized travel of slower means of travel while preserving the connectivity of local

streets to other enhanced networks. These enhancements encourage lower vehicle speeds, providing added safety for pedestrians and bicyclists.

- Louise Avenue / Rancho Street / Balboa Avenue / Hayvenhurst Avenue are identified in the NEN network.

Pedestrian Enhanced District (PEDs)

In addition to these street networks, many arterial streets that could benefit from additional pedestrian features to provide better walking connections are identified as Pedestrian Enhanced Districts. The Pedestrian Enhanced segments (PEDs) provided in the mobility map identify streets where pedestrian improvements on arterial streets could be prioritized to provide better walking connections to and from the major destinations within communities.

Portions of Ventura Boulevard at White Oak Avenue and west of Balboa Boulevard to east of Kester Avenue, Balboa Boulevard north of Ventura Boulevard, and Hayvenhurst north and south of Ventura Boulevard have been identified as pedestrian enhanced street segments with the goal of providing a more attractive environment to promote walking for shorter trips.

The Complete Streets guide acknowledges that adding pedestrian design features and street trees encourages people to take trips on foot instead of by car. Thereby helping to reduce the volume of cars on the road and emissions, increases economic vitality, and make the City feel like a more vibrant place.

Project Traffic Generation

As part of the Non - CEQA assessment, an operational analysis of the peak hour traffic flow with the Project is required. This evaluation is based on peak hour traffic flow level of service (LOS) methodologies which determines vehicle delay using current traffic volume data, traffic signal and street characteristics.

Traffic - generating characteristics of land uses have been studied by the Institute of Transportation Engineers (ITE). The results of these studies are published in ITE Trip Generation, 10th Edition Handbook. Traffic rates used in this analysis are presented in

Table 2. Table 3 shows the Project's peak hour trip estimate. Daily traffic estimates are provided by the LADOT VMT calculator.

Table 2
Project Trip Generation Rates

ITE		AM Peak Hour			PM Peak Hour		
Code	Description	In	Out	Total	In	Out	Total
253	Congregate Care	60%	40%	0.07	53%	47%	0.18
254	Assisted Living	78%	22%	0.39	30%	70%	0.48
826	Shopping Center (retail)	62%	38%	0.94	48%	52%	3.81
492	Health Club	51%	49%	1.31	57%	43%	3.45
720	Medical-Dental Office	78%	22%	2.78	28%	72%	3.46
710	Office	86%	14%	1.16	16%	85%	1.15

Table 3
Estimated Project Traffic Generation

ITE			AM Peak Hour			PM Peak Hour		
Code	Description	Size	In	Out	Total	In	Out	Total
	Proposed Project							
253	Congregate Care	24 du	1	1	2	2	2	4
254	Assisted Living	66 du	20	6	26	10	22	32
720	Medical-Dental Office	55,416 sf	120	34	154	54	138	192
	Pass-By	10% sf	-12	-3	-15	-5	-14	-19
	Total Proposed (street)		129	38	167	61	148	209
	Driveway Traffic		141	41	182	66	162	228
	Existing Use							
826	Shopping Center (retail)	10,000 sf	6	3	9	18	20	38
	Pass-By	50%	-3	-1	-4	-9	-10	-19
710	Office	11,000 sf	11	2	13	2	11	13
492	Health Club	4,000 sf	3	2	5	8	6	14
	Pass-By	20%	-1	0	-1	-2	-1	-3
	Total Existing (street)		16	6	22	17	26	43
	Driveway Traffic		20	7	27	28	37	65
	Net Traffic (street)		113	32	145	44	122	166
without pass-by at adjacent intersection								
	net project (driveway)		121	34	155	38	125	163

Table 3 shows the project traffic estimates using the ITE traffic rates. It is estimated that the project will generate an increase of 145 vehicle trips during the am peak hour and 166 trips during the pm peak hour on the nearby street network.

A primary factor affecting trip direction is the distribution of population and employment which would generate project trip origins and destinations. The estimated project directional trip distribution is also based on the study area roadway network, freeway access points, traffic flow patterns in and out of this area of Encino and consistency with previously approved traffic studies for this area.

Figure 4 illustrates the estimated area wide project traffic distribution percentages. Figures 5A and B shows the estimated project traffic percentages at each of the selected study intersection per land use. Using the traffic assignment at each intersection and the estimated peak hour traffic volume as provided in the Table 3, the project's peak hour traffic volume at each study intersection are shown in Figures 6A, B and C, for the residential, commercial and total project, respectively. This estimated assignment of the project traffic flow provides the information necessary to analyze the traffic flow at the study intersections and street segments. Appendix J contains the study traffic peak hour data and traffic flow for the existing and future traffic conditions.

PEDESTRIAN, BICYCLE AND TRANSIT ACCESS ASSESSMENT

Purpose - The pedestrian, bicycle and transit assessments are intended to determine a project's potential effect on pedestrian, bicycle, and transit facilities in the vicinity of the Project Site. Any deficiencies could be physical (through removal, modification, or degradation of facilities) or demand-based (by adding pedestrian or bicycle demand to inadequate facilities).

Removal or Degradation of Facilities

The Project will not remove, modify, or degrade any pedestrian, bicycle, and transit facility in the vicinity of the Project Site. In fact, any damaged or off-grade sidewalk, curb and gutter along the property frontage(s) will be repaired under Section 12.37 of the Los Angeles Municipal Code (LAMC).

Project Intensification of Use

Generally, projects that contribute to efficient land use patterns enabling higher levels of walking, cycling, and transit as well as lower average trip length are considered to have a less than significant impact on transportation. The Project Site has a Walk Score of 83 out of 100 where most errands can be accomplished on foot, see Appendix G for walkability index information.

Per the VMT calculator, the Project would have a residential population of approximately 112 persons and 216 employees. This level of intensification would not require any additional pedestrian facilities to be constructed. No transit or future bike facilities will be impacted by the construction of this Project.

High Injury Network

Vision Zero Los Angeles identified a strategic plan to reduce traffic deaths to zero by focusing on engineering, enforcement, education, and evaluation. The priority identified in the report is safety with a goal to make the streets of the City of Los Angeles the safest in the nation. As part of an effort to achieve this goal, LADOT identified a High Injury Network (HIN) of city streets. The HIN identifies streets with a high number of traffic-related severe injuries and deaths across all modes of travel with emphasis on those involving pedestrians and cyclists.

This segment of Ventura Boulevard from Van Nuys Boulevard to Amestoy Avenue is included in the HIN, see Appendix E. LADOT requires that projects along HIN roadways assist in reducing traffic related injuries around new development to the extent possible. Project access has been designed with alley access to reduce vehicular, pedestrian and bicycle conflict.

Note that A Vision Zero project (Ventura Boulevard Safety Improvements Project) was completed in June 2019 on Ventura Boulevard between Garden Grove Avenue and White Oak Avenue to include new minor street crosswalks and continental crosswalk upgrades, see Appendix E.

PROJECT ACCESS, SAFETY AND CIRCULATION EVALUATION

Purpose – Project access and circulation is evaluated for safety, operational, and capacity constraints using vehicle level of service to identify circulation and access deficiencies that may require specific operational improvements.

Operational Evaluation

Criteria - Per the TAG, the Transportation Assessment should include a quantitative evaluation of the project's expected access and circulation operations. Project access is considered constrained if the project's traffic would contribute to unacceptable queuing on at project driveway(s) or would cause or substantially extend queuing at nearby signalized intersections.

Evaluation - The following traffic conditions evaluation has been prepared to identify any new circulation and access deficiencies that may require specific operational improvements. The circulation level of service evaluation has been prepared using the Highway Capacity Manual (HCM) methodology which calculates the amount of delay per vehicle based upon the intersection traffic volumes, lane configurations, and signal timing.

Once the vehicle delay value has been calculated, operating characteristics are assigned a level of service grade (A through F) to estimate the level of congestion and stability of the traffic flow. The term "Level of Service" (LOS) is used by traffic engineers to describe the quality of traffic flow. Definitions of the LOS grades in terms of vehicle delay are shown in Table 4.

Table 4
Level of Service Definitions

LOS	HCM (delay in seconds)	Operating Conditions
A	Less than 10	No loaded cycles and few are even close. No approach phase is fully utilized with no delay.
B	>10 to 20	A stable flow of traffic.
C	>20 to 35	Stable operation continues. Loading is intermittent. Occasionally drivers may have to wait more on red signal and backups may develop behind turning vehicles.
D	>35-55	Approaching instability. Delays may be lengthy during short time periods within the peak hour. Vehicles may be required to wait through more than one signal cycle.
E	>55 to 80	At or near capacity with possible long queues for left-turning vehicles. Full utilization of every signal cycle is seldom attained.
F	> 80	Gridlock conditions with stoppages of long duration.

Analysis of Existing and Future Traffic Conditions

Baseline (2017) traffic counts were obtained from the Project's prior traffic study approval in 2019. These counts were used because new traffic data cannot be collected during the COV-19 shutdown, as directed by LADOT. These baseline traffic counts have been increased by 1 percent per year to year 2020 to reflect existing conditions.

The intersections analyzed include:

1. Ventura Boulevard and White Oak Avenue,
2. Ventura Boulevard and Louise Avenue,
3. Ventura Boulevard and Amestoy Avenue
4. Ventura Boulevard and Genesta Avenue
5. Ventura Boulevard and Balboa Boulevard
6. Ventura Boulevard and Hayvenhurst Avenue
7. Balboa Boulevard and Magnolia Boulevard
8. Balboa Boulevard and 101 Freeway Eastbound On/Off Ramps
9. Balboa Boulevard and 101 Freeway Westbound On/Off Ramps

Table 5 contains the results of the Existing (2020) and Existing plus Project traffic conditions at the study intersections.

Table 5
Existing Traffic Conditions – Without and With Project

No.	Intersection	Peak Hour	Existing Delay	Existing LOS	Existing + Project Delay	Existing + Project LOS
1	Ventura Boulevard and	AM	31.5	C	31.8	C
	White Oak Avenue	PM	28.4	C	29.3	C
2	Ventura Boulevard and	AM	15.9	B	16.1	B
	Louise Avenue	PM	18.5	B	18.7	B
3	Ventura Boulevard and	AM	2.7	A	3.1	A
	Amestoy Avenue	PM	4.5	A	5.7	A
4	Ventura Boulevard and	AM	5.6	A	6.0	A
	Genesta Avenue	PM	6.9	A	8.5	A
5	Ventura Boulevard and	AM	31.9	C	35.3	D
	Balboa Boulevard	PM	31.2	C	31.3	C
6	Ventura Boulevard and	AM	50.2	D	51.6	D
	Hayvenhurst Avenue	PM	35.4	D	35.6	D
7	Balboa Boulevard and	AM	25.2	C	25.4	C
	Magnolia Avenue	PM	16.9	B	17.1	B
8	Balboa Boulevard and	AM	67.7	E	68.6	E
	101 Freeway EB Ramps	PM	32.4	C	32.7	C
9	Balboa Boulevard and	AM	29.4	C	29.8	C
	101 Freeway WB Ramps	PM	26.4	C	26.8	C

Table 6 contains the results of the future cumulative plus Project traffic conditions at the study intersections for the 2024 study year.

Table 6
Future Traffic Conditions – Without and With Project

No.	Intersection	Peak Hour	Future (2024) Without Project		Future (2024) With Project	
			Delay	LOS	Delay	LOS
1	Ventura Boulevard and	AM	36.4	D	36.9	D
	White Oak Avenue	PM	36.4	D	36.8	D
2	Ventura Boulevard and	AM	16.8	B	17.2	B
	Louise Avenue	PM	20.3	C	24.1	C
3	Ventura Boulevard and	AM	2.9	A	3.1	A
	Amestoy Avenue	PM	4.7	A	6.0	A
4	Ventura Boulevard and	AM	5.8	A	6.2	A
	Genesta Avenue	PM	7.3	A	8.3	A
5	Ventura Boulevard and	AM	33.3	C	33.3	C
	Balboa Boulevard	PM	32.9	C	33.1	C
6	Ventura Boulevard and	AM	62.1	E	62.8	E
	Hayvenhurst Avenue	PM	40.9	D	41.1	D
7	Balboa Boulevard and	AM	28.8	C	28.9	C
	Magnolia Avenue	PM	17.0	B	17.2	B
8	Balboa Boulevard and	AM	78.1	E	80.7	F
	101 Freeway EB Ramps	PM	33.9	C	34.3	C
9	Balboa Boulevard and	AM	31.3	C	41.9	D
	101 Freeway WB Ramps	PM	27.7	C	27.7	C

For the future traffic conditions in 2024, traffic generated by other projects identified in the 2019 traffic study have been added to the base counts to reflect potential growth in area. Twenty-four other related projects were included for this growth forecast. In addition, a one percent annual growth has been included to 2024 to account for other unknown projects or projects outside the study area. These adjustments provide a very conservative traffic flow estimate for the study area and may overstate actual levels of congestion. The locations of related projects and the peak hour trips generated are provided in Appendix I.

As shown in Tables 5 and 6, the Project will not add substantial delays to the intersection operations which would be considered significant.

Safety Evaluation

Providing alley access with side street traffic signal control on both Amestoy Avenue and Genesta Avenue at their intersection with Ventura Boulevard will not increase vehicle conflicts with pedestrians, bicycles ad transit vehicles along Ventura Boulevard.

All emergency ingress/egress associated with the Project would be designed and constructed in conformance to all applicable City Building and Safety Department, LADOT, and LAFD standards and requirements for design and construction. This would also ensure pedestrian safety. There are adequate sidewalks and crosswalks serving the Project Site and at the nearby signal-controlled intersections of Amestoy Avenue and Ventura Boulevard and at Genesta Avenue and Ventura Boulevard. The Project would not affect these facilities.

No access deficiencies are apparent in the site access plans which would be considered significant.

Passenger Loading Evaluation

All parking is located on–site in a parking garage. It is anticipated that all loading will occur from within the alley or parking garage.

Construction Overview

Project construction is evaluated to determine if activities substantially interfere with pedestrian, bicycle, transit, or vehicle mobility. Factors to be considered are the location of the Project Site, the functional classification of the adjacent street affected, temporary loss of bus stops or rerouting of transit lines, and the loss of vehicle, bicycle, or pedestrian access. LADOT's TAG considers three areas to be considered when evaluating construction activities of a project.

Temporary Transportation Constraints

As part of the Project's construction, the City will require a Construction Traffic Management Plan (Plan) to be implemented during the construction phase to minimize potential conflicts with vehicles, pedestrians, bicycle, and transit facilities associated with the Project's construction. The Plan should include a construction schedule, the location of any traffic lane or sidewalk closures, any traffic detours, haul routes, hours of operation, access plans to abutting properties, and contact information.

Construction workers are typically expected to arrive at the Project Site before 7:00 am and depart before or after the weekday peak hours of 4:00 to 6:00 pm. Deliveries of construction materials will be coordinated to non-peak travel periods, to the extent possible and occur from the parking lane along the Project's Ventura Boulevard frontage or the adjacent local street(s).

For off-site activities, Worksite Traffic Control Plans would be prepared for any temporary traffic lane or sidewalk closures in accordance with City guidelines. These worksite plans will require a formal review and approval by the City prior to the issuance of any construction permits. In addition, the City will require a Truck Haul Route plan including permitted hauling hours and a haul route to and from the landfill.

No detours around the construction site are expected; however, flagmen would be used to control traffic movement during the ingress and egress of construction trucks.

Since Project construction would not substantially interfere with pedestrian, bicycle or vehicle mobility, the construction impacts would be less than significant.

1. Temporary Loss of Access

Vehicular access to the adjacent commercial properties will be maintained. Safe pedestrian circulation paths adjacent to or around the work areas will be provided by covered pedestrian walkways if necessary and will be maintained as required by City-approved Work Area Traffic Control Plans.

The nearby signalized intersections on Ventura Boulevard that provides protected pedestrian street crossings will not be impacted by the Project construction.

Since Project construction would not result in loss of vehicular or pedestrian access, the construction impacts on loss of access would be less than significant.

2. Temporary Loss of Bus Stops or Rerouting of Bus Lines

No bus stops are located within the work zone adjacent to the Project Site that would need to be temporarily relocated. There will be no loss of pedestrian access to transit stops located at Ventura Boulevard at its intersection with Amestoy Avenue or at Genesta Avenue.

Since Project construction would not require relocation of bus stops or bus lines, the construction impacts on transit operations would be less than significant.

Residential Street Cut-Through Analysis

A neighborhood street impact analysis method is included in the City of Los Angeles Department of Transportation “Transportation Assessment Guidelines”, July 2020. The objective of the residential street impact analysis is to determine potential increases in average daily traffic associated with cut - through traffic that can result from a project and impact residential streets. Cut - through trips are measured as vehicles that by - pass a congested arterial street or intersection to instead travel along a residential street.

Although LADOT did not require a neighborhood analysis, traffic counts were collected (September 9 & 10 , 2018 and November 9, 2017) and an evaluation of the traffic conditions with the project were prepared for the local street segments of Genesta Avenue, Magnolia Boulevard, Otsego Street and Addison Street. Note that

Amestoy Avenue is a collector street and therefore not included. A review of the traffic conditions has been conducted on five street segments listed below:

1. Magnolia Boulevard west of Balboa Boulevard
2. Otsego Street west of Balboa Boulevard
3. Addison Street west of Balboa Boulevard
4. Genesta Avenue south of Addison Street
5. Genesta Avenue south of Magnolia Boulevard

LADOT defines a significant neighborhood traffic impact based on a growth percentage of the future daily traffic volumes added by the project as set forth below in Table 7.

Table 7
Significant Residential Street Impact Thresholds

Projected ADT with Project (Final ADT)	Project - Related Increase in Final ADT
0 to 999 ADT	120 vehicles or more
1,000 to 1,999 ADT	12% or more of final ADT
2,000 to 2,999 ADT	10% or more of final ADT
3,000 ADT or more	8% or more of final ADT

ADT – average daily traffic

The added daily traffic generated by the project based on the net commercial cut - through traffic has been added to the average daily traffic volume. As shown in Table 8, the added commercial Project traffic would not exceed the LADOT residential street traffic impact thresholds on any of the residential street segments. Daily traffic counts are contained in Appendix J.

Table 8
Neighborhood Traffic Impact Analysis
Average Daily Traffic Volumes

Location	2020 Daily Traffic	2024 Without Project	Daily Commercial Traffic	Future With Project	Significance Threshold	Project Impact
Magnolia Blvd. W/O Balboa Blvd.	6,185	6,432	203	6,636	8 %	3.0 %
Otsego St. W/O Balboa Blvd.	1,411	1,467	102	1,569	12 %	6.5 %
Addison St. W/O Balboa Blvd.	1,606	1,670	102	1,772	12 %	5.7 %
Genesta Ave. S/O Addison St.	1,770	1,840	203	2,043	10 %	9.9 %
Genesta Ave. S/O Magnolia Blvd.	1,486	1,546	102	1,647	12 %	6.1 %

Interim Guidance for Freeway Safety Analysis

On May 1, 2020, LADOT issued an Interim Guidance for Freeway Safety Analysis memorandum. The purpose of this memorandum is to provide interim guidance on the preparation of freeway safety analysis for land use proposals that are required by LADOT to prepare Transportation Assessments.

Caltrans District 7 requested that environmental analyses for new land use development projects include freeway off-ramp safety considerations. Specifically, it was requested that the City evaluate a development project effects on vehicle queuing on freeway off-ramps

In response, LADOT has developed the following criteria for a project freeway safety analysis to be included in Transportation Assessments for land development projects.

The initial step is to identify the number of Project trips expected to be added to nearby freeway off-ramps serving the Project Site. If the Project adds 25 or more trips to any off ramp in either the morning or afternoon peak hour, then that ramp should be

studied for potential queuing impacts. If the Project is not expected to generate more than 25 or more peak hour trips at any freeway off-ramps, then a freeway ramp analysis is not required.

As shown in Figure 6C, the Project traffic at the Balboa Boulevard freeway off ramps would not exceed 25 project peak hour trips. No further freeway safety analysis is necessary for the Project analysis using this guidance criteria.

APPENDIX A

LADOT TRAFFIC ASSESSMENT APPROVAL

(June 27, 2019, DOT Case No. VEN19-108327).

CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

17025 Ventura Boulevard
DOT Case No. VEN 19-108327
DOT Project ID No. 48459

Date: June 27, 2019

To: Sarah Hounsell, City Planner
Department of City Planning

Vicente Cordero

From: Vicente Cordero, Transportation Engineer
Department of Transportation

Subject: **UPDATED TRAFFIC ASSESSMENT FOR THE PROPOSED MIXED-USE PROJECT AT 17025 VENTURA BOULEVARD**

The Department of Transportation (DOT) has completed the traffic assessment for the proposed mixed-use project at 17025 Ventura Boulevard in the Encino area of the City of Los Angeles. This traffic analysis is based on an updated traffic study prepared by Overland Traffic Consultants, Inc., dated June 21, 2019. This evaluation has been prepared to address a change in the project buildout year 2021 to 2024. The project description remains the same per DOT's letter dated march 22, 2019 (DOT project ID No. 45357). Based on DOT's current traffic impact criteria, none of the nine signalized intersections would be significantly impacted by project related traffic as shown in **Attachment A**.

DISCUSSION AND FINDINGS

A. Project Description

The project proposes to demolish an existing 10,000 square-foot shopping center, a 11,000 square-foot office building, and a 4,000 square-foot health club, and construct a 24-unit congregate care center, a 66-unit assisted living, and a 37,400 square-foot health club.

B. Trip Generation

The project is estimated to generate 909 daily trips, 45 trips during the a.m. peak hour, and 96 trips during the p.m. peak hour. These estimates were derived using trip generation rates from the Institute of Transportation Engineers (ITE) "Trip Generation Handbook, 10th Edition, 2017".

Land Use	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
Proposed Project								
Congregate Care	24 unit	48	1	1	2	2	2	4
Assisted Living	66 unit	277	20	6	26	10	22	32
Health Club	37,400 sf	1,232	25	24	49	74	55	129
Pass-By Credit	20%	-246	-5	-5	-10	-15	-11	-26

Net New Trips		1,311	41	26	67	71	68	139
Existing Use								
Shopping Center	10,000 sf	-378	-6	-3	-9	-18	-20	-38
Pass-By Credit	50%	189	3	1	4	9	10	19
Office Building	11,000 sf	-107	-11	-2	-13	-2	-11	-13
Health Club	4,000 sf	-132	-3	-2	-5	-8	-6	-14
Pass-By	20%	26	1	0	1	2	1	3
Total Existing		402	16	6	22	17	26	43
Total Net Trips		**909**	**25**	**20**	**45**	**54**	**42**	**96**

PROJECT REQUIREMENTS

A. Highway Dedication and Improvements

Pursuant to Section 10 of the Specific Plan, the applicant shall make certain street and highway dedications and improvements to the satisfaction of DOT and the Department of Public Works, Bureau of Engineering.

Ventura Boulevard is a designated Boulevard II in the Street and Highways Element of the Mobility Plan. The north side of Ventura Boulevard currently consists of a 60-foot half right-of-way with a 45-foot half roadway and a 15-16 foot sidewalk. The standard cross section for a Boulevard II is a 55-foot half right-of-way with a 40-foot half roadway, and a 15-foot sidewalk. The applicant shall not dedicate a land along the entire proposed project frontage on Ventura Boulevard.

Additional street improvements may be required. The applicant should contact the Bureau of Engineering, Department of Public Works, to determine any other requirements. Any street dedication shall be completed through Quyen Phan in the Department of Public Works, Bureau of Engineering, Land Development Group, (818) 808-8604, before the issuance of any building permit for this project.

B. Project Impact Assessment (PIA) Fee

Pursuant to Section 11 of the Ventura/Cahuenga Specific Plan, the applicant shall pay or guarantee to pay a PIA Fee to DOT before the issuance of any building permit. The gross PIA Fee for this project is calculated below and can be paid in either a single payment or through a deferred payment plan. The PIA Fee shall be indexed annually; therefore, the PIA Fee may change depending on the actual date when payment is made.

Proposed Land Use (PIA Fee in Studio City)

Congregate Care/Assisted Living		
Floor Area	=	80,225 square-feet
PIA Fee Rate (Category A in Encino)	=	$1.88 per square-foot of floor area
	=	80,225 x $1.88
	=	$150,823.00
Health Club Floor Area	=	37,400 square-feet

PIA Fee Rate (Category D in Encino)	=	$7.27 per square-foot of floor area
	=	37,400 x $7.27
	=	$271,898.00
Total Proposed	=	**$422,721.00**
Existing		
Shopping Center Floor Area	=	10,000 square-feet
PIA Fee Rate (Category A)	=	$6.44 per square-foot of floor area
	=	10,000 x $6.44
	=	$64,400.00
Office Building Floor Area	=	11,000 square-feet
PIA Fee Rate (Category B in Encino)	=	$3.54 per square-foot of floor area
	=	11,000 x $3.54
	=	$38,940.00
Health Club Floor Area	=	4,000 square-feet
PIA Fee Rate (Category D in Encino)	=	$7.27 per square-foot of floor area
	=	4,000 x $7.27
	=	$29,080.00
Total Existing	=	**$132,420.00**
Net PIA Fee	=	**$422,721.00-132,420.00**
	=	**$290,301.00**

C. Driveway Access and Circulation

This determination does not include approval of the project's driveways, internal circulation, or parking scheme. Final DOT approval shall be obtained prior to issuance of any building permits. This should be accomplished by submitting detailed site and driveway plans with a minimum scale of 1"=40', to DOT's Valley Development Review Section at 6262 Van Nuys Boulevard, Suite 320, Van Nuys, CA 91401. All driveways should be 30 feet and 16 feet wide for two-way and one-way operations, respectively or to the satisfaction of DOT. All delivery truck loading and unloading should take place on site with no vehicles having to back into public right-of-way via any of the project driveways.

If you have any further questions, you may contact Albert Isagulian of my staff at (818) 374-4699.

Attachments

File/AI/17025VenturaBlvdRev.doc

c: Aviv kleiman, 5th Council District
Ken Firoozmand, DOT West Valley District
B. J. Soni, DOT Accounting
Ali Nahass, Bureau of Engineering
Quyen Phan, Bureau of Engineering
Jerry Overland, Overland Traffic Consultants, Inc.

ATTACHMENT A
Mixed-Use at 17025 Ventura Boulevard
DOT Case No: SFV19-108327

Summary of Volume to Capacity Ratios (V/C) and Levels of Service (LOS)

Intersection	Peak Hour	Year 2017 Existing		Year 2024 w/o Project		Year 2024 w/ Project		Project Impact	Year 2024 w/ Mitigation		Project Impact
		V/C	LOS	V/C	LOS	V/C	LOS	Δ V/C	V/C	LOS	Δ V/C
White Oak Ave. & Ventura Blvd.	AM	0.775	C	0.873	D	0.875	D	0.002			
	PM	0.717	C	0.848	D	0.853	D	0.005			
Louise Ave. & Ventura Blvd.	AM	0.679	B	0.754	C	0.755	C	0.001			
	PM	0.643	B	0.727	C	0.733	C	0.006			
Amestoy Ave. & Ventura Blvd.	AM	0.505	A	0.566	A	0.572	A	0.006			
	PM	0.478	A	0.539	A	0.557	A	0.018			
Genesta Ave. & Ventura Blvd.	AM	0.471	A	0.541	A	0.547	A	0.006			
	PM	0.457	A	0.527	A	0.547	A	0.020			
Balboa Blvd. & Ventura Blvd.	AM	0.713	C	0.801	D	0.803	D	0.002			
	PM	0.668	B	0.770	C	0.775	C	0.005			
Hayvenhurst Ave. & Ventura Blvd.	AM	0.885	D	0.980	E	0.981	E	0.001			
	PM	0.686	B	0.776	C	0.779	C	0.003			
Balboa Blvd. & Magnolia Blvd.	AM	0.766	C	0.829	D	0.831	D	0.002			
	PM	0.476	A	0.522	A	0.525	A	0.003			
Balboa Blvd. & 101 Fwy EB Ramps	AM	0.573	A	0.624	B	0.627	B	0.003			
	PM	0.557	A	0.613	B	0.617	B	0.004			
Balboa Blvd. & 101 Fwy WB Ramps	AM	0.635	B	0.696	B	0.699	B	0.003			
	PM	0.707	C	0.768	C	0.775	C	0.007			

APPENDIX B

SCREENING CRITERIA

TAG SCREENING CRITERIA	
If the answer is yes to any of the following threshold questions, further analysis will be required for that question to assess whether the proposed Project would negatively affect the transportation system for all travel modes including pedestrian, bicycle, or transit facilities.	
Screening Criteria	Determination
Threshold T-1 Conflicting with Plans, Programs, Ordinances, or Policies	
Does the project require a discretionary action that requires the decision maker to find that the decision substantially conforms to the purpose, intent, and provisions of the General Plan?	**Yes, the** Project is requesting a Vesting Zone Change, Unified Permit for Eldercare Facility, Site Plan Review, Project Compliance Review for the Specific Plan, waiver of dedication along Amestoy Avenue, and Specific Plan Exceptions.
Is the project known to directly conflict with a transportation plan, policy, or program adopted to support multimodal transportation options or public safety?	**No,** the Project is not inconsistent with the City's transportation plans, policies or programs**.**
Is the Project proposing to, or required to, make any voluntary or required, modifications to the public right-of-way (i.e. street dedications, reconfigurations of curb lines, etc.)?	**Yes,** according to the Mobility Element Street standards for Amestoy Avenue, a 3 - foot dedication and 2 - foot widening would be necessary along the project frontage to satisfy the Collector street Standard. No other street dedications or improvements are required by the Project on an Avenue or Boulevard to serve long-term mobility needs identified in the City's General Plan.
Threshold T-2.1 Causing Substantial Vehicle Miles Traveled – Would the project conflict or would it be inconsistent with California Environmental Quality Act (CEQA) Guidelines section 15064.3 subdivision (b)(1)?	
Would the Project generate a net increase of 250 or more daily vehicle trips?	**Yes,** using the LADOT VMT calculator (version 1.3) for screening purposes, the Project will generate a net increase of 1,359 more daily vehicle trips (1,948 Project trips minus 589 existing trips)

	without any Transportation Demand Management (TDM) strategies. TDM strategies are not considered in the screening criteria.
Would the project generate a net increase in daily VMT?	**Yes,** using the LADOT VMT calculator, the Project would generate 10,234 net daily VMT (14,712 Project VMT minus 4,478 existing VMT). TDM strategies are not considered in the screening criteria.
If the project includes retail uses, does the retail portion of the project exceed a net 50,000 square feet?	**No,** the Project will remove 25,000 square feet of commercial uses on Ventura Boulevard and construct a 55,55,416 square foot medical office building on Ventura Boulevard.
Would the Project located within a one-half mile of a fixed-rail or fixed-guideway transit station replace an existing number of residential units with a smaller number of residential units?	**No,** the location of the Project is not within a half mile of any rail or guideway station. Furthermore, the Project will not replace residential units with a smaller number of residential units, in fact, the Project will add 90 elderly care guest rooms.
Threshold T- 3.1: Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use	
Is the Project proposing new driveways, or introducing new vehicle access to the property from the public right-of-way?	**Yes,** the project is proposing to remove 1 driveway on Genesta Avenue and install one driveway on Genesta Avenue.
Is the Project proposing to, or required to make any voluntary or required, modifications to the public right-of-way (i.e., street dedications, reconfigurations of curb line, etc.)?	**Yes,** according to the Mobility Element Street standards for Amestoy Avenue, a 3 - foot dedication and 1 - 2-foot widening would be necessary along the project frontage to satisfy the Collector street standards. No other street dedications or improvements are required by the Project to serve long-term

	mobility needs identified in the City's General Plan.
Pedestrian, Bicycle and Transit Access Assessment (Non-CEQA Transportation Analysis)	
Does the land use project involve a discretionary action that would be under review by the Department of City Planning?	**Yes,** Project is requesting a Vesting Zone Change, Unified Permit for Eldercare Facility, Site Plan Review, Project Compliance Review for the Specific Plan, waiver of dedication along Amestoy Avenue, and Specific Plan Exceptions
Does the land use project include the construction, 50 dwelling units or guest rooms or combination thereof or 50,0000 square feet of non-residential space?	**Yes,** the Project includes the construction of an eldercare building with 90 eldercare guest rooms and approximately 55,416 square feet of medical office. The eldercare facility will contain 66 senior assisted living guest rooms and 24 Alzheimer's/Dementia guest rooms.
Would the Project generate a net increase of 1,000 or more daily vehicle trips? Is the Project's frontage along an Avenue, Boulevard or Collector (as designated in the City's General Plan) 250 linear feet or more, or is the Project's frontage encompassing an entire block along an Avenue or Boulevard (as designated in the City's General Plan?	**Yes,** using the LADOT VMT calculator (version 1.3) for screening purposes, the Project will generate an increase of 1,359 more daily vehicle trips (1,948 Project trips minus 589 existing trips) without any Transportation Demand Management (TDM) strategies.). The portion of Ventura Boulevard adjacent to the Project Site is designated as a Boulevard II roadway. The Project's Ventura Boulevard frontage is approximately 186.63 feet in length.

Project Access, Safety and Circulation Evaluation (Non-CEQA Transportation Analysis)	
Does the land use project involve a discretionary action that would be under review by the Department of Planning?	**Yes,** Project is requesting a Vesting Zone Change, Unified Permit for Eldercare Facility, Site Plan Review, Project Compliance Review for the Specific Plan, waiver of dedication along Amestoy Avenue, and Specific Plan Exceptions
Would the Project generate a net increase of 250 or more daily vehicle trips?	**Yes,** using the LADOT VMT calculator (version 1.3) for screening purposes, the Project will generate an increase of 1,359 more daily vehicle trips (1,948 Project trips minus 589 existing trips) without any Transportation Demand Management (TDM) strategies

APPENDIX C

PLANS, PROGRAMS, ORDINANCE AND POLICY CONSISTENCY
Threshold Question T-1

Plans, Policies and Programs Consistency Worksheet

The worksheet provides a structured approach to evaluate the threshold T-1 question below, that asks whether a project conflicts with a program, plan, ordinance, or policy addressing the circulation system. The intention of the worksheet is to streamline the project review by highlighting the most relevant plans, policies and programs when assessing potential impacts to the City's circulation system.

Threshold T-1: Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities?

I. SCREENING CRITERIA FOR POLICY ANALYSIS

If the answer is 'yes' to any of the following questions, further analysis will be required:

Does the project require a discretionary action that requires the decision maker to find that the project would substantially conform to the purpose, intent, and provisions of the General Plan?

Yes

Is the project known to directly conflict with a transportation plan, policy, or program adopted to support multimodal transportation options or public safety?

No

Is the project required to or proposing to make any voluntary modifications to the public right-of-way (i.e., dedications and/or improvements in the right-of-way, reconfigurations of curb line, etc.)?

Yes

II. PLAN CONSISTENCY ANALYSIS

A. Mobility Plan 2035 Classification Standards for Dedications and Improvements

A.1 Does the project include additions or new construction along a street designated as a Boulevard I, and II, and/or Avenue I, II, or III on property zoned for R3 or less restrictive zone?

No

A.2 Is the project required to make additional dedications or improvements to the Public Right of Way as demonstrated by the street designation?

N/A

A.3 Is the project making the dedications and improvements as necessary to meet the designated dimensions of the fronting street (Boulevard I, and II, or Avenue I, II, or III)?

N/A

A.4 Is the project applicant asking to waive from the dedication standards?

N/A

Lists any streets subject to dedications or voluntary dedications and include existing roadway and sidewalk widths, required roadway and sidewalk widths, and proposed roadway and sidewalk width or waivers.

1. Ventura Boulevard - Existing 120' ROW and 90' Street (half 60' ROW & 45' Street)
   No additional ROW or widening required for Ventura Boulevard.

2. Genesta Avenue - Existing 60' ROW and 40' Street (half 30' ROW & 20' Street)
   No additional ROW or widening required for Genesta Avenue.

3. Amestoy Avenue – Existing 60' ROW and 36' - 40' Street (half 30' ROW & 18-20' Street)
   Three additional dedication and 1-2' widening required for Amestoy Avenue.

   - Amestoy Avenue is designated as a Collector Street under Mobility Plan 2035 and not included in any enhanced network street.
   - Amestoy Avenue fronting the project site is currently improved with a 30 ½ right of way and 18-20 -foot ½ roadway width comprised of one travel lane in each direction and street parking.
   - Based on the existing dimensions, a 3-foot dedication would be required along with a 1-2-foot physical widening of Amestoy Avenue.
   - The project Amestoy Avenue frontage is between an alley and single-family homes located to the north and is approximately 35' in length.

The Project request for a waiver of dedication and improvements along the Amestoy Avenue frontage is justified based on the location of the R1 lots north of the site fronting Amestoy Avenue and the short length of Project frontage along Amestoy Avenue. Widening the Amestoy Avenue roadway by 1-2 feet along the east side for a length of 35 feet with a 3-foot dedication serves no purpose since the R1 lots to the north would not be required to dedicate or improve the street, and therefore any Project dedication and improvement for a very short distance (35 feet) would not provide any additional benefit.

Is the project within the service area of Metro Bike Share, or is there demonstrated demand for micro- mobility services?

No

B. <u>Mobility Plan 2035 Policy Alignment with Project-Initiated Changes</u>

B.1 Does the project physically modify the curb placement or turning radius and/or physically alter the sidewalk and parkways space that changes how people access a property?

No

Examples of physical changes to the public right-of-way include:

- widening the roadway,
- narrowing the sidewalk,
- adding space for vehicle turn outs or loading areas,
- removing bicycle lanes, bike share stations, or bicycle parking
- modifying existing bus stop, transit shelter, or another street furniture

- paving, narrowing, shifting, or removing an existing parkway or tree well

Driveway Access

Mobility Plan 2035 Program PL.1. Driveway Access**.** Require driveway access to buildings from non-arterial streets or alleys (where feasible) to minimize interference with pedestrian access and vehicular movement.
Project is following PL-1 Driveway Access

Citywide Design Guidelines - Guideline 2: Carefully incorporate vehicular access such that it does not degrade the pedestrian experience.
Project is following Design Guideline 2

Site Planning Best Practices:

- Prioritize pedestrian access first and automobile access second. Orient parking and driveways toward the rear or side of buildings and away from the public right-of-way. On corner lots, parking should be oriented as far from the corner as possible.
- Minimize both the number of driveway entrances and overall driveway widths.
- Do not locate drop-off/pick-up areas between principal building entrances and the adjoining sidewalks.
- Orient vehicular access as far from street intersections as possible.
- Place drive-thru elements away from intersections and avoid placing them so that they create a barrier between the sidewalk and building entrance(s).
- Ensure that loading areas do not interfere with on-site pedestrian and vehicular circulation by separating loading areas and larger commercial vehicles from areas that are used for public parking and public entrances.

Project is following Site Planning Best Practices

B.2 Does the project add new driveways along a street designated as an Avenue or a Boulevard that conflict with LADOT's Driveway Design Guidelines (See Sec. 321 in the Manual of Policies and Procedures) by any of the following?

- Locating new driveways for residential properties on an Avenue or Boulevard, and access is otherwise possible using an alley or a collector/local street, or
- Locating new driveways for industrial or commercial properties on an Avenue or Boulevard and access is possible along a collector/local street, or
- The total number of new driveways exceeds 1 driveway per every 200 feet along on the Avenue or Boulevard frontage, or
- Locating new driveways on an Avenue or Boulevard within 150 feet from the intersecting street, or
- Locating new driveways on a collector or local street within 75 feet from the intersecting street, or
- Locating new driveways near mid-block crosswalks, requiring relocation of the mid-block crosswalk

Project is following Driveway Design Guidelines

Impact Analysis

Once the project is reviewed relevant to plans and policies, and existing facilities that may be impacted by the project, the analysis will need to answer the following two questions in concluding if there is an impact due to plan inconsistency.

B.2.1 Would the physical changes in the public right of way or new driveways that conflict with LADOT's Driveway Design Guidelines degrade the experience of vulnerable roadway users such as modify, remove, or otherwise negatively impact existing bicycle, transit, and/or pedestrian infrastructure?

No

B.2.2 Would the physical modifications or new driveways that conflict with LADOT's Driveway Design Guidelines preclude the City from advancing the safety of vulnerable roadway users?

No

C. Network Access

C. 1 Alley, Street and Stairway Access

C.1.1 Does the project propose to vacate or otherwise restrict public access to a street, alley, or public stairway?

No

C.2 New Cul-de-sacs

C.2.1 Does the project create a cul-de-sac or is the project located adjacent to an existing cul-de-sac?

No

C.2.2 If yes, will the cul-de-sac maintain convenient and direct public access to people walking and biking to the adjoining street network?

N/A

D. Parking Supply and Transportation Demand Management

D.2 Would the project propose a supply of onsite parking that exceeds the baseline amount as required in the Los Angeles Municipal Code or a Specific plan, whichever requirement prevails?

No

D.2 Would the project propose to actively manage the demand of parking by independently pricing the supply to all users (e.g. parking cash-out), or for residential properties, unbundle the supply from the lease or sale of residential units?

N/A

D.3. Would the project provide the minimum on and off-site bicycle parking spaces as required by Section 12.21 A.16 of the LAMC?

Yes

D.4. Does the Project include more than 25,000 square feet of gross floor area construction of new non- residential gross floor?

Yes

D.5 Does the project comply with the City's TDM Ordinance in Section 12.26 J of the LAMC?

Yes

E. Consistency with Regional Plans

This section addresses potential inconsistencies with greenhouse gas (GHG) reduction targets forecasted in the Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP) / Sustainable Communities Strategy (SCS).

E.1 Does the Project apply one the City's efficiency-based impact thresholds (i.e. VMT per capita, VMT per employee, or VMT per service population) as discussed in Section 2.2.3 of the TAG?

Yes

E.2 Does the Project or Plan result in a significant VMT impact?

No

E.3 Does the Project result in a net increase in VMT?

Yes

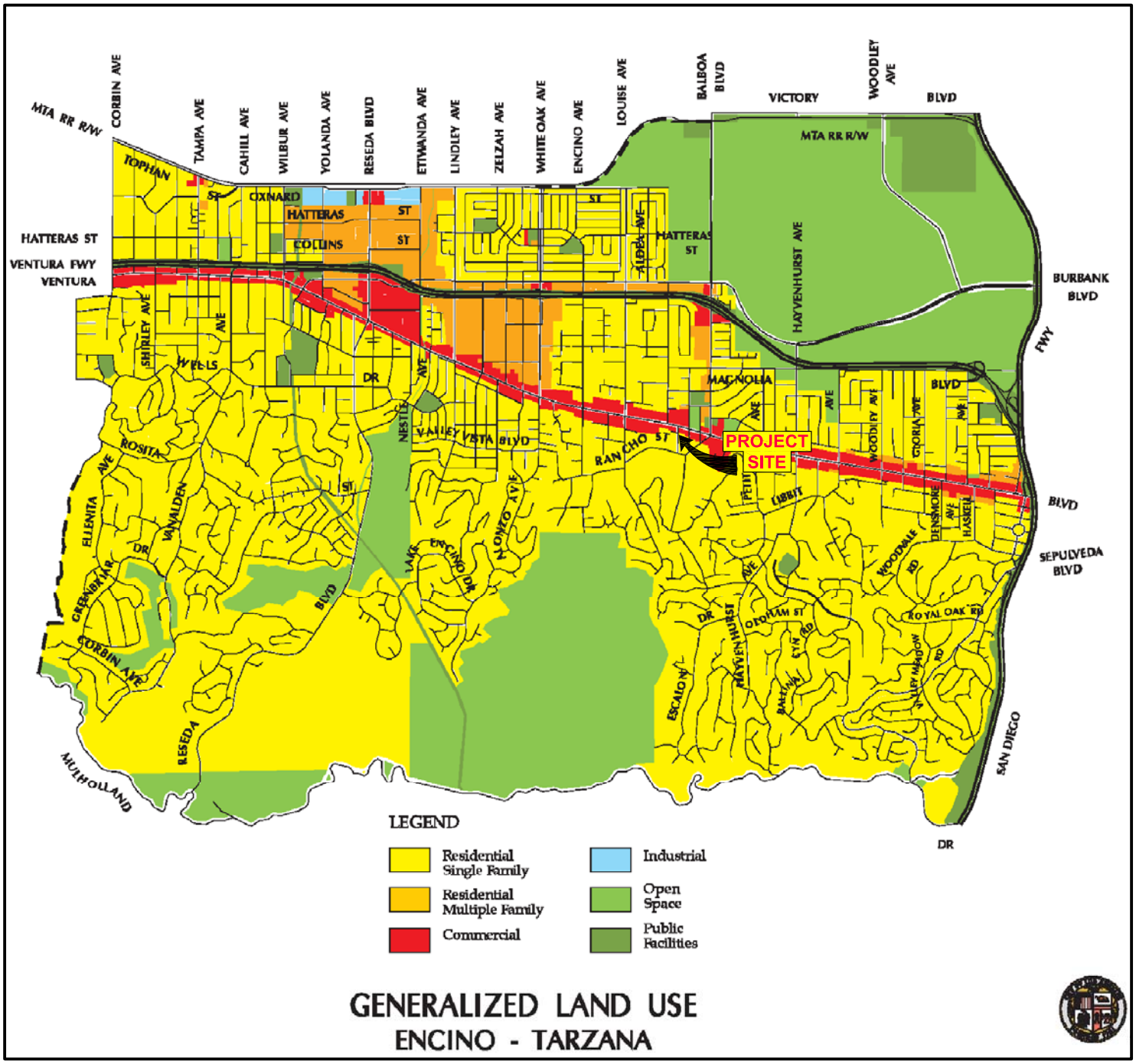
Table 2.1-2 Questions to Determine Project Applicability to Plans, Policies and Programs				
1.	Does the project include additions or new construction along a street designated as a Boulevard I, II and/or Avenue I, II or III on property zoned for R3 or less restrictive zone?	LAMC Section 12.37 Highway and Collector Street Dedication and Improvement		Nos, the Project does not require construction along Ventura Boulevard (Boulevard II street).
2.	Is project site along any network identified in the City's Mobility Plan?	MP 2.3 through 2.7		Yes, Ventura Boulevard is part of the PED, TEN & BEN Networks.
		MP 2.3 Pedestrian Infrastructure (Map F)		Portions of Ventura Boulevard are identified as pedestrian segment street. The Project has been designed to improve the continuity of the pedestrian sidewalk. Providing a safe walkable sidewalk on this portion of Ventura Boulevard.
		MP 2.4 Neighborhood Enhanced Network (Map C4)		Ventura Boulevard, Genesta Avenue or Amestoy Avenue are not identified on the neighborhood network. The Project is not proposing any changes along any streets that would prevent the City from installing additional features as part of the NEN, nor does the Project propose to modify any streets that would increase travel speeds on the neighborhood network.
		MP 2.5 Transit Network (Map B)		The Project is located on Ventura Boulevard, a Moderate Plus Transit Enhanced Street. The Project does not propose to remove or modify transit facilities in a manner that would negatively impact the reliability of existing transit service.
		MP 2.6 Bicycle Network (Map D2)		Ventura Boulevard is designated a Tier 3 bicycle lane street. Project development would not preclude development of the bike lanes envisioned in Mobility Plan 2035.
		MP 2.7 Vehicle Network (Map E)		Ventura Boulevard is not identified as a vehicle enhanced street. The Project would not conflict with the street designations and for any roadways identified in Mobility Plan 2035.
3.	Are dedications or improvements needed to serve long-term mobility needs identified in the Mobility Plan 2035?	MP - Street Classifications; MP-Street Designations & Standard Roadway Dimensions	MP - 2.17 Street Widenings	Yes, according to the Mobility Element Street standards for Amestoy Avenue, a 3 - foot dedication and 2 - foot widening would be necessary along the project frontage to satisfy the Collector street standards. No other street dedications or improvements are required by the Project to serve long-term mobility needs identified in the Mobility Plan 2035.
4.	Does the project require placement of transit furniture in accordance with City's Coordinated Street Furniture and Bus Bench Program?			No
5.	Is project site in an identified Transit Oriented Community (TOC)?	MP - TEN; MP - PED; MP - BEN; TOC Guidelines		Yes, the Project Site Ventura Boulevard frontage is TOC Tier 3 (LAMC 12.22 A,31).
6.	Is project site on a roadway identified in City's High Injury Network?	Vision Zero	Mobility Plan 2035	Yes, Ventura Boulevard is identified as part of the HIN. However, no Vision Zero projects are listed for this segment of Ventura Boulevard. The Project would not prevent any future Vision zero project.
7.	Does project propose repurposing existing curb space? (Bike corral, car-sharing, parklet, electric vehicle charging, loading zone, curb extension, etc.)	MP - 2.1 Adaptive Reuse of Streets; MP - 2.10 Loading Areas; MP - 3.5 Multi-Modal Features; MP - 3.8 Bicycle Parking; MP - 4.13 Parking & Land Use Management; MP - 5.4 Clean Fuels & Vehicles	MP - 2.3 Pedestrian Infrastructure; MP - 2.4 Neighborhood Enhanced Network; MP - 3.2 People with Disabilities; MP -4.1 New Technologies; MP 5.1 Substantial Transportation; MP - 5.5 Green Streets	No

9.	Does project propose paving, narrowing, shifting, or removing an existing parkway?	MP - 5.5 Green Streets; Sustainability Plan		No
10.	Does project propose modifying, removing or otherwise affect existing bicycle infrastructure? (ex: driveway proposed along street with bicycle facility)	MP- BEN; MP - 4.15 Public Hearing Process	Vision Zero	No, the Project does not propose new driveways on Ventura Boulevard, a future Tier 3 bike lane street.
11.	Is project site adjacent to an alley? If yes, will project make use of, modify, or restrict alley access?	MP - 3.9 Increased Network Access; MP - ENG.9; MP - PL.1; MP - PL.13; MP - PS.3		Yes, the Project will use adjacent alley for vehicular access.
12.	Does project create a cul-de-sac or is project site located adjacent to existing cul-de-sac? If yes, is cul-de-sac consistent with design goal in Mobility Plan 2035 (maintain through bicycle and pedestrian access)?	MP - 3.10 Cul-de-sacs		No, Not applicable
ACCESS: DRIVEWAYS AND LOADING				
13.	Does project site introduce a new driveway or loading access along an arterial (Avenue or Boulevard)?	MO - PL.1; MP - PK.10, CDG 4.1.02	Vision Zero	No
14.	If yes to 13, Is a non-arterial frontage or alley access available to serve the driveway or loading access needs?	MP - PL.1; MPP 321	Vision Zero	Not applicable
15.	Does project site include a corner lot? (avoid driveways too close to intersections)	CDG 4.1.01		No
16.	Does project propose driveway width more than City standard?	MPP Sec. 321	Vision Zero; Sustainability Plan, MP - PED, MP - BEN; CDG 4.1.04	No
17.	Does project propose more driveways than permitted by the City maximum standard?	MPP - Sec No. 321 Driveway Design	Vision Zero; Healthy LA	No
18.	Are loading zones proposed as part of the project?	MP - 2.1 Loading Areas; MP - PK.1; MP - PK.7; MP - PK.8; MPP 321		No, all loading & unloading will be provided on-site or from the adjacent alley.
19.	Does project include "drop-off" zones or areas? If yes, are such areas located to the side or rear of the buildings?	MP - 2.10 Loading Areas		No
20.	Does project propose modifying, limiting/restricting, or removing public access to a public right-of-way (e.g. vacating public right-of-way?)	MP - 2.3 Pedestrian Infrastructure; MP - 3.9 Increased Network Access		No

.

APPENDIX D

COMMUNITY PLAN LAND USE MAPS



1/2019

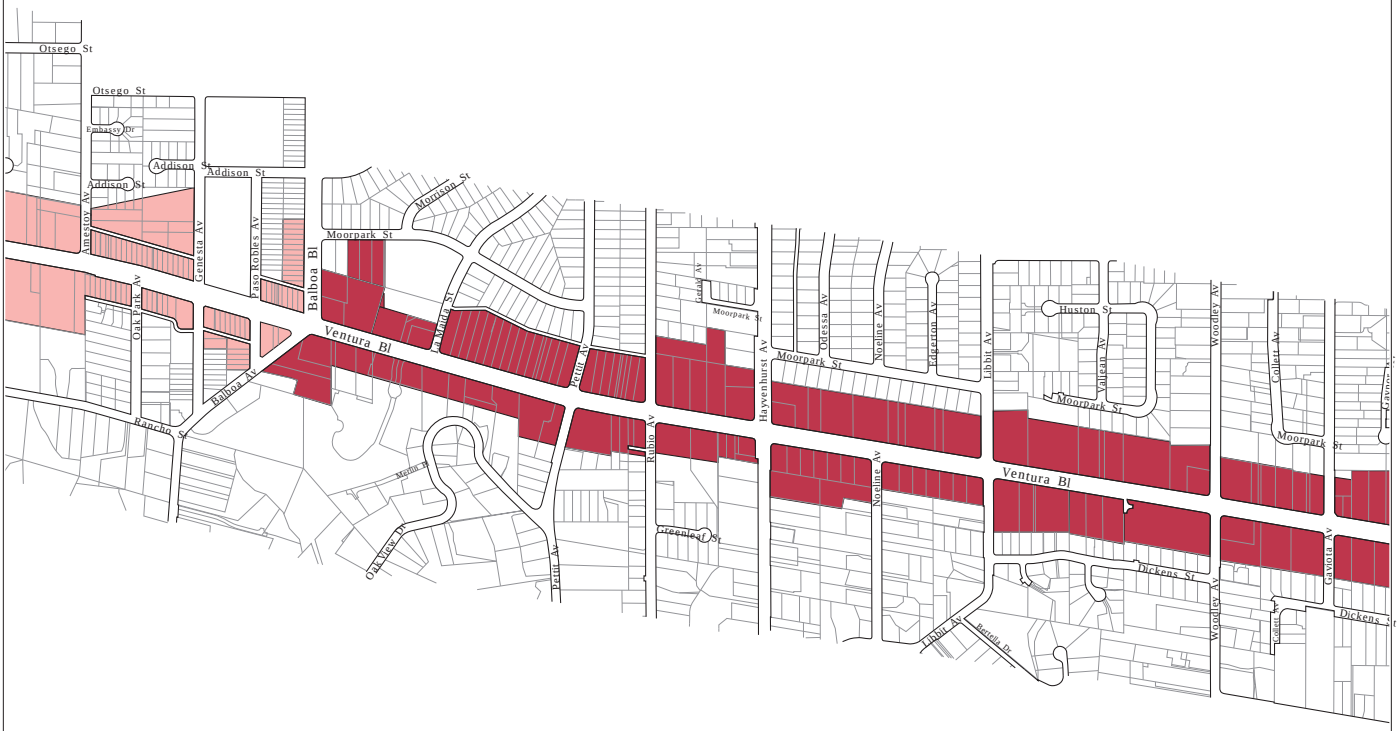
ENCINO TARZANA COMMUNITY PLAN LAND USE MAP AND PROJECT LOCATION

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661) 799 - 8423, OTC@overlandtraffic.com

SUMMARY OF LAND USE

CATEGORY	LAND USE	CORRESPONDING ZONES	NET ACRES	% AREA	TOTAL NET ACRES	TOTAL % AREA
RESIDENTIAL						
Single Family					**6,931**	**53.2**
	Minimum	OS, A1, A2, RE40	1,120	8.6		
	Very Low	RE20, RA, RE15, RE11	34	0.2		
	Very Low I	RE20, RA	2,719	20.9		
	Very Low II	RE15, RE11	1,703	13.1		
	Low	RE9, RS, R1, RU, RD6, RD5	1	0.0		
	Low I	RE9	54	0.4		
	Low II	RS, R1, RU, RD6, RD5	1,300	10.0		
Multiple					**420**	**3.3**
	Low Medium I	R2, RD3, RD4, RZ3, RZ4, RU, RW1	39	0.3		
	Low Medium II	RD1.5, RD2 , RW2, RZ2.5	65	0.5		
	Medium	R3	316	2.5		
COMMERCIAL					**339**	**2.6**
	Neighborhood	C1, C1.5, C2, C4	39	0.3		
	General	CR, C1.5, C2, C4	21	0.1		
	Community	CR, C2, C4	179	1.4		
	Regional	CR, C1.5, C2, C4, R3, R4, R5	100	0.8		
INDUSTRIAL					**27**	**0.2**
	Commercial	CM,P	1	0.0		
	Limited	CM, MR1, M1	26	0.2		
PARKING					**0**	**0.0**
	Parking	P, PB	0	0.0		
OPEN SPACE/PUBLIC FACILITIES					**3,728**	**28.6**
	Open Space	OS, A1	3,151	24.2		
	Public Facilities	PF	577	4.4		
STREETS					**1,578**	**12.1**
	Private Streets	-	37	0.3		
	Public Streets	-	1,541	11.8		
TOTAL					**13,023**	**100.0**

Ventura / Cahuenga Boulevard Corridor Specific Plan



CPC 85-381

Regional Commercial

Community Commercial

Neighborhood & General Commercial

Map 7 - Encino Section

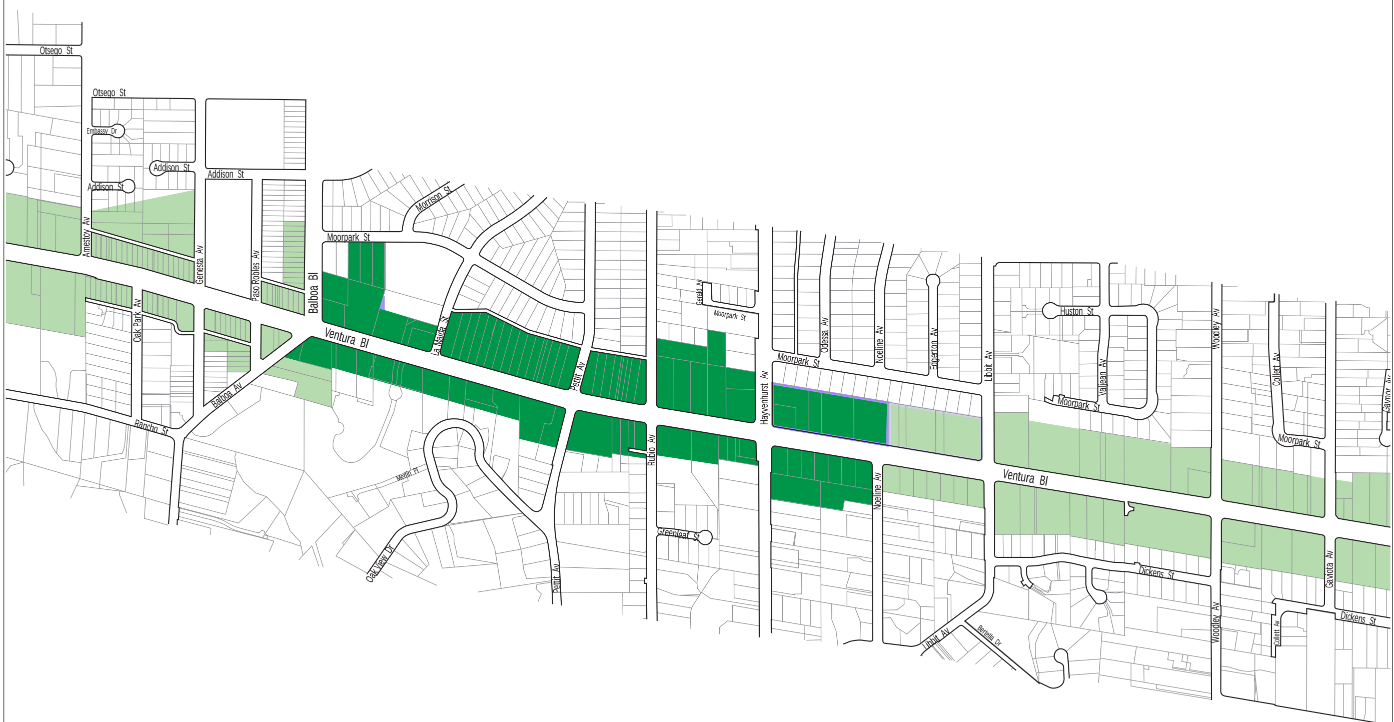
Plan Designations

0 400 800 ft

N

mc:023.Encino2:08.26.04

Ventura / Cahuenga Boulevard Corridor Specific Plan



CPC 85-381

Specific Plan Area

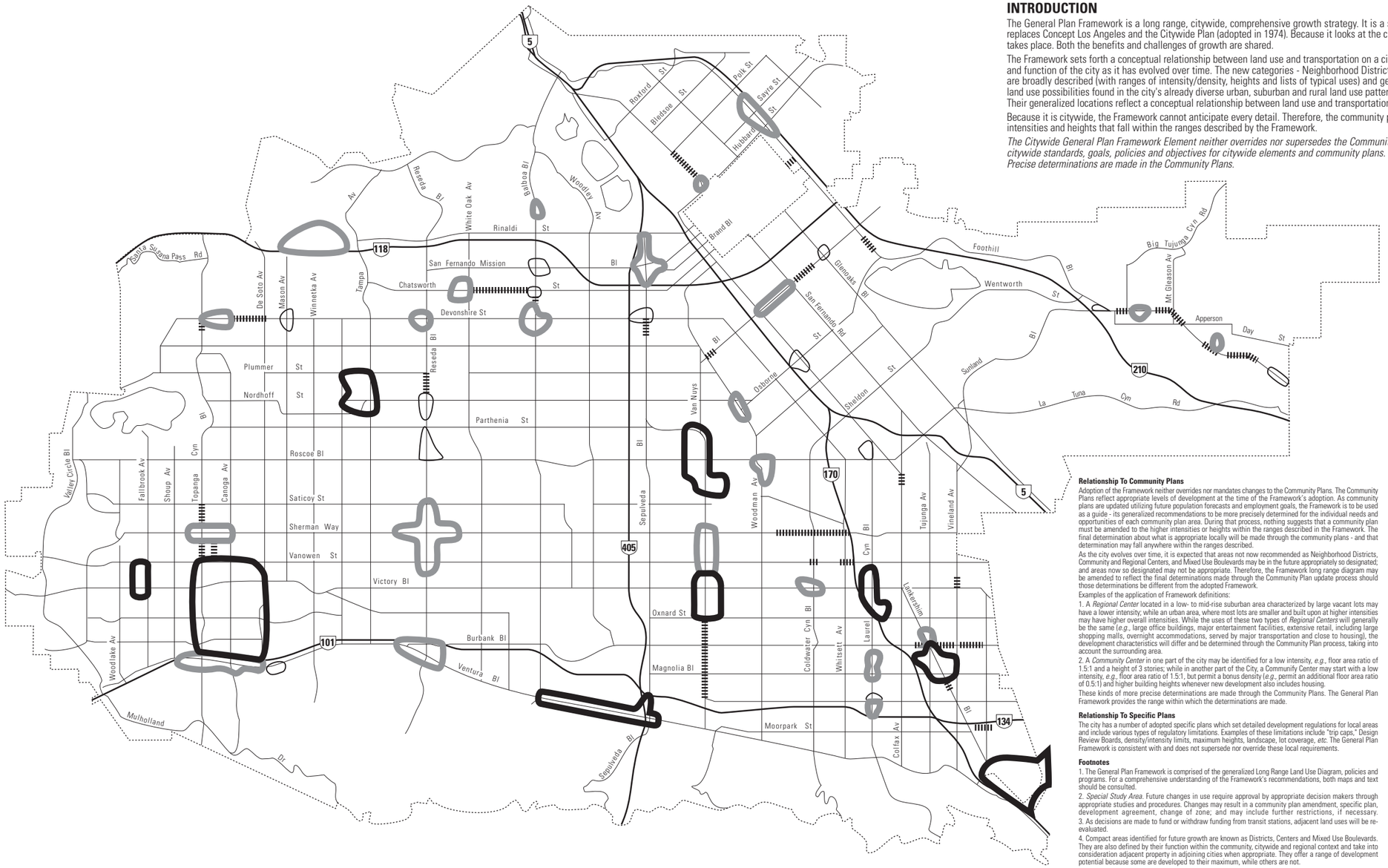
Pedestrian Oriented Area

Exhibit C - Encino Section

Pedestrian Oriented Areas

0 400 800 ft N

mc:023.Encino_Exhibit C.08.26.04



INTRODUCTION

The General Plan Framework is a long range, citywide, comprehensive growth strategy. It is a special element of the general plan which looks to the future as required by law and replaces Concept Los Angeles and the Citywide Plan (adopted in 1974). Because it looks at the city as a whole, the Framework provides a citywide context within which local planning takes place. Both the benefits and challenges of growth are shared.

The Framework sets forth a conceptual relationship between land use and transportation on a citywide basis and defines new land use categories which better describe the character and function of the city as it has evolved over time. The new categories - Neighborhood District, Community Center, Regional Center, Downtown Center and Mixed Use Boulevards - are broadly described (with ranges of intensity/density, heights and lists of typical uses) and generally shown on this long range land use diagram. The definitions reflect a range of land use possibilities found in the city's already diverse urban, suburban and rural land use patterns - patterns which have evolved over time at different rates and in different locations. Their generalized locations reflect a conceptual relationship between land use and transportation.

Because it is citywide, the Framework cannot anticipate every detail. Therefore, the community plans must be looked to for final determinations as to boundaries, land use categories, intensities and heights that fall within the ranges described by the Framework.

The Citywide General Plan Framework Element neither overrides nor supersedes the Community plans. It ***guides*** *the city's long range growth and development policy, establishing citywide standards, goals, policies and objectives for citywide elements and community plans. The Framework is flexible, suggesting a range of uses within its land use definitions. Precise determinations are made in the Community Plans.*

Relationship To Community Plans

Adoption of the Framework neither overrides nor mandates changes to the Community Plans. The Community Plans reflect appropriate levels of development at the time of the Framework's adoption. As community plans are updated utilizing future population forecasts and employment goals, the Framework is to be used as a guide - its generalized recommendations to be more precisely determined for the individual needs and opportunities of each community plan area. During that process, nothing suggests that a community plan must be amended to the higher intensities or heights within the ranges described in the Framework. The final determination about what is appropriate locally will be made through the community plans - and that determination may fall anywhere within the ranges described.

As the city evolves over time, it is expected that areas not now recommended as Neighborhood Districts, Community and Regional Centers, and Mixed Use Boulevards may be in the future appropriately so designated; and areas now so designated may not be appropriate. Therefore, the Framework long range diagram may be amended to reflect the final determinations made through the Community Plan update process should those determinations be different from the adopted Framework.

Examples of the application of Framework definitions:

1. A *Regional Center* located in a low- to mid-rise suburban area characterized by large vacant lots may have a lower intensity; while an urban area, where most lots are smaller and built upon at higher intensities may have higher overall intensities. While the uses of these two types of *Regional Centers* will generally be the same (*e.g.,* large office buildings, major entertainment facilities, extensive retail, including large shopping malls, overnight accommodations, served by major transportation and close to housing), the development characteristics will differ and be determined through the Community Plan process, taking into account the surrounding area.

2. A *Community Center* in one part of the city may be identified for a low intensity, *e.g.,* floor area ratio of 1.5:1 and a height of 3 stories; while in another part of the City, a Community Center may start with a low intensity, *e.g.,* floor area ratio of 1.5:1, but permit a bonus density (*e.g.,* permit an additional floor area ratio of 0.5:1) and higher building heights whenever new development also includes housing.

These kinds of more precise determinations are made through the Community Plans. The General Plan Framework provides the range within which the determinations are made.

Relationship To Specific Plans

The city has a number of adopted specific plans which set detailed development regulations for local areas and include various types of regulatory limitations. Examples of these limitations include "trip caps," Design Review Boards, density/intensity limits, maximum heights, landscape, lot coverage, *etc.* The General Plan Framework is consistent with and does not supersede nor override these local requirements.

Footnotes

1. The General Plan Framework is comprised of the generalized Long Range Land Use Diagram, policies and programs. For a comprehensive understanding of the Framework's recommendations, both maps and text should be consulted.

2. *Special Study Area.* Future changes in use require approval by appropriate decision makers through appropriate studies and procedures. Changes may result in a community plan amendment, specific plan, development agreement, change of zone; and may include further restrictions, if necessary.

3. As decisions are made to fund or withdraw funding from transit stations, adjacent land uses will be re-evaluated.

4. Compact areas identified for future growth are known as Districts, Centers and Mixed Use Boulevards. They are also defined by their function within the community, citywide and regional context and take into consideration adjacent property in adjoining cities when appropriate. They offer a range of development potential because some are developed to their maximum, while others are not.

LEGEND
Districts, Centers & Mixed Use Boulevards

Neighborhood District
A focal point for surrounding residential neighborhoods and containing a diversity of land uses such as restaurants, retail outlets, grocery stores, child care facilities, small professional offices, community meeting rooms, pharmacies, religious facilities and other similar services. The clustering of uses minimizes automobile trip-making and encourages walking to and from adjacent neighborhoods. Pedestrian-oriented areas are encouraged, and the district may be served by a local shuttle service. Generally, Neighborhood Districts are at a floor area ratio of 1.5:1 or less and characterized by 1- or 2-story buildings.

Community Center
A focal point for surrounding residential neighborhoods and containing a diversity of uses such as small offices and overnight accommodations, cultural and entertainment facilities, schools and libraries, in addition to neighborhood oriented services. Community Centers range from floor area ratios of I.5:1 to 3.0:1. Generally, the height of different types of Community Centers will also range from 2- to 6-story buildings, *e.g.,* some will be 2-story Centers, some 4- or 6-story Centers depending on the character of the surrounding area. Community Centers are served by small shuttles, local buses in addition to automobiles and/or may be located along rail transit stops.

Regional Center
A focal point of regional commerce, identity and activity and containing a diversity of uses such as corporate and professional offices, residential, retail commercial malls, government buildings, major health facilities, major entertainment and cultural facilities and supporting services. Generally, different types of Regional Centers will fall within the range of floor area ratios from 1.5:1 to 6.0:1. Some will only be commercially oriented; others will contain a mix of residential and commercial uses. Generally, Regional Centers are characterized by 6- to 20-stories (or higher). Regional Centers are usually major transportation hubs.

Downtown Center
An international center for finance and trade that serves the population of the five county metropolitan region. Downtown is the largest government center in the region and the location for major cultural and entertainment facilities, hotels, professional offices, corporate headquarters, financial institutions, high-rise residential towers, regional transportation facilities and the Convention Center, The Downtown Center is generally characterized by a floor area ratio up to 13:1 and high rise buildings.

Mixed Use Boulevard
These connect the city's neighborhood districts and community, regional and Downtown centers. Mixed Use development is encouraged along these boulevards, with the scale, density and height of development compatible with the surrounding areas. Generally, different types of Mixed Use Boulevards will fall within a range of floor area ratios from 1.5:1 up to 4.0:1 and be generally characterized by 1- to 2-story commercial structures, up to 3- to 6-story mixed use buildings between centers and higher buildings within centers. Mixed Use Boulevards are served by a variety of transportation facilities.

Figure 3-4

Long Range Land Use Diagram

San Fernando Valley

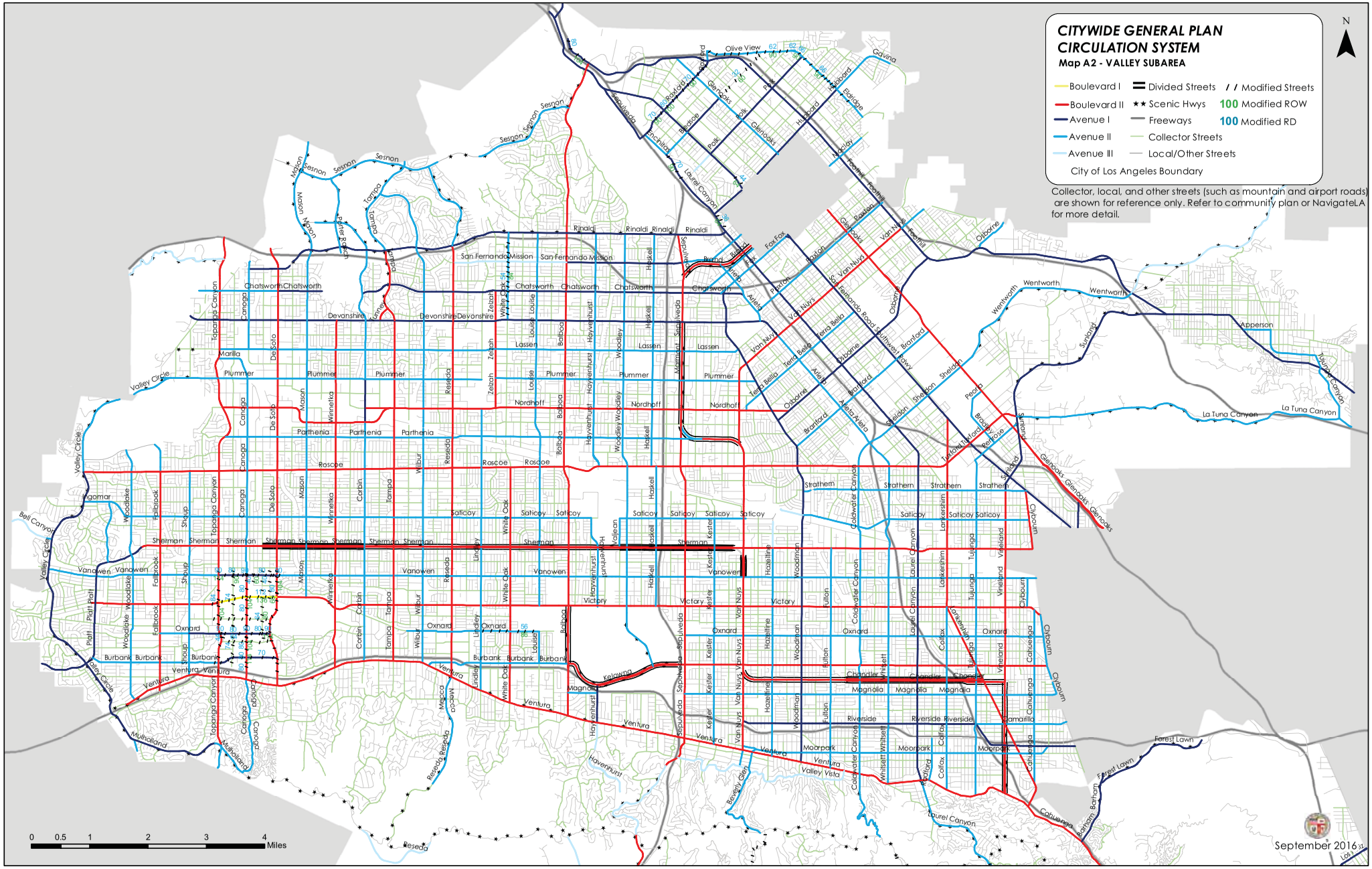
Close window to return to previous page

N 1 1/2 0 1 2 3 4 5 KILOMETERS
1 1/2 1/4 0 1 2 3 4 MILES

CITY OF LOS ANGELES GENERAL PLAN FRAMEWORK
2-19-03

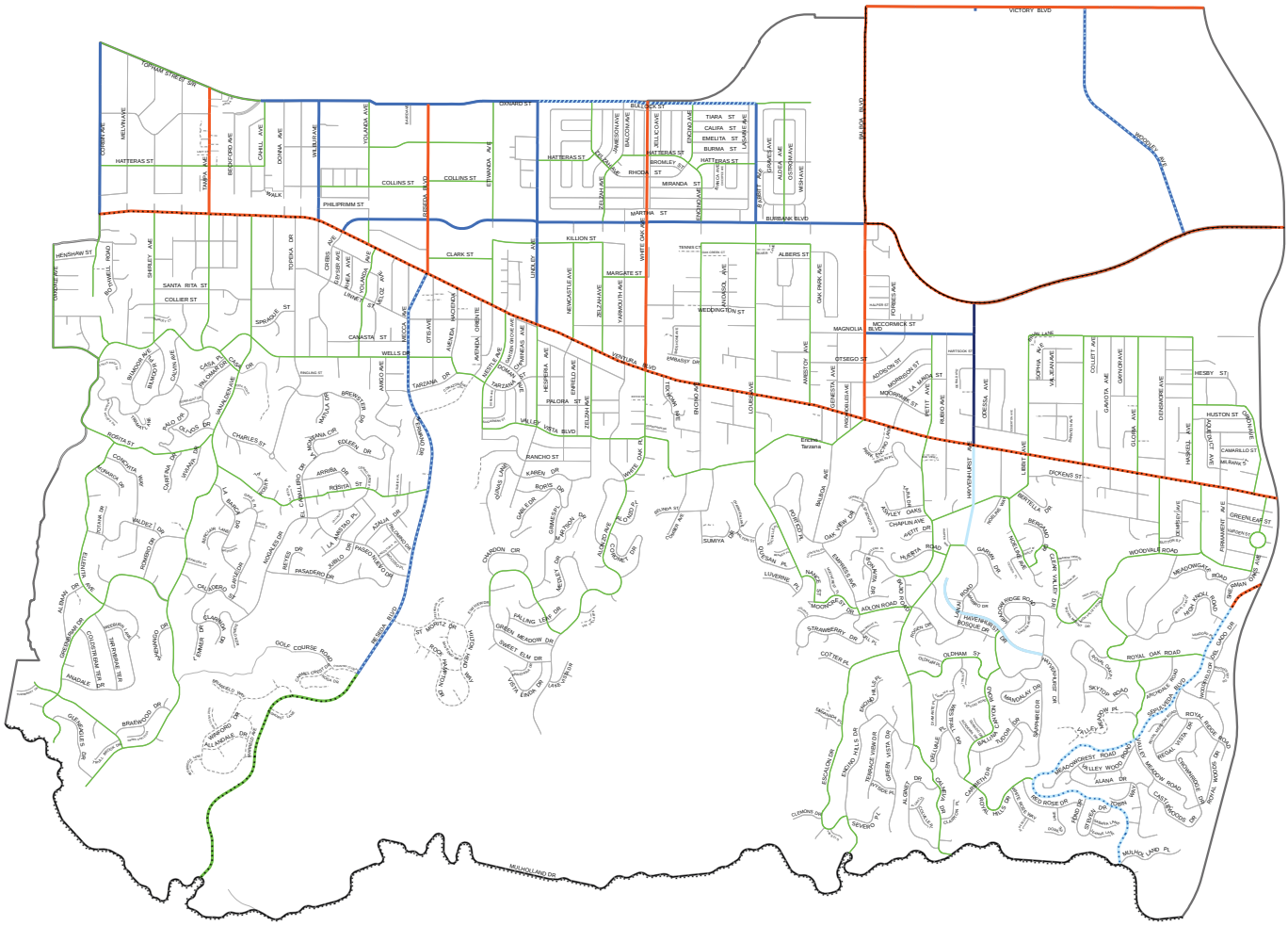
APPENDIX E

STREET STANDARDS, CIRCULATION AND HIGH INJURY MAPS


CITYWIDE GENERAL PLAN
CIRCULATION SYSTEM
Map A2 - VALLEY SUBAREA
Boulevard I
Boulevard II
Avenue I
Avenue II
Avenue III
Divided Streets
Scenic Hwys
Freeways
Collector Streets
Local/Other Streets
City of Los Angeles Boundary
Modified Streets
100 Modified ROW
100 Modified RD
Collector, local, and other streets (such as mountain and airport roads) are shown for reference only. Refer to community plan or NavigateLA for more detail.
N
0 0.5 1 2 3 4 Miles
September 2016

ENCINO - TARZANA

CIRCULATION



Legend

- Boulevard II
- Boulevard II Divided Scenic
- Boulevard II Scenic
- Avenue I
- Avenue II
- Avenue II Modified
- Avenue II Scenic
- Avenue III
- Avenue III Proposed
- Avenue III Scenic
- Collector
- Collector Proposed
- Collector Scenic
- Scenic Parkway
- Local
- Private Street
- Community Plan Area Boundary

Date: 2/1/2017
DEPARTMENT OF CITY PLANNING
INFORMATION TECHNOLOGIES DIVISION

Disclaimer:
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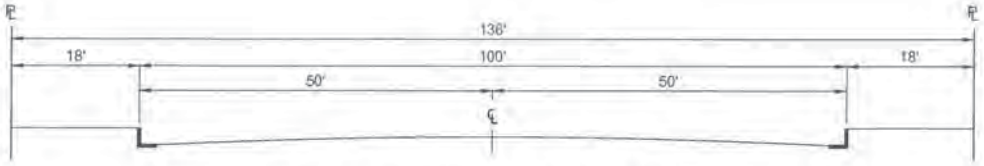
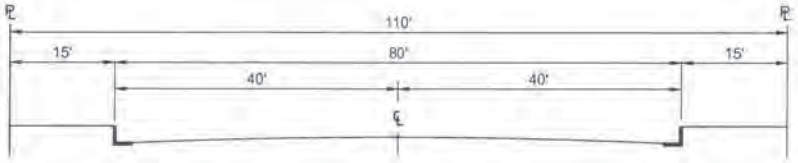
N
W E
S

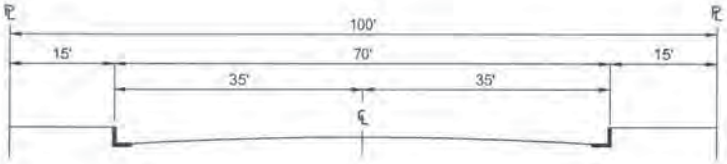
ARTERIAL STREETS



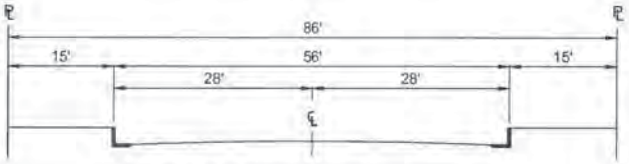
BOULEVARD I (MAJOR HIGHWAY CLASS I)



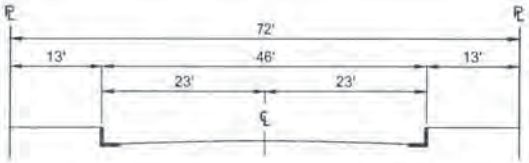
BOULEVARD II (MAJOR HIGHWAY CLASS II)



AVENUE I (SECONDARY HIGHWAY)



AVENUE II (SECONDARY HIGHWAY)



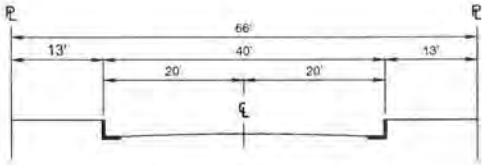
AVENUE III (SECONDARY HIGHWAY)

THIS STANDARD PLAN BECOMES EFFECTIVE CONCURRENT WITH THE ADOPTION OF THE MOBILITY PLAN 2035.

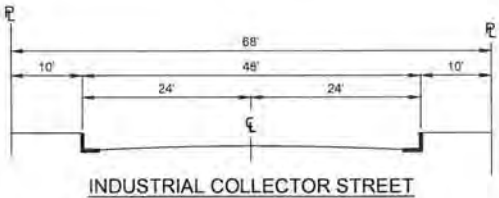
BUREAU OF ENGINEERING	DEPARTMENT OF PUBLIC WORKS	CITY OF LOS ANGELES
--- DRAFT --- STANDARD STREET DIMENSIONS		STANDARD PLAN S-470-1

PREPARED	SUBMITTED	APPROVED		SUPERSEDES	REFERENCES
HAMID MADANI, P.E. BUREAU OF ENGINEERING CHECKED RAFFI MASSABKI, P.E. BUREAU OF ENGINEERING	SAMARA ALI-AHMAD, P.E. DATE ENGINEER OF DESIGN BUREAU OF ENGINEERING KENNETH REDD, P.E. DATE DEPUTY CITY ENGINEER	GARY LEE MOORE, P.E., ENV. SP. DATE CITY ENGINEER DEPARTMENT OF TRANSPORTATION DATE GENERAL MANAGER DIRECTOR OF PLANNING DATE	REGISTERED PROFESSIONAL ENGINEER GARY LEE MOORE No. C-49448 Exp. CIVIL STATE OF CALIFORNIA	D-22549 S-470-0	
				VAULT INDEX NUMBER:	
				SHEET 1 OF 4 SHEETS	

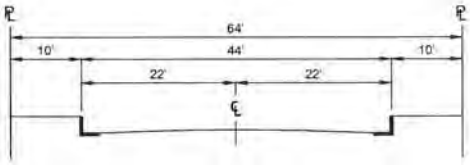
NON-ARTERIAL STREETS



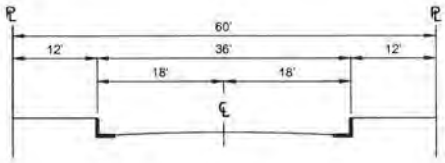
COLLECTOR STREET



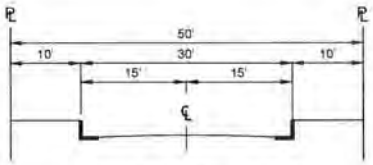
INDUSTRIAL COLLECTOR STREET



INDUSTRIAL LOCAL STREET

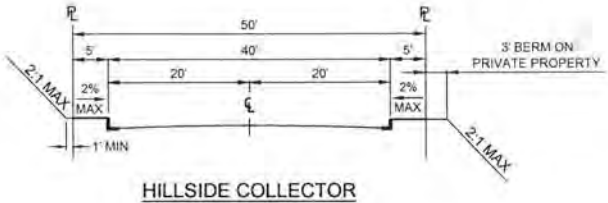


LOCAL STREET - STANDARD

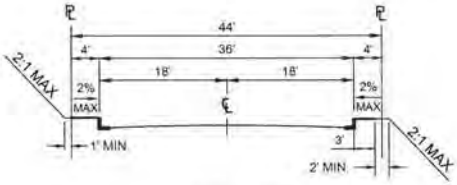


LOCAL STREET - LIMITED

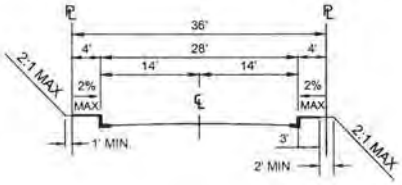
HILLSIDE STREETS



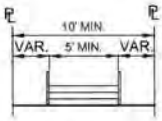
HILLSIDE COLLECTOR



HILLSIDE LOCAL



HILLSIDE LIMITED STANDARD



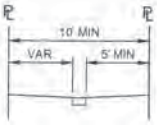
PUBLIC STAIRWAY

CONSTRUCTED IN ACCORDANCE WITH
BUREAU OF ENGINEERING STANDARD PLANS

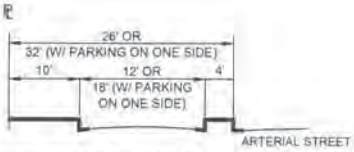
STANDARD PLAN NO. S-470-1	VAULT INDEX NUMBER B-	SHEET 2 OF 4 SHEETS

OTHER PUBLIC RIGHTS-OF-WAY

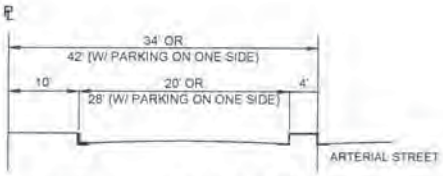
SHARED STREET



PEDESTRIAN WALKWAY

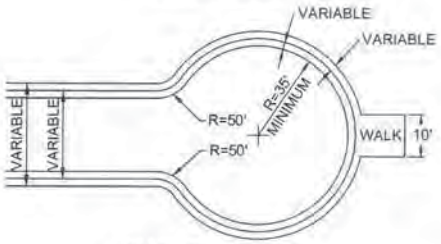


ONE-WAY SERVICE ROAD



BI-DIRECTIONAL SERVICE ROAD

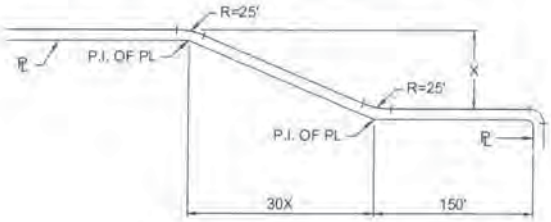
CUL-DE-SAC



MAY BE UNSYMMETRICAL
(PLAN VIEW)

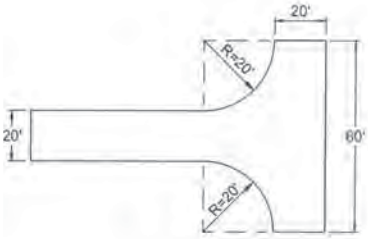
NOTE: FOR FIRE TRUCK CLEARANCE, NO OBSTRUCTION TALLER THAN 6" SHALL BE PERMITTED WITHIN 3FT. OF THE CURB. ON-STREET PARKING SHALL BE PROHIBITED.

TRANSITIONAL EXTENSIONS

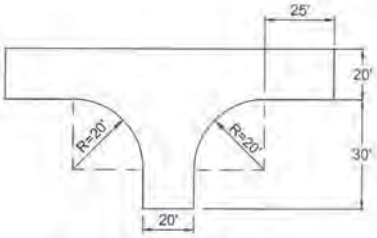


STANDARD FLARE SECTION
(PLAN VIEW)

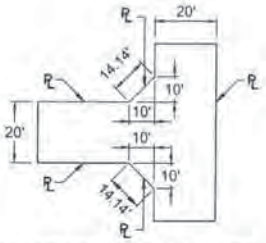
ALLEYS



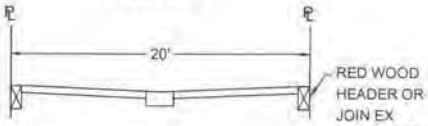
STANDARD TURNING AREA
(PLAN VIEW)



MINIMUM TURNING AREA
(PLAN VIEW)



STANDARD CUT CORNERS
FOR 90° INTERSECTION
(PLAN VIEW)



STANDARD CROSS-SECTION
(PLAN VIEW)

STANDARD PLAN NO.	S-470-1	VAULT INDEX NUMBER B-	SHEET 3 OF 4 SHEETS

NOTES

1. CITY COUNCIL MAY, BY ORDINANCE, ADOPT SPECIFIC STANDARDS FOR INDIVIDUAL STREETS THAT DIFFER FROM THESE OFFICIAL STANDARD STREET DIMENSIONS. COMMUNITY PLANS AND SPECIFIC PLANS SHOULD BE REVIEWED FOR FOOTNOTES, INSTRUCTIONS AND/OR MODIFIED STREET DIMENSIONS THAT WOULD REQUIRE STANDARDS DIFFERENT THAN THOSE INDICATED ON THIS STANDARD PLAN.

2. FOR ADDITIONAL GUIDANCE AS TO THE USE OF THE ROADWAY AND SIDEWALK AREA, PLEASE REFER TO THE COMPLETE STREET DESIGN GUIDE AND MANUALS.

3. FOR DISCRETIONARY PROJECTS REQUIRING ACTION FROM THE DEPARTMENT OF CITY PLANNING (PLANNING), PLANNING MAY INCLUDE SPECIFIC INFORMATION AS TO THE DESIGN AND UTILIZATION OF THE SIDEWALK AREA.

4. WHERE A DESIGNATED ARTERIAL CROSSES ANOTHER DESIGNATED ARTERIAL STREET AND THEN CHANGES IN DESIGNATION TO A STREET OF LESSER STANDARD WIDTH, THE ARTERIAL SHALL BE TAPERED IN A STANDARD FLARE SECTION ON BOTH SIDES, AS ON SHEET 3, TO MEET THE WIDTH OF LESSER DESIGNATION AND PROVIDE AN ORDERLY TRANSITION.

5. PRIVATE STREET DEVELOPMENT SHOULD CONFORM TO THE STANDARD PUBLIC STREET DIMENSIONS SHOWN ON THE SHEET, WHERE APPROPRIATE. VARIATIONS MAY BE APPROVED ON A CASE-BY-CASE BASIS BY THE CITY.

6. FIFTY-FOOT CURB RADII (INSTEAD OF THE STANDARD 35' CURB RADII) SHALL BE PROVIDED FOR CUL-DE-SACS IN INDUSTRIAL AREAS. SEE CUL-DE-SAC ILLUSTRATION FOR FURTHER DESIGN STANDARDS.

7. ALLEYS SHALL BE A MINIMUM OF 20' IN WIDTH AND INTERSECTIONS AND/OR DEAD-END TERMINUSES SHALL BE DESIGNED TO CONFORM TO THE ALLEY ILLUSTRATIONS INCLUDED HEREIN.

8. FOR INTERSECTIONS OF STREETS, THE FOLLOWING DEDICATIONS SHALL APPLY:
   A. INTERSECTIONS OF ARTERIAL STREETS WITH ANY OTHER STREET: 15' X 15' CUT CORNER OR 20' CURVED CORNER RADIUS.
   B. INTERSECTIONS ON NON-ARTERIAL AND/OR HILLSIDE STREETS: 10' X 10' CUT CORNER OR 15' CURVED CORNER RADIUS.

9. STREETS THAT ARE ACCOMPANIED BY A PARALLEL FRONTAGE AND/OR SERVICE ROAD ARE DEEMED TO MEET THE STREET STANDARDS SET FORTH HEREIN AND THE DEDICATION REQUIREMENT SHALL BE NO MORE THAN IS NECESSARY TO BRING THE ABUTTING SIDEWALK DIMENSION INTO COMPLIANCE WITH THE STREET STANDARD.

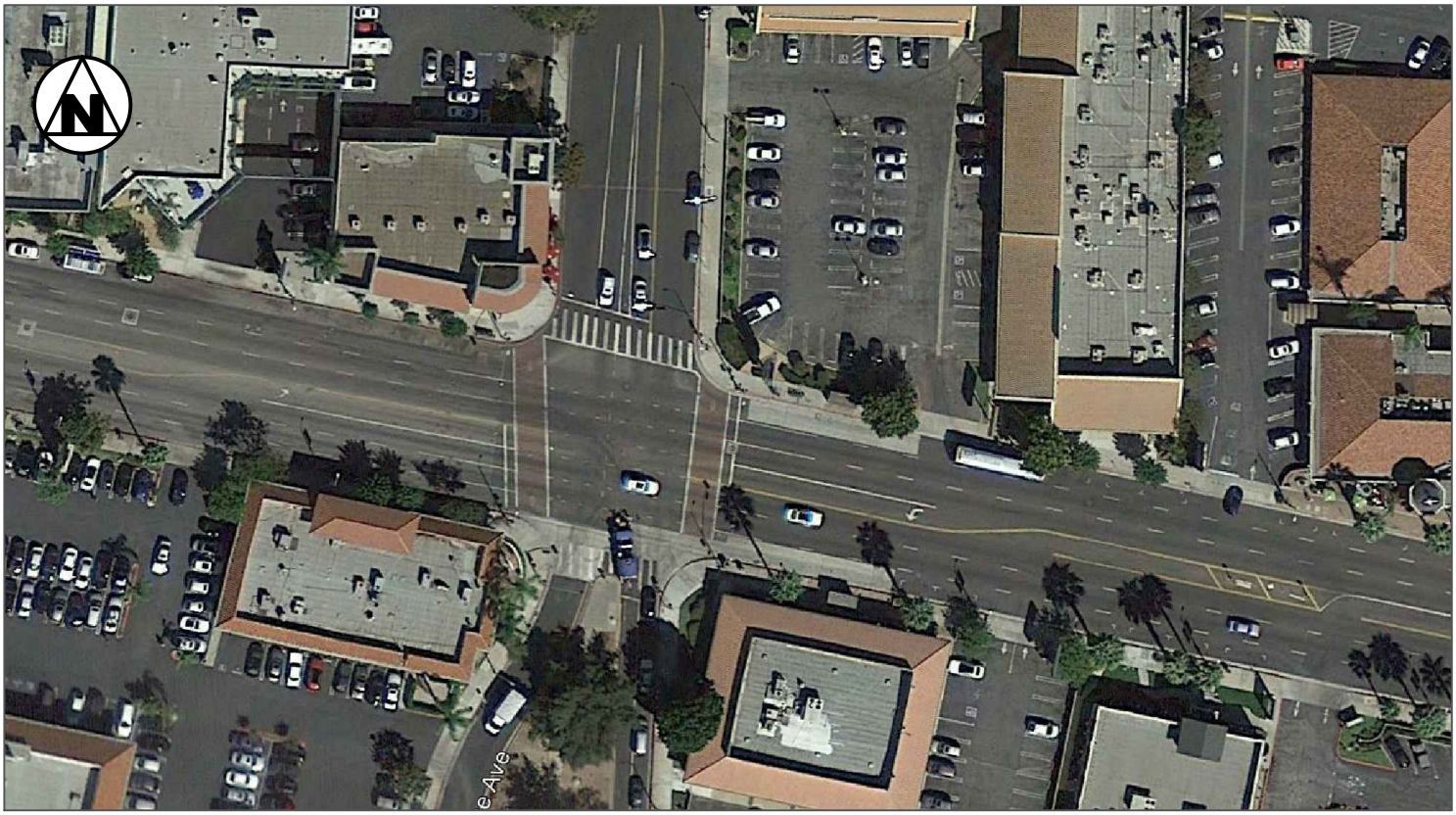
10. DUE TO THEIR UNIQUE CHARACTER AND DIMENSIONS ALL STREETS DESIGNATED AS DIVIDED ARE CONSIDERED TO HAVE MET THEIR STREET STANDARD AND THE DEDICATION SHALL BE NO MORE THAN IS NECESSARY TO BRING THE ABUTTING SIDEWALK DIMENSION COMPLIANT WITH THE STREET STANDARD.

11. THE DIMENSION OF ANY MEDIAN, DIVIDED STRIP AND/OR TRANSIT WAY SHALL BE INCLUDED WHEN DETERMINING THE RIGHT-OF-WAY DIMENSION.

12. THE LOCATION OF THE DRAINAGE GUTTER IS NOT RESTRICTED TO THE CENTER OF THE SHARED STREET AND CAN BE PLACED WHERE NECESSARY AS APPROVED BY THE CITY.

13. A SHARED STREET SHALL PROVIDE A DEDICATED PEDESTRIAN ACCESS ROUTE.

VENTURA BOULEVARD
AND WHITE OAK BOULEVARD

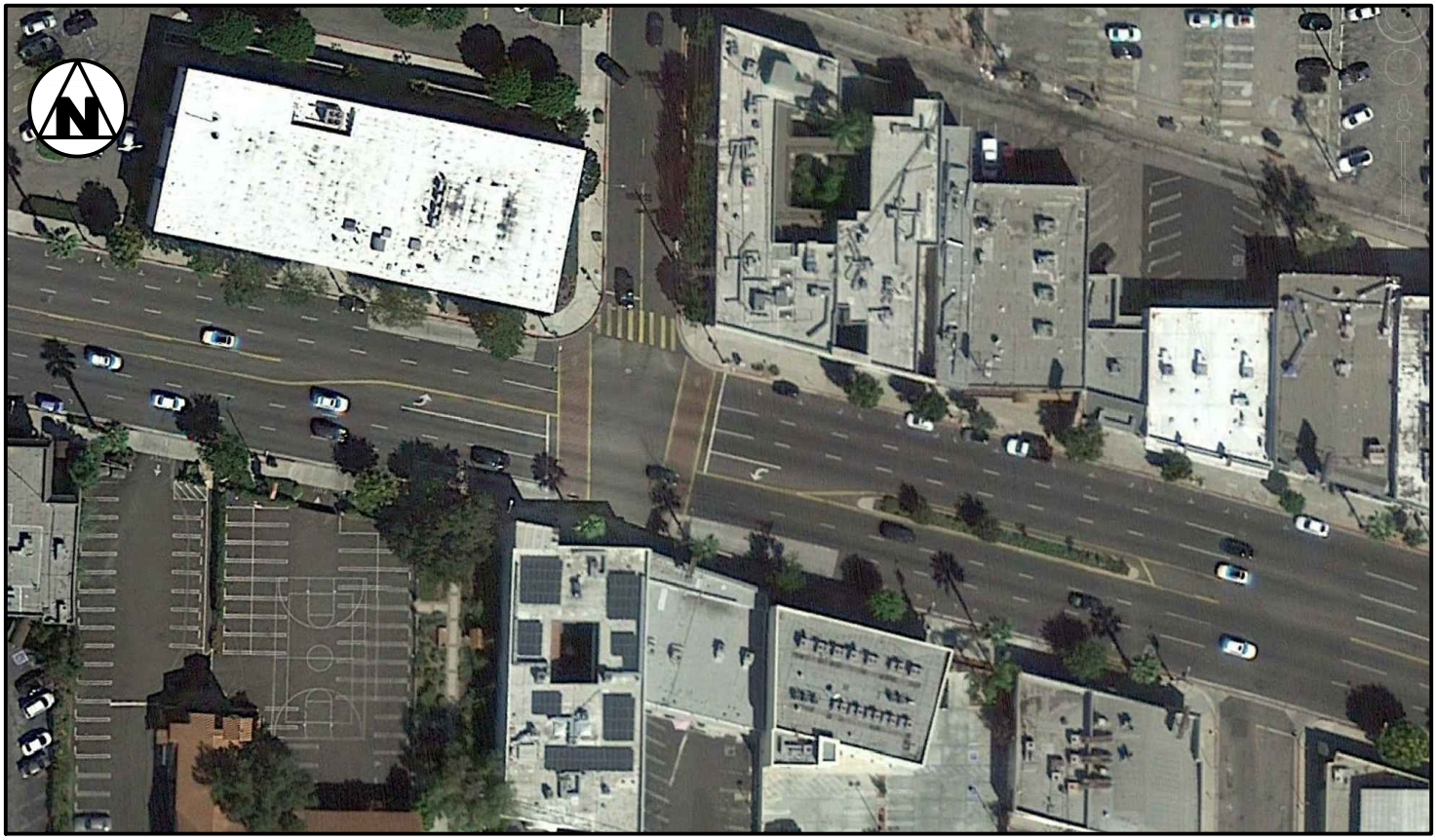


VENTURA BOULEVARD
AND LOUISE AVENUE

4/2017

STUDY INTERSECTIONS 1 AND 2

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661)799-8423, OTC@overlandtraffic.com



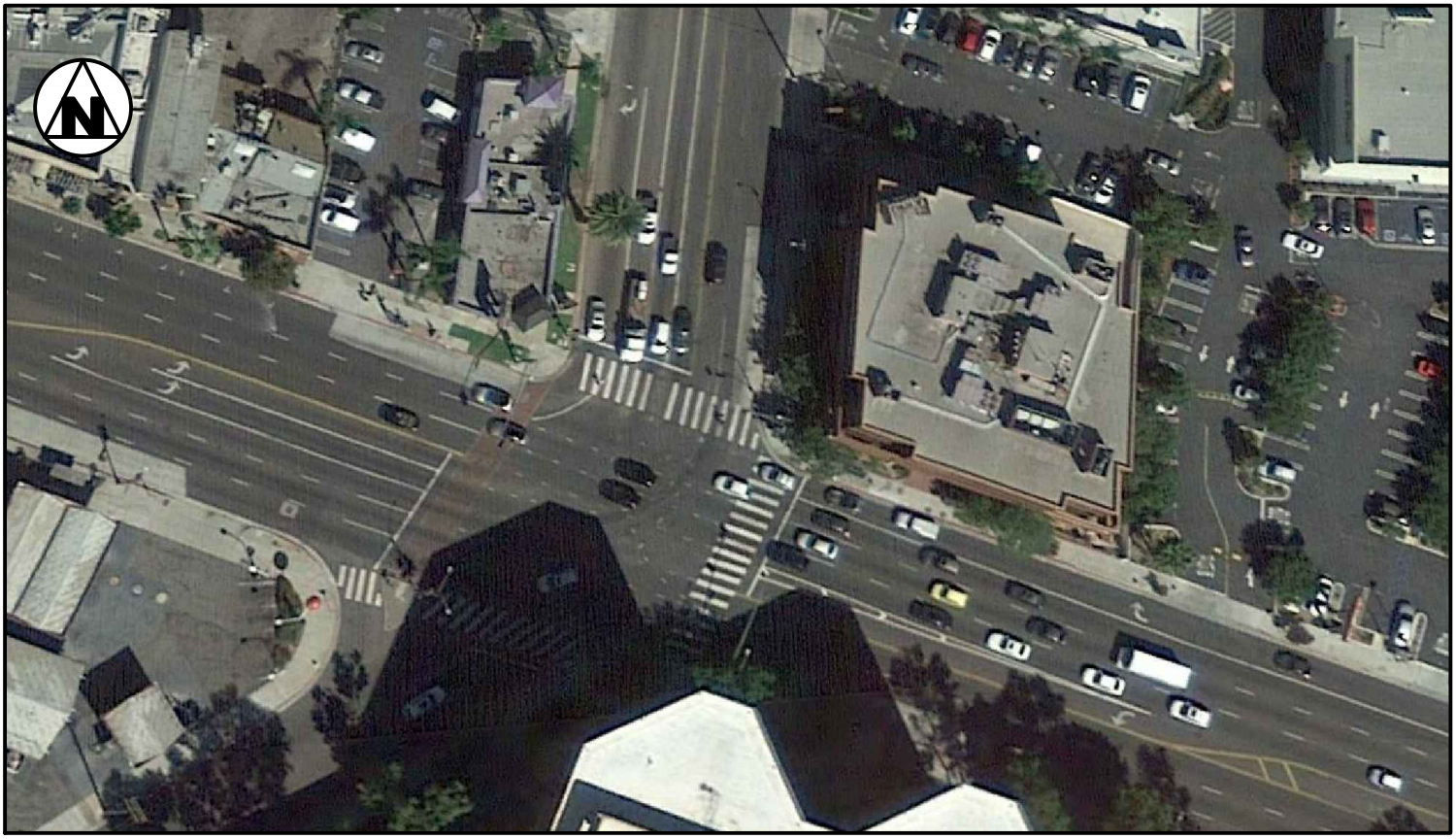
VENTURA BOULEVARD
AND AMESTOY AVENUE

VENTURA BOULEVARD
AND GENESTA AVENUE

4/2017

STUDY INTERSECTIONS 3 AND 4

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661)799-8423, OTC@overlandtraffic.com



VENTURA BOULEVARD
AND BALBOA BOULEVARD

VENTURA BOULEVARD
AND HAYVENHURST AVENUE

4/2017

STUDY INTERSECTIONS 5 & 6

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661)799-8423, OTC@overlandtraffic.com

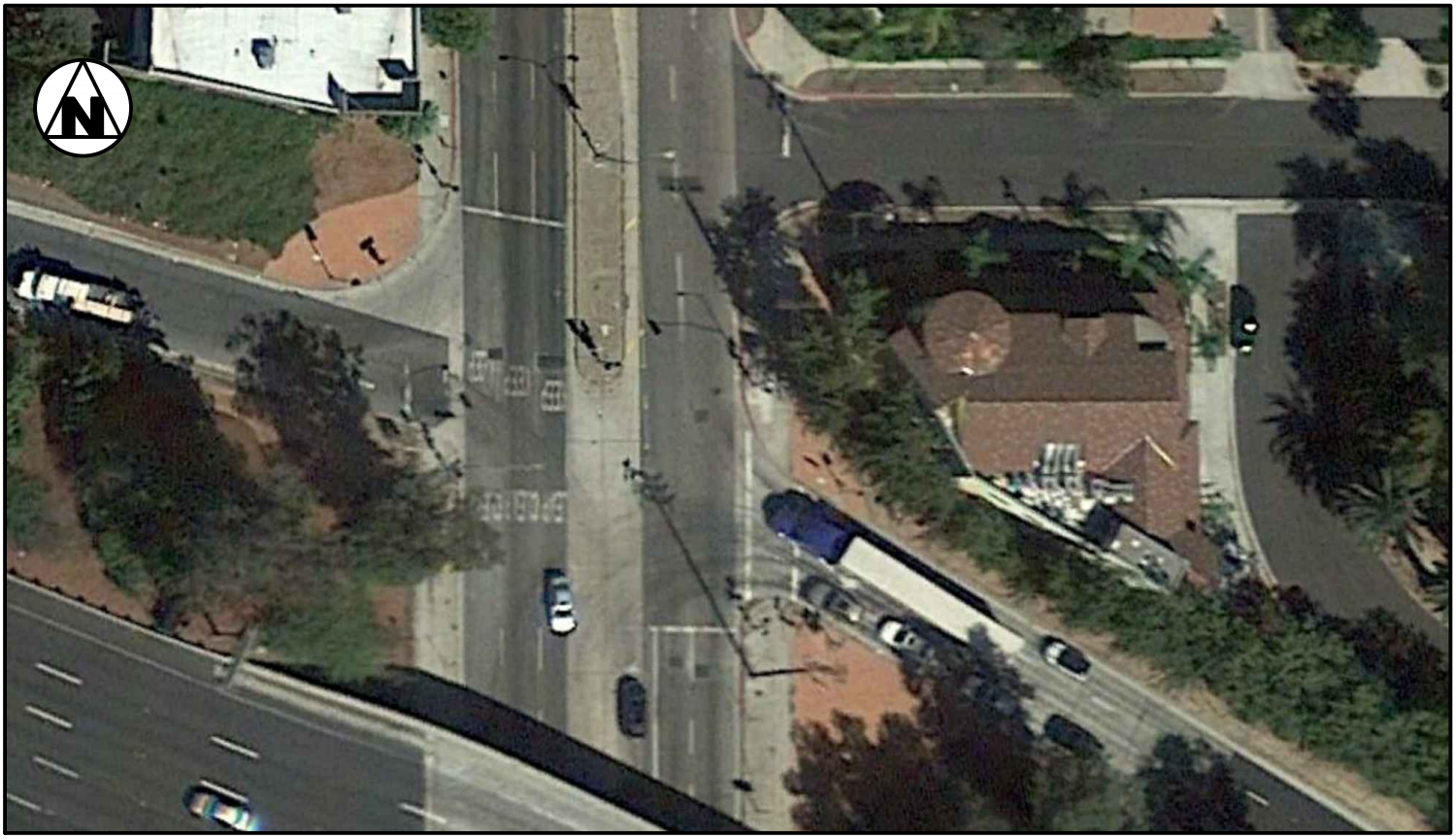
BALBOA BOULEVARD
AND MAGNOLIA BOULEVARD

BALBOA BOULEVARD
AND 101 FREEWAY EB RAMPS

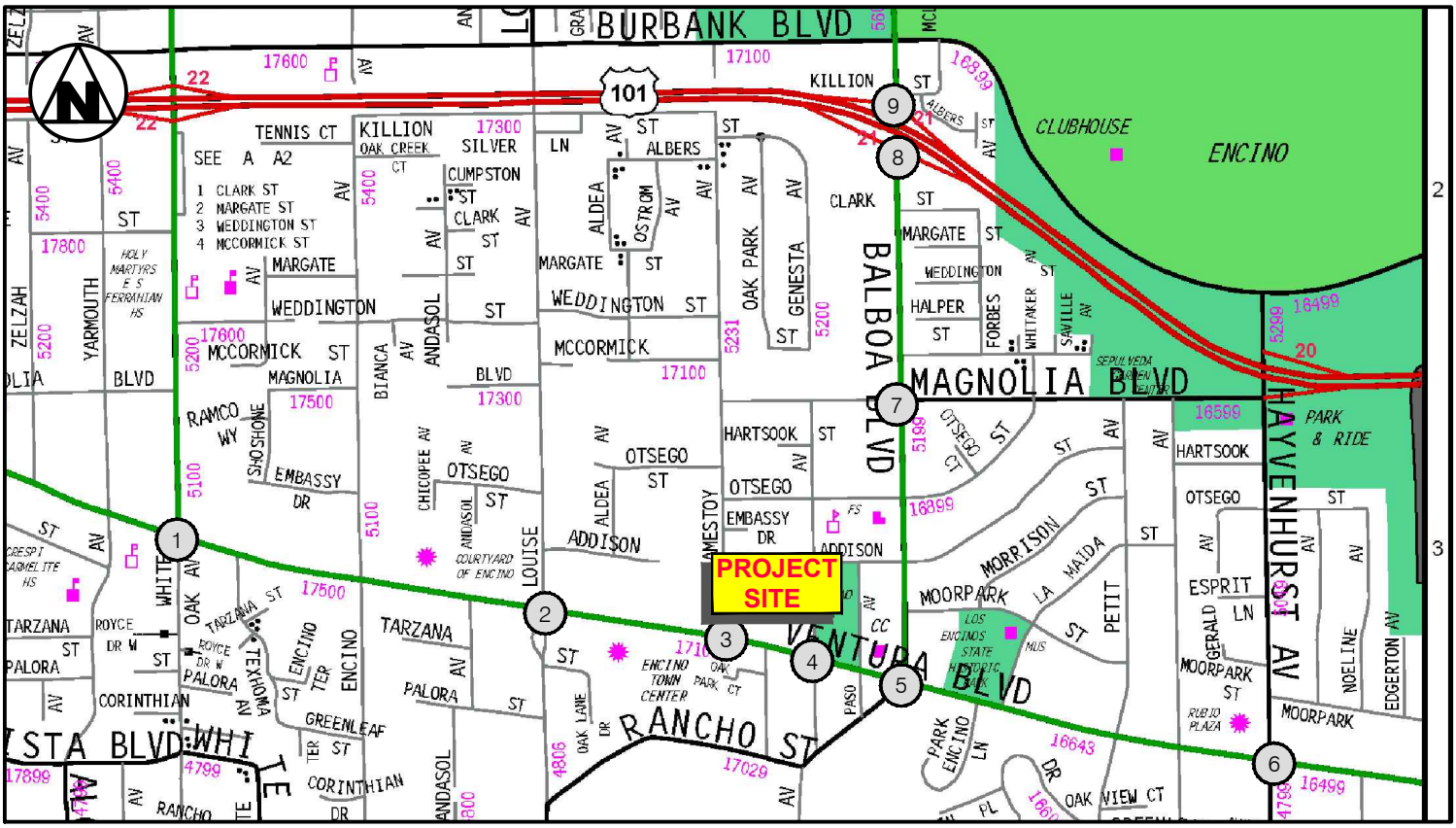
4/2017

STUDY INTERSECTIONS 7 AND 8

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661)799-8423, OTC@overlandtraffic.com



BALBOA BOULEVARD
AND 101 FREEWAY WB RAMPS



4/2017

STUDY INTERSECTION 9

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661)799-8423, OTC@overlandtraffic.com

Los Angeles GeoHub Vision Zero | Ventura Boulevard Safety Improv

ladotlivablestreets.org/projects/ventura

Apps | ite 10th edition | Bookmarks bar | Search Online Build... | Events Calendar | L... | WatchESPN: Live Sp... | caleemod for trip le... | walk score | Othe | Current user

VISION ZERO

Ventura Boulevard Safety Improvements

WHAT

In June 2019, LADOT installed basic safety improvements on Ventura Blvd between Garden Grove Ave and White Oak Ave, including new minor street crosswalks and continental crosswalk upgrades.

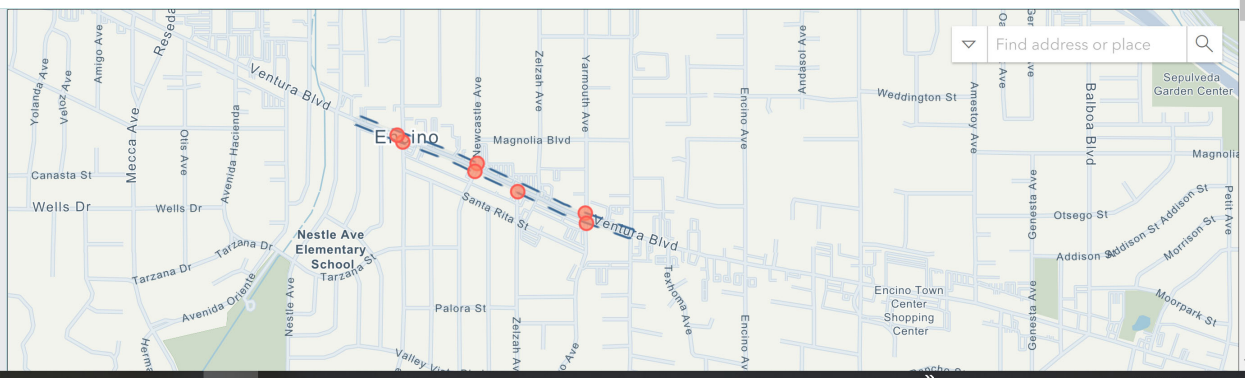
WHY

Between 2013 and 2017, 12 people were killed or severely injured on this section of Ventura Ave.

About

Feedback Map

Contact Us



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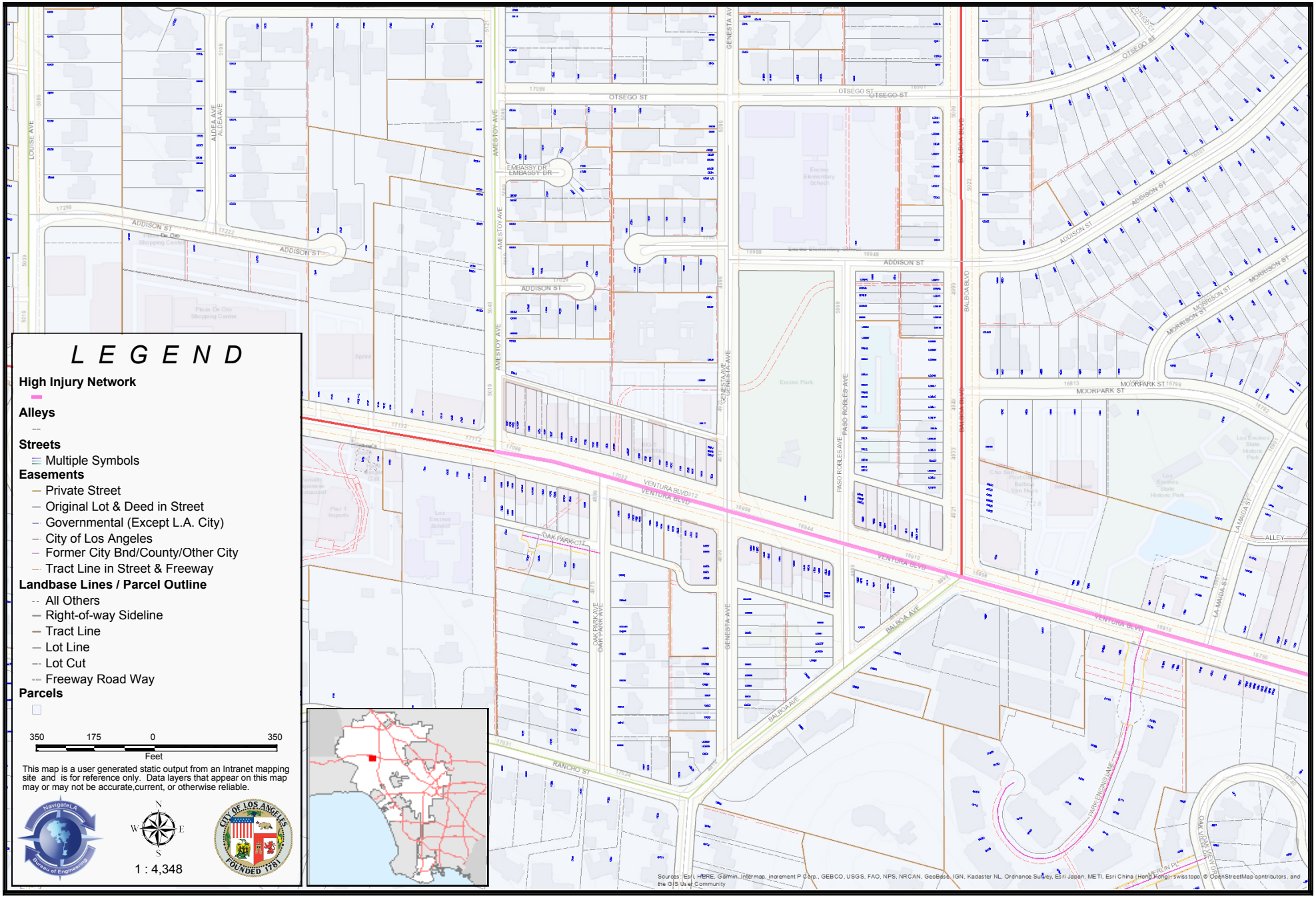
High Injury Network



APPENDIX F

TRANSIT ROUTES

Legend

Metro Rail Line & Station

Metro Busway Line & Station

Transfers

Transfer Point

Multiple Lines — See individual route maps for more detail

Park & Ride

Point of Interest

Amtrak & Station

Metrolink & Station

FlyAway

Greyhound

Megabus

Subject to Change

Metro Bus Lines

Metro Rapid — Limited-stop service for a faster ride. Frequent service is available during many time periods. See schedules for details.

Metro Express

Metro Local or Limited — A **THICK** line indicates more frequent service. A **DASHED** line indicates part-time or peak-only service.

Metro Shuttle

Municipal & Neighboring Bus Lines

AV	Antelope Valley Transit	LCF	LCF Shuttle / La Cañada Flintridge
BB	Burbank Bus	PT	Pasadena Transit
GB	Glendale Beeline	SC	Santa Clarita Transit
GE	LADOT DASH/Commuter Express	SV	Simi Valley Transit

All information is subject to change. Before you go, check with Metro or your local transit operator for the latest updates.

metro.net
323.466.3876

Transit Service Guide

The table shows ***approximate frequency in minutes*** for all Metro services and major municipal bus lines on this map. Information reflects the main part of the line; consult schedules for details.

Metro Rail & Busway

LINE	WEEKDAY PEAK	WEEKDAY DAY	WEEKDAY EVE	SATURDAY DAY	SATURDAY EVE	SUNDAY DAY	SUNDAY EVE
Red	10	12	20	12	10	12	20
Orange	4	8	15-20	10	15-20	10	15-20

Metro Bus

LINE	WEEKDAY PEAK	WEEKDAY DAY	WEEKDAY EVE	SATURDAY DAY	SATURDAY EVE	SUNDAY DAY	SUNDAY EVE
26	10-15	30	30	20-25	30	30	30
90	30-50	30-60	30-60	60	120	60	120
91	30-50	30-60	60	60	120	60	120
92	15-20	25	50-60	25-30	60	40	60
94	15-20	30	30-80	20	30-80	20	30-80
96	30-35	40	60	50-55	50-60	60	–
150	20-45	40-45	40-60	30-35	45-60	35-60	40-60
152	10-20	30-25	60	25	40-60	30	60
154	60	60	–	–	–	–	–
155	40	40	–	50	–	60	–
156	20-60	60	–	60	–	60	–
161	15-60	60	–	60	–	60	–
162	20	15-50	–	45-50	–	60	–
163	20	15-50	60	45-50	60	60	60
164	10-30	30	60	30	60	30-35	60
165	5-25	30	60	30	–	30	–
166	15-20	24	60	30	60	40	–
167	40-45	45-60	60	50-55	60	50-55	60
169	60	60	–	–	–	–	–
177	30	–	–	–	–	–	–

Metro Bus

LINE	WEEKDAY PEAK	WEEKDAY DAY	WEEKDAY EVE	SATURDAY DAY	SATURDAY EVE	SUNDAY DAY	SUNDAY EVE
180	35	35	40-60	10-20	40-60	10-20	40-60
181	35	35	40-60	30	40-60	30	40-60
183	30-60	60	60	60	60	60	60
201	50	50	–	60	–	60	–
204	10	15	20-30	15-20	20-30	15-20	20-30
206	7-15	20	40-60	20	30-60	22	60
207	8-12	15-20	20-60	10-12	20-60	12	20-60
210	10-15	18	30-60	15-18	20-60	15-20	30-60
212	10-15	12	30-60	12-15	30-60	20	30-60
217	12-15	15	30-60	10-15	30-60	15-20	30-60
218	30-45	35	–	35-60	–	45-50	–
222	25-55	60	60	60	60	60	60
224	10-20	20	30-60	20-25	60	30	60
230	12-25	35	60	35	60	35	60
233	10-12	15	30-50	15-20	30-40	20	30-40
234	15-20	30	60	30	60	30	60
236	20-50	60	–	60-75	–	60-75	–
237	40-45	50-55	60	50	60	50	60
239	45-60	60	60	–	–	–	–
240	20-25	15-30	40	12-20	40-50	35-40	40
242	30-60	60	–	60	–	–	–
243	40-60	60	–	60	–	–	–
246	15-25	50-60	–	50	–	–	–
248	15-45	50-60	–	50	–	60	–
248	30	50	60	50-60	–	50-60	–

Metro Bus

LINE	WEEKDAY PEAK	WEEKDAY DAY	WEEKDAY EVE	SATURDAY DAY	SATURDAY EVE	SUNDAY DAY	SUNDAY EVE
292	30-40	35	60	40	–	40	–
312	10-15	–	–	–	–	–	–
353	20-30	–	–	–	–	–	–
364	15-20	–	–	–	–	–	–
501	12	30	30	45	45	45	45
603	10-12	20	40	15-20	20-40	15-20	40
654	–	–	60	–	60	–	60
685	30	30	60	–	–	–	–
734	15-20	20	–	–	–	–	–
744	20	20	–	30	–	30	–
750	12-20	25-30	–	–	–	–	–
754	5	15	–	12-15	–	15	–
757	6-12	15	–	–	–	–	–
760	10-12	25-30	–	–	–	–	–
788	20	–	–	–	–	–	–
794	15-20	30	–	–	–	–	–

Line offers 24-hour service

Metro-operated Bus and Rail lines follow **SUNDAY** schedules on New Years Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. Other operators may vary.

Glendale Beeline

LINE	WEEKDAY PEAK	WEEKDAY DAY	WEEKDAY EVE	SATURDAY DAY	SATURDAY EVE	SUNDAY DAY	SUNDAY EVE
GB1	20	20-30	–	20	–	20	–
GB2	20	20-30	–	20	–	20	–
GB3	15-30	40	–	–	–	–	–
GB31	–	–	–	20-30	–	–	–
GB32	45-60	45	–	–	–	–	–
GB33	40-60	50	–	–	–	–	–
GB34	50	–	–	–	–	–	–
GB4	17	17	–	25	–	25	–
GB5	15-20	15-17	–	30	–	30	–
GB6	16-20	17-29	–	20	–	–	–
GB7	26-35	27-40	–	40	–	–	–
GB11	15-35	–	–	–	–	–	–
GB12	15-30	–	–	–	–	–	–

Burbank Bus

LINE	WEEKDAY PEAK	WEEKDAY DAY	WEEKDAY EVE	SATURDAY DAY	SATURDAY EVE	SUNDAY DAY	SUNDAY EVE
BBNA	15	20	45	–	–	–	–
BBNM	12	–	–	–	–	–	–
BBMM	12	–	–	–	–	–	–
BBED	18	–	–	–	–	–	–

Santa Clarita Transit

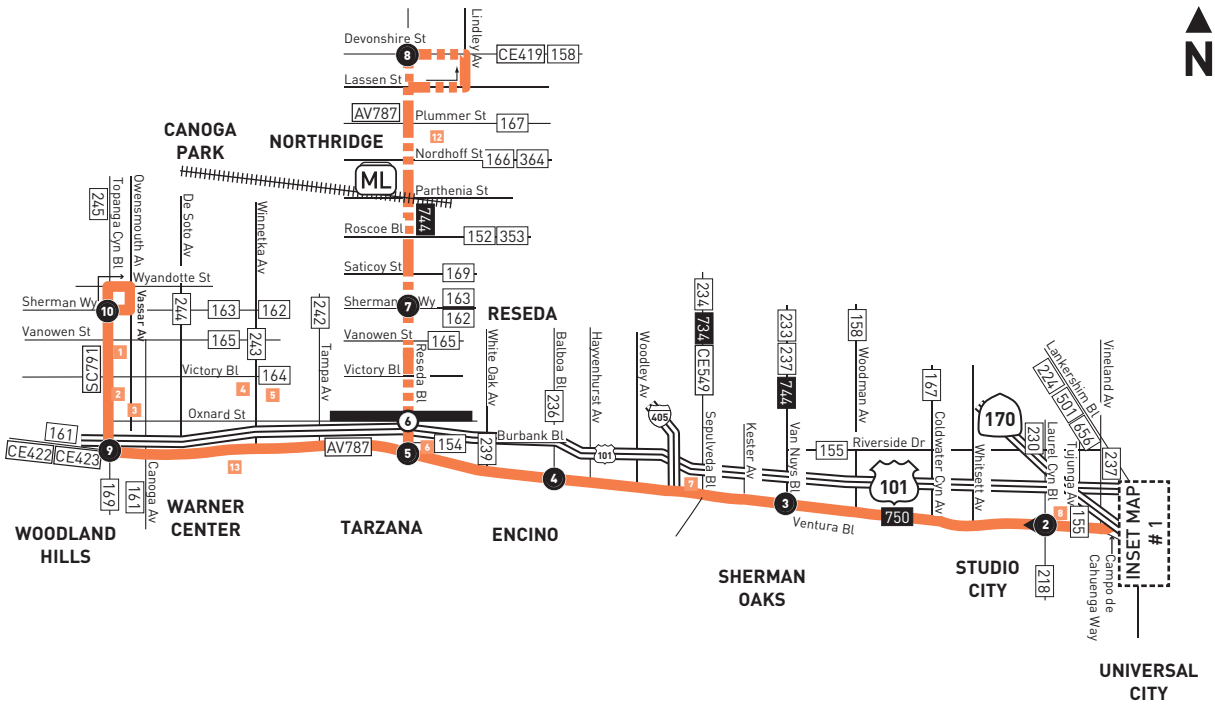
LINE	WEEKDAY PEAK	WEEKDAY DAY	WEEKDAY EVE	SATURDAY DAY	SATURDAY EVE	SUNDAY DAY	SUNDAY EVE
SC757	24-32	32-60	31-60	75	70	75	–
SC791	25-90	–	–	–	–	–	–
SC796	27-90	–	–	–	–	–	–

7/2020

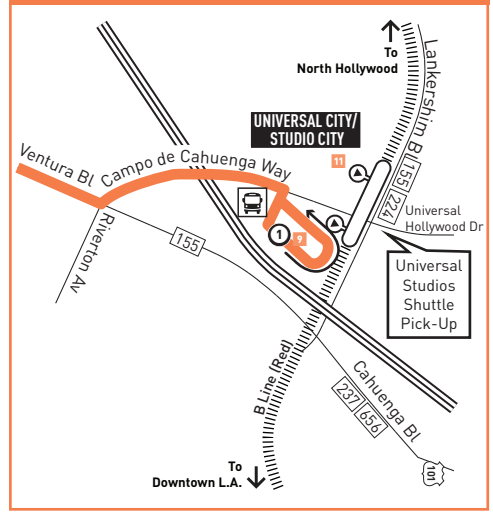
PROJECT LOCATION AND STUDY INTERSECTIONS

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661) 799 - 8423, OTC@overlandtraffic.com

ROUTE MAP



INSET 1 – UNIVERSAL CITY/STUDIO CITY STATION



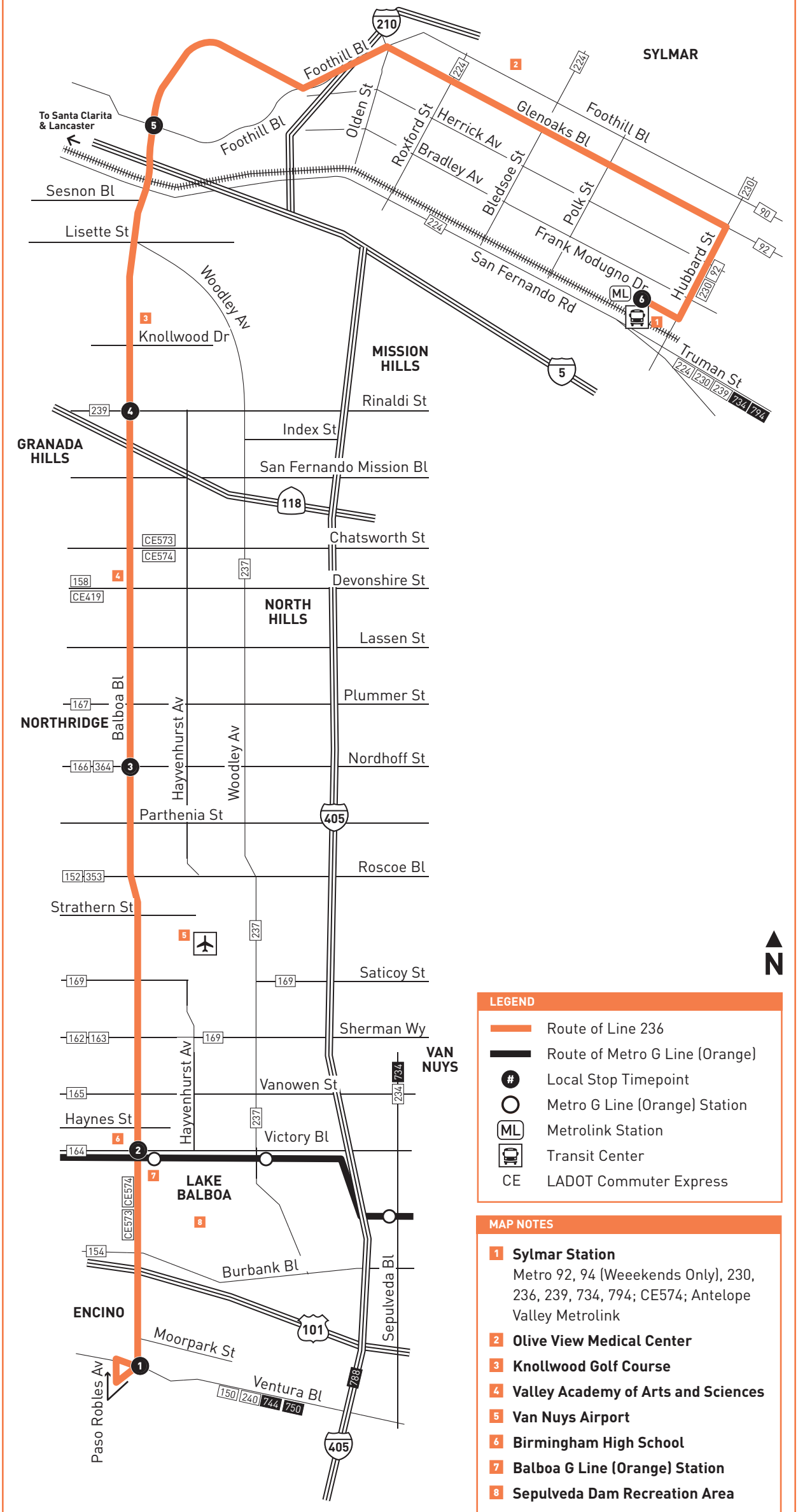
MAP NOTES

1. **Westfield Topanga**
2. **Westfield Promenade**
3. **Warner Center Transit Hub**
   Metro 245, 601, 750; VCTC Conejo Connection; Nearby transfers to Metro 150, CE422, and SC796
4. **Pierce College**
5. **West Valley Occupational Center**
6. **Providence Tarzana Medical Center**
7. **Sherman Oaks Galleria**
8. **CBS Studio Center**
9. **Universal City/Studio City Station**
   Metro Bus Lines 150, 155, 224, 240, 656 Owl, 750; Universal Studios Shuttle
10. **Universal Studios CityWalk**
11. **Campo de Cahuenga**
12. **California State University, Northridge**
13. **Taft High School**

LEGEND

- Route of Line 150
- Route of Line 240 (same as 150 between Ventura Bl / Reseda Bl and Universal City/ Studio City Station)
- Metro L Line (Orange)
- Metro B Line (Red)
- # Local Stop Timepoint
- # Local Stop Timepoint - Single Direction Only
- # Metro Busway/Rail Station & Timepoint
- Metro Busway/Rail Station
- Transit Center
- ML Metrolink Station
- AV Antelope Valley Transit Authority
- CE LADOT Commuter Express
- SC Santa Clarita Transit

ROUTE MAP



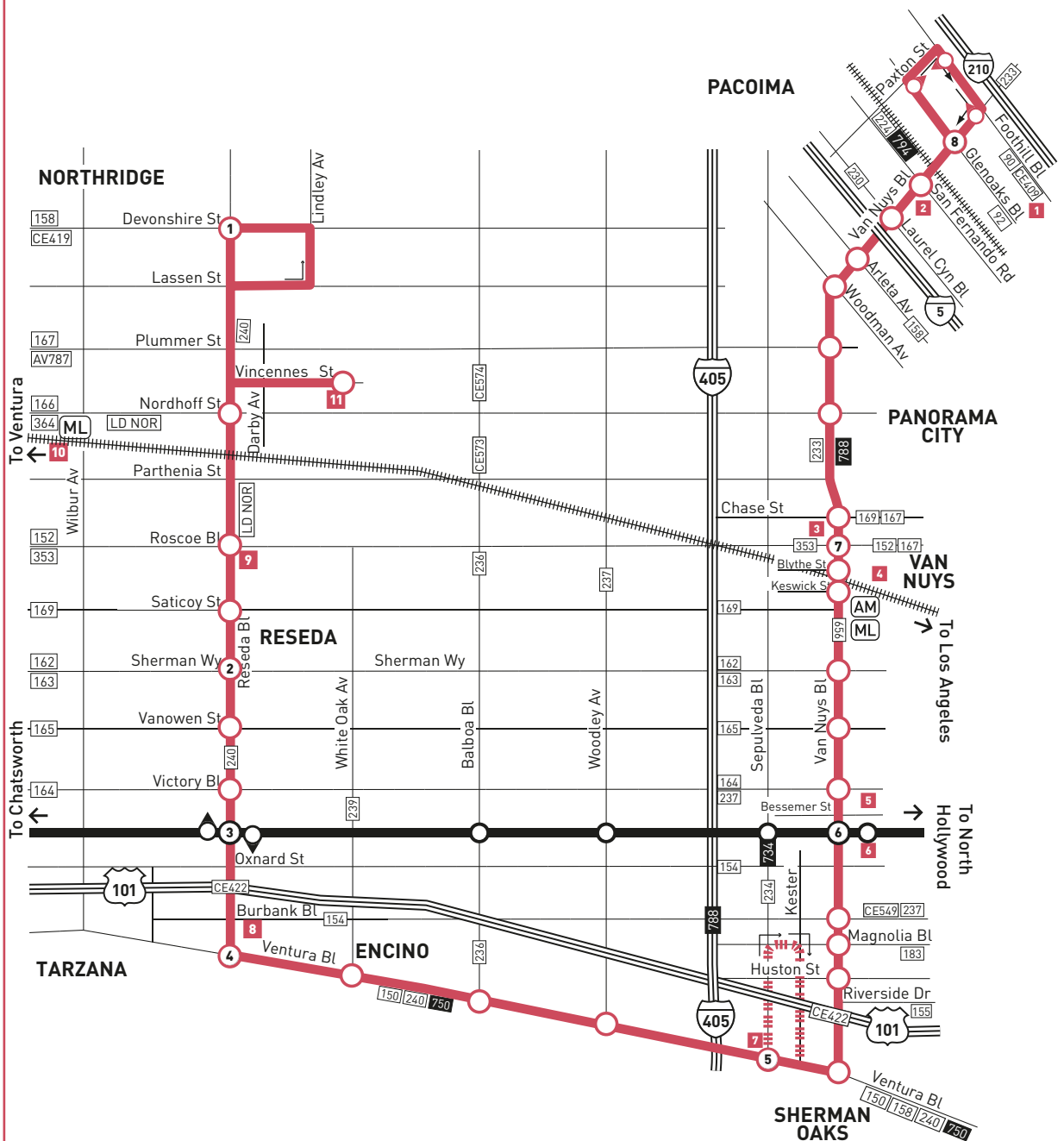
LEGEND

- Route of Line 236
- Route of Metro G Line (Orange)
- # Local Stop Timepoint
- Metro G Line (Orange) Station
- ML Metrolink Station
- Transit Center
- CE LADOT Commuter Express

MAP NOTES

1. **Sylmar Station**
   Metro 92, 94 (Weekends Only), 230, 236, 239, 734, 794; CE574; Antelope Valley Metrolink
2. **Olive View Medical Center**
3. **Knollwood Golf Course**
4. **Valley Academy of Arts and Sciences**
5. **Van Nuys Airport**
6. **Birmingham High School**
7. **Balboa G Line (Orange) Station**
8. **Sepulveda Dam Recreation Area**

ROUTE MAP



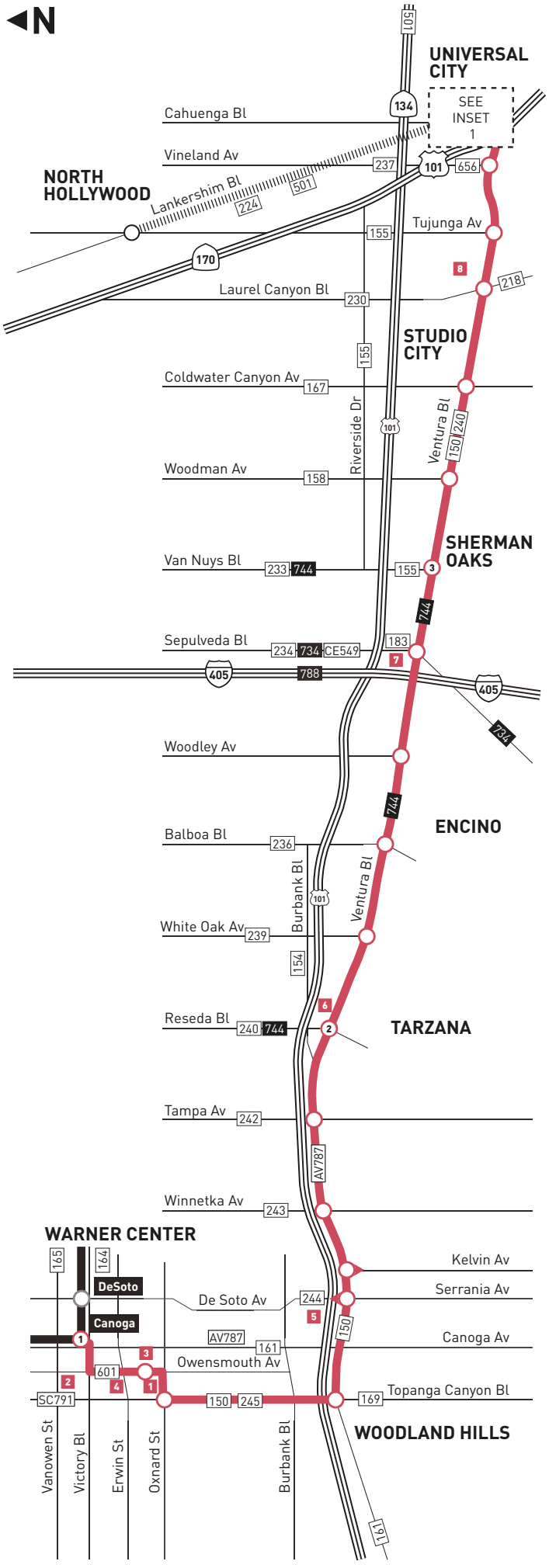
LEGEND

- Line 744 Route
- Weekend Turn-Around Loop
- Metro G Line (Orange) Route
- Metrolink
- Rapid Stop Timepoint
- Rapid Stop
- Rapid Stop - Single Direction Only
- Metro G Line (Orange) Station & Timepoint
- Metro G Line (Orange) Station - Single Direction Only
- Metro G Line (Orange) Station
- AM Amtrak Station
- ML Metrolink Station
- AV Antelope Valley Transit Authority
- CE LADOT Commuter Express
- LD LADOT DASH

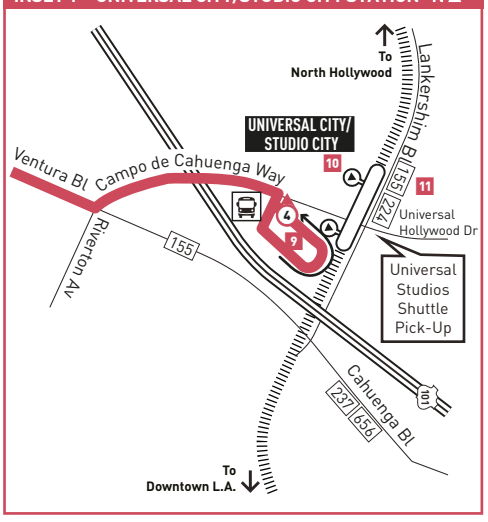
MAP NOTES

1. **Hansen Dam Recreation Area**
2. **Pacoima Neighborhood City Hall**
3. **Panorama Mall**
4. **Van Nuys Metrolink Station**
   Metro 169, 233, 656 Owl, 744, 788; Metrolink Ventura County Line; Amtrak
5. **Van Nuys Civic Center**
6. **Van Nuys G Line (Orange) Station**
   Metro 154, 233, 237, 744, 788; LD Van Nuys/ Studio City
7. **Sherman Oaks Galleria**
8. **Providence Tarzana Medical Center**
9. **Northridge Hospital Medical Center**
10. **Northridge Metrolink Station**
    Metrolink Ventura County Line; LD Northridge/Reseda
11. **California State University, Northridge Transit Center**
    Metro 167, 744; AV787; CSUN Shuttle

ROUTE MAP



INSET 1 – UNIVERSAL CITY/STUDIO CITY STATION



LEGEND

- Route of Line 750
- Rapid Stop Timepoint
- Rapid Stop
- Rapid Stop - Single Direction Only
- Metro B Line (Red)
- Metro G Line (Orange)
- Metro G Line (Orange) Station
- Transit Center
- AV Antelope Valley Transit Authority
- CE LADOT Commuter Express
- SC Santa Clarita Transit

INSET 1 – UNIVERSAL CITY STATION

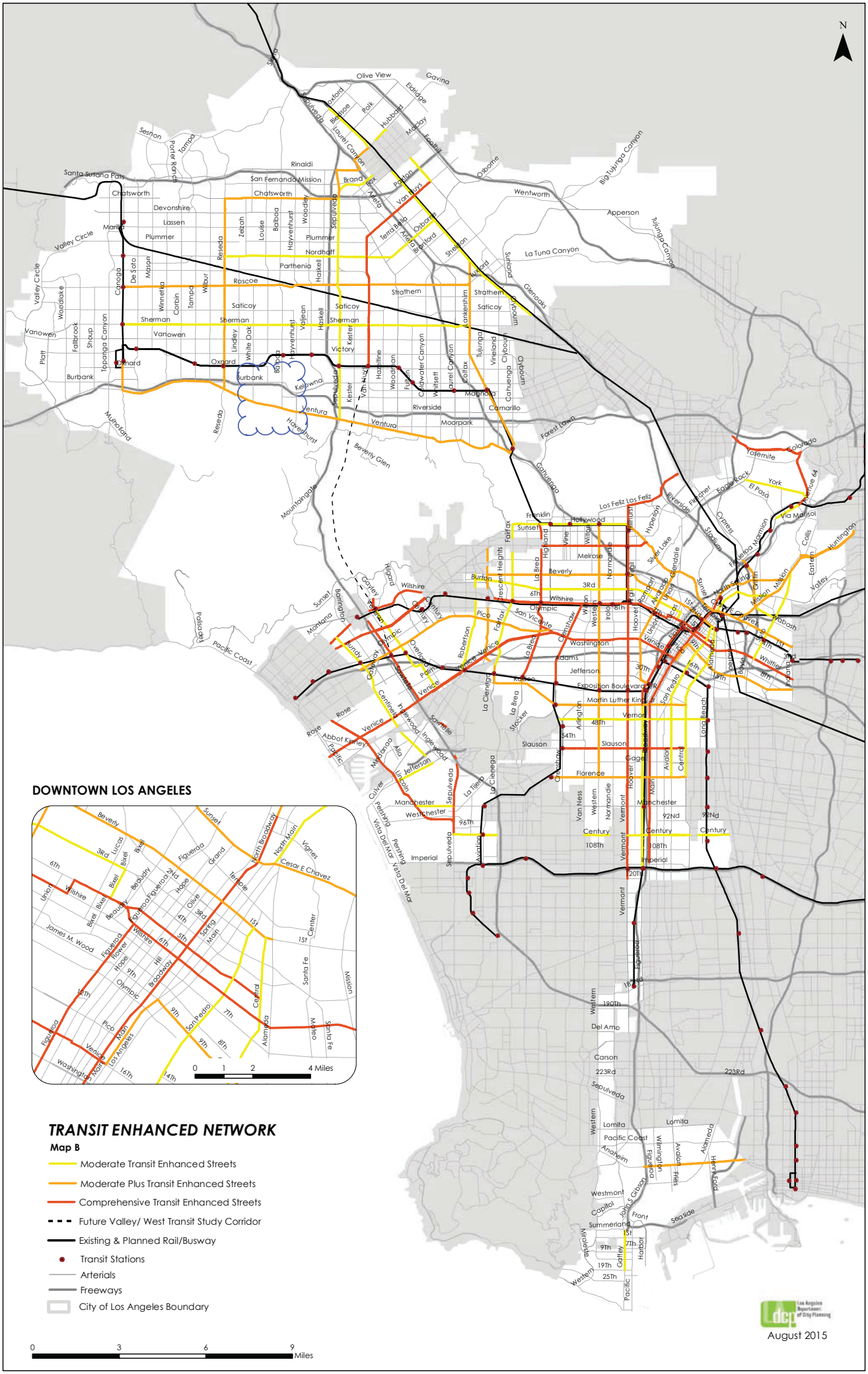
- Rapid Stop Timepoint - Single Direction Only
- Metro Rail Station
- Metro Rail Station Entrance

MAP NOTES

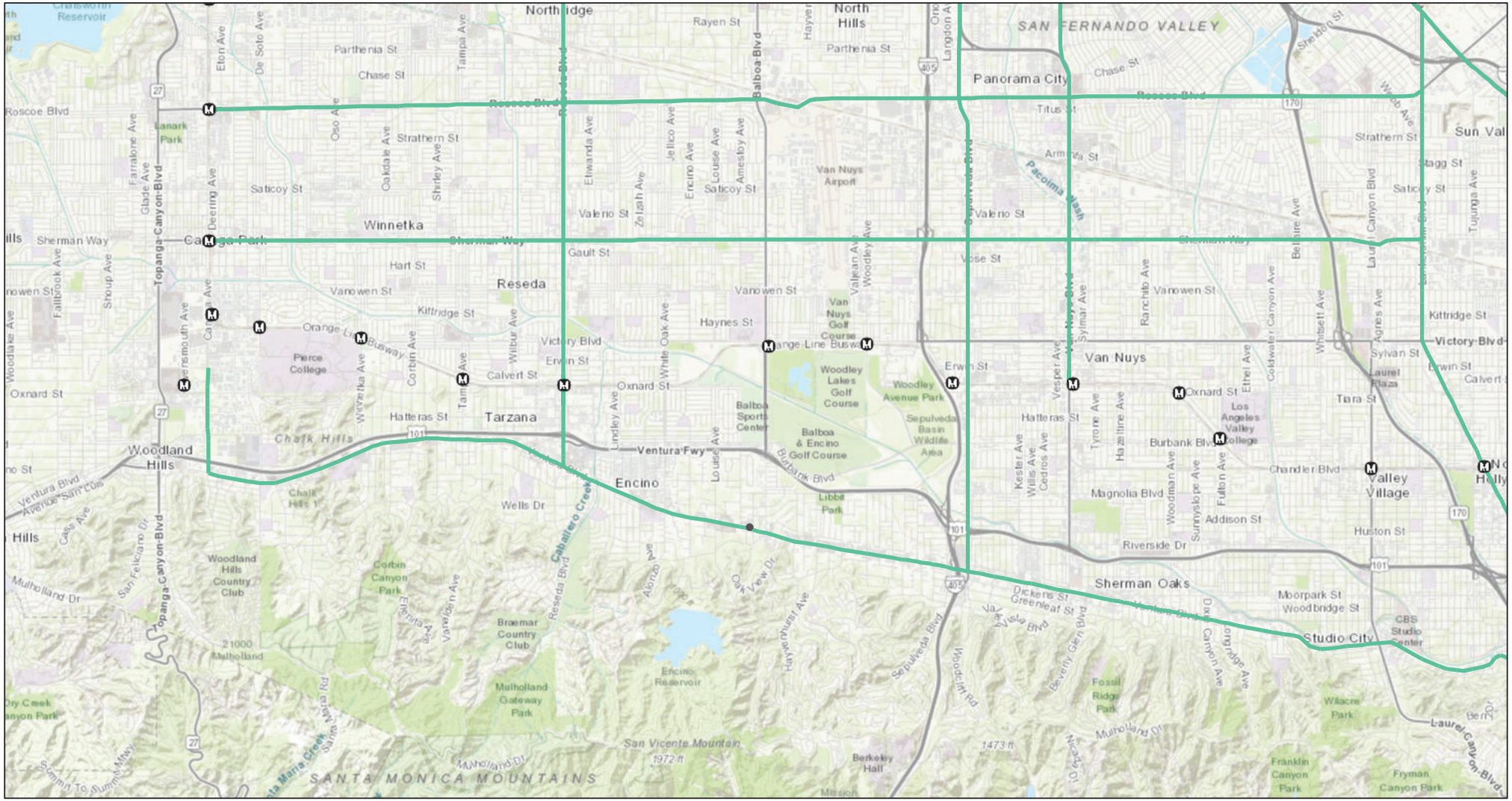
1. **Westfield Promenade**
2. **Westfield Topanga**
3. **Warner Center Transit Hub**
   Metro 245, 601, 750, VCTC; Conejo Connection; Nearby transfers to CE422; LA County Beach Bus
4. **The Village at Westfield Topanga**
5. **Kaiser Permanente Hospital Woodland Hills**
6. **Providence Tarzana Medical Center**
7. **Sherman Oaks Galleria**
8. **CBS Studio Center**
9. **Universal City/Studio City Station**
   Metro Bus Lines 150, 155, 224, 240, 656 Owl, 750; Universal Studios Shuttle
10. **Campo de Cahuenga**
11. **Universal Studios/CityWalk**

APPENDIX G

MOBILITY NETWORK AND WALKABILITY INDEX MAPS


N
DOWNTOWN LOS ANGELES
0 1 2 4 Miles
TRANSIT ENHANCED NETWORK
Map B
Moderate Transit Enhanced Streets
Moderate Plus Transit Enhanced Streets
Comprehensive Transit Enhanced Streets
Future Valley/ West Transit Study Corridor
Existing & Planned Rail/Busway
Transit Stations
Arterials
Freeways
City of Los Angeles Boundary
0 3 6 9 Miles
August 2015

Transit Enhanced Network (TEN)



7/3/2020, 11:57:19 AM

Metro Stations

- Existing
- Transit Enhanced Network (TEN)

1:72,224

0 0.75 1.5 3 mi

0 1 2 4 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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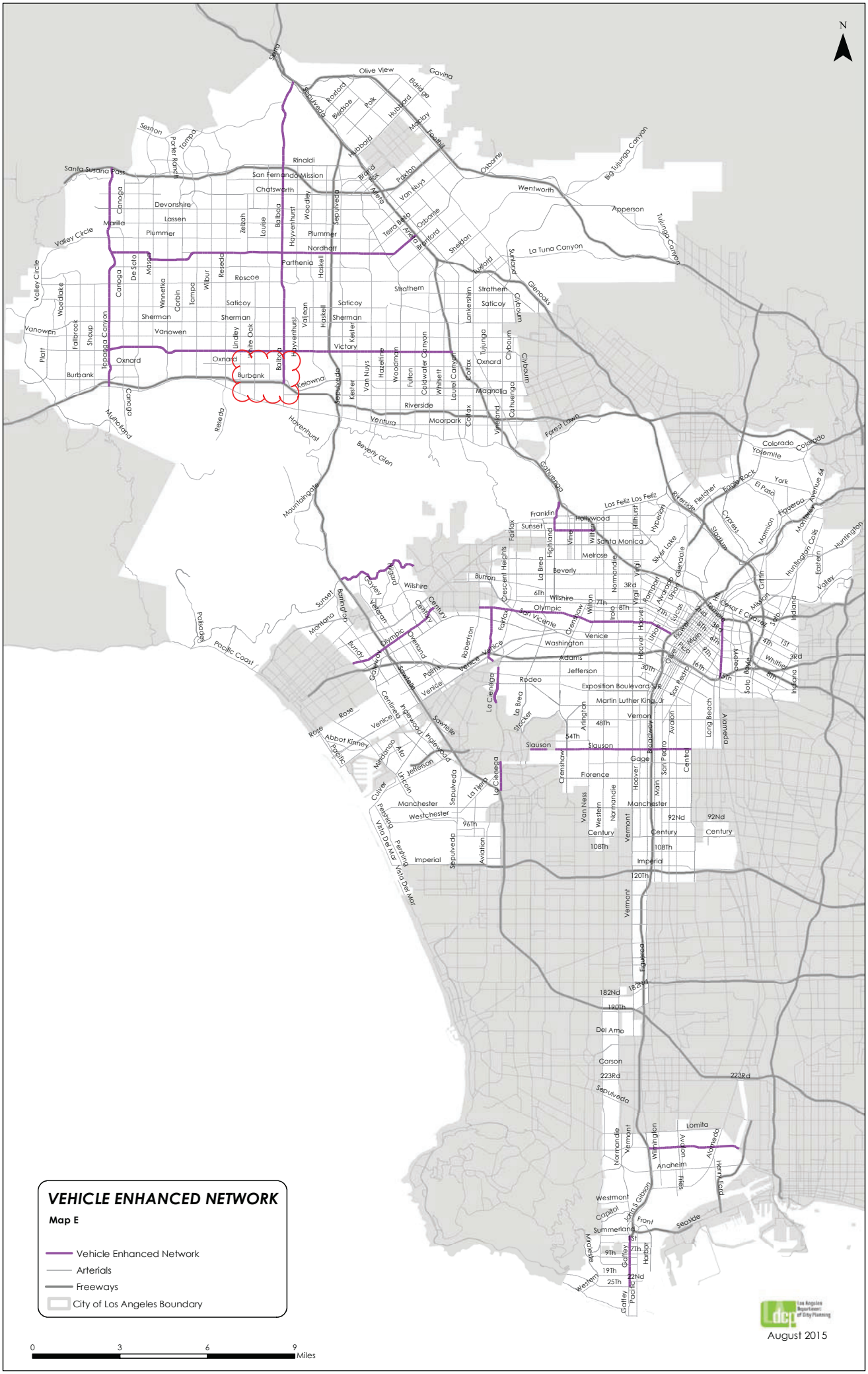
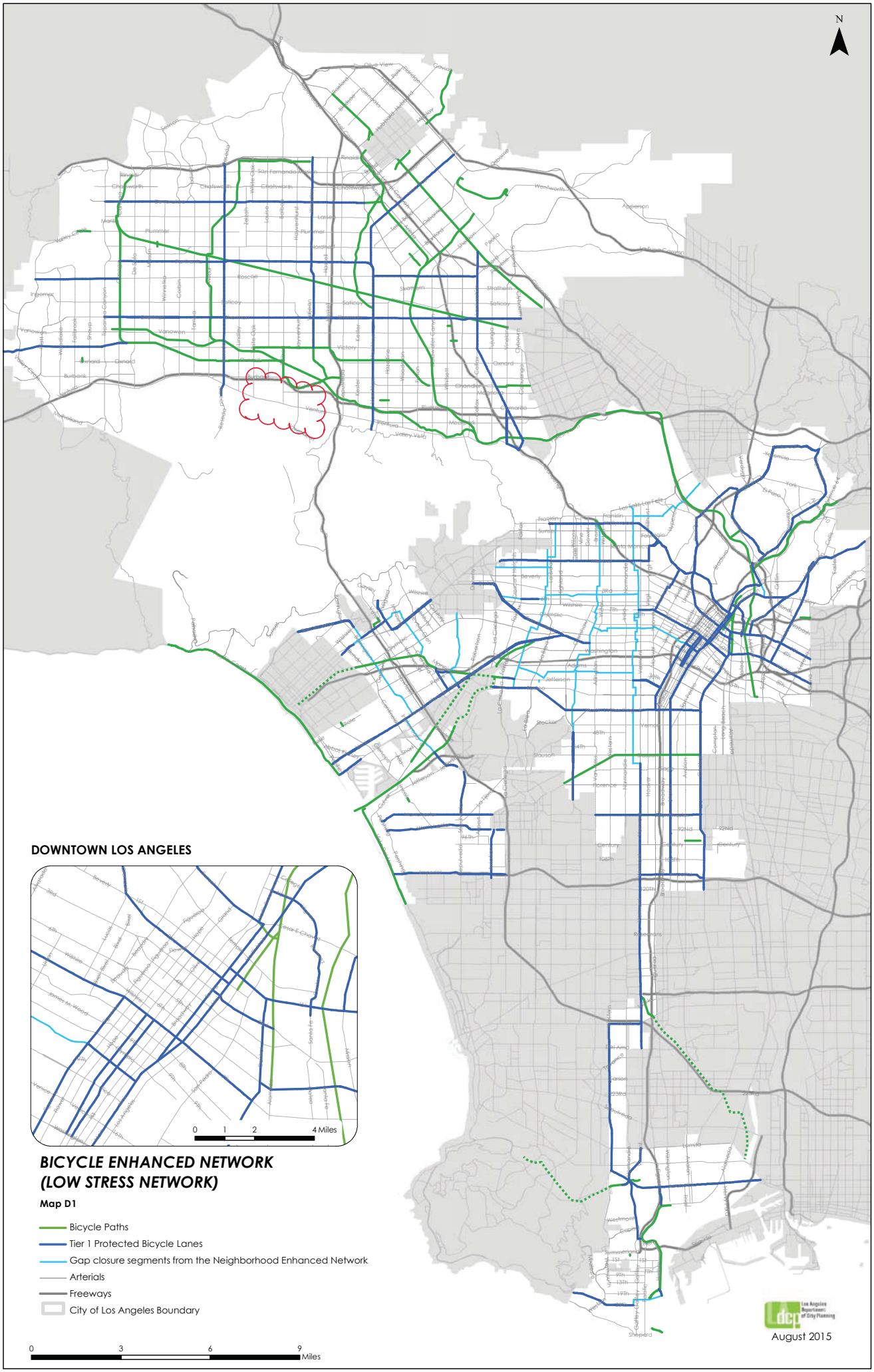
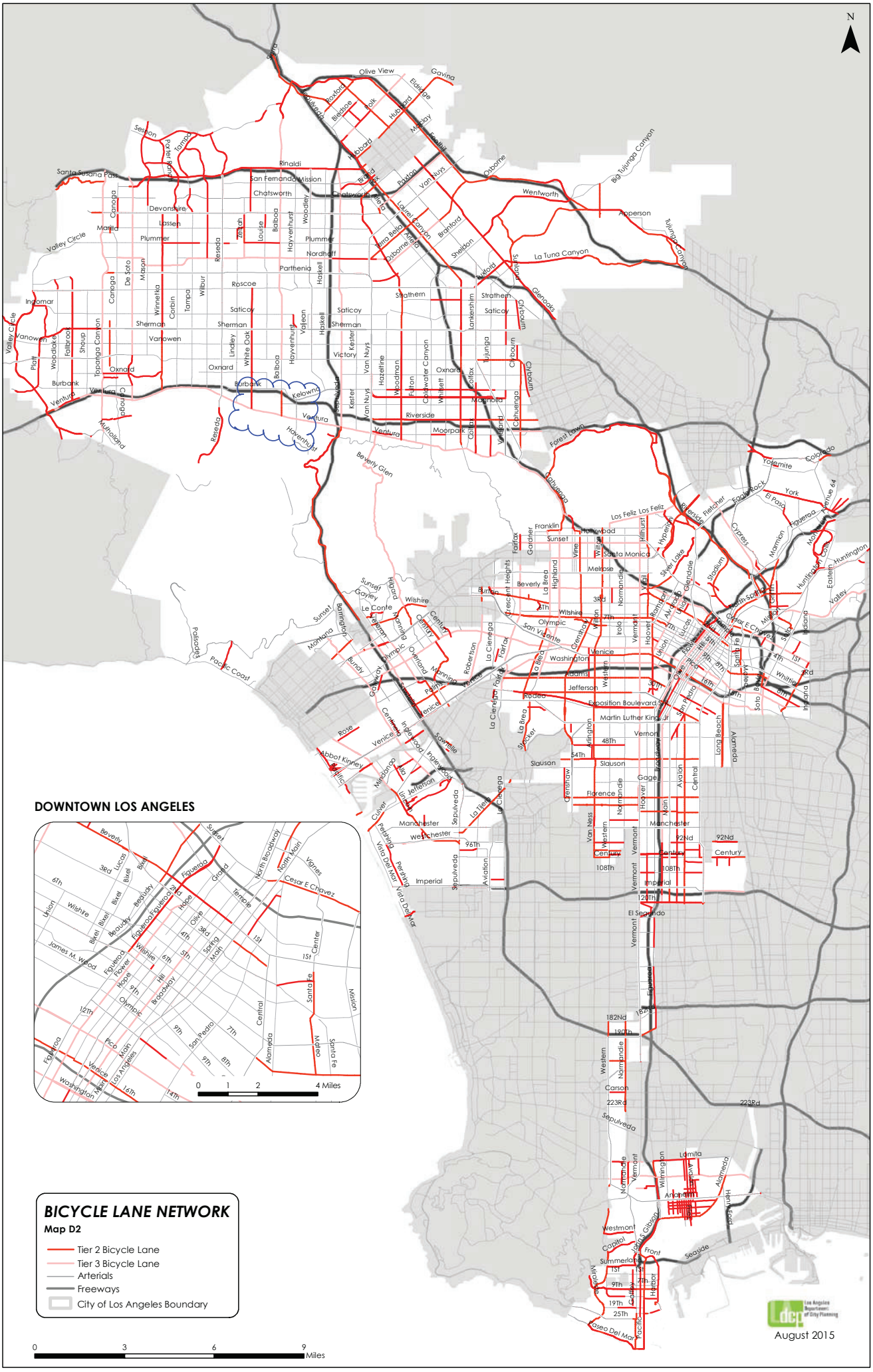
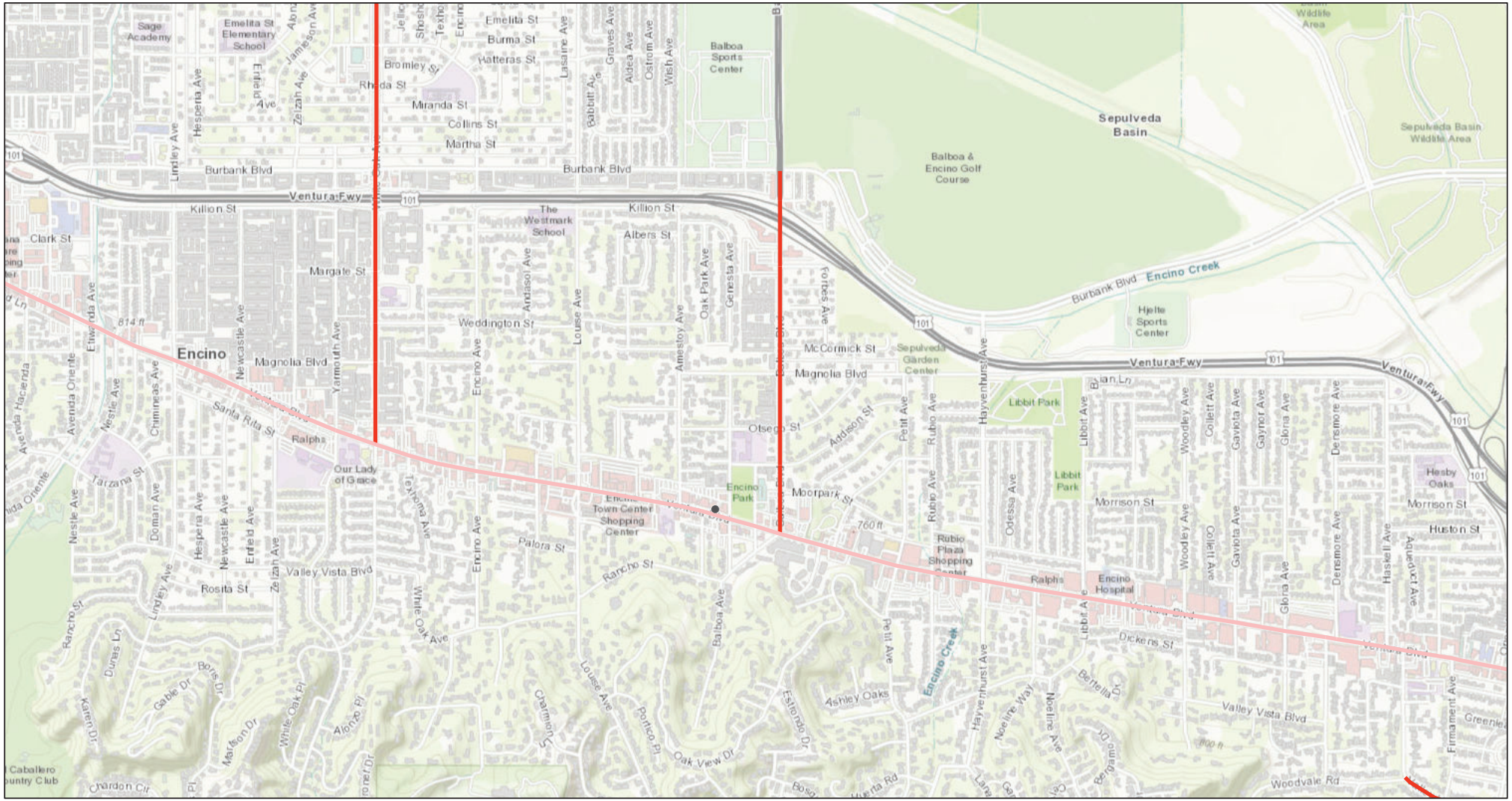

N
VEHICLE ENHANCED NETWORK
Map E
Vehicle Enhanced Network
Arterials
Freeways
City of Los Angeles Boundary
0
3
6
9
Miles
August 2015


N
DOWNTOWN LOS ANGELES
0 1 2 4 Miles
BICYCLE ENHANCED NETWORK
(LOW STRESS NETWORK)
Map D1
Bicycle Paths
Tier 1 Protected Bicycle Lanes
Gap closure segments from the Neighborhood Enhanced Network
Arterials
Freeways
City of Los Angeles Boundary
0 3 6 9 Miles
August 2015


N
DOWNTOWN LOS ANGELES
0 1 2 4 Miles
BICYCLE LANE NETWORK
Map D2
Tier 2 Bicycle Lane
Tier 3 Bicycle Lane
Arterials
Freeways
City of Los Angeles Boundary
0 3 6 9 Miles
August 2015

Bicycle Enhanced Network (BEN)



7/3/2020, 11:47:29 AM

Bicycle Network

- Tier 2 (BLN)
- Tier 3 (BLN)

1:18,056

0 0.17 0.35 0.7 mi

0 0.3 0.6 1.2 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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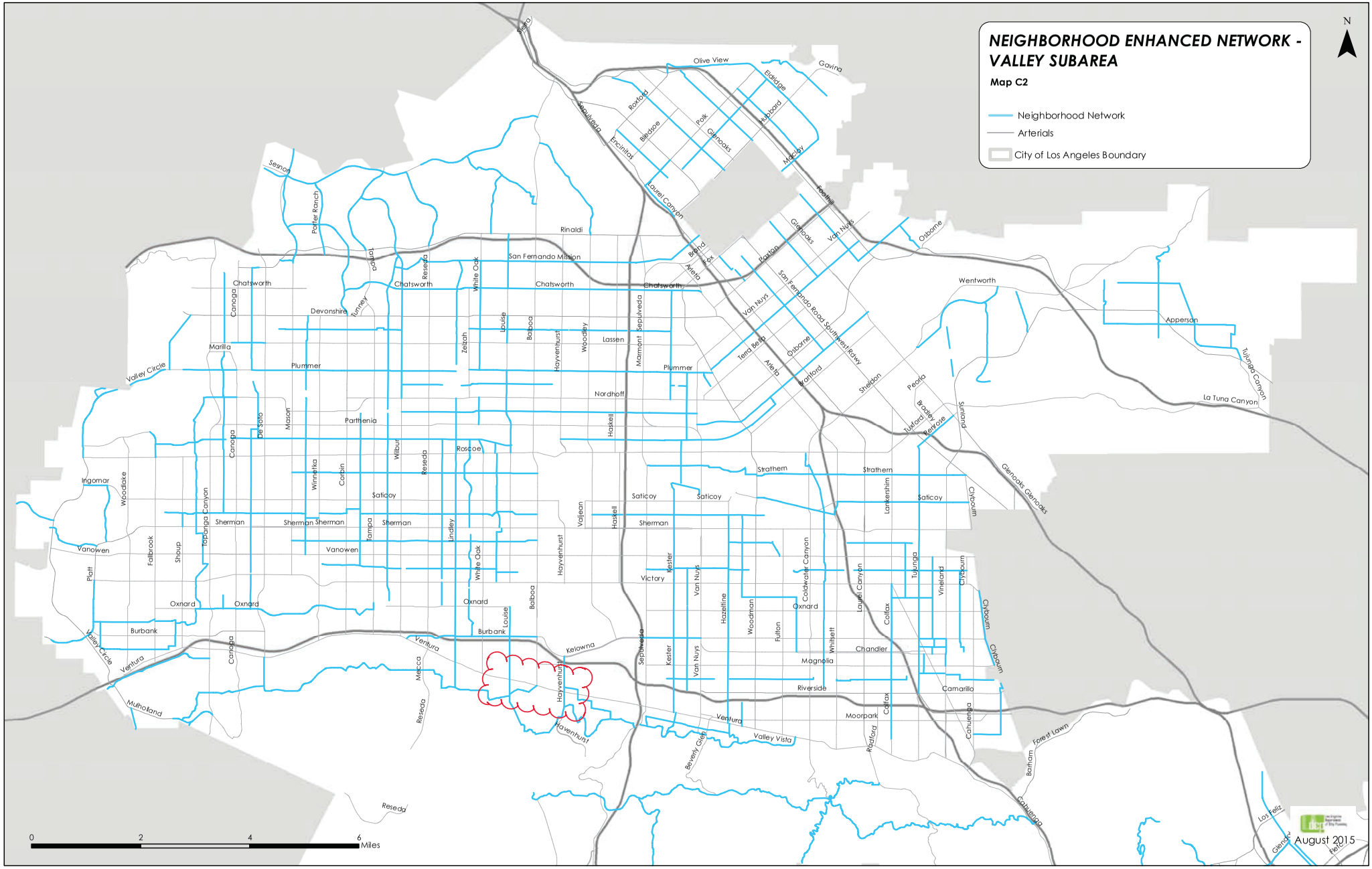
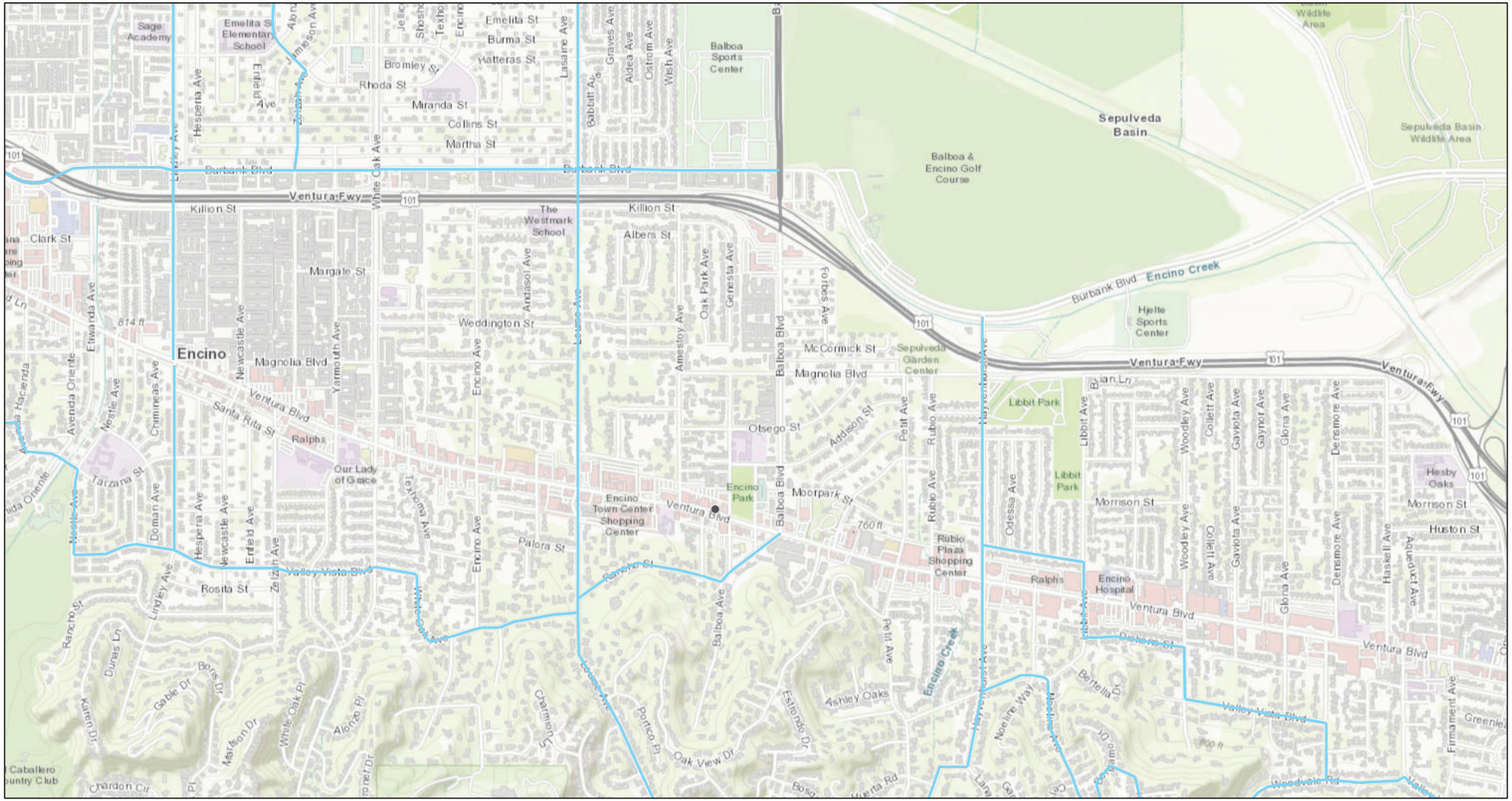

NEIGHBORHOOD ENHANCED NETWORK - VALLEY SUBAREA
Map C2
Neighborhood Network
Arterials
City of Los Angeles Boundary
N
0
2
4
6
Miles
August 2015
Olive View
Gavina
Roxford
Eldridge
Hubbard
Polk
Glenoaks
Bledsoe
Encinitas
Maclay
Foothill
Sepulveda
Laurel Canyon
Sesnon
Porter Ranch
Rinaldi
San Fernando Mission
Osborne
Glenoaks
Van Nuys
Parton
Balboa
Foothill
Arleta
Fox
San Fernando Road Southwest Rdwy
Wentworth
Chatsworth
Tampa
Reseda
White Oak
Canoga
Devonshire
Turney
Louise
Zelzah
Balboa
Hayvenhurst
Woodley
Lassen
Sepulveda
Marmont
Van Nuys
Terra Bella
Osborne
Arleta
Mariflora
Apperson
Tujunga Canyon
Marilla
Valley Circle
Plummer
Nordhoff
Sheldon
Peoria
Bradley
Tuxford
Berrose
Sunland
La Tuna Canyon
Parthenia
Mason
De Soto
Haskell
Roscoe
Wilbur
Winnetka
Corbin
Strathern
Glenoaks Glenoaks
Ingomar
Woodlake
Saticoy
Lankershim
Clybourn
Vanowen
Fallbrook
Shoup
Topanga Canyon
Sherman
Vaiden
Lindley
Platt
Victory
Kester
Van Nuys
Hazeltine
Woodman
Fulton
Coldwater Canyon
Whitsett
Lauel Canyon
Tujunga
Vineland
Oxnard
Burbank
Kelowna
Chandler
Magnolia
Riverside
Camarillo
Ventura
Mecca
Muholland
Moorpark
Cahuenga
Valley Vista
Beverly Glen
Radford
Forest Lawn
Bonham
Los Feliz
Glendale
Fletcher

Neighborhood Enhanced Network (NEN)



7/3/2020, 11:49:45 AM

Neighborhood Network (NEN)

Tier 2 NEN

1:18,056

0 0.17 0.35 0.7 mi

0 0.3 0.6 1.2 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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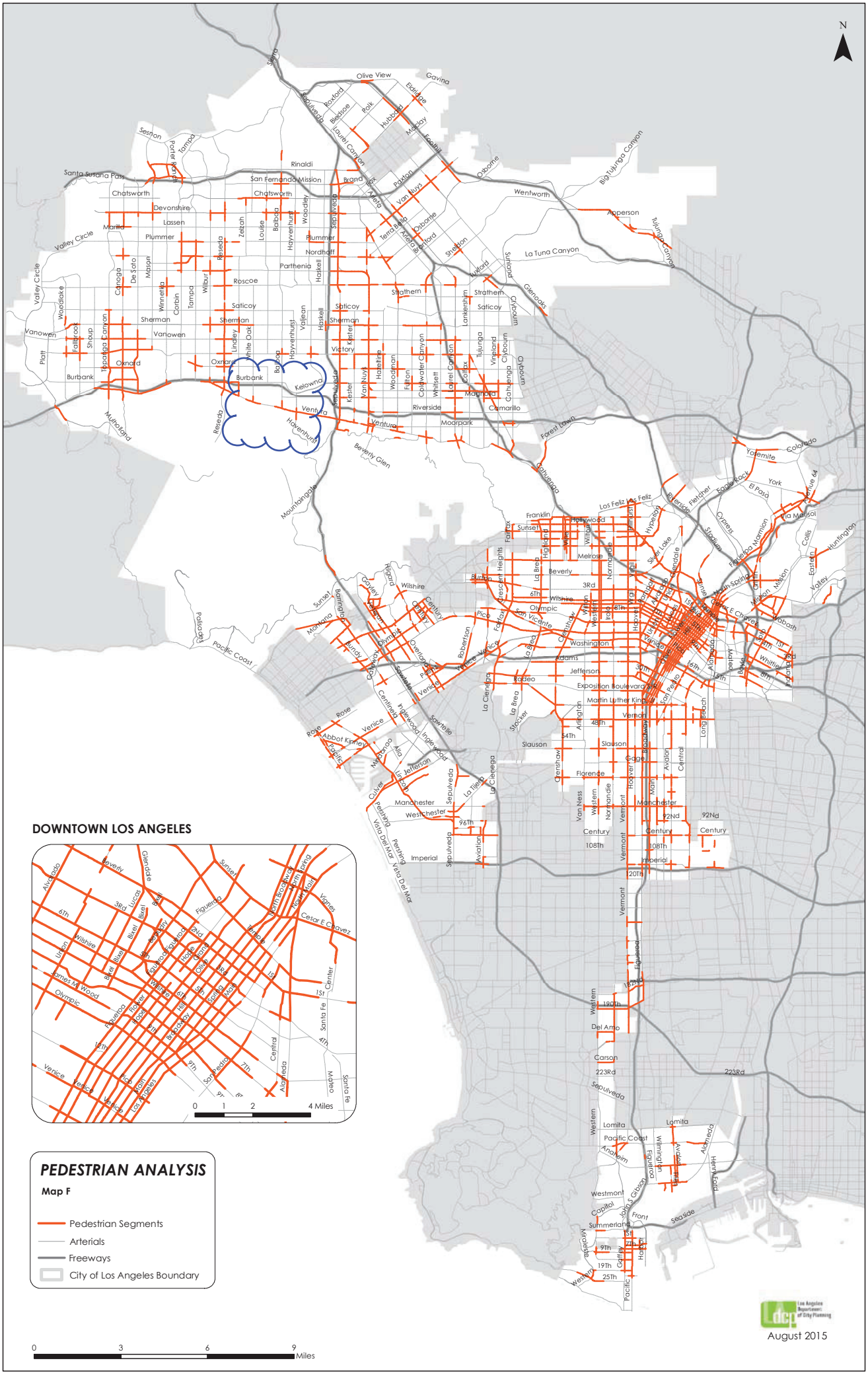
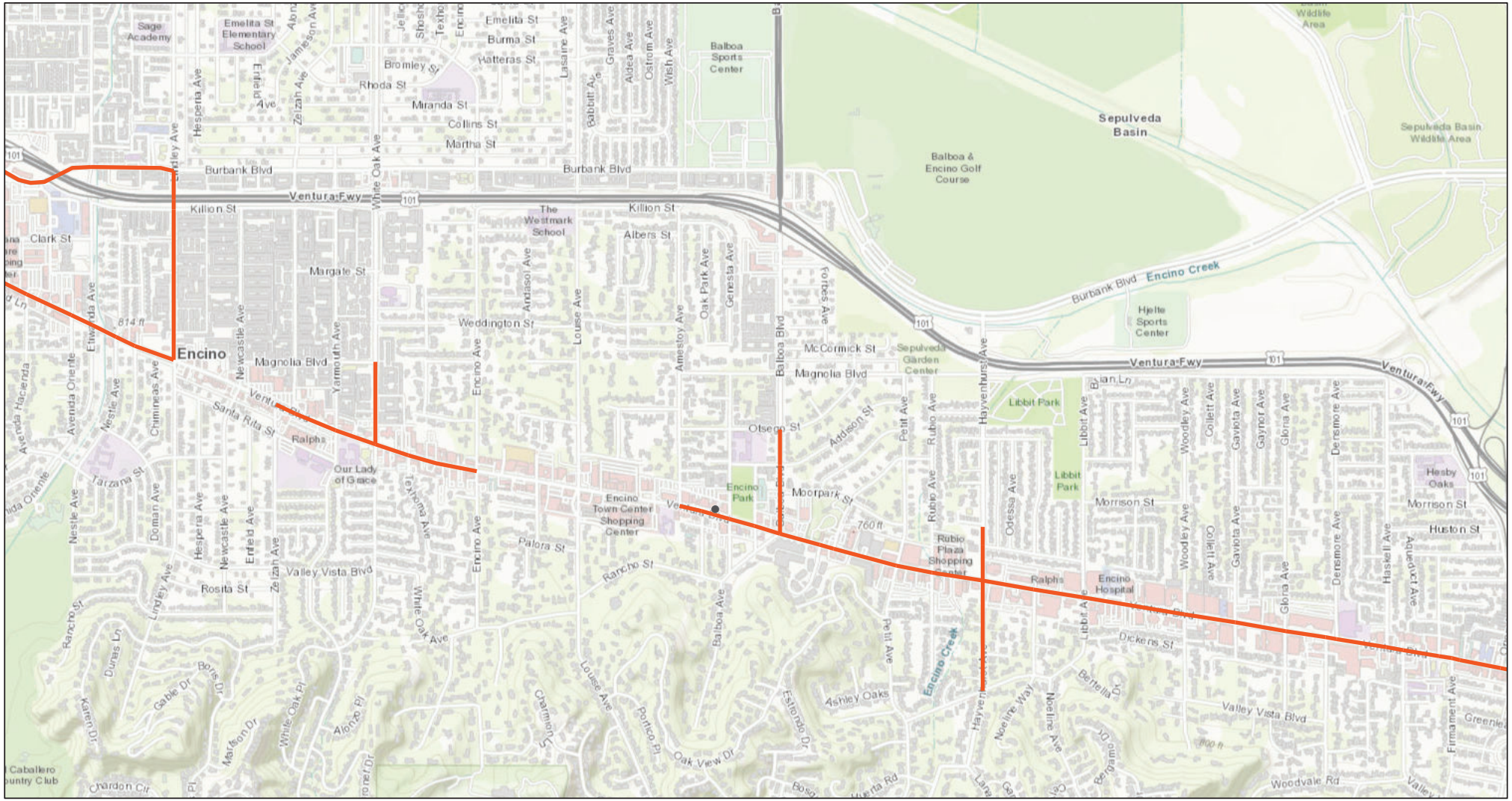

N
DOWNTOWN LOS ANGELES
0 1 2 4 Miles
PEDESTRIAN ANALYSIS
Map F
Pedestrian Segments
Arterials
Freeways
City of Los Angeles Boundary
0 3 6 9 Miles
August 2015

Pedestrian Enhanced District (PEDs)



7/3/2020, 11:51:00 AM

Pedestrian Enhanced Districts (PEDs)

1:18,056

0 0.17 0.35 0.7 mi

0 0.3 0.6 1.2 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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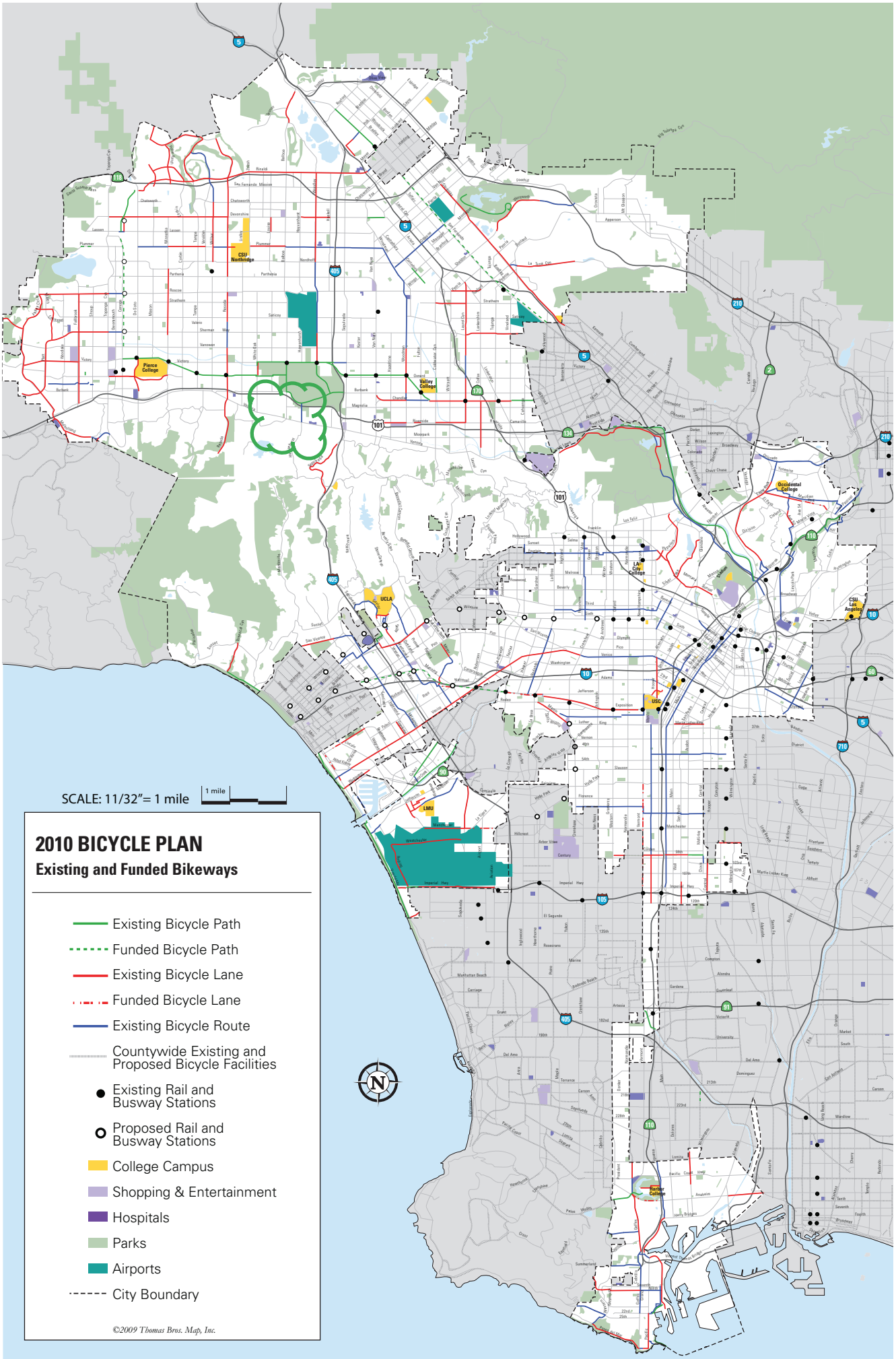
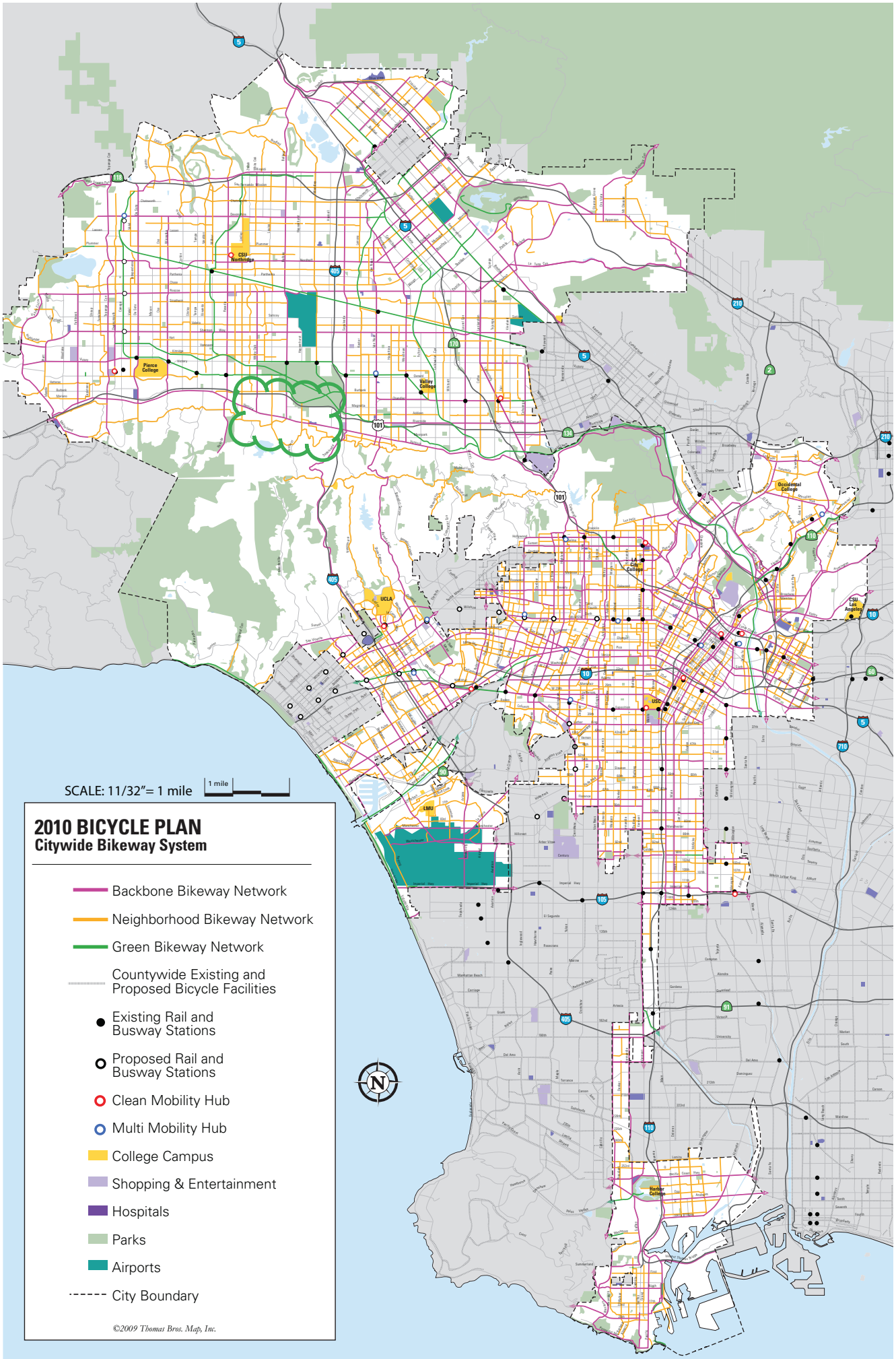


Prepared by City of Los Angeles Planning Department • Graphics Section • March, 2011

039_map3:07.07.11



Prepared by City of Los Angeles Planning Department • Graphics Section • March 2011

039_map1:06.29.11

17017 Ventura Boulevard

Add scores to your site

Encino, Los Angeles, 91316

Commute to **Downtown Los Angeles**

60+ min 60+ min 60+ min View Routes

Favorite **Map** **Nearby Apartments**

Looking for a home for sale in Los Angeles?

Walk Score
83

Very Walkable

Most errands can be accomplished on foot.

Transit Score
45

Some Transit

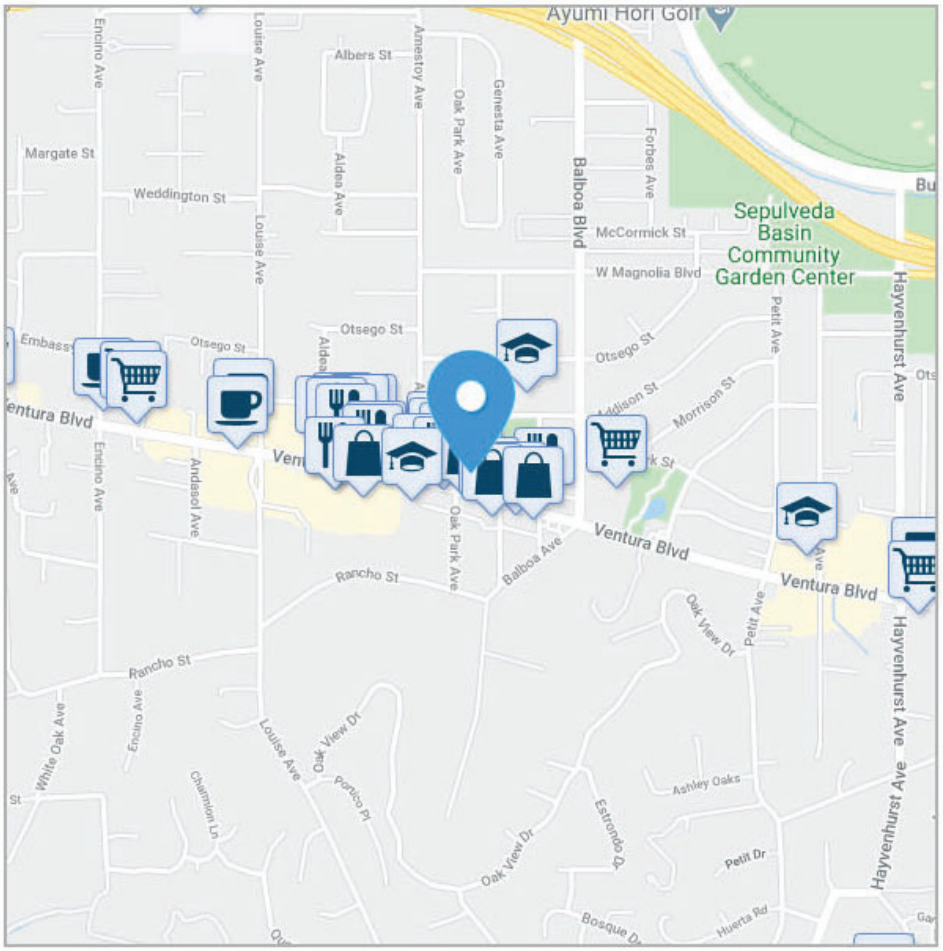
A few nearby public transportation options.

Bike Score
49

Somewhat Bikeable

Minimal bike infrastructure.

About your score

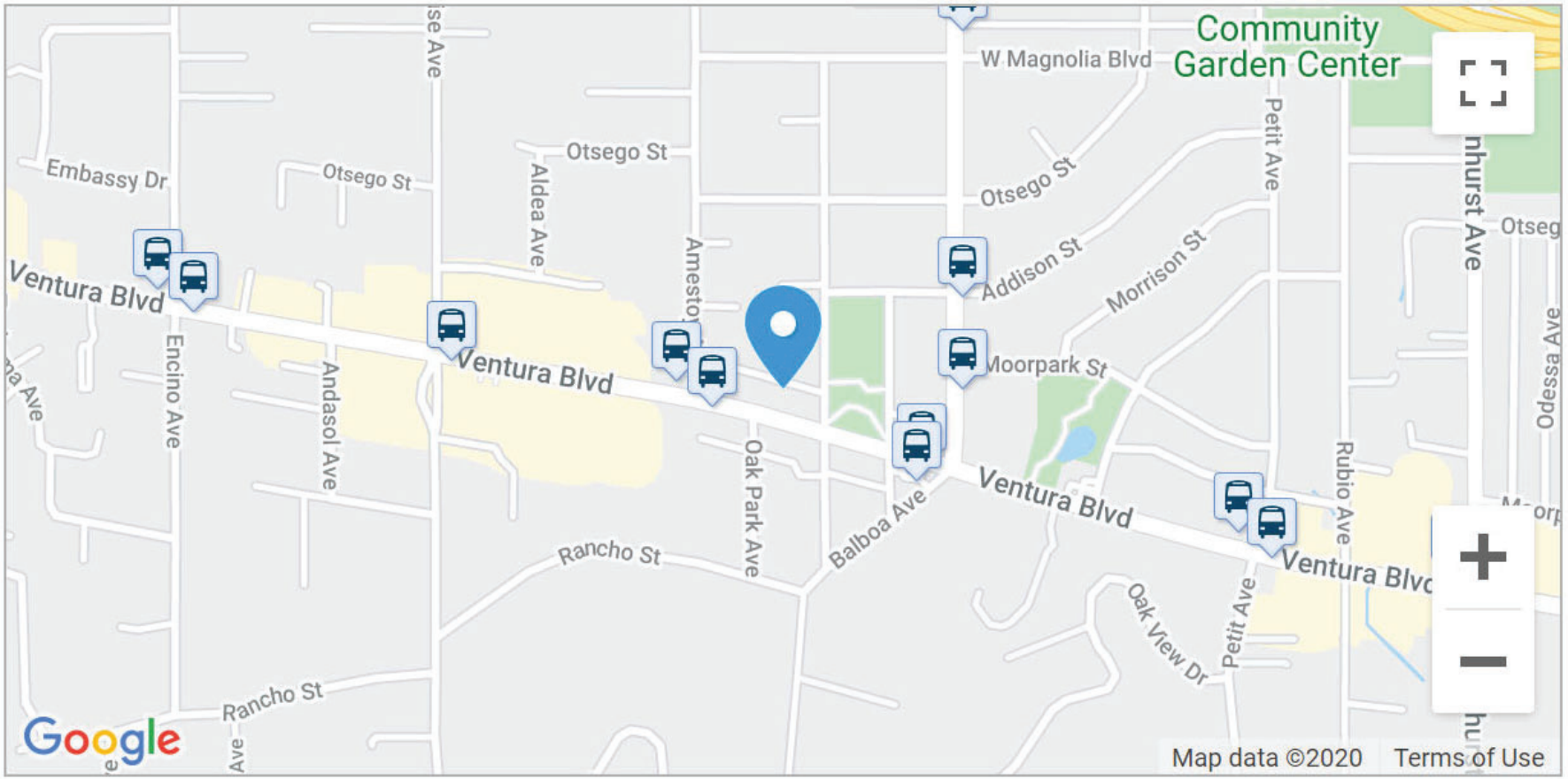


Transit Score
45

Some Transit

Add to your site

17017 Ventura Boulevard has some transit which means a few nearby public transportation options. Car sharing is available from RelayRides.



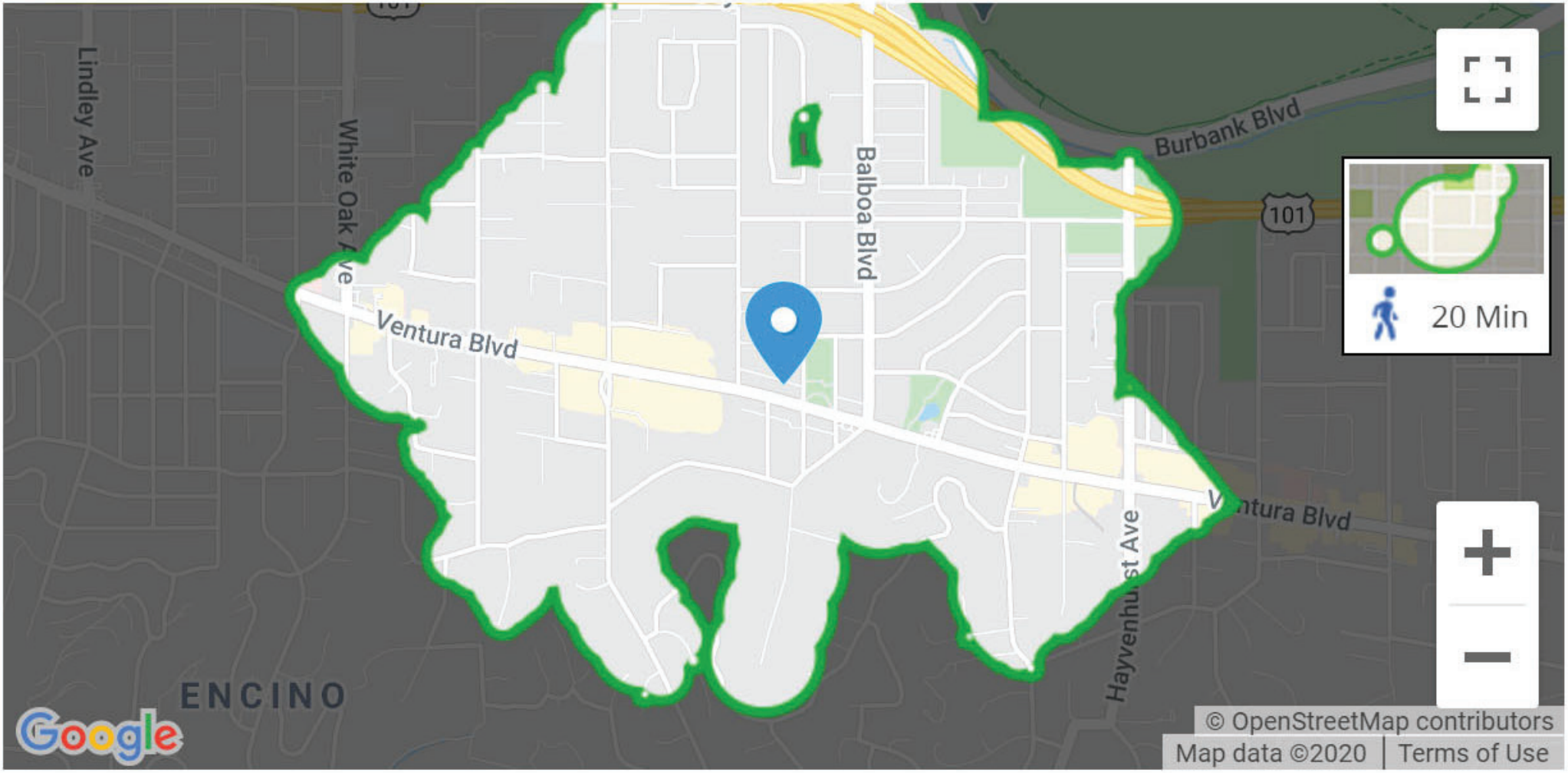
Bus lines:

150/240 Metro Local Line	0.1 mi	750 Metro Rapid Line	0.2 mi
744 Metro Rapid Line	0.2 mi	236 Metro Local Line	0.2 mi
549 CE549	0.7 mi		

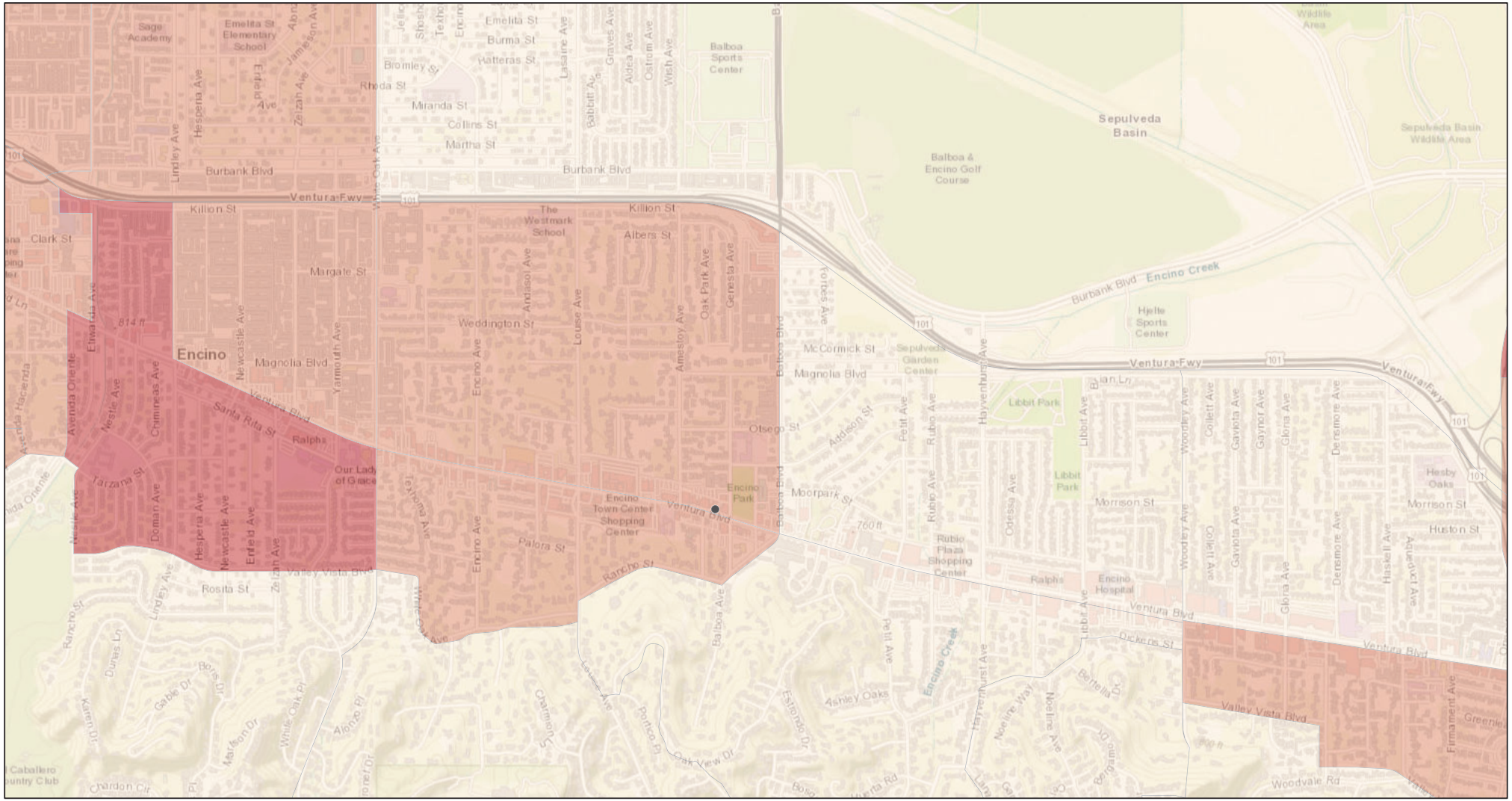
Travel Time Map

Add to your site

Explore how far you can travel by car, bus, bike and foot from 17017 Ventura Boulevard.



Percentage of Trips Under Three Miles



7/3/2020, 11:51:57 AM

Percentage of Trips Under Three Miles

- 0 - 35 %
- 35 - 50 %
- 50 - 70.4 %

1:18,056

0 0.17 0.35 0.7 mi

0 0.3 0.6 1.2 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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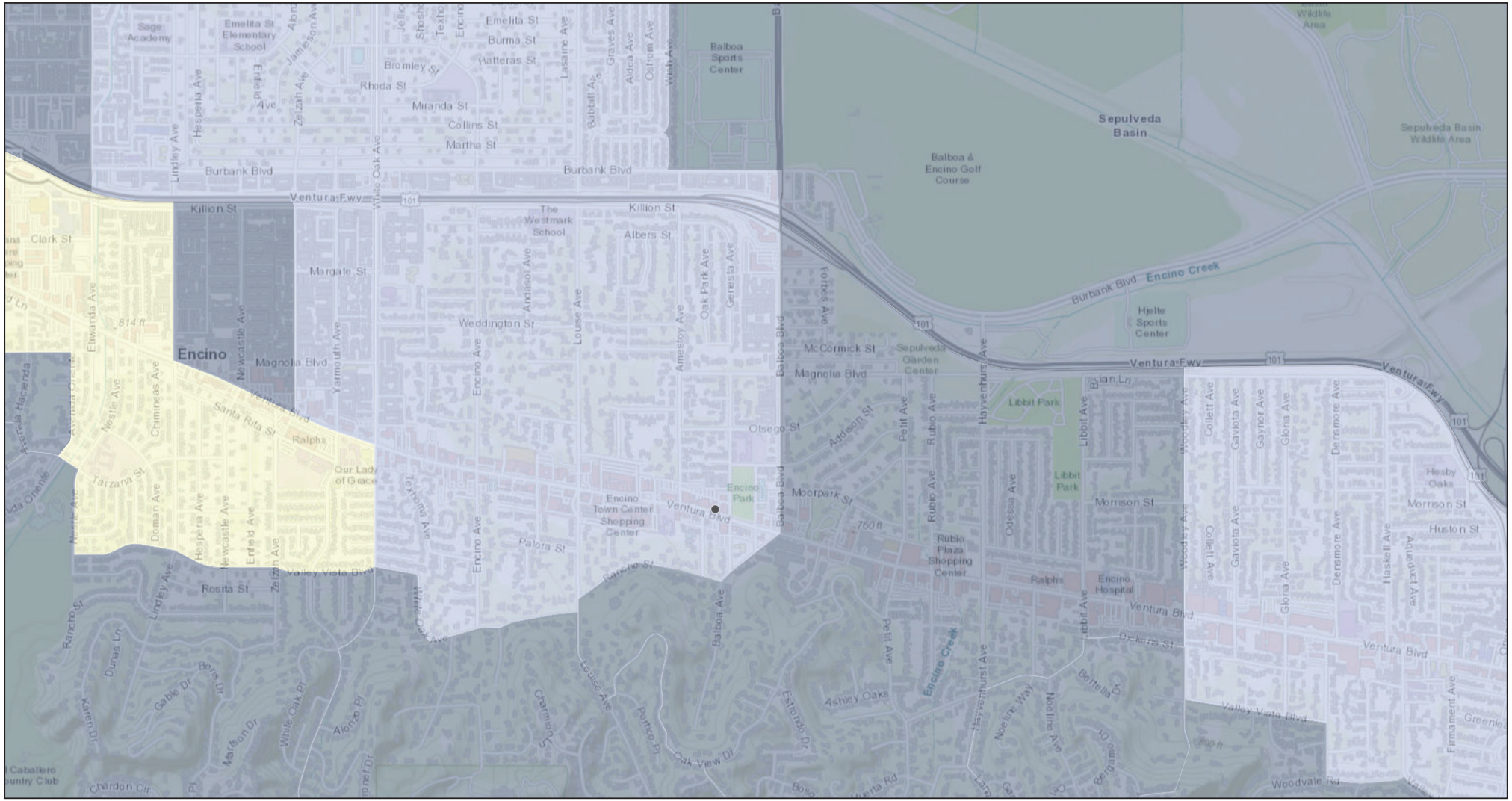
Walkability Index



7/3/2020, 11:54:32 AM

Walkability Index

- Low Walkability
-
- Medium Walkability

1:18,056

0 0.17 0.35 0.7 mi

0 0.3 0.6 1.2 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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Walk Score® Get Scores Find Apartments My Favorites Add to Your Site Log in

What's Nearby

Restaurants:
Midori Sushi Restaurant .05mi

Coffee:
The Coffee Bean and Tea Leaf .3mi

Bars:
Big Itzik Grill Inc .2mi

Groceries:
Rasputin International Food Co... .2mi

Parks:
Encino Park .2mi

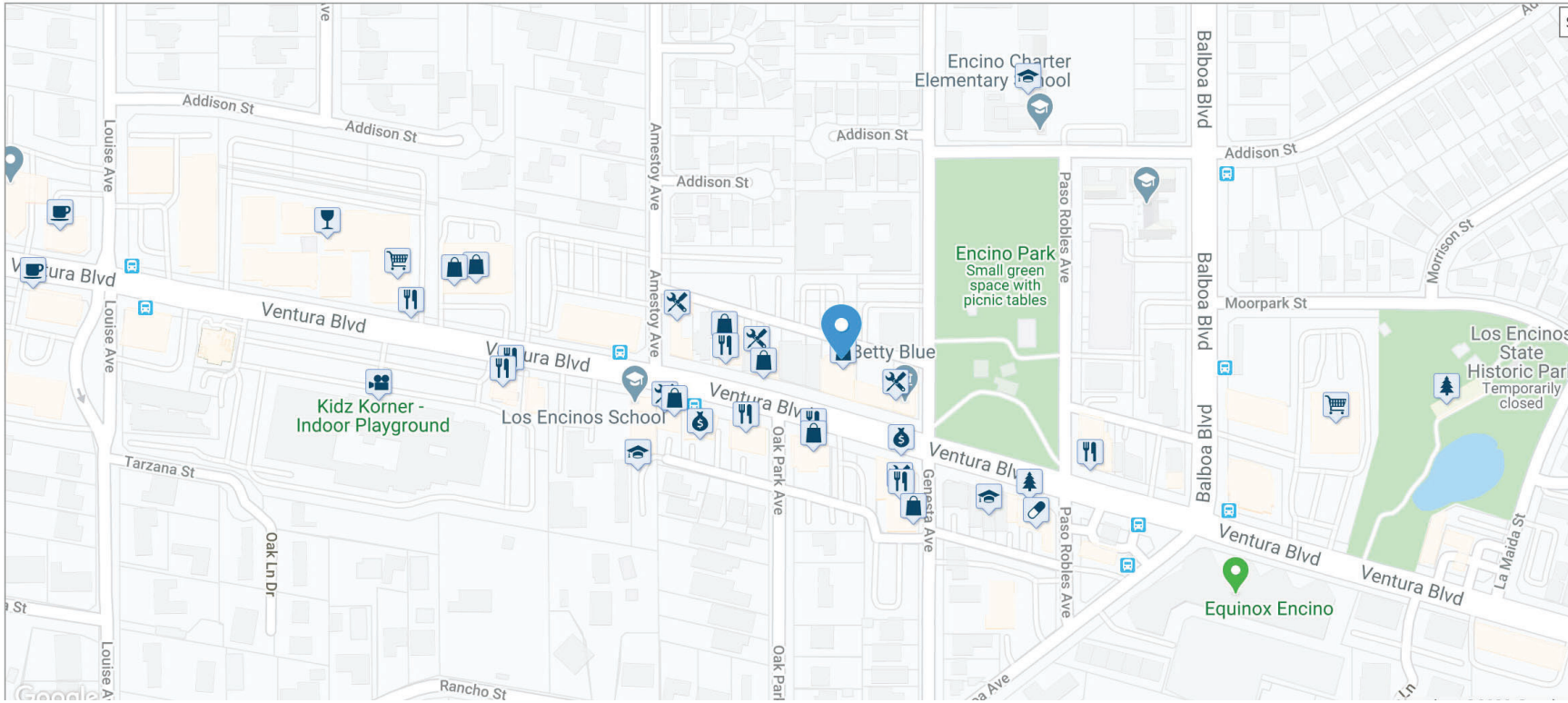
Schools:
Los Encinos School .1mi

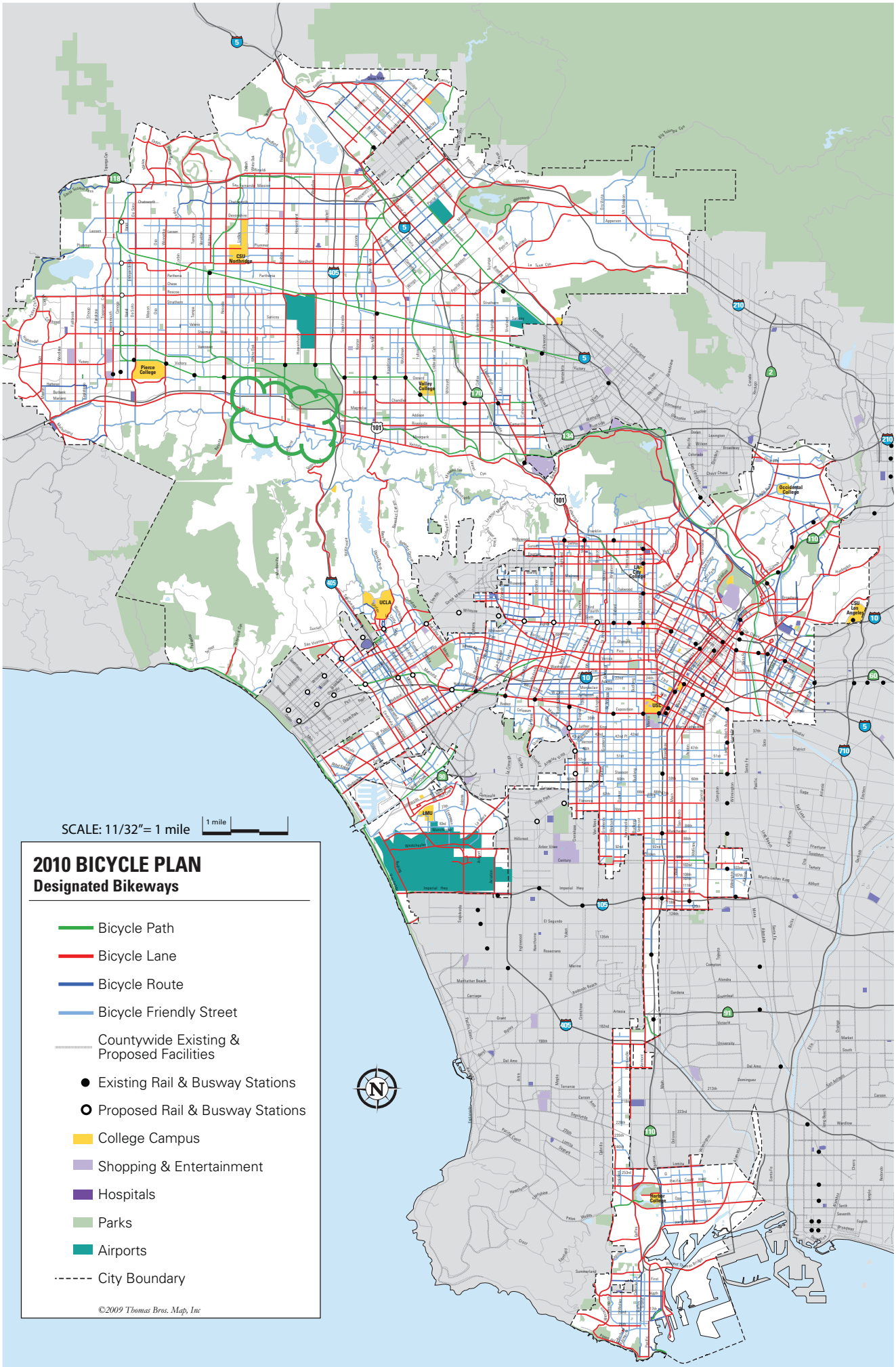
Shopping:
The Futon Shop .05mi

Entertainment:
Laemmle Town Center 5 .2mi

Errands:
Stile Hair Salon .05mi

Search Nearby:





Prepared by City of Los Angeles Planning Department • Graphics Section • March 2011

039_map2:06.29.11

APPENDIX H

VMT REPORT

CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

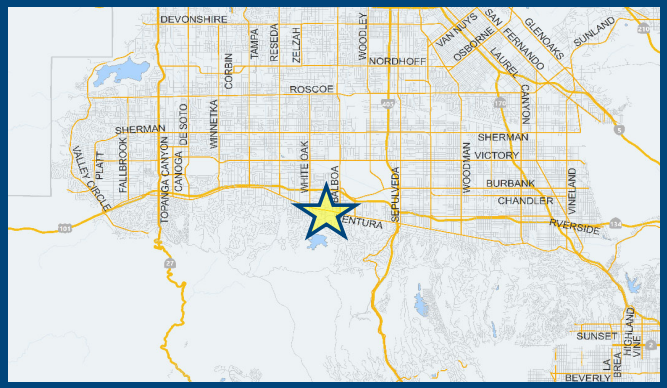
Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project: Encino Eldercare and Medical Office

Scenario: AUGUST 2020 TA

Address: 17017 W VENTURA BLVD, 91316



Is the project replacing an existing number of residential units with a smaller number of residential units AND is located within one-half mile of a fixed-rail or fixed-guideway transit station?

○ Yes ○ No

Existing Land Use

Land Use Type	Value	Unit
Retail | General Retail	10	ksf
Retail | General Retail	10	ksf
Retail | Health Club	4	ksf
Office | General Office	11	ksf

☐ Click here to add a single custom land use type (will be included in the above list)

Proposed Project Land Use

Land Use Type	Value	Unit
Office | Medical Office	55.416	ksf
Office | Medical Office	55.416	ksf
(custom) Eldercare | Daily	325	Trips
(custom) Eldercare | HBW-Attraction Split	10	Percent
(custom) Eldercare | HBO-Attraction Split	25	Percent
(custom) Eldercare | NHB-Attraction Split	15	Percent
(custom) Eldercare | HBW-Production Split	10	Percent
(custom) Eldercare | HBO-Production Split	25	Percent
(custom) Eldercare | NHB-Production Split	15	Percent
(custom) Eldercare | Daily	112	Residents
(custom) Eldercare | Daily	50	Employees
(custom) Eldercare | Daily	Retail	Retail/Non-Re

☑ Click here to add a single custom land use type (will be included in the above list)

Project Screening Summary

Existing Land Use	Proposed
589 Daily Vehicle Trips	1,948 Daily Vehicle Trips
4,478 Daily VMT	14,712 Daily VMT

Tier 1 Screening Criteria

Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. ☐

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips	1,359 Net Daily Trips
The net increase in daily VMT ≤ 0	10,234 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	0.000 ksf

The proposed project is required to perform VMT analysis.

Measuring the Miles

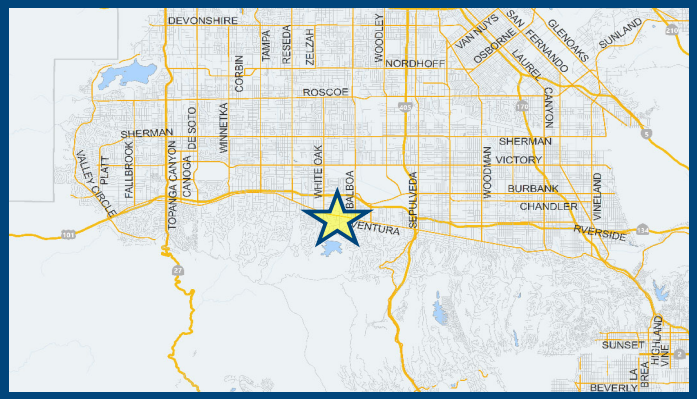
CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

Project Information

Project: Encino Eldercare and Medical Office

Scenario: AUGUST 2020 TA

Address: 17017 W VENTURA BLVD, 91316



Proposed Project Land Use Type	Value	Unit
Office | Medical Office	55.416	
(custom) Eldercare | Daily	325	
(custom) Eldercare | HBW-Attraction Split	10	
(custom) Eldercare | HBO-Attraction Split	25	
(custom) Eldercare | NHB-Attraction Split	15	
(custom) Eldercare | HBW-Production Split	10	
(custom) Eldercare | HBO-Production Split	25	
(custom) Eldercare | NHB-Production Split	15	
(custom) Eldercare | Daily	112	
(custom) Eldercare | Daily	50	

TDM Strategies

Select each section to show individual strategies
Use ☑ to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

	Proposed Project	With Mitigation
Max Home Based TDM Achieved?	No	No
Max Work Based TDM Achieved?	No	No

A Parking

B Transit

C Education & Encouragement

D Commute Trip Reductions

E Shared Mobility

F Bicycle Infrastructure

Implement/Improve On-street Bicycle Facility — Select Proposed Prj or Mitigation to include this strategy
☐ Proposed Prj ☐ Mitigation

Include Bike Parking Per LAMC — Select Proposed Prj or Mitigation to include this strategy
☑ Proposed Prj ☐ Mitigation

Include Secure Bike Parking and Showers — Select Proposed Prj or Mitigation to include this strategy
☐ Proposed Prj ☐ Mitigation

G Neighborhood Enhancement

Analysis Results

Proposed Project	With
1,834 Daily Vehicle Trips	**1,834** Daily Vehicle Trips
13,860 Daily VMT	**13,860** Daily VMT
4.6 Household VMT per Capita	**4.6** Household VMT
7.3 Work VMT per Employee	**7.3** Work VMT per Employee

Significant VMT Impact?

Household: No Threshold = 9.4 15% Below APC	**Household: No** Threshold = 9.4 15% Below APC
Work: No Threshold = 11.6 15% Below APC	**Work: No** Threshold = 11.6 15% Below APC

Measuring the Miles

8/4/2020

Project Information

Land Use Type		Value	Units
Housing	*Single Family*	*0*	*DU*
	Multi Family	*0*	*DU*
	Townhouse	*0*	*DU*
	Hotel	*0*	*Rooms*
	Motel	*0*	*Rooms*
Affordable Housing	*Family*	*0*	*DU*
	Senior	*0*	*DU*
	Special Needs	*0*	*DU*
	Permanent Supportive	*0*	*DU*
Retail	*General Retail*	*0.000*	*ksf*
	Furniture Store	*0.000*	*ksf*
	Pharmacy/Drugstore	*0.000*	*ksf*
	Supermarket	*0.000*	*ksf*
	Bank	*0.000*	*ksf*
	Health Club	*0.000*	*ksf*
	High-Turnover Sit-Down Restaurant	*0.000*	*ksf*
	Fast-Food Restaurant	*0.000*	*ksf*
	Quality Restaurant	*0.000*	*ksf*
	Auto Repair	*0.000*	*ksf*
	Home Improvement	*0.000*	*ksf*
	Free-Standing Discount	*0.000*	*ksf*
	Movie Theater	*0*	*Seats*
Office	*General Office*	*0.000*	*ksf*
	Medical Office	55.416	ksf
Industrial	*Light Industrial*	*0.000*	*ksf*
	Manufacturing	*0.000*	*ksf*
	Warehousing/Self-Storage	*0.000*	*ksf*
School	*University*	*0*	*Students*
	High School	*0*	*Students*
	Middle School	*0*	*Students*
	Elementary	*0*	*Students*
	Private School (K-12)	*0*	*Students*
Other	Eldercare	325	Trips

Analysis Results

Total Employees: 216
Total Population: 112

Proposed Project		*With Mitigation*	
1,834	**Daily Vehicle Trips**	**1,834**	**Daily Vehicle Trips**
13,860	**Daily VMT**	**13,860**	**Daily VMT**
4.6	**Household VMT per Capita**	**4.6**	**Household VMT per Capita**
7.3	**Work VMT per Employee**	**7.3**	**Work VMT per Employee**

Significant VMT Impact?

APC: South Valley

Impact Threshold: 15% Below APC Average
Household = 9.4
Work = 11.6

Proposed Project		*With Mitigation*	
VMT Threshold	**Impact**	**VMT Threshold**	**Impact**
Household > 9.4	No	Household > 9.4	No
Work > 11.6	No	Work > 11.6	No

TDM Strategy Inputs

Strategy Type		Description	Proposed Project	Mitigations
Parking	*Reduce parking supply*	*City code parking provision (spaces)*	*0*	*0*
		Actual parking provision (spaces)	*0*	*0*
	Unbundle parking	*Monthly cost for parking ($)*	*$0*	*$0*
	Parking cash-out	*Employees eligible (%)*	*0%*	*0%*
	Price workplace parking	*Daily parking charge ($)*	*$0.00*	*$0.00*
		Employees subject to priced parking (%)	*0%*	*0%*
	Residential area parking permits	*Cost of annual permit ($)*	*$0*	*$0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Transit	*Reduce transit headways*	*Reduction in headways (increase in frequency) (%)*	*0%*	*0%*
		Existing transit mode share (as a percent of total daily trips) (%)	*0%*	*0%*
		Lines within project site improved (<50%, >=50%)	*0*	*0*
	Implement neighborhood shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees and residents eligible (%)	*0%*	*0%*
	Transit subsidies	*Employees and residents eligible (%)*	*0%*	*0%*
		Amount of transit subsidy per passenger (daily equivalent) ($)	*$0.00*	*$0.00*
Education & Encouragement	*Voluntary travel behavior change program*	*Employees and residents participating (%)*	*0%*	*0%*
	Promotions and marketing	Employees and residents participating (%)	100%	100%

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Commute Trip Reductions	*Required commute trip reduction program*	*Employees participating (%)*	*0%*	*0%*
	Alternative Work Schedules and Telecommute	*Employees participating (%)*	*0%*	*0%*
		Type of program	*0*	*0*
	Employer sponsored vanpool or shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees eligible (%)	*0%*	*0%*
		Employer size (small, medium, large)	*0*	*0*
	Ride-share program	Employees eligible (%)	100%	100%
Shared Mobility	*Car share*	*Car share project setting (Urban, Suburban, All Other)*	*0*	*0*
	Bike share	*Within 600 feet of existing bike share station - OR- implementing new bike share station (Yes/No)*	*0*	*0*
	School carpool program	*Level of implementation (Low, Medium, High)*	*0*	*0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Bicycle Infrastructure	*Implement/Improve on-street bicycle facility*	*Provide bicycle facility along site (Yes/No)*	*0*	*0*
	Include Bike parking per LAMC	Meets City Bike Parking Code (Yes/No)	Yes	Yes
	Include secure bike parking and showers	*Includes indoor bike parking/lockers, showers, & repair station (Yes/No)*	*0*	*0*
Neighborhood Enhancement	*Traffic calming improvements*	*Streets with traffic calming improvements (%)*	*0%*	*0%*
		Intersections with traffic calming improvements (%)	*0%*	*0%*
	Pedestrian network improvements	*Included (within project and connecting off-site/within project only)*	*0*	*0*

TDM Adjustments by Trip Purpose & Strategy

Place type: Suburban Center

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Parking	Reduce parking supply	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Parking sections 1 - 5
	Unbundle parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Parking cash-out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Price workplace parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Residential area parking permits	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Transit	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Transit sections 1 - 3
	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education & Encouragement	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Education & Encouragement sections 1 - 2
	Promotions and marketing	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	0%	
Commute Trip Reductions	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commute Trip Reductions sections 1 - 4
	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Ride-share program	0%	0%	10%	10%	0%	0%	0%	0%	0%	0%	0%	0%	
Shared Mobility	Car-share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Shared Mobility sections 1 - 3
	Bike share	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	School carpool program	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Suburban Center

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle Infrastructure	Implement/ Improve on-street bicycle facility	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	
Neighborhood Enhancement	Traffic calming improvements	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Neighborhood Enhancement
	Pedestrian network improvements	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	

Final Combined & Maximum TDM Effect

	Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
COMBINED TOTAL	*5%*	*5%*	*14%*	*14%*	*5%*	*5%*	*5%*	*5%*	*5%*	*5%*	*5%*	*1%*
MAX. TDM EFFECT	*5%*	*5%*	*14%*	*14%*	*5%*	*5%*	*5%*	*5%*	*5%*	*5%*	*5%*	*5%*

= Minimum (X%, 1-[(1-A)*(1-B)…])

where X%=

PLACE TYPE MAX:	*urban*	*75%*
	compact infill	*40%*
	suburban center	*20%*
	suburban	*15%*

Note: (1-[(1-A)*(1-B)…]) reflects the dampened combined effectiveness of TDM Strategies (e.g., A, B,…). See the TDM Strategy Appendix (*Transportation Assessment Guidelines Attachment G)* for further discussion of dampening.

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: August 4, 2020
Project Name: Encino Eldercare and Medical Office
Project Scenario: AUGUST 2020 TA
Project Address: 17017 W VENTURA BLVD, 91316

Version 1.3

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	33	-48.5%	17	9.8	323	167
Home Based Other Production	81	-29.6%	57	6.5	527	371
Non-Home Based Other Production	413	-2.2%	404	9.4	3,882	3,798
Home-Based Work Attraction	274	-13.1%	238	7.7	2,110	1,833
Home-Based Other Attraction	1,114	-25.7%	828	7.0	7,798	5,796
Non-Home Based Other Attraction	413	-2.2%	404	6.8	2,808	2,747

MXD Methodology with TDM Measures

	Proposed Project			*Project with Mitigation Measures*		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-4.6%	16	159	-4.6%	16	159
Home Based Other Production	-4.6%	54	354	-4.6%	54	354
Non-Home Based Other Production	-4.6%	385	3,623	-4.6%	385	3,623
Home-Based Work Attraction	-14.1%	204	1,574	-14.1%	204	1,574
Home-Based Other Attraction	-4.6%	790	5,529	-4.6%	790	5,529
Non-Home Based Other Attraction	-4.6%	385	2,621	-4.6%	385	2,621

MXD VMT Methodology Per Capita & Per Employee

Total Population: 112
Total Employees: 216
APC: South Valley

	Proposed Project	*Project with Mitigation Measures*
Total Home Based Production VMT	**513**	**513**
Total Home Based Work Attraction VMT	**1,574**	**1,574**
Total Home Based VMT Per Capita	**4.6**	**4.6**
Total Work Based VMT Per Employee	**7.3**	**7.3**

APPENDIX I

RELATED PROJECT INFORMATION

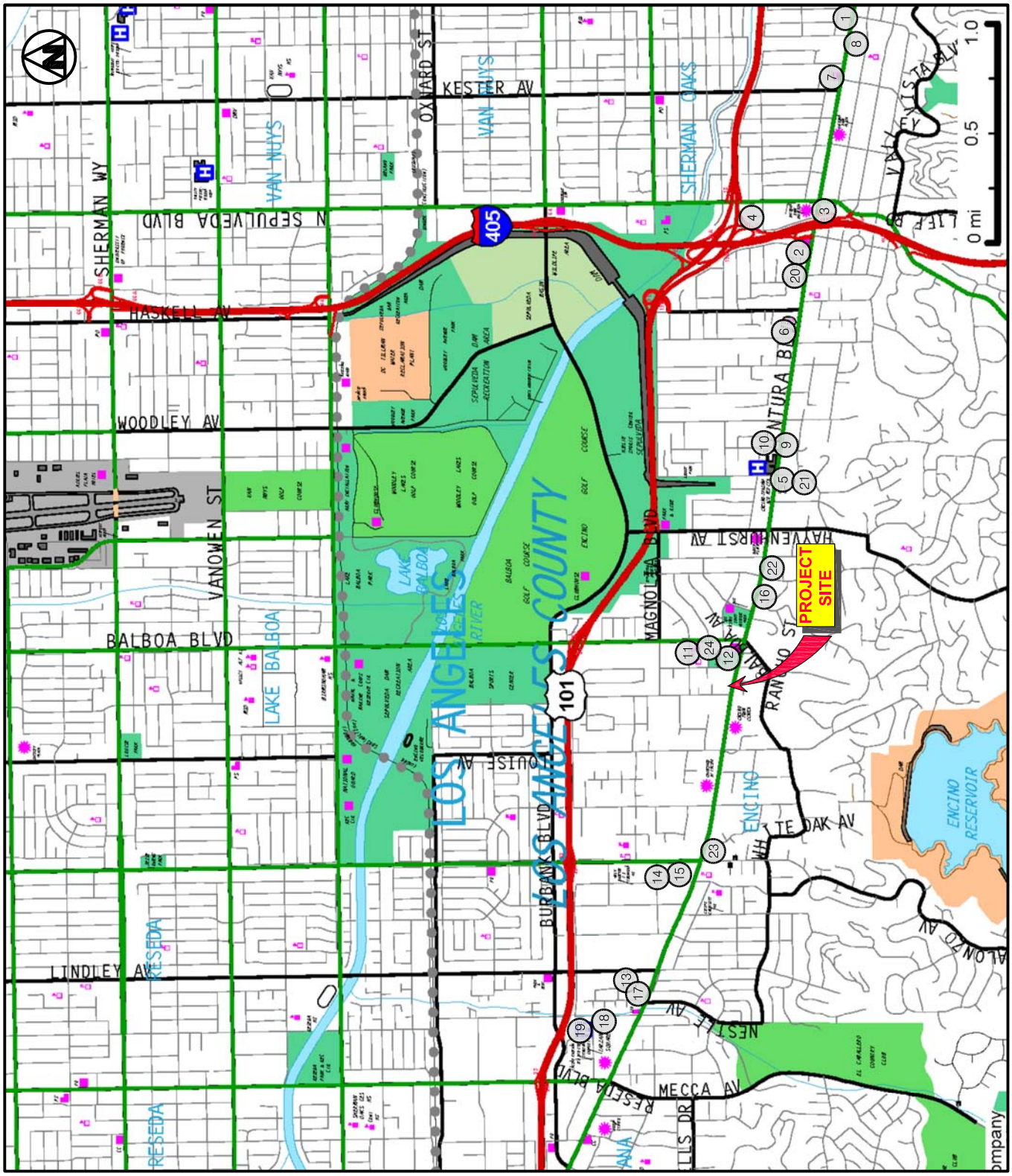


FIGURE 11

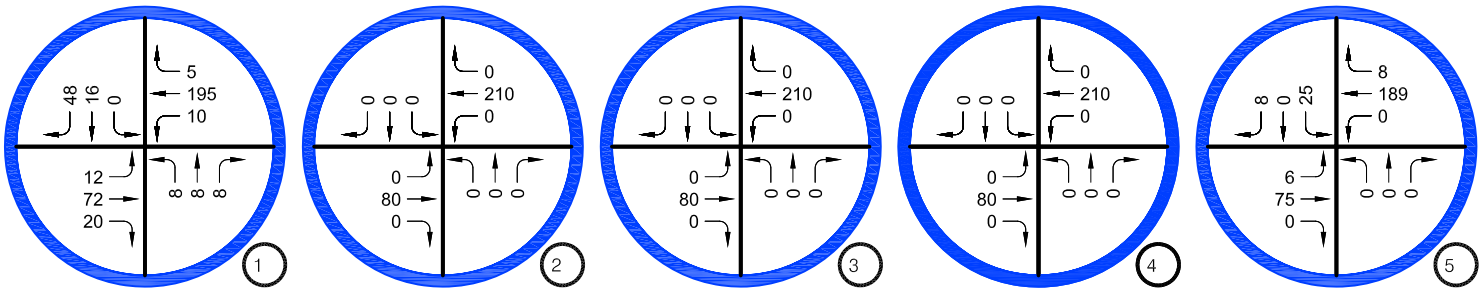
1/2019

RELATED PROJECTS LOCATION MAP

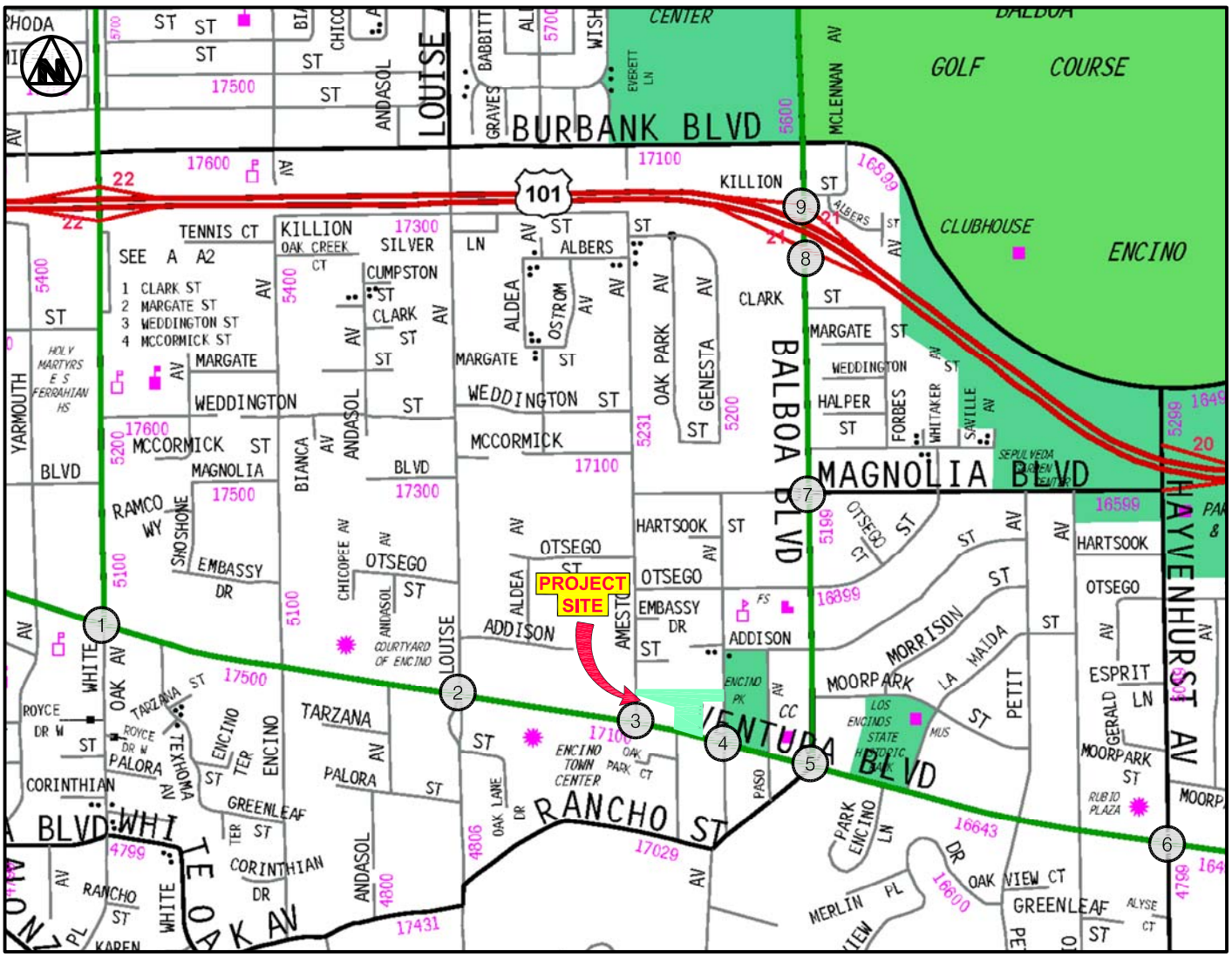
Overland Traffic Consultants, Inc.
952 Manhattan Beach Bl. #100, Manhattan Beach, CA 90266
(661) 799 - 8423, otc@overlandtraffic.com

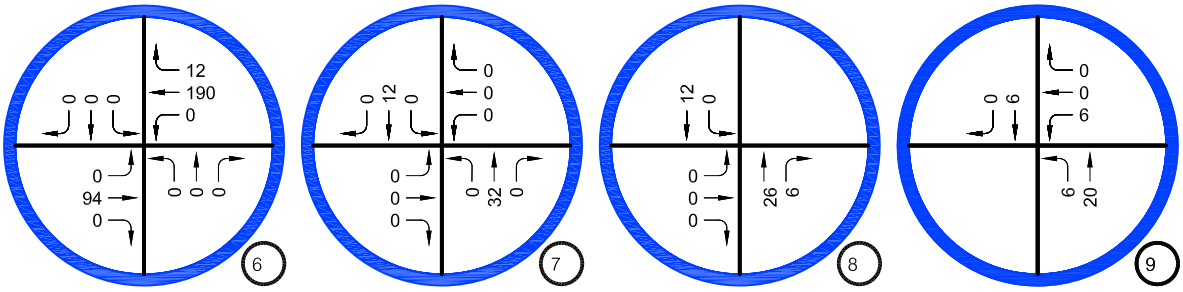
RELATED PROJECT LIST

No	Location	Size		Description	Daily	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
1	14601 Ventura Boulevard	7,000	sf	Bank replace Office	n/a	9	11	20	23	27	50
2	15445 Ventura Boulevard	2,770	sf	Convenience Store	721	38	40	78	26	22	48
3	15315 Dickens Street	1,250	sf	Coffee Shop	777	27	26	53	7	7	14
4	4805 N Sepulveda Boulevard	325	units	Apartment	5,844	101	220	321	319	230	549
	(Il Villaggio)	45,000	sf	Market							
		10,000	sf	Retail							
5	16300 Ventura Boulevard	8,500	sf	Commercial (max 5,500 sf restaurant)	689	10	23	33	26	36	62
		49	units	Apartment							
6	15739 Ventura Boulevard	100	students	Pre-school expansion	448	42	38	80	39	43	82
7	14845 Ventura Boulevard	57,040	sf	Market remodel	5,964	131	82	213	311	301	612
		2,970	sf	Bank							
8	14708 Ventura Boulevard	6,880	sf	Restaurant	975	33	22	55	48	42	90
9	16206 -16218 Ventura Boulevard	7,333	sf	Restaurant	894	42	41	83	39	24	63
		802	sf	Restaurant							
		4,745	sf	Gym							
10	16161 Ventura Boulevard	114	units	Apartments	221	(10)	36	26	25	(5)	20
11	5015 - 5041 Balboa Boulevard	42	units	Condominiums	244	3	15	18	15	7	22
12	4940 Paso Robles	66	units	Apartments	439	7	27	34	27	14	41
13	5239 Lindley Avenue	58	units	Condominiums less 39 apts. (2005)	78	0	5	5	4	2	6
14	5168 Yarmouth Avenue	43	units	Condominiums less 29 apts. (2006)	57	0	4	4	3	1	4
15	5130 Yarmouth Avenue	70	units	Condominiums less 53 apts. (2009)	55	0	4	4	3	0	3
16	1671 Oak View Drive	20	units	Condominiums	116	2	7	9	7	3	10
17	18131 Ventura Boulevard	138,714	sf	Medical Office	3,290	216	49	265	59	250	309
18	5411 Etiwanda Avenue	93,376	sf	Medical Office	3,037	153	40	193	78	213	291
19	18321 Clark Street	104,897	sf	Providence Medical Center	1,091	114	23	137	30	107	137
		209	beds								
		11,388	sf	Office							
20	15485-15491 Ventura Boulevard	158	rooms	Hotel	1,291	50	34	84	48	47	95
	(no credits assumed)										
21	4741 Libbit Avenue	42	units	Apartments	244	5	12	17	12	7	19
		4	units	Affordable Units							
22	4726 Petit Avenue	12	units	Single Family (2008)	113	2	7	9	7	5	12
23	17660 Ventura Boulevard	1,999	sf	Fast Food Restaurant	(780)	(24)	(6)	(30)	(10)	(13)	(23)
	(net trips per LADOT)										
24	5001 N Balboa Boulevard	5,211	sf	Community Center	150	6	3	9	6	6	12



VENTURA BOULEVARD & WHITE OAK AVENUE | VENTURA BOULEVARD & LOUISE AVENUE | VENTURA BOULEVARD & AMESTOY AVENUE | VENTURA BOULEVARD & GENESTA AVENUE | VENTURA BOULEVARD & BALBOA BOULEVARD





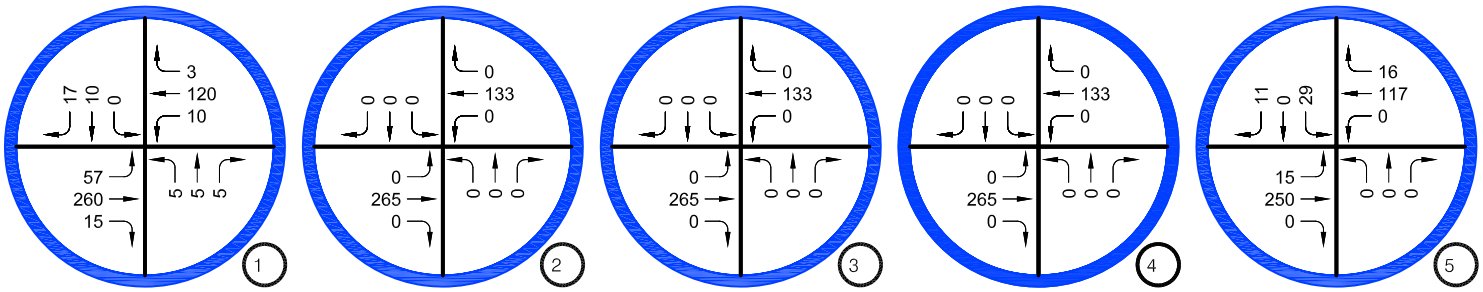
VENTURA BOULEVARD & HAYVENHURST AVENUE | BALBOA BOULEVARD & MAGNOLIA BOULEVARD | BALBOA BOULEVARD & 101 FREEWAY EB RAMPS | BALBOA BOULEVARD & 101 FREEWAY WB RAMPS

FIGURE G1

1/2019

RELATED PROJECT TRAFFIC VOLUME
AM PEAK HOUR

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661) 799 - 8423, OTC@overlandtraffic.com



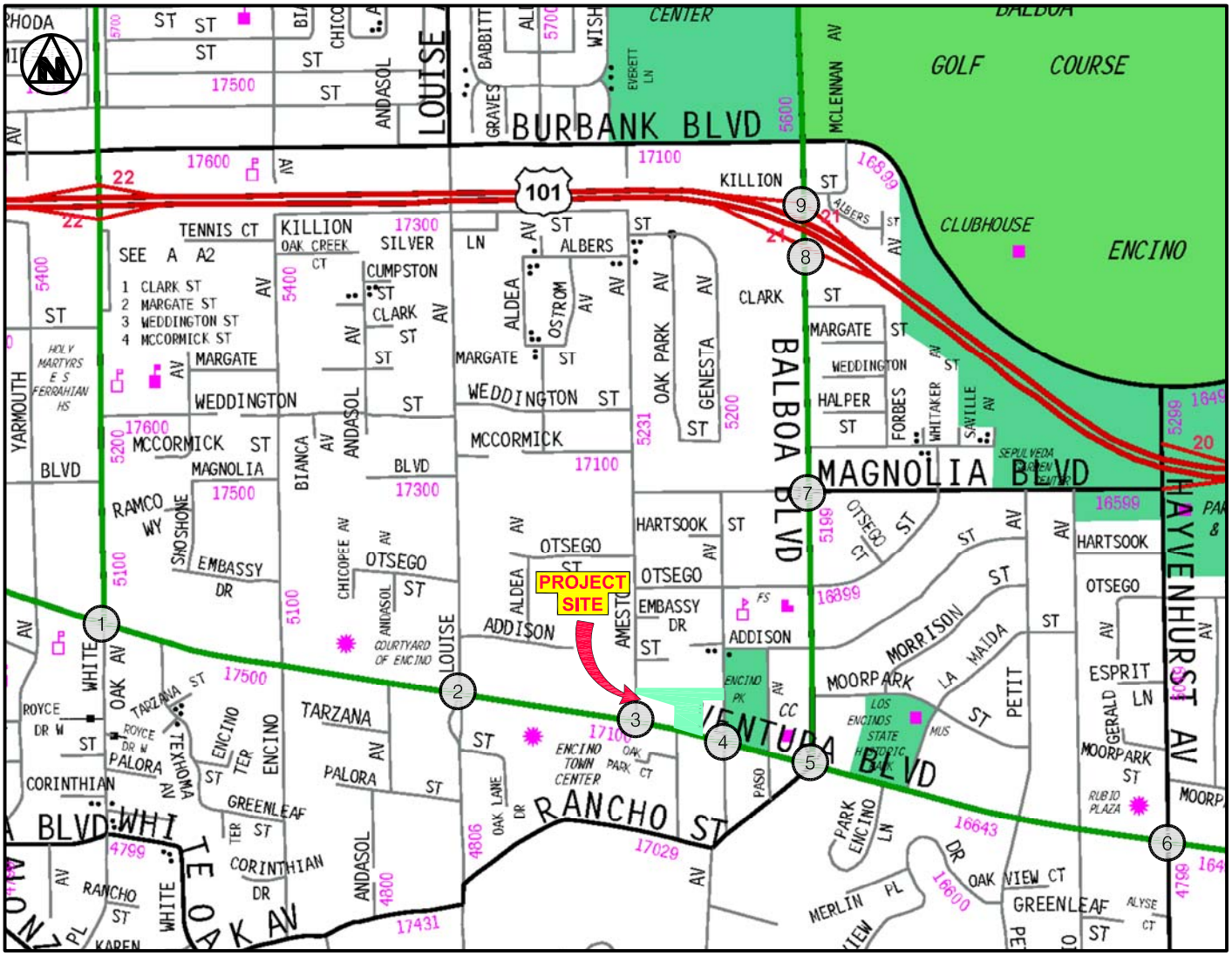
VENTURA BOULEVARD & WHITE OAK AVENUE

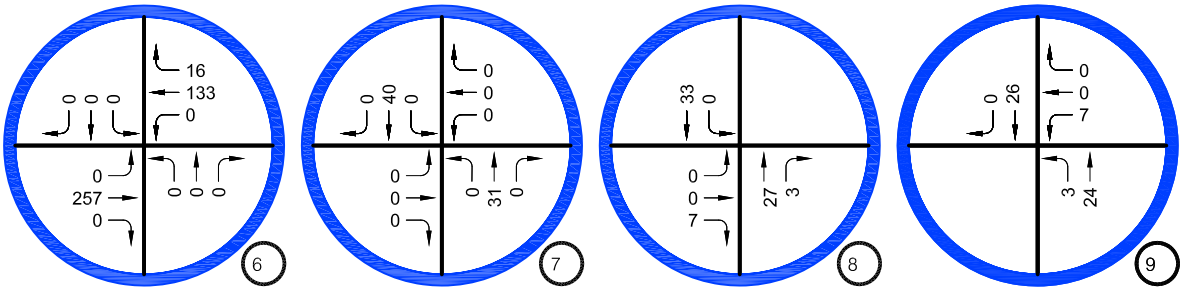
VENTURA BOULEVARD & LOUISE AVENUE

VENTURA BOULEVARD & AMESTOY AVENUE

VENTURA BOULEVARD & GENESTA AVENUE

VENTURA BOULEVARD & BALBOA BOULEVARD





VENTURA BOULEVARD & HAYVENHURST AVENUE

BALBOA BOULEVARD & MAGNOLIA BOULEVARD

BALBOA BOULEVARD & 101 FREEWAY EB RAMPS

BALBOA BOULEVARD & 101 FREEWAY WB RAMPS

FIGURE G2

1/2019

RELATED PROJECT TRAFFIC VOLUME
PM PEAK HOUR

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661) 799 - 8423, OTC@overlandtraffic.com

APPENDIX J

TRAFFIC VOLUME DATA, FIGURES AND LEVEL OF SERVICE WORKSHEETS

TRAFFIC VOLUME DATA

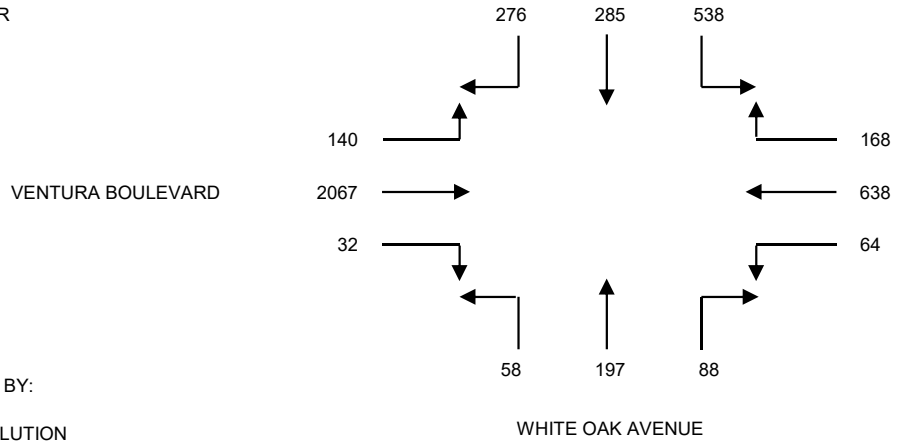
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS
PROJECT: ENCINO
DATE: WEDNESDAY, APRIL 05, 2017
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION: N/S WHITE OAK AVENUE
E/W VENTURA BOULEVARD
FILE NUMBER: 1-AM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	38	50	134	13	63	3	19	44	7	9	539	23
0715-0730	40	40	114	22	99	5	19	52	7	12	586	33
0730-0745	65	44	110	36	128	7	21	58	11	6	530	24
0745-0800	71	60	108	31	173	16	33	68	16	10	501	32
0800-0815	65	82	133	46	166	22	20	44	15	7	534	35
0815-0830	72	69	147	41	148	14	16	36	12	7	532	35
0830-0845	68	74	150	50	151	12	19	49	15	8	500	38
0845-0900	74	53	151	42	147	8	22	46	19	9	429	34
0900-0915	73	48	149	51	124	12	15	39	14	5	374	43
0915-0930	58	53	116	44	132	15	18	33	9	9	342	48
0930-0945	60	51	146	65	152	11	18	34	11	4	320	54
0945-1000	55	41	133	57	151	15	17	32	14	9	310	35

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0700-0800	214	194	466	102	463	31	92	222	41	37	2156	112	4130
0715-0815	241	226	465	135	566	50	93	222	49	35	2151	124	4357
0730-0830	273	255	498	154	615	59	90	206	54	30	2097	126	4457
0745-0845	276	285	538	168	638	64	88	197	58	32	2067	140	4551
0800-0900	279	278	581	179	612	56	77	175	61	31	1995	142	4466
0815-0915	287	244	597	184	570	46	72	170	60	29	1835	150	4244
0830-0930	273	228	566	187	554	47	74	167	57	31	1645	163	3992
0845-0945	265	205	562	202	555	46	73	152	53	27	1465	179	3784
0900-1000	246	193	544	217	559	53	68	138	48	27	1346	180	3619

A.M. PEAK HOUR
0745-0845



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

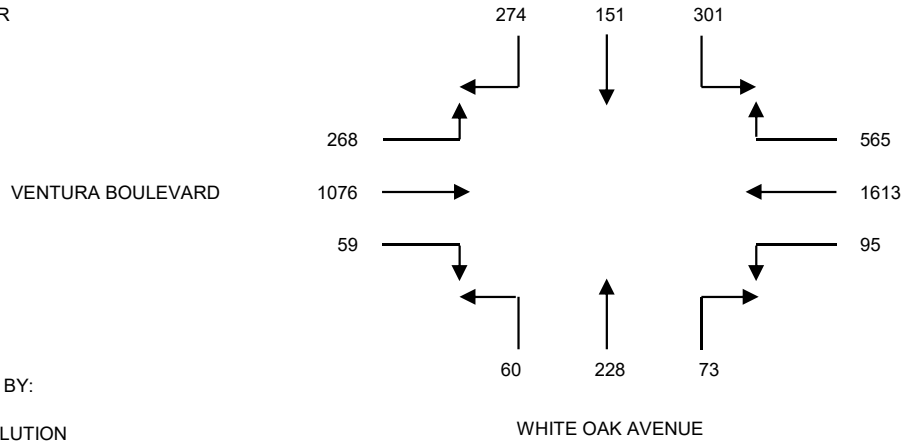
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS
PROJECT: ENCINO
DATE: WEDNESDAY, APRIL 05, 2017
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION: N/S WHITE OAK AVENUE
E/W VENTURA BOULEVARD
FILE NUMBER: 1-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	70	42	99	125	278	22	11	64	18	9	220	64
0315-0330	77	34	89	132	288	18	18	45	14	8	238	81
0330-0345	83	56	80	128	302	19	20	63	18	13	272	78
0345-0400	84	45	93	114	310	14	25	54	15	15	263	57
0400-0415	87	45	92	131	344	17	18	45	19	13	224	53
0415-0430	71	51	73	121	391	19	17	53	15	11	250	57
0430-0445	61	46	69	138	411	22	13	73	10	16	271	70
0445-0500	76	45	92	116	362	19	15	51	16	10	272	53
0500-0515	82	33	78	159	369	20	22	67	21	14	276	66
0515-0530	76	38	89	130	415	28	25	57	15	16	253	62
0530-0545	61	39	69	145	391	28	16	52	14	19	270	81
0545-0600	55	41	65	131	438	19	10	52	10	10	277	59

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0400	314	177	361	499	1178	73	74	226	65	45	993	280	4285
0315-0415	331	180	354	505	1244	68	81	207	66	49	997	269	4351
0330-0430	325	197	338	494	1347	69	80	215	67	52	1009	245	4438
0345-0445	303	187	327	504	1456	72	73	225	59	55	1008	237	4506
0400-0500	295	187	326	506	1508	77	63	222	60	50	1017	233	4544
0415-0515	290	175	312	534	1533	80	67	244	62	51	1069	246	4663
0430-0530	295	162	328	543	1557	89	75	248	62	56	1072	251	4738
0445-0545	295	155	328	550	1537	95	78	227	66	59	1071	262	4723
0500-0600	274	151	301	565	1613	95	73	228	60	59	1076	268	4763

P.M. PEAK HOUR
0500-0600



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

PEDESTRIAN - BICYCLE COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS

PROJECT: ENCINO

DATE: WEDNESDAY, APRIL 05, 2017

PERIOD: 07:00 AM TO 10:00 AM

INTERSECTION: WHITE OAK AVENUE / VENTURA BOULEVARD

FILE: 1AMPED-BIKE

	PEDESTRIAN MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0700-0715	3	2	4	4
0715-0730	15	8	9	4
0730-0745	9	5	2	1
0745-0800	6	2	4	6
0800-0815	6	5	9	8
0815-0830	13	10	5	6
0830-0845	12	7	5	3
0845-0900	11	15	5	4
0900-0915	8	6	3	7
0915-0930	14	9	1	4
0930-0945	11	4	4	6
0945-1000	9	7	4	7

	BICYCLIST MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0700-0715	0	0	1	0
0715-0730	0	0	0	0
0730-0745	0	0	0	0
0745-0800	0	0	0	1
0800-0815	0	0	0	0
0815-0830	1	0	0	0
0830-0845	1	0	1	1
0845-0900	1	1	3	0
0900-0915	2	0	0	1
0915-0930	0	0	0	0
0930-0945	2	0	0	0
0945-1000	0	0	1	0

	PEDESTRIAN MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0700-0800	33	17	19	15	84
0715-0815	36	20	24	19	99
0730-0830	34	22	20	21	97
0745-0845	37	24	23	23	107
0800-0900	42	37	24	21	124
0815-0915	44	38	18	20	120
0830-0930	45	37	14	18	114
0845-0945	44	34	13	21	112
0900-1000	42	26	12	24	104

	BICYCLIST MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0700-0800	0	0	1	1	2
0715-0815	0	0	0	1	1
0730-0830	1	0	0	1	2
0745-0845	2	0	1	2	5
0800-0900	3	1	4	1	9
0815-0915	5	1	4	2	12
0830-0930	4	1	4	2	11
0845-0945	5	1	3	1	10
0900-1000	4	0	1	1	6

THE TRAFFIC SOLUTION
9 ALTA STREET UNIT E
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626.485.8048 PHONE
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PEDESTRIAN - BICYCLE COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS

PROJECT: ENCINO

DATE: WEDNESDAY, APRIL 05, 2017

PERIOD: 03:00 PM TO 06:00 PM

INTERSECTION: WHITE OAK AVENUE / VENTURA BOULEVARD

FILE: 1PMPED-BIKE

	PEDESTRIAN MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0300-0315	7	11	7	1
0315-0330	3	7	9	3
0330-0345	8	5	11	2
0345-0400	9	10	22	5
0400-0415	9	7	13	7
0415-0430	11	10	18	7
0430-0445	12	4	2	4
0445-0500	15	6	7	4
0500-0515	19	8	1	5
0515-0530	15	6	2	9
0530-0545	7	7	8	7
0545-0600	7	7	5	4

	BICYCLIST MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0300-0315	0	0	0	0
0315-0330	0	0	1	0
0330-0345	1	1	2	1
0345-0400	1	0	1	2
0400-0415	0	0	0	0
0415-0430	1	0	0	0
0430-0445	1	0	1	0
0445-0500	1	0	0	0
0500-0515	1	0	1	0
0515-0530	0	1	3	1
0530-0545	1	1	0	1
0545-0600	1	0	3	0

	PEDESTRIAN MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0300-0400	27	33	49	11	120
0315-0415	29	29	55	17	130
0330-0430	37	32	64	21	154
0345-0445	41	31	55	23	150
0400-0500	47	27	40	22	136
0415-0515	57	28	28	20	133
0430-0530	61	24	12	22	119
0445-0545	56	27	18	25	126
0500-0600	48	28	16	25	117

	BICYCLIST MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0300-0400	2	1	4	3	10
0315-0415	2	1	4	3	10
0330-0430	3	1	3	3	10
0345-0445	3	0	2	2	7
0400-0500	3	0	1	0	4
0415-0515	4	0	2	0	6
0430-0530	3	1	5	1	10
0445-0545	3	2	4	2	11
0500-0600	3	2	7	2	14

THE TRAFFIC SOLUTION
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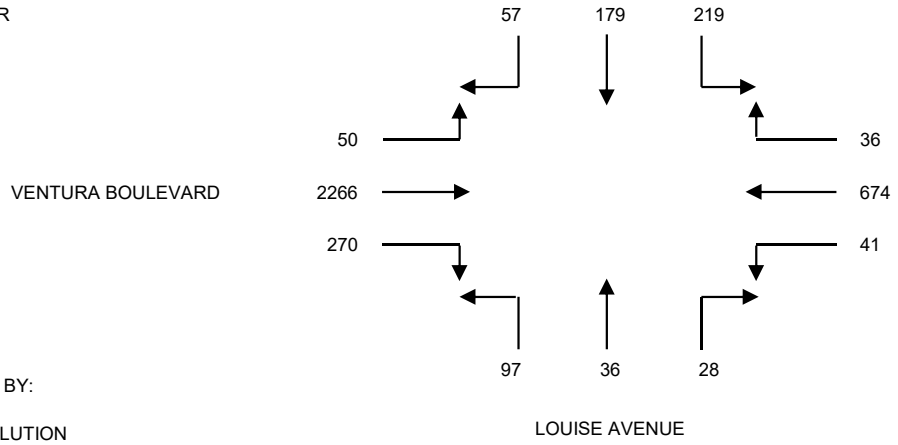
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS
PROJECT: ENCINO
DATE: WEDNESDAY, APRIL 05, 2017
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION: N/S LOUISE AVENUE
E/W VENTURA BOULEVARD
FILE NUMBER: 2-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	7	17	33	4	61	8	3	4	15	45	581	9
0715-0730	12	29	39	7	108	8	9	7	21	84	570	7
0730-0745	19	30	52	6	128	6	5	8	22	74	610	9
0745-0800	13	31	58	6	147	10	6	11	19	54	589	9
0800-0815	19	43	55	10	194	6	4	6	21	55	561	12
0815-0830	15	59	56	12	175	12	8	7	27	79	568	14
0830-0845	10	46	50	8	158	13	10	12	30	82	548	15
0845-0900	9	36	55	8	139	10	18	12	27	74	511	17
0900-0915	13	39	47	10	150	8	12	10	20	78	409	16
0915-0930	15	29	34	8	166	10	15	15	25	80	362	12
0930-0945	18	29	25	14	168	10	14	13	29	85	370	16
0945-1000	12	24	20	14	154	14	19	13	30	74	395	15

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	51	107	182	23	444	32	23	30	77	257	2350	34	3610
0715-0815	63	133	204	29	577	30	24	32	83	267	2330	37	3809
0730-0830	66	163	221	34	644	34	23	32	89	262	2328	44	3940
0745-0845	57	179	219	36	674	41	28	36	97	270	2266	50	3953
0800-0900	53	184	216	38	666	41	40	37	105	290	2188	58	3916
0815-0915	47	180	208	38	622	43	48	41	104	313	2036	62	3742
0830-0930	47	150	186	34	613	41	55	49	102	314	1830	60	3481
0845-0945	55	133	161	40	623	38	59	50	101	317	1652	61	3290
0900-1000	58	121	126	46	638	42	60	51	104	317	1536	59	3158

A.M. PEAK HOUR
0745-0845



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
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FAX: 626-446-2877
.

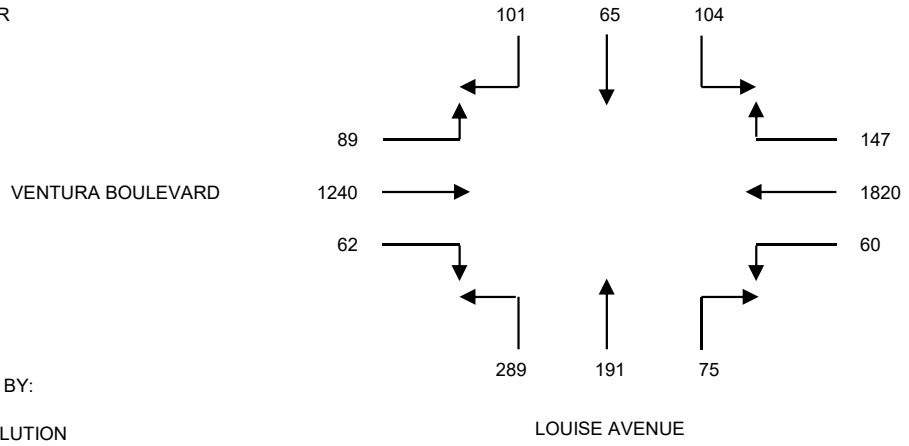
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS
PROJECT: ENCINO
DATE: WEDNESDAY, APRIL 05, 2017
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION: N/S LOUISE AVENUE
E/W VENTURA BOULEVARD
FILE NUMBER: 2-PM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0300-0315	15	10	20	19	331	15	23	29	48	12	294	28
0315-0330	25	10	20	26	343	17	24	22	39	10	311	25
0330-0345	25	10	12	33	342	18	20	35	51	13	308	23
0345-0400	28	15	18	22	355	21	20	36	69	14	300	31
0400-0415	21	20	24	22	360	19	21	30	68	16	298	30
0415-0430	22	22	25	38	429	19	23	48	62	17	280	28
0430-0445	23	15	17	23	474	14	19	35	55	13	270	20
0445-0500	28	16	22	25	403	21	14	46	48	13	303	17
0500-0515	23	18	23	36	451	18	20	56	66	18	356	21
0515-0530	20	10	26	41	444	12	24	46	81	11	342	19
0530-0545	26	19	24	35	455	19	18	40	63	16	272	23
0545-0600	32	18	31	35	470	11	13	49	79	17	270	26

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0300-0400	93	45	70	100	1371	71	87	122	207	49	1213	107	3535
0315-0415	99	55	74	103	1400	75	85	123	227	53	1217	109	3620
0330-0430	96	67	79	115	1486	77	84	149	250	60	1186	112	3761
0345-0445	94	72	84	105	1618	73	83	149	254	60	1148	109	3849
0400-0500	94	73	88	108	1666	73	77	159	233	59	1151	95	3876
0415-0515	96	71	87	122	1757	72	76	185	231	61	1209	86	4053
0430-0530	94	59	88	125	1772	65	77	183	250	55	1271	77	4116
0445-0545	97	63	95	137	1753	70	76	188	258	58	1273	80	4148
0500-0600	101	65	104	147	1820	60	75	191	289	62	1240	89	4243

P.M. PEAK HOUR
0500-0600



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
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PEDESTRIAN - BICYCLE COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS

PROJECT: ENCINO

DATE: WEDNESDAY, APRIL 05, 2017

PERIOD: 07:00 AM TO 10:00 AM

INTERSECTION: LOUISE AVENUE / VENTURA BOULEVARD

FILE: 2AMPED-BIKE

	PEDESTRIAN MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0700-0715	2	1	1	1
0715-0730	3	0	1	0
0730-0745	4	0	2	1
0745-0800	5	1	0	0
0800-0815	6	0	1	5
0815-0830	4	1	1	5
0830-0845	8	3	0	4
0845-0900	9	2	2	3
0900-0915	3	1	6	3
0915-0930	5	2	2	8
0930-0945	5	10	3	3
0945-1000	3	3	0	2

	BICYCLIST MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0700-0715	0	0	0	0
0715-0730	0	0	1	0
0730-0745	0	0	0	0
0745-0800	0	0	0	0
0800-0815	0	0	0	0
0815-0830	1	0	0	0
0830-0845	0	0	0	0
0845-0900	0	0	0	0
0900-0915	0	0	1	0
0915-0930	1	0	0	0
0930-0945	1	0	0	0
0945-1000	0	0	0	0

	PEDESTRIAN MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0700-0800	14	2	4	2	22
0715-0815	18	1	4	6	29
0730-0830	19	2	4	11	36
0745-0845	23	5	2	14	44
0800-0900	27	6	4	17	54
0815-0915	24	7	9	15	55
0830-0930	25	8	10	18	61
0845-0945	22	15	13	17	67
0900-1000	16	16	11	16	59

	BICYCLIST MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0700-0800	0	0	1	0	1
0715-0815	0	0	1	0	1
0730-0830	1	0	0	0	1
0745-0845	1	0	0	0	1
0800-0900	1	0	0	0	1
0815-0915	1	0	1	0	2
0830-0930	1	0	1	0	2
0845-0945	2	0	1	0	3
0900-1000	2	0	1	0	3

THE TRAFFIC SOLUTION
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PEDESTRIAN - BICYCLE COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS

PROJECT: ENCINO

DATE: WEDNESDAY, APRIL 05, 2017

PERIOD: 03:00 PM TO 06:00 PM

INTERSECTION: LOUISE AVENUE / VENTURA BOULEVARD

FILE: 2PMPED-BIKE

	PEDESTRIAN MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0300-0315	19	18	8	15
0315-0330	13	11	8	10
0330-0345	9	6	8	4
0345-0400	9	2	9	6
0400-0415	11	2	10	10
0415-0430	4	9	8	7
0430-0445	6	2	14	5
0445-0500	10	2	9	10
0500-0515	9	7	4	11
0515-0530	10	3	6	10
0530-0545	10	6	4	5
0545-0600	17	5	2	8

	BICYCLIST MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0300-0315	0	0	0	0
0315-0330	0	0	0	0
0330-0345	0	1	1	1
0345-0400	0	0	1	0
0400-0415	0	0	0	0
0415-0430	0	0	0	0
0430-0445	0	0	0	0
0445-0500	0	1	2	0
0500-0515	1	0	0	0
0515-0530	0	1	2	0
0530-0545	0	0	1	0
0545-0600	1	0	0	1

	PEDESTRIAN MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0300-0400	50	37	33	35	155
0315-0415	42	21	35	30	128
0330-0430	33	19	35	27	114
0345-0445	30	15	41	28	114
0400-0500	31	15	41	32	119
0415-0515	29	20	35	33	117
0430-0530	35	14	33	36	118
0445-0545	39	18	23	36	116
0500-0600	46	21	16	34	117

	BICYCLIST MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0300-0400	0	1	2	1	4
0315-0415	0	1	2	1	4
0330-0430	0	1	2	1	4
0345-0445	0	0	1	0	1
0400-0500	0	1	2	0	3
0415-0515	1	1	2	0	4
0430-0530	1	2	4	0	7
0445-0545	1	2	5	0	8
0500-0600	2	1	3	1	7

THE TRAFFIC SOLUTION
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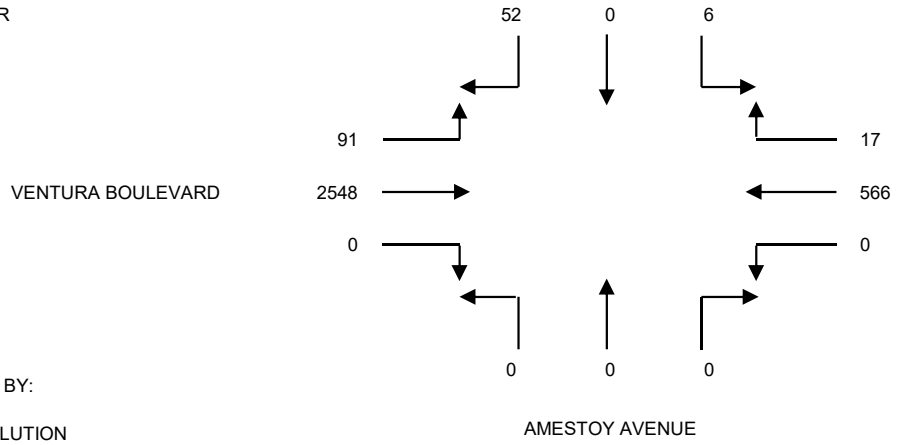
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS
PROJECT: ENCINO
DATE: THURSDAY, APRIL 06, 2017
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION: N/S AMESTOY AVENUE
E/W VENTURA BOULEVARD
FILE NUMBER: 3-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	8	0	1	1	55	0	0	0	0	0	647	7
0715-0730	7	0	2	2	98	0	0	0	0	0	660	11
0730-0745	11	0	0	4	129	0	0	0	0	0	658	20
0745-0800	15	0	2	7	148	0	0	0	0	0	633	34
0800-0815	19	0	2	4	191	0	0	0	0	0	597	26
0815-0830	17	0	4	4	165	0	0	0	0	0	530	20
0830-0845	20	0	0	4	143	0	0	0	0	0	518	24
0845-0900	18	0	5	9	151	0	0	0	0	0	536	29
0900-0915	17	0	2	10	141	0	0	0	0	0	499	19
0915-0930	21	0	6	8	149	0	0	0	0	0	377	12
0930-0945	15	0	4	10	167	0	0	0	0	0	342	12
0945-1000	15	0	7	5	182	0	0	0	0	0	384	10

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	41	0	5	14	430	0	0	0	0	0	2598	72	3160
0715-0815	52	0	6	17	566	0	0	0	0	0	2548	91	3280
0730-0830	62	0	8	19	633	0	0	0	0	0	2418	100	3240
0745-0845	71	0	8	19	647	0	0	0	0	0	2278	104	3127
0800-0900	74	0	11	21	650	0	0	0	0	0	2181	99	3036
0815-0915	72	0	11	27	600	0	0	0	0	0	2083	92	2885
0830-0930	76	0	13	31	584	0	0	0	0	0	1930	84	2718
0845-0945	71	0	17	37	608	0	0	0	0	0	1754	72	2559
0900-1000	68	0	19	33	639	0	0	0	0	0	1602	53	2414

A.M. PEAK HOUR
0715-0815



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

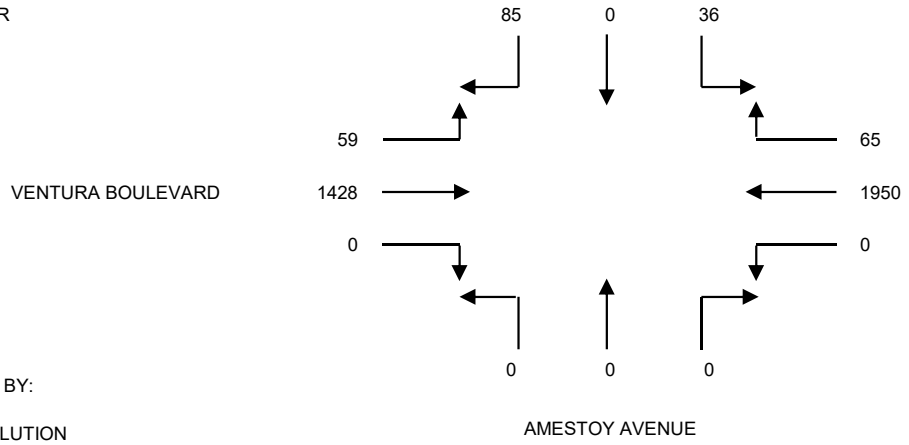
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS
PROJECT: ENCINO
DATE: THURSDAY, APRIL 06, 2017
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION: N/S AMESTOY AVENUE
E/W VENTURA BOULEVARD
FILE NUMBER: 3-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	9	0	7	4	349	0	0	0	0	0	361	6
0315-0330	18	0	4	8	409	0	0	0	0	0	369	10
0330-0345	16	0	8	14	326	0	0	0	0	0	356	16
0345-0400	14	0	4	11	438	0	0	0	0	0	304	19
0400-0415	16	0	6	12	400	0	0	0	0	0	350	12
0415-0430	23	0	6	16	470	0	0	0	0	0	355	14
0430-0445	17	0	5	10	464	0	0	0	0	0	352	10
0445-0500	17	0	8	17	502	0	0	0	0	0	332	10
0500-0515	18	0	7	12	489	0	0	0	0	0	379	18
0515-0530	22	0	11	17	492	0	0	0	0	0	380	13
0530-0545	28	0	10	19	467	0	0	0	0	0	337	18
0545-0600	22	0	5	11	451	0	0	0	0	0	307	20

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0400	57	0	23	37	1522	0	0	0	0	0	1390	51	3080
0315-0415	64	0	22	45	1573	0	0	0	0	0	1379	57	3140
0330-0430	69	0	24	53	1634	0	0	0	0	0	1365	61	3206
0345-0445	70	0	21	49	1772	0	0	0	0	0	1361	55	3328
0400-0500	73	0	25	55	1836	0	0	0	0	0	1389	46	3424
0415-0515	75	0	26	55	1925	0	0	0	0	0	1418	52	3551
0430-0530	74	0	31	56	1947	0	0	0	0	0	1443	51	3602
0445-0545	85	0	36	65	1950	0	0	0	0	0	1428	59	3623
0500-0600	90	0	33	59	1899	0	0	0	0	0	1403	69	3553

P.M. PEAK HOUR
0445-0545



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

PEDESTRIAN - BICYCLE COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS

PROJECT: ENCINO

DATE: THURSDAY, APRIL 06, 2017

PERIOD: 07:00 AM TO 10:00 AM

INTERSECTION: AMESTOY AVENUE / VENTURA BOULEVARD

FILE: 3AMPED-BIKE

	PEDESTRIAN MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0700-0715	1	0	0	0
0715-0730	5	0	0	0
0730-0745	1	0	0	0
0745-0800	2	0	0	0
0800-0815	5	0	0	0
0815-0830	2	0	0	0
0830-0845	8	0	0	0
0845-0900	7	0	0	1
0900-0915	4	0	0	0
0915-0930	3	0	0	1
0930-0945	2	0	0	0
0945-1000	3	3	0	4

	BICYCLIST MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0700-0715	0	0	0	0
0715-0730	1	0	0	0
0730-0745	0	0	0	0
0745-0800	0	0	0	0
0800-0815	1	0	0	0
0815-0830	0	0	0	0
0830-0845	3	0	0	0
0845-0900	2	0	0	0
0900-0915	0	0	0	0
0915-0930	0	0	0	0
0930-0945	0	0	0	0
0945-1000	0	0	0	0

	PEDESTRIAN MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0700-0800	9	0	0	0	9
0715-0815	13	0	0	0	13
0730-0830	10	0	0	0	10
0745-0845	17	0	0	0	17
0800-0900	22	0	0	1	23
0815-0915	21	0	0	1	22
0830-0930	22	0	0	2	24
0845-0945	16	0	0	2	18
0900-1000	12	3	0	5	20

	BICYCLIST MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0700-0800	1	0	0	0	1
0715-0815	2	0	0	0	2
0730-0830	1	0	0	0	1
0745-0845	4	0	0	0	4
0800-0900	6	0	0	0	6
0815-0915	5	0	0	0	5
0830-0930	5	0	0	0	5
0845-0945	2	0	0	0	2
0900-1000	0	0	0	0	0

THE TRAFFIC SOLUTION
9 ALTA STREET UNIT E
ARCADIA, CALIFORNIA 91006
626.485.8048 PHONE
trafsolutn@aol.com

PEDESTRIAN - BICYCLE COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS

PROJECT: ENCINO

DATE: THURSDAY, APRIL 06, 2017

PERIOD: 03:00 PM TO 06:00 PM

INTERSECTION: AMESTOY AVENUE / VENTURA BOULEVARD

FILE: 3PMPED-BIKE

	PEDESTRIAN MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0300-0315	5	0	0	2
0315-0330	5	2	0	0
0330-0345	5	0	0	0
0345-0400	4	0	0	0
0400-0415	3	3	0	1
0415-0430	1	3	0	0
0430-0445	1	3	0	0
0445-0500	2	2	0	0
0500-0515	5	2	0	1
0515-0530	4	4	0	1
0530-0545	6	4	0	0
0545-0600	4	1	0	0

	BICYCLIST MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0300-0315	0	0	0	0
0315-0330	0	0	0	0
0330-0345	0	0	0	0
0345-0400	1	0	0	0
0400-0415	0	0	0	0
0415-0430	0	0	0	0
0430-0445	0	0	0	0
0445-0500	0	0	0	0
0500-0515	1	0	0	0
0515-0530	0	0	0	0
0530-0545	2	0	0	0
0545-0600	0	0	0	0

	PEDESTRIAN MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0300-0400	19	2	0	2	23
0315-0415	17	5	0	1	23
0330-0430	13	6	0	1	20
0345-0445	9	9	0	1	19
0400-0500	7	11	0	1	19
0415-0515	9	10	0	1	20
0430-0530	12	11	0	2	25
0445-0545	17	12	0	2	31
0500-0600	19	11	0	2	32

	BICYCLIST MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0300-0400	1	0	0	0	1
0315-0415	1	0	0	0	1
0330-0430	1	0	0	0	1
0345-0445	1	0	0	0	1
0400-0500	0	0	0	0	0
0415-0515	1	0	0	0	1
0430-0530	1	0	0	0	1
0445-0545	3	0	0	0	3
0500-0600	3	0	0	0	3

THE TRAFFIC SOLUTION
9 ALTA STREET UNIT E
ARCADIA, CALIFORNIA 91006
626.485.8048 PHONE
trafsolutn@aol.com

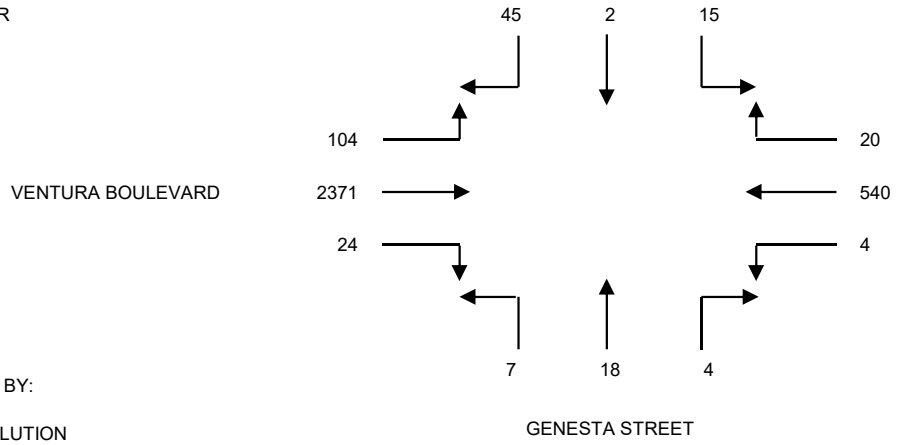
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS
PROJECT: ENCINO
DATE: THURSDAY, APRIL 06, 2017
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION: N/S GENESTA STREET
E/W VENTURA BOULEVARD
FILE NUMBER: 4-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	4	0	3	5	70	1	0	1	0	0	642	12
0715-0730	4	0	5	3	98	0	0	2	1	3	603	18
0730-0745	8	1	2	5	123	1	2	3	1	3	625	20
0745-0800	14	0	5	7	141	1	1	8	3	7	588	34
0800-0815	19	1	3	5	178	2	1	5	2	11	555	32
0815-0830	17	4	4	3	161	4	1	2	1	13	473	20
0830-0845	10	2	5	5	140	2	2	2	3	14	445	31
0845-0900	9	4	2	7	150	3	1	0	4	16	494	33
0900-0915	7	2	1	3	147	5	3	1	3	12	429	25
0915-0930	7	0	4	2	141	3	2	0	5	9	344	10
0930-0945	12	1	5	3	172	7	2	1	5	7	350	8
0945-1000	9	1	0	7	171	10	4	0	2	6	371	7

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	30	1	15	20	432	3	3	14	5	13	2458	84	3078
0715-0815	45	2	15	20	540	4	4	18	7	24	2371	104	3154
0730-0830	58	6	14	20	603	8	5	18	7	34	2241	106	3120
0745-0845	60	7	17	20	620	9	5	17	9	45	2061	117	2987
0800-0900	55	11	14	20	629	11	5	9	10	54	1967	116	2901
0815-0915	43	12	12	18	598	14	7	5	11	55	1841	109	2725
0830-0930	33	8	12	17	578	13	8	3	15	51	1712	99	2549
0845-0945	35	7	12	15	610	18	8	2	17	44	1617	76	2461
0900-1000	35	4	10	15	631	25	11	2	15	34	1494	50	2326

A.M. PEAK HOUR
0715-0815



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

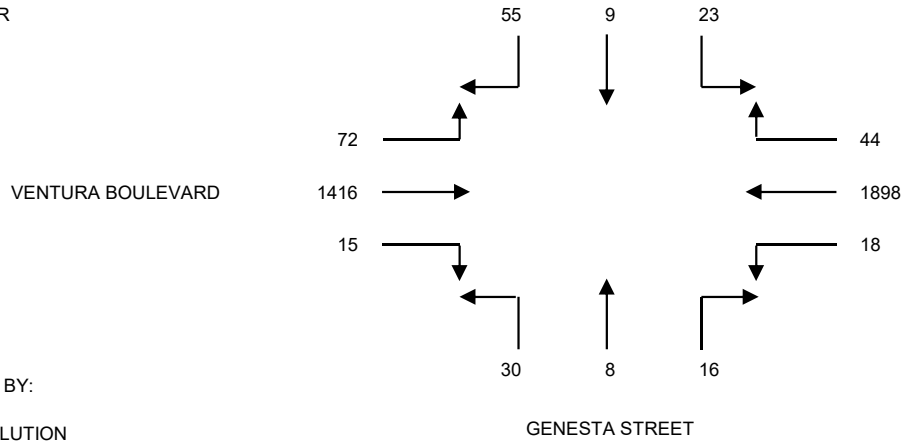
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS
PROJECT: ENCINO
DATE: THURSDAY, APRIL 06, 2017
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION: N/S GENESTA STREET
E/W VENTURA BOULEVARD
FILE NUMBER: 4-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	9	2	2	7	323	3	5	1	5	4	341	10
0315-0330	11	0	8	9	374	8	4	2	9	4	342	13
0330-0345	13	1	6	7	346	11	2	1	7	7	327	14
0345-0400	15	0	2	14	388	8	6	1	5	5	350	14
0400-0415	10	2	4	7	380	4	4	2	8	4	361	11
0415-0430	10	2	6	11	455	3	4	2	4	2	320	10
0430-0445	17	4	12	12	470	3	2	1	9	6	322	15
0445-0500	14	3	5	14	461	8	5	1	5	5	352	23
0500-0515	11	1	4	9	477	4	3	4	7	3	399	15
0515-0530	13	1	2	9	490	3	6	2	9	1	343	19
0530-0545	12	1	1	11	469	3	6	2	7	1	321	16
0545-0600	10	0	2	7	416	2	5	1	5	2	338	12

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0400	48	3	18	37	1431	30	17	5	26	20	1360	51	3046
0315-0415	49	3	20	37	1488	31	16	6	29	20	1380	52	3131
0330-0430	48	5	18	39	1569	26	16	6	24	18	1358	49	3176
0345-0445	52	8	24	44	1693	18	16	6	26	17	1353	50	3307
0400-0500	51	11	27	44	1766	18	15	6	26	17	1355	59	3395
0415-0515	52	10	27	46	1863	18	14	8	25	16	1393	63	3535
0430-0530	55	9	23	44	1898	18	16	8	30	15	1416	72	3604
0445-0545	50	6	12	43	1897	18	20	9	28	10	1415	73	3581
0500-0600	46	3	9	36	1852	12	20	9	28	7	1401	62	3485

P.M. PEAK HOUR
0430-0530



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

PEDESTRIAN - BICYCLE COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS

PROJECT: ENCINO

DATE: THURSDAY, APRIL 06, 2017

PERIOD: 07:00 AM TO 10:00 AM

INTERSECTION: GENESTA AVENUE / VENTURA BOULEVARD

FILE: 4AMPED-BIKE

	PEDESTRIAN MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0700-0715	2	0	1	0
0715-0730	6	0	2	0
0730-0745	3	0	5	0
0745-0800	4	0	0	0
0800-0815	6	4	7	1
0815-0830	6	2	3	1
0830-0845	9	2	3	0
0845-0900	6	1	0	0
0900-0915	7	1	2	0
0915-0930	9	1	3	0
0930-0945	2	0	2	1
0945-1000	3	0	1	1

	BICYCLIST MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0700-0715	0	0	0	0
0715-0730	0	0	0	0
0730-0745	1	0	0	0
0745-0800	0	0	0	0
0800-0815	0	0	0	0
0815-0830	0	0	0	0
0830-0845	5	0	0	0
0845-0900	2	0	1	0
0900-0915	0	0	0	0
0915-0930	0	0	0	0
0930-0945	0	0	0	0
0945-1000	0	0	0	0

	PEDESTRIAN MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0700-0800	15	0	8	0	23
0715-0815	19	4	14	1	38
0730-0830	19	6	15	2	42
0745-0845	25	8	13	2	48
0800-0900	27	9	13	2	51
0815-0915	28	6	8	1	43
0830-0930	31	5	8	0	44
0845-0945	24	3	7	1	35
0900-1000	21	2	8	2	33

	BICYCLIST MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0700-0800	1	0	0	0	1
0715-0815	1	0	0	0	1
0730-0830	1	0	0	0	1
0745-0845	5	0	0	0	5
0800-0900	7	0	1	0	8
0815-0915	7	0	1	0	8
0830-0930	7	0	1	0	8
0845-0945	2	0	1	0	3
0900-1000	0	0	0	0	0

THE TRAFFIC SOLUTION
9 ALTA STREET UNIT E
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PEDESTRIAN - BICYCLE COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS

PROJECT: ENCINO

DATE: THURSDAY, APRIL 06, 2017

PERIOD: 03:00 PM TO 06:00 PM

INTERSECTION: GENESTA AVENUE / VENTURA BOULEVARD

FILE: 4PMPED-BIKE

	PEDESTRIAN MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0300-0315	4	4	2	2
0315-0330	3	1	3	3
0330-0345	3	2	2	5
0345-0400	1	2	1	5
0400-0415	3	2	2	2
0415-0430	5	3	7	3
0430-0445	6	5	4	2
0445-0500	8	2	2	2
0500-0515	10	3	6	5
0515-0530	12	8	7	10
0530-0545	5	5	6	6
0545-0600	4	3	5	3

	BICYCLIST MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0300-0315	0	0	1	0
0315-0330	1	0	1	0
0330-0345	0	0	0	0
0345-0400	1	0	1	0
0400-0415	0	0	1	0
0415-0430	0	0	1	0
0430-0445	0	0	2	0
0445-0500	0	0	1	0
0500-0515	1	0	0	0
0515-0530	0	1	2	0
0530-0545	1	0	1	0
0545-0600	0	0	0	0

	PEDESTRIAN MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0300-0400	11	9	8	15	43
0315-0415	10	7	8	15	40
0330-0430	12	9	12	15	48
0345-0445	15	12	14	12	53
0400-0500	22	12	15	9	58
0415-0515	29	13	19	12	73
0430-0530	36	18	19	19	92
0445-0545	35	18	21	23	97
0500-0600	31	19	24	24	98

	BICYCLIST MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0300-0400	2	0	3	0	5
0315-0415	2	0	3	0	5
0330-0430	1	0	3	0	4
0345-0445	1	0	5	0	6
0400-0500	0	0	5	0	5
0415-0515	1	0	4	0	5
0430-0530	1	1	5	0	7
0445-0545	2	1	4	0	7
0500-0600	2	1	3	0	6

THE TRAFFIC SOLUTION
9 ALTA STREET UNIT E
ARCADIA, CALIFORNIA 91006
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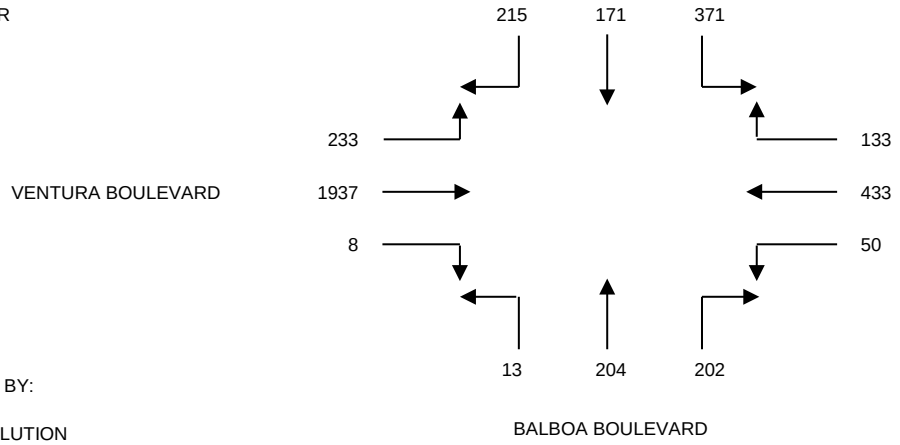
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS
PROJECT: ENCINO
DATE: THURSDAY, NOVEMBER 09, 2017
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION: N/S BALBOA BOULEVARD
E/W VENTURA BOULEVARD
FILE NUMBER: 1-AM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	21	20	80	24	71	6	38	41	4	3	415	37
0715-0730	38	33	86	29	90	8	54	46	4	2	488	49
0730-0745	50	32	92	30	103	10	54	55	2	3	524	57
0745-0800	62	40	98	35	118	15	44	53	4	2	483	65
0800-0815	65	66	95	39	122	17	50	50	3	1	442	62
0815-0830	57	49	76	27	117	14	46	60	3	1	402	47
0830-0845	59	59	85	42	127	10	48	72	1	3	365	50
0845-0900	66	50	97	40	138	12	54	55	4	5	377	50
0900-0915	52	59	75	38	120	17	29	50	3	6	327	46
0915-0930	60	63	60	53	121	14	20	44	6	6	309	59
0930-0945	58	45	72	61	116	10	28	31	4	4	287	63
0945-1000	68	47	76	61	127	12	17	35	8	7	235	78

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0700-0800	171	125	356	118	382	39	190	195	14	10	1910	208	3718
0715-0815	215	171	371	133	433	50	202	204	13	8	1937	233	3970
0730-0830	234	187	361	131	460	56	194	218	12	7	1851	231	3942
0745-0845	243	214	354	143	484	56	188	235	11	7	1692	224	3851
0800-0900	247	224	353	148	504	53	198	237	11	10	1586	209	3780
0815-0915	234	217	333	147	502	53	177	237	11	15	1471	193	3590
0830-0930	237	231	317	173	506	53	151	221	14	20	1378	205	3506
0845-0945	236	217	304	192	495	53	131	180	17	21	1300	218	3364
0900-1000	238	214	283	213	484	53	94	160	21	23	1158	246	3187

A.M. PEAK HOUR
0715-0815



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

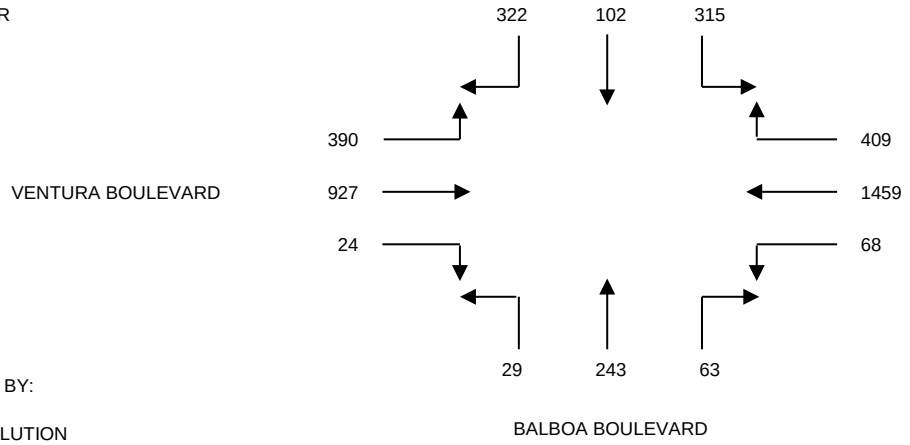
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS
PROJECT: ENCINO
DATE: THURSDAY, NOVEMBER 09, 2017
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION: N/S BALBOA BOULEVARD
E/W VENTURA BOULEVARD
FILE NUMBER: 1-PM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0300-0315	64	17	80	87	297	12	15	44	4	5	230	76
0315-0330	70	20	90	81	312	17	18	39	6	3	229	88
0330-0345	74	22	95	95	304	26	19	39	9	2	207	86
0345-0400	80	32	72	84	327	18	20	39	4	3	210	93
0400-0415	96	28	68	83	360	13	17	38	6	6	219	84
0415-0430	85	22	77	95	350	10	15	31	6	5	241	88
0430-0445	81	17	64	89	378	14	19	49	5	3	216	86
0445-0500	73	23	82	105	351	11	17	61	5	7	230	94
0500-0515	74	20	75	97	370	13	16	70	6	8	234	85
0515-0530	96	20	84	103	362	19	13	58	9	5	250	100
0530-0545	79	39	74	104	376	25	17	54	9	4	213	111
0545-0600	74	23	66	106	371	21	22	40	11	7	197	110

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0300-0400	288	91	337	347	1240	73	72	161	23	13	876	343	3864
0315-0415	320	102	325	343	1303	74	74	155	25	14	865	351	3951
0330-0430	335	104	312	357	1341	67	71	147	25	16	877	351	4003
0345-0445	342	99	281	351	1415	55	71	157	21	17	886	351	4046
0400-0500	335	90	291	372	1439	48	68	179	22	21	906	352	4123
0415-0515	313	82	298	386	1449	48	67	211	22	23	921	353	4173
0430-0530	324	80	305	394	1461	57	65	238	25	23	930	365	4267
0445-0545	322	102	315	409	1459	68	63	243	29	24	927	390	4351
0500-0600	323	102	299	410	1479	78	68	222	35	24	894	406	4340

P.M. PEAK HOUR
0445-0545



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

PEDESTRIAN - BICYCLE COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS

PROJECT: ENCINO

DATE: THURSDAY, NOVEMBER 09, 2017

PERIOD: 07:00 AM TO 10:00 AM

INTERSECTION: BALBOA BOULEVARD / VENTURA BOULEVARD

FILE: 1AMPED-BIKE

	PEDESTRIAN MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0700-0715	5	10	2	1
0715-0730	8	6	5	5
0730-0745	8	7	6	2
0745-0800	13	9	6	5
0800-0815	8	6	5	3
0815-0830	4	5	7	2
0830-0845	7	7	5	1
0845-0900	5	13	6	1
0900-0915	4	6	11	2
0915-0930	17	10	5	4
0930-0945	11	8	7	3
0945-1000	6	5	4	1

	BICYCLIST MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0700-0715	0	0	0	0
0715-0730	0	1	1	0
0730-0745	1	0	1	0
0745-0800	0	0	0	1
0800-0815	0	1	2	0
0815-0830	0	0	1	0
0830-0845	1	0	0	0
0845-0900	2	0	0	1
0900-0915	0	0	1	0
0915-0930	0	1	1	0
0930-0945	1	1	2	0
0945-1000	0	0	0	0

	PEDESTRIAN MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0700-0800	34	32	19	13	98
0715-0815	37	28	22	15	102
0730-0830	33	27	24	12	96
0745-0845	32	27	23	11	93
0800-0900	24	31	23	7	85
0815-0915	20	31	29	6	86
0830-0930	33	36	27	8	104
0845-0945	37	37	29	10	113
0900-1000	38	29	27	10	104

	BICYCLIST MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0700-0800	1	1	2	1	5
0715-0815	1	2	4	1	8
0730-0830	1	1	4	1	7
0745-0845	1	1	3	1	6
0800-0900	3	1	3	1	8
0815-0915	3	0	2	1	6
0830-0930	3	1	2	1	7
0845-0945	3	2	4	1	10
0900-1000	1	2	4	0	7

THE TRAFFIC SOLUTION
9 ALTA STREET UNIT E
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626.485.8048 PHONE
trafsolutn@aol.com

PEDESTRIAN - BICYCLE COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS

PROJECT: ENCINO

DATE: THURSDAY, NOVEMBER 09, 2017

PERIOD: 03:00 PM TO 06:00 PM

INTERSECTION: BALBOA BOULEVARD / VENTURA BOULEVARD

FILE: 1PMPED-BIKE

	PEDESTRIAN MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0300-0315	10	5	5	1
0315-0330	8	9	5	1
0330-0345	8	12	4	0
0345-0400	11	6	11	3
0400-0415	7	17	10	7
0415-0430	15	11	5	3
0430-0445	7	6	7	4
0445-0500	16	8	10	9
0500-0515	5	3	6	3
0515-0530	15	4	4	2
0530-0545	9	8	6	3
0545-0600	10	6	10	3

	BICYCLIST MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0300-0315	0	0	0	0
0315-0330	0	0	0	0
0330-0345	1	0	0	0
0345-0400	0	1	0	0
0400-0415	0	0	0	0
0415-0430	0	0	0	0
0430-0445	0	1	1	0
0445-0500	1	1	0	0
0500-0515	1	0	0	0
0515-0530	0	1	2	0
0530-0545	1	0	0	0
0545-0600	1	0	0	0

	PEDESTRIAN MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0300-0400	37	32	25	5	99
0315-0415	34	44	30	11	119
0330-0430	41	46	30	13	130
0345-0445	40	40	33	17	130
0400-0500	45	42	32	23	142
0415-0515	43	28	28	19	118
0430-0530	43	21	27	18	109
0445-0545	45	23	26	17	111
0500-0600	39	21	26	11	97

	BICYCLIST MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0300-0400	1	1	0	0	2
0315-0415	1	1	0	0	2
0330-0430	1	1	0	0	2
0345-0445	0	2	1	0	3
0400-0500	1	2	1	0	4
0415-0515	2	2	1	0	5
0430-0530	2	3	3	0	8
0445-0545	3	2	2	0	7
0500-0600	3	1	2	0	6

THE TRAFFIC SOLUTION
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City Of Los Angeles
Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:
North/South Hayvenhurst Ave

East/West Ventura Blvd

Day: Wednesday Date: December 7, 2016 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	47	80	109	106
BIKES	3	1	9	9
BUSES	0	7	70	75

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	104	8.15	387	9.00	580	7.15	247	9.30
PM PK 15 MIN	223	16.00	182	15.45	419	15.45	566	17.30
AM PK HOUR	401	8.00	1492	7.30	2272	7.00	942	9.00
PM PK HOUR	786	16.00	672	17.00	1457	15.15	2177	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	111	188	50	349
8-9	120	203	78	401
9-10	120	194	60	374
15-16	197	404	80	681
16-17	236	462	88	786
17-18	207	387	101	695
TOTAL	991	1838	457	3286

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	868	458	124	1450
8-9	912	423	131	1466
9-10	802	452	202	1456
15-16	223	175	229	627
16-17	213	169	233	615
17-18	242	162	268	672
TOTAL	3260	1839	1187	6286

TOTAL	XING S/L		XING N/L	
N-S	Ped	Sch	Ped	Sch
1799	23	0	27	0
1867	41	0	72	0
1830	27	0	83	0
1308	55	3	116	0
1401	58	5	49	1
1367	49	1	45	0
9572	253	9	392	1

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	115	2020	137	2272
8-9	109	1733	99	1941
9-10	142	1251	136	1529
15-16	240	1051	134	1425
16-17	209	1013	113	1335
17-18	183	1167	93	1443
TOTAL	998	8235	712	9945

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	35	434	122	591
8-9	38	492	113	643
9-10	57	716	169	942
15-16	67	1353	516	1936
16-17	48	1388	629	2065
17-18	44	1477	656	2177
TOTAL	289	5860	2205	8354

TOTAL	XING W/L		XING E/L	
E-W	Ped	Sch	Ped	Sch
2863	26	0	0	0
2584	53	0	0	0
2471	36	0	1	0
3361	67	8	2	0
3400	52	5	1	0
3620	54	0	3	0
18299	288	13	7	0

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Hayvenhurst Ave and Ventura Blvd , San Fernado Valley

Date: 12/7/2016

Day: Wednesday

Project #: 16-5826-003

City: San Fernado Valley

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	500 PM

Total Peak Hour Summary

Southbound Approach (Hayvenhurst Ave)

Lanes	1	1	2		
AM	135	443	891	452	AM
NOON	0	0	0	0	NOON
PM	268	162	242	1226	PM

Eastbound Approach (Ventura Blvd)

Lanes	AM	NOON	PM
	722	0	1952
1	119	0	183
3	1994	0	1167
0	105	0	93

Westbound Approach

Lanes	AM	NOON	PM
2	129	0	656
3	476	0	1477
1	37	0	44
	2937	0	1510

Northbound Approach

	1	2	0	Lanes
AM	585	111	204	52
NOON	0	0	0	0
PM	299	207	387	101

CONTROL

Signalized

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	NONE	NONE
PM	3:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
AM	1469	452	AM
NOON	0	0	NOON
PM	672	1226	PM

West Leg	AM	NOON	PM	East Leg	AM	NOON	PM
	722	0	1952		642	0	2177
	2218	0	1443		2937	0	1510

South Leg		
AM	585	367
NOON	0	0
PM	299	695

Total Volume Per Leg

North Leg	
1921	AM
0	NOON
1898	PM

West Leg	AM	NOON	PM	East Leg	AM	NOON	PM
	2940	0	3395		3579	0	3687

South Leg	
AM	952
NOON	0
PM	994

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5826-003

Day: Wednesday

City: San Fernado Valley

Date: 12/7/2016

TOTALS

AM

NS/EW Streets:	Hayvenhurst Ave			Hayvenhurst Ave			Ventura Blvd			Ventura Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	2	1	1	1	3	0	1	3	2	
7:00 AM	28	38	14	211	121	22	23	501	48	7	95	24	1132
7:15 AM	29	45	14	220	104	26	23	524	33	11	91	19	1139
7:30 AM	29	57	8	224	120	35	35	476	32	7	103	40	1166
7:45 AM	25	48	14	213	113	41	34	519	24	10	145	39	1225
8:00 AM	28	54	16	234	106	33	27	475	16	9	137	31	1166
8:15 AM	28	52	24	233	110	30	27	423	15	10	107	30	1089
8:30 AM	31	54	19	221	102	42	24	404	35	8	129	29	1098
8:45 AM	33	43	19	224	105	26	31	431	33	11	119	23	1098
9:00 AM	32	52	11	225	115	47	27	342	43	15	150	46	1105
9:15 AM	29	44	17	213	113	53	33	308	28	13	197	31	1079
9:30 AM	33	50	13	172	110	55	43	325	36	15	187	45	1084
9:45 AM	26	48	19	192	114	47	39	276	29	14	182	47	1033
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	351	585	188	2582	1333	457	366	5004	372	130	1642	404	13414
APPROACH %'s :	31.23%	52.05%	16.73%	59.06%	30.49%	10.45%	6.37%	87.15%	6.48%	5.97%	75.46%	18.57%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	111	204	52	891	443	135	119	1994	105	37	476	129	4696
PEAK HR FACTOR :		0.936			0.969			0.956			0.827		0.958

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5826-003

Day: Wednesday

TOTALS

City: San Fernado Valley

Date: 12/7/2016

PM

NS/EW Streets:	Hayvenhurst Ave			Hayvenhurst Ave			Ventura Blvd			Ventura Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	2	1	1	1	3	0	1	3	2	
3:00 PM	47	112	19	50	40	58	51	249	28	17	320	131	1122
3:15 PM	45	97	16	42	47	50	60	236	35	13	345	128	1114
3:30 PM	55	110	16	59	46	53	51	265	31	21	372	132	1211
3:45 PM	50	85	29	72	42	68	78	301	40	16	316	125	1222
4:00 PM	71	130	22	58	52	64	58	266	36	17	340	171	1285
4:15 PM	53	119	23	50	37	56	47	235	35	9	339	142	1145
4:30 PM	54	110	15	49	37	63	47	254	20	12	359	159	1179
4:45 PM	58	103	28	56	43	50	57	258	22	10	350	157	1192
5:00 PM	49	102	28	51	50	78	48	305	26	12	353	186	1288
5:15 PM	53	100	24	77	29	72	41	296	18	4	364	154	1232
5:30 PM	52	97	31	54	33	46	44	270	25	19	373	174	1218
5:45 PM	53	88	18	60	50	72	50	296	24	9	387	142	1249
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	640	1253	269	678	506	730	632	3231	340	159	4218	1801	14457
APPROACH %'s :	29.60%	57.96%	12.44%	35.42%	26.44%	38.14%	15.04%	76.87%	8.09%	2.57%	68.27%	29.15%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	207	387	101	242	162	268	183	1167	93	44	1477	656	4987
PEAK HR FACTOR :		0.965			0.923			0.952			0.962		0.968

CONTROL : Signalized

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 16-5826-003
N/S Street: Hayvenhurst Ave
E/W Street: Ventura Blvd
DATE: 12/7/2016 DAY: Wednesday
CITY: San Fernado Valley

A M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	4	1	2	5	0	0	5	3
7:15 AM	3	1	3	3	0	0	4	3
7:30 AM	4	3	2	0	0	0	0	3
7:45 AM	1	10	6	2	0	0	0	8
8:00 AM	8	4	1	4	0	0	2	6
8:15 AM	9	12	10	2	0	0	3	11
8:30 AM	6	12	8	3	0	0	1	13
8:45 AM	8	13	7	6	0	0	7	10
9:00 AM	4	8	1	5	0	0	4	4
9:15 AM	12	16	2	2	0	0	4	4
9:30 AM	5	13	6	5	0	0	4	8
9:45 AM	13	12	4	2	1	0	2	6
TOTALS	**77**	**105**	**52**	**39**	**1**	**0**	**36**	**79**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

P M

Adult Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	15	16	12	5	1	0	5	11
3:15 PM	11	20	9	7	0	0	8	19
3:30 PM	14	9	6	7	0	0	3	9
3:45 PM	16	15	3	6	1	0	7	5
4:00 PM	14	4	13	6	0	0	9	6
4:15 PM	9	6	11	3	0	0	8	9
4:30 PM	6	7	6	5	0	0	8	4
4:45 PM	2	1	10	4	1	0	5	3
5:00 PM	2	4	9	7	0	2	1	6
5:15 PM	6	8	5	4	0	0	5	7
5:30 PM	6	6	2	15	1	0	22	4
5:45 PM	2	11	7	0	0	0	1	8
TOTALS	**103**	**107**	**93**	**69**	**4**	**2**	**82**	**91**

School-Aged Pedestrians

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	1	0
3:15 PM	0	0	0	2	0	0	4	2
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	1	0	0	0	0	1
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	1	0	1	0	0	0	2	1
4:30 PM	0	0	4	0	0	0	1	1
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	1	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**1**	**0**	**7**	**2**	**0**	**0**	**8**	**5**

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5826-003

Day: Wednesday

BIKES

City: San Fernado Valley

Date: 12/7/2016

AM

NS/EW Streets:	Hayvenhurst Ave			Hayvenhurst Ave			Ventura Blvd			Ventura Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	2	1	1	1	3	0	1	3	2	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	0	0	4	0	0	3	0	8
APPROACH %'s :	0.00%	100.00%	0.00%				0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	4	0	0	0	0	4
PEAK HR FACTOR :		0.000			0.000			0.500			0.000		0.500

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5826-003 **Day:** Wednesday

BIKES

City: San Fernado Valley **Date:** 12/7/2016

PM

NS/EW Streets:	Hayvenhurst Ave			Hayvenhurst Ave			Ventura Blvd			Ventura Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	2	1	1	1	3	0	1	3	2	
3:00 PM	1	0	0	0	0	0	0	0	0	0	0	1	2
3:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	1	2	3
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	1	0	1	0	1	0	0	5	0	0	3	3	14
APPROACH %'s :	50.00%	0.00%	50.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	50.00%	50.00%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	0	0	1	0	1	0	0	0	0	0	1	0	3
PEAK HR FACTOR :		0.250			0.250			0.000			0.250		0.750

CONTROL : Signalized

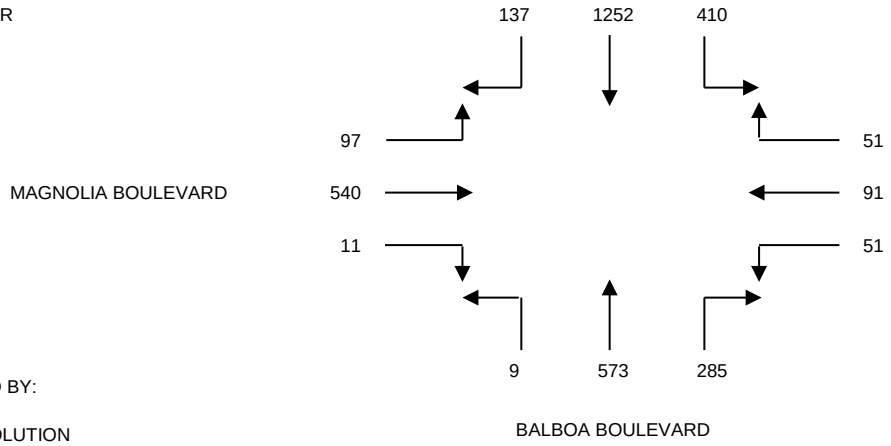
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS
PROJECT: ENCINO
DATE: TUESDAY, OCTOBER 09, 2018
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION: N/S BALBOA BOULEVARD
E/W MAGNOLIA BOULEVARD
FILE NUMBER: 1-AM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	7	163	85	14	14	13	32	52	1	4	46	7
0715-0730	7	164	105	17	12	12	45	94	3	2	51	15
0730-0745	11	163	90	14	20	15	55	104	2	1	77	19
0745-0800	19	180	84	18	30	21	43	130	5	2	108	25
0800-0815	39	220	106	19	59	27	60	123	4	5	109	20
0815-0830	38	263	100	16	48	21	71	164	2	3	145	35
0830-0845	29	298	91	10	20	12	65	146	1	4	130	25
0845-0900	34	327	105	12	13	10	77	126	3	2	140	17
0900-0915	36	364	114	13	10	8	72	137	3	2	125	20
0915-0930	29	293	100	13	10	11	50	154	2	6	102	18
0930-0945	20	245	91	18	16	18	30	128	1	2	97	13
0945-1000	12	211	70	10	21	15	31	113	1	3	61	10

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0700-0800	44	670	364	63	76	61	175	380	11	9	282	66	2201
0715-0815	76	727	385	68	121	75	203	451	14	10	345	79	2554
0730-0830	107	826	380	67	157	84	229	521	13	11	439	99	2933
0745-0845	125	961	381	63	157	81	239	563	12	14	492	105	3193
0800-0900	140	1108	402	57	140	70	273	559	10	14	524	97	3394
0815-0915	137	1252	410	51	91	51	285	573	9	11	540	97	3507
0830-0930	128	1282	410	48	53	41	264	563	9	14	497	80	3389
0845-0945	119	1229	410	56	49	47	229	545	9	12	464	68	3237
0900-1000	97	1113	375	54	57	52	183	532	7	13	385	61	2929

A.M. PEAK HOUR
0815-0915



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

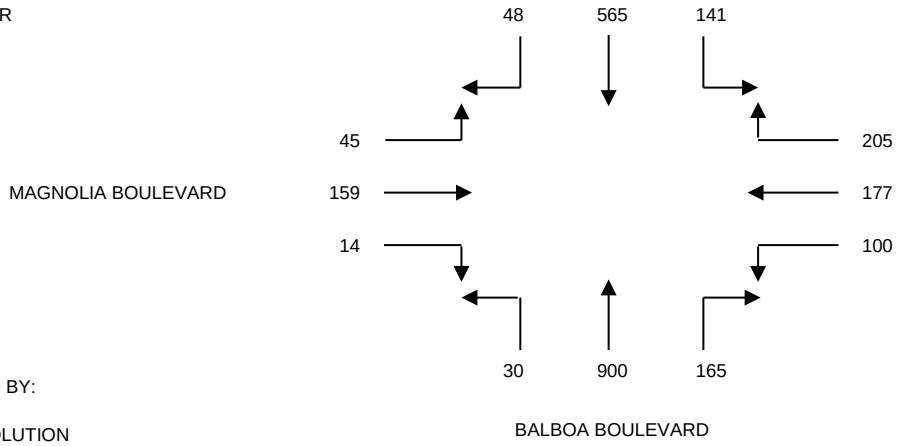
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS
PROJECT: ENCINO
DATE: TUESDAY, OCTOBER 09, 2018
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION: N/S BALBOA BOULEVARD
E/W MAGNOLIA BOULEVARD
FILE NUMBER: 1-PM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0300-0315	9	169	26	30	36	19	33	193	4	4	28	11
0315-0330	8	184	29	26	34	16	39	187	5	3	33	7
0330-0345	14	148	31	42	37	17	26	210	4	5	47	11
0345-0400	8	140	24	27	37	25	28	190	5	3	38	8
0400-0415	9	151	21	45	27	20	30	226	6	3	28	14
0415-0430	11	146	34	42	39	23	39	197	8	4	30	10
0430-0445	14	154	30	34	27	23	37	210	10	4	46	13
0445-0500	10	140	45	51	35	26	33	200	8	3	30	13
0500-0515	16	153	40	57	34	20	47	230	8	3	47	12
0515-0530	10	124	29	41	49	24	36	237	8	3	44	10
0530-0545	12	148	27	56	59	30	49	233	6	5	38	10
0545-0600	7	129	20	51	39	39	36	191	11	4	29	15

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0300-0400	39	641	110	125	144	77	126	780	18	15	146	37	2258
0315-0415	39	623	105	140	135	78	123	813	20	14	146	40	2276
0330-0430	42	585	110	156	140	85	123	823	23	15	143	43	2288
0345-0445	42	591	109	148	130	91	134	823	29	14	142	45	2298
0400-0500	44	591	130	172	128	92	139	833	32	14	134	50	2359
0415-0515	51	593	149	184	135	92	156	837	34	14	153	48	2446
0430-0530	50	571	144	183	145	93	153	877	34	13	167	48	2478
0445-0545	48	565	141	205	177	100	165	900	30	14	159	45	2549
0500-0600	45	554	116	205	181	113	168	891	33	15	158	47	2526

P.M. PEAK HOUR
0445-0545



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
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.

PEDESTRIAN - BICYCLE COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS

PROJECT: ENCINO

DATE: TUESDAY, OCTOBER 09, 2018

PERIOD: 07:00 AM TO 10:00 AM

INTERSECTION: BALBOA BOULEVARD / MAGNOLIA AVENUE

FILE: 1AMPED-BIKE

	PEDESTRIAN MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0700-0715	0	0	0	0
0715-0730	0	0	0	0
0730-0745	0	1	0	2
0745-0800	0	0	1	2
0800-0815	0	0	3	3
0815-0830	4	0	5	10
0830-0845	5	3	0	5
0845-0900	0	0	3	5
0900-0915	2	2	2	2
0915-0930	2	0	0	1
0930-0945	0	1	2	0
0945-1000	0	0	2	2

	BICYCLIST MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0700-0715	0	0	0	0
0715-0730	0	0	0	0
0730-0745	0	0	0	0
0745-0800	0	0	0	0
0800-0815	1	3	0	0
0815-0830	0	0	0	0
0830-0845	0	0	0	0
0845-0900	0	0	0	0
0900-0915	0	0	0	0
0915-0930	0	0	0	0
0930-0945	0	0	0	0
0945-1000	0	1	0	1

	PEDESTRIAN MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0700-0800	0	1	1	4	6
0715-0815	0	1	4	7	12
0730-0830	4	1	9	17	31
0745-0845	9	3	9	20	41
0800-0900	9	3	11	23	46
0815-0915	11	5	10	22	48
0830-0930	9	5	5	13	32
0845-0945	4	3	7	8	22
0900-1000	4	3	6	5	18

	BICYCLIST MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0700-0800	0	0	0	0	0
0715-0815	1	3	0	0	4
0730-0830	1	3	0	0	4
0745-0845	1	3	0	0	4
0800-0900	1	3	0	0	4
0815-0915	0	0	0	0	0
0830-0930	0	0	0	0	0
0845-0945	0	0	0	0	0
0900-1000	0	1	0	1	2

THE TRAFFIC SOLUTION
9 ALTA STREET UNIT E
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626.485.8048 PHONE
trafsolutn@aol.com

PEDESTRIAN - BICYCLE COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS

PROJECT: ENCINO

DATE: TUESDAY, OCTOBER 09, 2018

PERIOD: 03:00 PM TO 06:00 PM

INTERSECTION: BALBOA BOULEVARD / MAGNOLIA AVENUE

FILE: 1PMPED-BIKE

	PEDESTRIAN MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0300-0315	1	1	0	3
0315-0330	0	0	0	1
0330-0345	0	3	2	2
0345-0400	1	0	1	3
0400-0415	0	0	0	3
0415-0430	0	0	0	4
0430-0445	0	1	0	7
0445-0500	1	0	0	5
0500-0515	0	1	0	2
0515-0530	1	2	1	1
0530-0545	2	0	6	2
0545-0600	2	1	2	3

	BICYCLIST MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0300-0315	0	0	0	0
0315-0330	0	0	0	1
0330-0345	0	0	0	0
0345-0400	0	0	0	0
0400-0415	0	0	0	0
0415-0430	0	1	0	0
0430-0445	0	0	0	1
0445-0500	0	0	1	0
0500-0515	0	1	1	0
0515-0530	0	0	1	0
0530-0545	0	2	0	0
0545-0600	0	0	0	0

	PEDESTRIAN MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0300-0400	2	4	3	9	18
0315-0415	1	3	3	9	16
0330-0430	1	3	3	12	19
0345-0445	1	1	1	17	20
0400-0500	1	1	0	19	21
0415-0515	1	2	0	18	21
0430-0530	2	4	1	15	22
0445-0545	4	3	7	10	24
0500-0600	5	4	9	8	26

	BICYCLIST MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0300-0400	0	0	0	1	1
0315-0415	0	0	0	1	1
0330-0430	0	1	0	0	1
0345-0445	0	1	0	1	2
0400-0500	0	1	1	1	3
0415-0515	0	2	2	1	5
0430-0530	0	1	3	1	5
0445-0545	0	3	3	0	6
0500-0600	0	3	2	0	5

THE TRAFFIC SOLUTION
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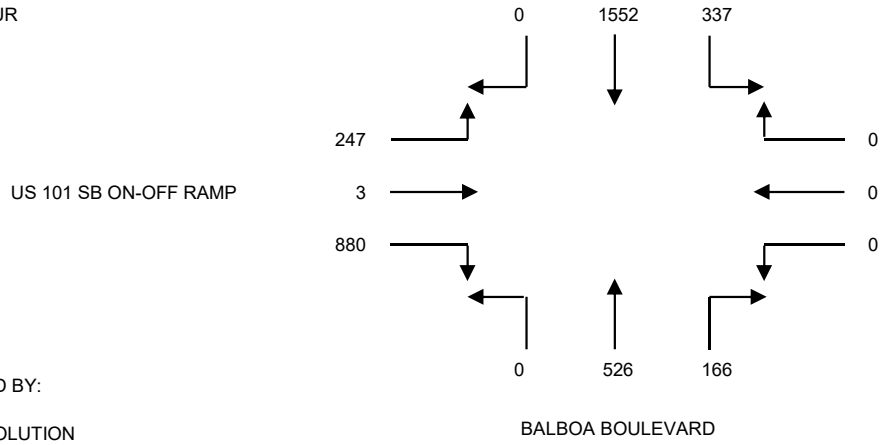
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS
PROJECT: ENCINO
DATE: THURSDAY, APRIL 06, 2017
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION: N/S BALBOA BOULEVARD
E/W US 101 SB ON-OFF RAMP
FILE NUMBER: 6-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	0	250	101	0	0	0	48	93	0	64	0	29
0715-0730	0	249	111	0	0	0	52	127	0	67	2	30
0730-0745	0	274	118	0	0	0	60	130	0	108	0	50
0745-0800	0	348	101	0	0	0	47	127	0	123	0	40
0800-0815	0	336	101	0	0	0	34	120	0	155	0	60
0815-0830	0	383	96	0	0	0	39	141	0	201	1	66
0830-0845	0	376	89	0	0	0	50	125	0	257	0	60
0845-0900	0	436	73	0	0	0	34	123	0	220	1	61
0900-0915	0	357	79	0	0	0	43	137	0	202	1	60
0915-0930	0	326	69	0	0	0	48	164	0	173	1	74
0930-0945	0	290	67	0	0	0	45	180	0	189	0	68
0945-1000	0	327	72	0	0	0	56	159	0	101	1	49

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	0	1121	431	0	0	0	207	477	0	362	2	149	2749
0715-0815	0	1207	431	0	0	0	193	504	0	453	2	180	2970
0730-0830	0	1341	416	0	0	0	180	518	0	587	1	216	3259
0745-0845	0	1443	387	0	0	0	170	513	0	736	1	226	3476
0800-0900	0	1531	359	0	0	0	157	509	0	833	2	247	3638
0815-0915	0	1552	337	0	0	0	166	526	0	880	3	247	3711
0830-0930	0	1495	310	0	0	0	175	549	0	852	3	255	3639
0845-0945	0	1409	288	0	0	0	170	604	0	784	3	263	3521
0900-1000	0	1300	287	0	0	0	192	640	0	665	3	251	3338

A.M. PEAK HOUR
0815-0915



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

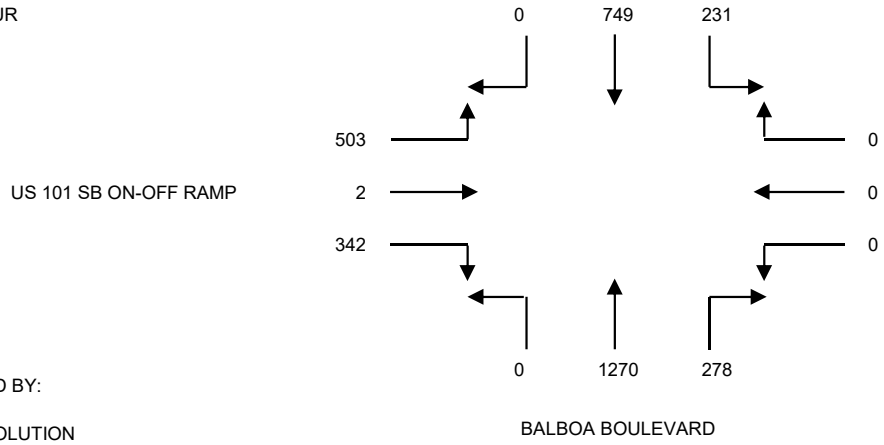
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS
PROJECT: ENCINO
DATE: THURSDAY, APRIL 06, 2017
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION: N/S BALBOA BOULEVARD
E/W US 101 SB ON-OFF RAMP
FILE NUMBER: 6-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	0	178	43	0	0	0	64	263	0	107	0	90
0315-0330	0	183	51	0	0	0	69	278	0	108	0	131
0330-0345	0	190	63	0	0	0	54	266	0	110	0	138
0345-0400	0	172	64	0	0	0	55	267	0	109	1	118
0400-0415	0	180	65	0	0	0	58	268	0	107	0	146
0415-0430	0	197	60	0	0	0	77	283	0	100	1	135
0430-0445	0	209	42	0	0	0	66	286	0	80	2	119
0445-0500	0	186	48	0	0	0	66	335	0	88	1	140
0500-0515	0	192	68	0	0	0	62	279	0	91	0	138
0515-0530	0	180	58	0	0	0	70	344	0	83	1	107
0530-0545	0	191	57	0	0	0	80	312	0	80	0	118
0545-0600	0	176	44	0	0	0	61	306	0	70	1	98

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0400	0	723	221	0	0	0	242	1074	0	434	1	477	3172
0315-0415	0	725	243	0	0	0	236	1079	0	434	1	533	3251
0330-0430	0	739	252	0	0	0	244	1084	0	426	2	537	3284
0345-0445	0	758	231	0	0	0	256	1104	0	396	4	518	3267
0400-0500	0	772	215	0	0	0	267	1172	0	375	4	540	3345
0415-0515	0	784	218	0	0	0	271	1183	0	359	4	532	3351
0430-0530	0	767	216	0	0	0	264	1244	0	342	4	504	3341
0445-0545	0	749	231	0	0	0	278	1270	0	342	2	503	3375
0500-0600	0	739	227	0	0	0	273	1241	0	324	2	461	3267

P.M. PEAK HOUR
0445-0545



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

PEDESTRIAN - BICYCLE COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS

PROJECT: ENCINO

DATE: THURSDAY, APRIL 06, 2017

PERIOD: 07:00 AM TO 10:00 AM

INTERSECTION: BALBOA BOULEVARD / US 101 SB ON-OFF RAMP

FILE: 6AMPED-BIKE

	PEDESTRIAN MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0700-0715	0	0	0	0
0715-0730	0	0	0	3
0730-0745	0	0	0	2
0745-0800	0	1	0	1
0800-0815	0	1	0	2
0815-0830	0	0	1	5
0830-0845	0	2	0	1
0845-0900	0	1	0	1
0900-0915	0	1	1	2
0915-0930	0	0	0	2
0930-0945	0	2	0	1
0945-1000	0	0	0	3

	BICYCLIST MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0700-0715	0	0	0	0
0715-0730	0	0	0	0
0730-0745	0	0	0	1
0745-0800	0	1	0	1
0800-0815	0	0	0	0
0815-0830	0	0	0	0
0830-0845	0	1	0	0
0845-0900	0	1	0	1
0900-0915	0	0	0	1
0915-0930	0	0	0	2
0930-0945	0	0	0	1
0945-1000	0	1	0	0

	PEDESTRIAN MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0700-0800	0	1	0	6	7
0715-0815	0	2	0	8	10
0730-0830	0	2	1	10	13
0745-0845	0	4	1	9	14
0800-0900	0	4	1	9	14
0815-0915	0	4	2	9	15
0830-0930	0	4	1	6	11
0845-0945	0	4	1	6	11
0900-1000	0	3	1	8	12

	BICYCLIST MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0700-0800	0	1	0	2	3
0715-0815	0	1	0	2	3
0730-0830	0	1	0	2	3
0745-0845	0	2	0	1	3
0800-0900	0	2	0	1	3
0815-0915	0	2	0	2	4
0830-0930	0	2	0	4	6
0845-0945	0	1	0	5	6
0900-1000	0	1	0	4	5

THE TRAFFIC SOLUTION
9 ALTA STREET UNIT E
ARCADIA, CALIFORNIA 91006
626.485.8048 PHONE
trafsolutn@aol.com

PEDESTRIAN - BICYCLE COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS

PROJECT: ENCINO

DATE: THURSDAY, APRIL 06, 2017

PERIOD: 03:00 PM TO 06:00 PM

INTERSECTION: BALBOA BOULEVARD / US 101 SB ON-OFF RAMP

FILE: 6PMPED-BIKE

	PEDESTRIAN MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0300-0315	0	2	0	1
0315-0330	0	2	1	0
0330-0345	0	2	0	0
0345-0400	0	4	0	0
0400-0415	0	3	0	1
0415-0430	0	3	0	0
0430-0445	0	3	1	0
0445-0500	0	5	0	1
0500-0515	0	7	0	0
0515-0530	0	8	2	0
0530-0545	0	2	0	0
0545-0600	0	0	0	1

	BICYCLIST MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0300-0315	0	0	0	1
0315-0330	0	2	0	0
0330-0345	0	1	0	0
0345-0400	0	0	0	0
0400-0415	0	0	0	1
0415-0430	0	1	0	1
0430-0445	0	0	0	0
0445-0500	0	3	1	2
0500-0515	0	0	0	0
0515-0530	0	5	0	1
0530-0545	0	0	0	0
0545-0600	0	1	0	1

	PEDESTRIAN MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0300-0400	0	10	1	1	12
0315-0415	0	11	1	1	13
0330-0430	0	12	0	1	13
0345-0445	0	13	1	1	15
0400-0500	0	14	1	2	17
0415-0515	0	18	1	1	20
0430-0530	0	23	3	1	27
0445-0545	0	22	2	1	25
0500-0600	0	17	2	1	20

	BICYCLIST MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0300-0400	0	3	0	1	4
0315-0415	0	3	0	1	4
0330-0430	0	2	0	2	4
0345-0445	0	1	0	2	3
0400-0500	0	4	1	4	9
0415-0515	0	4	1	3	8
0430-0530	0	8	1	3	12
0445-0545	0	8	1	3	12
0500-0600	0	6	0	2	8

THE TRAFFIC SOLUTION
9 ALTA STREET UNIT E
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trafsolutn@aol.com

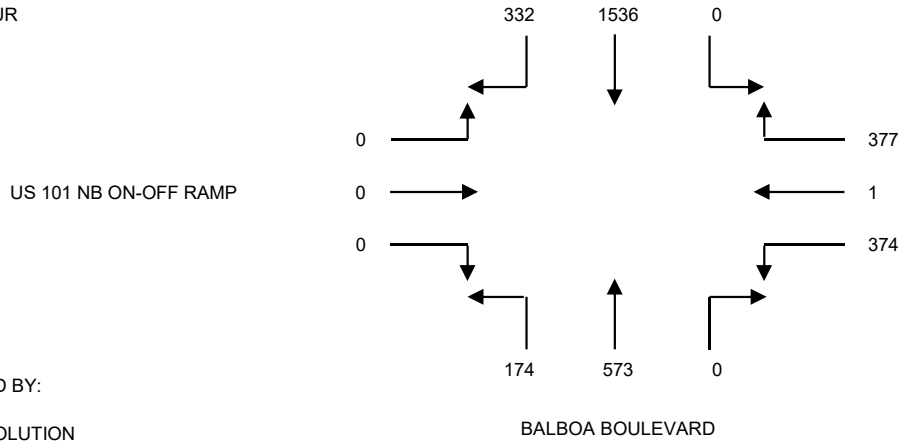
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS
PROJECT: ENCINO
DATE: THURSDAY, APRIL 06, 2017
PERIOD: 07:00 AM TO 10:00 AM
INTERSECTION: N/S BALBOA BOULEVARD
E/W US 101 NB ON-OFF RAMP
FILE NUMBER: 5-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	160	266	0	59	0	53	0	80	34	0	0	0
0715-0730	166	308	0	61	0	34	0	90	59	0	0	0
0730-0745	120	348	0	85	0	50	0	122	65	0	0	0
0745-0800	121	392	0	100	0	62	0	103	50	0	0	0
0800-0815	102	319	0	92	1	72	0	130	51	0	0	0
0815-0830	80	389	0	116	0	69	0	161	37	0	0	0
0830-0845	91	405	0	78	0	84	0	151	40	0	0	0
0845-0900	75	399	0	98	1	118	0	116	57	0	0	0
0900-0915	86	343	0	85	0	103	0	145	40	0	0	0
0915-0930	101	305	0	62	0	79	0	184	65	0	0	0
0930-0945	118	300	0	55	1	70	0	170	74	0	0	0
0945-1000	134	288	0	58	0	87	0	132	62	0	0	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	567	1314	0	305	0	199	0	395	208	0	0	0	2988
0715-0815	509	1367	0	338	1	218	0	445	225	0	0	0	3103
0730-0830	423	1448	0	393	1	253	0	516	203	0	0	0	3237
0745-0845	394	1505	0	386	1	287	0	545	178	0	0	0	3296
0800-0900	348	1512	0	384	2	343	0	558	185	0	0	0	3332
0815-0915	332	1536	0	377	1	374	0	573	174	0	0	0	3367
0830-0930	353	1452	0	323	1	384	0	596	202	0	0	0	3311
0845-0945	380	1347	0	300	2	370	0	615	236	0	0	0	3250
0900-1000	439	1236	0	260	1	339	0	631	241	0	0	0	3147

A.M. PEAK HOUR
0815-0915



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
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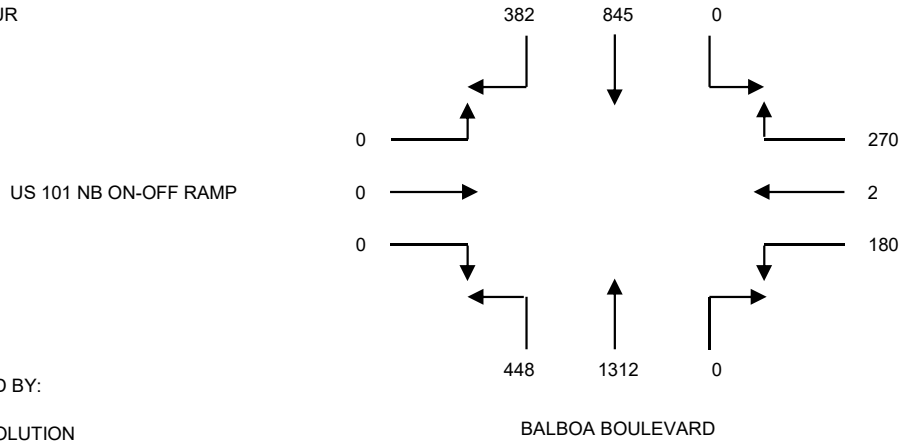
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS
PROJECT: ENCINO
DATE: THURSDAY, APRIL 06, 2017
PERIOD: 03:00 PM TO 06:00 PM
INTERSECTION: N/S BALBOA BOULEVARD
E/W US 101 NB ON-OFF RAMP
FILE NUMBER: 5-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0300-0315	104	195	0	51	0	43	0	265	121	0	0	0
0315-0330	94	207	0	48	0	41	0	298	108	0	0	0
0330-0345	117	196	0	50	0	52	0	313	104	0	0	0
0345-0400	101	185	0	55	1	46	0	285	106	0	0	0
0400-0415	106	213	0	72	1	50	0	330	111	0	0	0
0415-0430	116	211	0	78	0	59	0	316	115	0	0	0
0430-0445	81	206	0	53	1	36	0	308	109	0	0	0
0445-0500	79	215	0	67	0	35	0	358	113	0	0	0
0500-0515	114	197	0	74	0	38	0	341	104	0	0	0
0515-0530	90	196	0	60	0	34	0	354	102	0	0	0
0530-0545	92	199	0	78	1	43	0	328	114	0	0	0
0545-0600	105	184	0	59	2	41	0	273	117	0	0	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0300-0400	416	783	0	204	1	182	0	1161	439	0	0	0	3186
0315-0415	418	801	0	225	2	189	0	1226	429	0	0	0	3290
0330-0430	440	805	0	255	2	207	0	1244	436	0	0	0	3389
0345-0445	404	815	0	258	3	191	0	1239	441	0	0	0	3351
0400-0500	382	845	0	270	2	180	0	1312	448	0	0	0	3439
0415-0515	390	829	0	272	1	168	0	1323	441	0	0	0	3424
0430-0530	364	814	0	254	1	143	0	1361	428	0	0	0	3365
0445-0545	375	807	0	279	1	150	0	1381	433	0	0	0	3426
0500-0600	401	776	0	271	3	156	0	1296	437	0	0	0	3340

P.M. PEAK HOUR
0400-0500



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
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PEDESTRIAN - BICYCLE COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS

PROJECT: ENCINO

DATE: THURSDAY, APRIL 06, 2017

PERIOD: 07:00 AM TO 10:00 AM

INTERSECTION: BALBOA BOULEVARD / US 101 NB ON-OFF RAMP

FILE: 5AMPED-BIKE

	PEDESTRIAN MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0700-0715	0	0	0	0
0715-0730	0	0	0	2
0730-0745	0	0	0	2
0745-0800	0	1	0	1
0800-0815	0	0	0	1
0815-0830	0	0	0	4
0830-0845	0	1	0	1
0845-0900	0	0	0	0
0900-0915	0	1	0	3
0915-0930	0	0	0	1
0930-0945	0	2	0	2
0945-1000	0	1	0	0

	BICYCLIST MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0700-0715	0	0	0	0
0715-0730	0	0	0	1
0730-0745	0	0	0	1
0745-0800	0	1	0	0
0800-0815	0	0	0	0
0815-0830	0	0	0	0
0830-0845	0	0	0	1
0845-0900	0	1	0	0
0900-0915	0	0	0	1
0915-0930	0	0	0	3
0930-0945	0	0	0	1
0945-1000	0	2	0	0

	PEDESTRIAN MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0700-0800	0	1	0	5	6
0715-0815	0	1	0	6	7
0730-0830	0	1	0	8	9
0745-0845	0	2	0	7	9
0800-0900	0	1	0	6	7
0815-0915	0	2	0	8	10
0830-0930	0	2	0	5	7
0845-0945	0	3	0	6	9
0900-1000	0	4	0	6	10

	BICYCLIST MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0700-0800	0	1	0	2	3
0715-0815	0	1	0	2	3
0730-0830	0	1	0	1	2
0745-0845	0	1	0	1	2
0800-0900	0	1	0	1	2
0815-0915	0	1	0	2	3
0830-0930	0	1	0	5	6
0845-0945	0	1	0	5	6
0900-1000	0	2	0	5	7

THE TRAFFIC SOLUTION
9 ALTA STREET UNIT E
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PEDESTRIAN - BICYCLE COUNT SUMMARY

CLIENT: OVERLAND TRAFFIC CONSULTANTS

PROJECT: ENCINO

DATE: THURSDAY, APRIL 06, 2017

PERIOD: 03:00 PM TO 06:00 PM

INTERSECTION: BALBOA BOULEVARD / US 101 NB ON-OFF RAMP

FILE: 5PMPED-BIKE

	PEDESTRIAN MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0300-0315	0	0	0	2
0315-0330	0	0	0	0
0330-0345	0	4	0	0
0345-0400	0	0	0	2
0400-0415	0	1	0	0
0415-0430	0	0	0	1
0430-0445	0	4	0	0
0445-0500	0	0	0	0
0500-0515	0	5	0	1
0515-0530	0	5	0	2
0530-0545	0	0	0	0
0545-0600	0	0	0	0

	BICYCLIST MOVEMENTS			
15-MINUTE PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D
0300-0315	0	0	0	1
0315-0330	0	2	0	0
0330-0345	0	1	0	0
0345-0400	0	0	0	0
0400-0415	0	1	0	0
0415-0430	0	0	0	2
0430-0445	0	0	0	1
0445-0500	0	1	0	3
0500-0515	0	0	0	0
0515-0530	0	0	0	2
0530-0545	0	1	0	0
0545-0600	0	0	0	2

	PEDESTRIAN MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0300-0400	0	4	0	4	8
0315-0415	0	5	0	2	7
0330-0430	0	5	0	3	8
0345-0445	0	5	0	3	8
0400-0500	0	5	0	1	6
0415-0515	0	9	0	2	11
0430-0530	0	14	0	3	17
0445-0545	0	10	0	3	13
0500-0600	0	10	0	3	13

	BICYCLIST MOVEMENTS				
1-HOUR PERIOD	NORTH LEG A	EAST LEG B	SOUTH LEG C	WEST LEG D	TOTALS
0300-0400	0	3	0	1	4
0315-0415	0	4	0	0	4
0330-0430	0	2	0	2	4
0345-0445	0	1	0	3	4
0400-0500	0	2	0	6	8
0415-0515	0	1	0	6	7
0430-0530	0	1	0	6	7
0445-0545	0	2	0	5	7
0500-0600	0	1	0	4	5

THE TRAFFIC SOLUTION
9 ALTA STREET UNIT E
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THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT: ENCINO
LOCATION: MAGNOLIA BOULEVARD BTWN GENESTA AVENUE & BALBOA BOULEVARD
DATE: TUESDAY, OCTOBER 9, 2018
FILE NO: A_1

DIRECTION:		WESTBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	3	0	3	1	7
01:00	2	1	2	0	5
02:00	0	2	0	3	5
03:00	0	0	1	0	1
04:00	1	0	1	1	3
05:00	2	0	2	2	6
06:00	2	6	17	15	40
07:00	20	28	54	84	186
08:00	94	42	38	57	231
09:00	24	36	46	61	167
10:00	41	37	26	39	143
11:00	34	23	33	33	123
12:00	29	23	24	27	103
13:00	45	25	32	42	144
14:00	35	57	51	37	180
15:00	39	48	59	55	201
16:00	43	53	47	60	203
17:00	64	71	80	56	271
18:00	63	55	35	44	197
19:00	27	27	20	12	86
20:00	14	21	11	17	63
21:00	9	16	14	6	45
22:00	7	6	10	11	34
23:00	4	3	6	2	15
				TOTAL	2459

AM PEAK HOUR	07:30-08:30
VOLUME	274
PM PEAK HOUR	16:45-17:45
VOLUME	275

DIRECTION:		EASTBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	2	0	1	0	3
01:00	4	1	2	1	8
02:00	0	0	0	1	1
03:00	1	0	0	1	2
04:00	2	0	1	0	3
05:00	0	6	4	4	14
06:00	6	28	35	37	106
07:00	66	105	125	134	430
08:00	144	121	139	134	538
09:00	104	80	85	101	370
10:00	57	52	40	40	189
11:00	31	27	31	35	124
12:00	41	40	47	38	166
13:00	38	39	45	46	168
14:00	40	34	60	54	188
15:00	56	47	57	58	218
16:00	49	39	66	50	204
17:00	54	61	47	49	211
18:00	62	41	37	39	179
19:00	27	23	23	23	96
20:00	19	14	15	10	58
21:00	14	19	13	16	62
22:00	13	7	10	6	36
23:00	7	3	3	3	16
				TOTAL	3390

AM PEAK HOUR	07:45-08:45
VOLUME	538
PM PEAK HOUR	16:30-17:30
VOLUME	231

TOTAL BI-DIRECTIONAL VOLUME	5849

THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT: OVERLAND TRAFFIC CONSULTANTS, INC.

PROJECT: ENCINO

LOCATION: MAGNOLIA BOULEVARD BTWN GENESTA AVENUE & BALBOA BOULEVARD

DATE: WEDNESDAY, OCTOBER 10, 2018

FILE NO: A_2

DIRECTION:		WESTBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	1	1	0	2	4
01:00	3	2	0	2	7
02:00	0	1	0	0	1
03:00	1	2	0	0	3
04:00	0	1	1	2	4
05:00	1	2	2	3	8
06:00	2	4	11	15	32
07:00	25	30	49	102	206
08:00	87	65	51	40	243
09:00	33	47	50	47	177
10:00	53	40	33	42	168
11:00	40	32	29	31	132
12:00	30	28	29	30	117
13:00	37	35	29	40	141
14:00	37	55	61	43	196
15:00	43	50	67	53	213
16:00	40	59	50	66	215
17:00	53	68	73	67	261
18:00	59	49	43	39	190
19:00	33	30	28	20	111
20:00	18	19	14	19	70
21:00	10	11	10	9	40
22:00	8	7	9	8	32
23:00	5	3	4	2	14
				TOTAL	2585

AM PEAK HOUR	07:45-08:45
VOLUME	305
PM PEAK HOUR	16:45-17:45
VOLUME	260

DIRECTION:		EASTBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	1	2	3	2	8
01:00	3	2	2	1	8
02:00	1	2	0	3	6
03:00	1	0	2	2	5
04:00	3	1	2	2	8
05:00	3	5	4	8	20
06:00	13	25	40	43	121
07:00	59	99	134	142	434
08:00	163	137	155	137	592
09:00	108	100	99	90	397
10:00	60	67	55	43	225
11:00	33	31	43	45	152
12:00	45	43	50	43	181
13:00	39	46	46	51	182
14:00	41	43	62	55	201
15:00	60	63	59	54	236
16:00	60	45	76	58	239
17:00	60	42	44	53	199
18:00	53	47	43	43	186
19:00	32	33	27	25	117
20:00	20	18	19	14	71
21:00	13	15	12	10	50
22:00	11	8	9	7	35
23:00	8	5	3	4	20
				TOTAL	3693

AM PEAK HOUR	07:45-08:45
VOLUME	597
PM PEAK HOUR	14:30-15:30
VOLUME	240

TOTAL BI-DIRECTIONAL VOLUME	6278

THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT:	OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT:	ENCINO
LOCATION:	OTSEGO STREET BTWN GENESTA AVENUE & BALBOA BOULEVARD
DATE:	TUESDAY, OCTOBER 9, 2018
FILE NO:	B_1

DIRECTION:		WESTBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	0	0	0	0
01:00	0	0	0	0	0
02:00	0	0	1	1	2
03:00	1	0	0	0	1
04:00	0	0	0	0	0
05:00	0	0	1	0	1
06:00	1	2	0	2	5
07:00	5	5	9	18	37
08:00	9	5	6	2	22
09:00	6	1	4	8	19
10:00	2	2	5	3	12
11:00	7	3	2	4	16
12:00	3	1	7	6	17
13:00	7	7	3	4	21
14:00	5	16	11	9	41
15:00	4	7	2	5	18
16:00	7	8	6	7	28
17:00	10	9	11	12	42
18:00	8	11	4	4	27
19:00	0	2	3	2	7
20:00	2	4	1	3	10
21:00	2	4	3	6	15
22:00	1	0	2	4	7
23:00	1	0	1	0	2
				TOTAL	350

AM PEAK HOUR	07:15-08:15
VOLUME	41
PM PEAK HOUR	17:00-18:00
VOLUME	42

DIRECTION:		EASTBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	4	1	1	3	9
01:00	0	1	1	1	3
02:00	0	1	0	1	2
03:00	0	0	0	1	1
04:00	1	0	2	0	3
05:00	0	1	1	0	2
06:00	3	5	7	9	24
07:00	11	23	40	94	168
08:00	105	38	54	63	260
09:00	16	27	27	13	83
10:00	7	8	4	4	23
11:00	5	7	4	7	23
12:00	3	8	6	5	22
13:00	7	14	3	5	29
14:00	7	16	28	13	64
15:00	16	10	6	9	41
16:00	20	14	15	13	62
17:00	8	9	7	7	31
18:00	8	6	2	4	20
19:00	3	4	1	4	12
20:00	2	3	3	2	10
21:00	3	6	4	4	17
22:00	9	3	4	6	22
23:00	5	0	1	1	7
				TOTAL	938

AM PEAK HOUR	07:30-08:30
VOLUME	277
PM PEAK HOUR	14:15-15:15
VOLUME	73

TOTAL BI-DIRECTIONAL VOLUME	1288

THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT:	OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT:	ENCINO
LOCATION:	OTSEGO STREET BTWN GENESTA AVENUE & BALBOA BOULEVARD
DATE:	WEDNESDAY, OCTOBER 10, 2018
FILE NO:	B_2

DIRECTION:		WESTBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	0	0	0	0
01:00	0	0	0	0	0
02:00	0	0	0	1	1
03:00	0	1	0	2	3
04:00	0	0	2	0	2
05:00	1	0	0	1	2
06:00	1	1	2	3	7
07:00	6	8	11	16	41
08:00	11	7	5	5	28
09:00	8	3	5	7	23
10:00	3	5	8	6	22
11:00	5	4	5	3	17
12:00	4	5	8	3	20
13:00	8	6	5	7	26
14:00	8	13	10	10	41
15:00	8	7	5	3	23
16:00	8	6	10	11	35
17:00	14	13	10	9	46
18:00	10	9	4	5	28
19:00	3	4	5	2	14
20:00	3	6	3	2	14
21:00	3	4	2	4	13
22:00	3	1	2	1	7
23:00	0	2	1	1	4
				TOTAL	417

AM PEAK HOUR	07:15-08:15
VOLUME	46
PM PEAK HOUR	16:45-17:45
VOLUME	48

DIRECTION:		EASTBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	2	2	0	2	6
01:00	0	0	2	2	4
02:00	0	0	1	2	3
03:00	0	1	1	2	4
04:00	1	1	0	3	5
05:00	0	2	1	5	8
06:00	4	6	8	8	26
07:00	13	19	37	88	157
08:00	118	52	48	63	281
09:00	22	31	28	20	101
10:00	10	11	8	7	36
11:00	8	9	6	5	28
12:00	4	9	8	11	32
13:00	8	9	4	5	26
14:00	10	13	27	20	70
15:00	16	13	10	11	50
16:00	18	15	14	11	58
17:00	10	11	8	9	38
18:00	10	7	5	6	28
19:00	5	6	4	8	23
20:00	3	5	6	6	20
21:00	7	6	5	7	25
22:00	7	5	6	3	21
23:00	4	3	2	2	11
				TOTAL	1061

AM PEAK HOUR	07:45-08:45
VOLUME	306
PM PEAK HOUR	14:15-15:15
VOLUME	76

TOTAL BI-DIRECTIONAL VOLUME	1478

THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT:	OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT:	ENCINO
LOCATION:	ADDISON STREET BTWN GENESTA AVENUE & BALBOA BOULEVARD
DATE:	TUESDAY, OCTOBER 9, 2018
FILE NO:	C_1

DIRECTION:		WESTBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	3	1	0	0	4
01:00	0	2	1	1	4
02:00	0	0	0	0	0
03:00	0	0	0	1	1
04:00	2	0	0	0	2
05:00	2	0	1	2	5
06:00	1	0	3	10	14
07:00	11	17	20	28	76
08:00	36	10	16	13	75
09:00	19	12	24	15	70
10:00	11	7	13	9	40
11:00	4	6	7	11	28
12:00	7	8	5	11	31
13:00	20	10	8	10	48
14:00	17	19	35	28	99
15:00	22	28	29	25	104
16:00	24	23	24	22	93
17:00	16	20	15	20	71
18:00	16	12	8	6	42
19:00	2	6	1	3	12
20:00	0	0	0	1	1
21:00	3	4	6	4	17
22:00	3	3	2	5	13
23:00	1	1	3	2	7
				TOTAL	857

AM PEAK HOUR	07:15-08:15
VOLUME	101
PM PEAK HOUR	14:30-15:30
VOLUME	113

DIRECTION:		EASTBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	2	0	0	1	3
01:00	0	0	1	0	1
02:00	0	1	0	0	1
03:00	0	0	0	0	0
04:00	1	2	1	0	4
05:00	2	0	0	0	2
06:00	1	3	0	16	20
07:00	13	16	23	32	84
08:00	35	19	23	25	102
09:00	26	13	13	9	61
10:00	9	7	4	9	29
11:00	9	5	2	6	22
12:00	4	8	9	7	28
13:00	4	3	6	13	26
14:00	11	13	26	14	64
15:00	16	20	17	8	61
16:00	10	7	10	12	39
17:00	7	12	9	9	37
18:00	4	7	4	4	19
19:00	7	3	2	4	16
20:00	1	1	2	5	9
21:00	1	2	2	3	8
22:00	1	1	3	0	5
23:00	0	3	0	2	5
				TOTAL	646

AM PEAK HOUR	07:30-08:30
VOLUME	109
PM PEAK HOUR	14:30-15:30
VOLUME	76

TOTAL BI-DIRECTIONAL VOLUME	1503

THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT:	OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT:	ENCINO
LOCATION:	ADDISON STREET BTWN GENESTA AVENUE & BALBOA BOULEVARD
DATE:	WEDNESDAY, OCTOBER 10, 2018
FILE NO:	C_2

DIRECTION:		WESTBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	1	2	2	0	5
01:00	0	1	2	1	4
02:00	0	2	0	0	2
03:00	1	0	2	0	3
04:00	1	0	2	1	4
05:00	1	2	3	2	8
06:00	2	4	8	9	23
07:00	13	15	24	32	84
08:00	29	18	20	14	81
09:00	20	14	12	19	65
10:00	11	10	9	13	43
11:00	6	8	10	13	37
12:00	8	9	7	11	35
13:00	18	13	12	14	57
14:00	21	20	22	33	96
15:00	26	30	32	24	112
16:00	22	21	30	27	100
17:00	20	18	13	17	68
18:00	15	14	10	10	49
19:00	7	3	5	3	18
20:00	0	2	3	4	9
21:00	2	4	2	3	11
22:00	3	2	3	1	9
23:00	2	3	2	1	8
				TOTAL	931

AM PEAK HOUR	07:30-08:30
VOLUME	103
PM PEAK HOUR	14:45-15:45
VOLUME	121

DIRECTION:		EASTBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	0	1	0	1
01:00	1	2	0	1	4
02:00	1	0	1	0	2
03:00	0	0	1	0	1
04:00	0	1	2	2	5
05:00	1	0	1	1	3
06:00	2	5	7	11	25
07:00	14	17	19	27	77
08:00	33	25	28	30	116
09:00	31	20	18	13	82
10:00	10	8	5	7	30
11:00	5	3	4	5	17
12:00	7	5	10	8	30
13:00	4	5	11	17	37
14:00	12	15	19	17	63
15:00	18	16	19	11	64
16:00	10	9	13	10	42
17:00	10	11	9	10	40
18:00	7	5	6	4	22
19:00	8	5	4	8	25
20:00	2	3	1	6	12
21:00	1	2	4	2	9
22:00	0	1	3	0	4
23:00	0	2	1	1	4
				TOTAL	715

AM PEAK HOUR	08:00-09:00
VOLUME	116
PM PEAK HOUR	14:30-15:30
VOLUME	70

TOTAL BI-DIRECTIONAL VOLUME	1646

THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT:	OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT:	ENCINO
LOCATION:	AMESTOY AVENUE S/O ADDISON STREET
DATE:	TUESDAY, OCTOBER 9, 2018
FILE NO:	D_1

DIRECTION:		NORTHBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	5	0	1	1	7
01:00	1	1	1	0	3
02:00	0	0	0	0	0
03:00	0	0	0	0	0
04:00	0	0	1	0	1
05:00	3	1	2	2	8
06:00	0	2	4	11	17
07:00	17	39	69	87	212
08:00	48	69	97	69	283
09:00	45	57	77	59	238
10:00	24	18	28	28	98
11:00	21	17	13	15	66
12:00	30	19	23	26	98
13:00	35	37	24	25	121
14:00	23	30	21	17	91
15:00	27	34	33	32	126
16:00	25	28	22	32	107
17:00	21	27	24	36	108
18:00	26	16	16	16	74
19:00	18	15	17	10	60
20:00	9	11	12	16	48
21:00	5	15	4	5	29
22:00	4	3	7	2	16
23:00	0	1	1	2	4
				TOTAL	1815

AM PEAK HOUR	07:30-08:30
VOLUME	273
PM PEAK HOUR	15:00-16:00
VOLUME	126

DIRECTION:		SOUTHBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	4	0	1	0	5
01:00	2	0	0	0	2
02:00	0	0	0	0	0
03:00	0	0	0	0	0
04:00	0	0	2	0	2
05:00	1	0	2	4	7
06:00	1	5	5	7	18
07:00	8	15	16	19	58
08:00	41	22	28	27	118
09:00	18	24	22	35	99
10:00	25	34	21	29	109
11:00	20	14	18	38	90
12:00	22	27	17	14	80
13:00	12	13	26	25	76
14:00	20	25	31	29	105
15:00	29	18	31	19	97
16:00	21	22	23	30	96
17:00	25	19	22	14	80
18:00	16	12	21	17	66
19:00	15	14	9	5	43
20:00	5	6	7	10	28
21:00	4	5	3	2	14
22:00	2	3	5	9	19
23:00	1	1	0	1	3
				TOTAL	1215

AM PEAK HOUR	08:00-09:00
VOLUME	118
PM PEAK HOUR	14:15-15:15
VOLUME	114

TOTAL BI-DIRECTIONAL VOLUME	3030

THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT:	OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT:	ENCINO
LOCATION:	AMESTOY AVENUE S/O ADDISON STREET
DATE:	WEDNESDAY, OCTOBER 10, 2018
FILE NO:	D_2

DIRECTION:		NORTHBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	1	2	1	1	5
01:00	1	2	0	1	4
02:00	0	1	0	1	2
03:00	0	1	0	0	1
04:00	1	0	2	2	5
05:00	1	2	4	3	10
06:00	2	4	7	13	26
07:00	22	32	73	91	218
08:00	53	73	85	75	286
09:00	50	63	80	66	259
10:00	34	20	33	27	114
11:00	19	15	14	18	66
12:00	19	20	24	24	87
13:00	38	32	27	21	118
14:00	30	27	22	21	100
15:00	28	33	25	36	122
16:00	30	24	28	30	112
17:00	22	24	25	27	98
18:00	23	19	20	13	75
19:00	14	17	11	16	58
20:00	10	12	11	9	42
21:00	10	8	7	5	30
22:00	4	5	6	4	19
23:00	2	1	2	1	6
				TOTAL	1863

AM PEAK HOUR	07:45-08:45
VOLUME	302
PM PEAK HOUR	15:15-16:15
VOLUME	124

DIRECTION:		SOUTHBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	1	3	0	0	4
01:00	1	0	1	1	3
02:00	0	0	0	0	0
03:00	1	0	1	1	3
04:00	0	1	0	0	1
05:00	1	0	2	2	5
06:00	2	6	9	6	23
07:00	11	16	18	20	65
08:00	33	30	21	23	107
09:00	20	32	28	31	111
10:00	30	27	25	28	110
11:00	22	19	20	18	79
12:00	18	22	18	14	72
13:00	13	15	27	23	78
14:00	24	26	24	30	104
15:00	33	24	25	20	102
16:00	23	25	28	29	105
17:00	30	24	26	22	102
18:00	20	18	16	20	74
19:00	18	14	11	10	53
20:00	8	5	7	8	28
21:00	5	4	5	3	17
22:00	5	3	4	5	17
23:00	3	2	0	1	6
				TOTAL	1269

AM PEAK HOUR	09:15-10:15
VOLUME	121
PM PEAK HOUR	14:45-15:45
VOLUME	112

TOTAL BI-DIRECTIONAL VOLUME	3132

THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT:	OVERLAND TRAFFIC CONSULTANTS
PROJECT:	ENCINO
LOCATION:	AMESTOY AVENUE S/O MAGNOLIA BOULEVARD
DATE:	THURSDAY, NOVEMBER 09, 2017
FILE NO:	A-1

DIRECTION:		NORTHBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	0	0	1	1
01:00	0	0	0	0	0
02:00	0	0	0	0	0
03:00	0	0	0	0	0
04:00	0	0	1	1	2
05:00	0	1	3	2	6
06:00	2	5	6	14	27
07:00	24	29	43	70	166
08:00	91	57	49	46	243
09:00	38	34	39	30	141
10:00	24	21	27	28	100
11:00	17	19	17	27	80
12:00	26	29	27	29	111
13:00	34	31	36	33	134
14:00	31	27	24	25	107
15:00	37	32	40	34	143
16:00	24	22	31	23	100
17:00	27	23	28	30	108
18:00	15	28	17	18	78
19:00	11	10	11	11	43
20:00	7	9	4	6	26
21:00	4	8	6	6	24
22:00	5	4	4	5	18
23:00	3	2	1	2	8
				TOTAL	1666

AM PEAK HOUR	07:45-08:45
VOLUME	267
PM PEAK HOUR	15:00-16:00
VOLUME	143

DIRECTION:		SOUTHBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	0	0	0	0
01:00	0	0	0	2	2
02:00	0	0	0	0	0
03:00	0	0	0	1	1
04:00	0	0	0	0	0
05:00	0	0	1	1	2
06:00	2	3	10	19	34
07:00	47	33	36	51	167
08:00	67	40	20	49	176
09:00	34	18	10	27	89
10:00	20	6	8	13	47
11:00	14	13	23	12	62
12:00	14	17	23	9	63
13:00	20	13	19	20	72
14:00	23	22	25	23	93
15:00	20	22	25	33	100
16:00	31	27	34	26	118
17:00	40	34	38	33	145
18:00	24	25	23	11	83
19:00	16	5	13	8	42
20:00	6	8	6	9	29
21:00	3	7	9	4	23
22:00	7	3	2	0	12
23:00	2	1	0	1	4
				TOTAL	1364

AM PEAK HOUR	07:30-08:30
VOLUME	194
PM PEAK HOUR	17:00-18:00
VOLUME	145

TOTAL BI-DIRECTIONAL VOLUME	3030

THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT:	OVERLAND TRANSPORTATION CONSULTANTS, INC.
PROJECT:	ENCINO
LOCATION:	GENESTA AVENUE S/O ADDISON STREET
DATE:	TUESDAY, OCTOBER 9, 2018
FILE NO:	E_1

DIRECTION:		NORTHBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	1	0	0	1	2
01:00	1	0	1	0	2
02:00	0	1	0	1	2
03:00	0	0	0	0	0
04:00	0	2	0	0	2
05:00	1	0	0	2	3
06:00	0	0	1	15	16
07:00	16	14	29	42	101
08:00	39	15	18	22	94
09:00	27	17	12	17	73
10:00	15	11	10	9	45
11:00	10	16	9	11	46
12:00	9	7	9	14	39
13:00	8	8	9	16	41
14:00	20	18	23	23	84
15:00	17	23	28	14	82
16:00	17	17	15	17	66
17:00	17	30	13	20	80
18:00	16	14	6	15	51
19:00	13	9	4	13	39
20:00	11	4	4	3	22
21:00	3	5	4	6	18
22:00	6	2	4	3	15
23:00	2	3	2	3	10
				TOTAL	933

AM PEAK HOUR	07:30-08:30
VOLUME	125
PM PEAK HOUR	14:00-15:00
VOLUME	84

DIRECTION:		SOUTHBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	1	0	1	0	2
01:00	0	0	0	0	0
02:00	0	0	0	2	2
03:00	0	0	1	0	1
04:00	1	0	0	0	1
05:00	1	0	4	3	8
06:00	2	2	2	9	15
07:00	6	4	11	24	45
08:00	35	14	14	10	73
09:00	15	6	19	22	62
10:00	17	15	15	18	65
11:00	8	10	9	15	42
12:00	7	4	7	7	25
13:00	12	10	14	7	43
14:00	14	13	33	20	80
15:00	16	17	18	18	69
16:00	14	21	10	17	62
17:00	12	20	11	11	54
18:00	13	14	12	4	43
19:00	7	3	6	7	23
20:00	1	3	1	5	10
21:00	2	5	5	5	17
22:00	2	1	4	4	11
23:00	3	0	4	0	7
				TOTAL	760

AM PEAK HOUR	07:45-08:45
VOLUME	87
PM PEAK HOUR	14:30-15:30
VOLUME	86

TOTAL BI-DIRECTIONAL VOLUME	1693

THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT:	OVERLAND TRAFFIC CONSULTANTS, INC.
PROJECT:	ENCINO
LOCATION:	GENESTA AVENUE S/O ADDISON STREET
DATE:	WEDNESDAY, OCTOBER 10, 2018
FILE NO:	E_2

DIRECTION:		NORTHBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	0	0	2	2
01:00	0	1	2	0	3
02:00	1	0	1	1	3
03:00	0	0	0	1	1
04:00	1	0	1	2	4
05:00	1	0	2	3	6
06:00	1	3	5	11	20
07:00	13	20	22	37	92
08:00	39	21	20	18	98
09:00	25	20	18	13	76
10:00	14	16	11	10	51
11:00	10	11	10	9	40
12:00	10	8	7	6	31
13:00	9	10	11	15	45
14:00	19	20	22	24	85
15:00	20	24	30	22	96
16:00	18	19	20	16	73
17:00	15	19	15	19	68
18:00	20	15	11	14	60
19:00	13	10	5	11	39
20:00	13	8	7	6	34
21:00	5	7	6	7	25
22:00	8	3	5	4	20
23:00	3	0	1	2	6
				TOTAL	978

AM PEAK HOUR	07:30-08:30
VOLUME	119
PM PEAK HOUR	14:45-15:45
VOLUME	98

DIRECTION:		SOUTHBOUND			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	2	0	0	2
01:00	0	1	0	0	1
02:00	0	0	1	0	1
03:00	1	2	1	0	4
04:00	0	1	0	2	3
05:00	1	1	2	4	8
06:00	3	5	2	7	17
07:00	5	6	11	18	40
08:00	24	16	17	11	68
09:00	15	11	20	16	62
10:00	18	16	17	16	67
11:00	11	9	13	10	43
12:00	8	7	5	11	31
13:00	13	14	13	10	50
14:00	12	11	27	23	73
15:00	18	19	20	21	78
16:00	16	19	14	18	67
17:00	13	15	13	14	55
18:00	11	16	17	9	53
19:00	8	5	6	9	28
20:00	3	4	2	3	12
21:00	3	5	6	3	17
22:00	3	4	5	2	14
23:00	2	1	2	0	5
				TOTAL	799

AM PEAK HOUR	07:45-08:45
VOLUME	75
PM PEAK HOUR	14:30-15:30
VOLUME	87

TOTAL BI-DIRECTIONAL VOLUME	1777

THE TRAFFIC SOLUTION - ADT WORKSHEET

CLIENT: OVERLAND TRAFFIC CONSULTANTS
PROJECT: ENCINO
LOCATION: GENESTA AVENUE S/O MAGNOLIA BOULEVARD
DATE: THURSDAY, NOVEMBER 09, 2017
FILE NO: A-2

DIRECTION:	NORTHBOUND				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	0	0	0	0
01:00	0	0	0	0	0
02:00	0	0	0	0	0
03:00	0	0	0	0	0
04:00	0	0	1	0	1
05:00	1	0	1	1	3
06:00	1	1	3	7	12
07:00	11	10	17	49	87
08:00	45	23	15	16	99
09:00	12	15	11	8	46
10:00	7	9	7	9	32
11:00	10	7	6	6	29
12:00	9	4	10	6	29
13:00	10	16	18	12	56
14:00	14	6	11	18	49
15:00	8	11	8	8	35
16:00	16	9	7	9	41
17:00	9	7	10	6	32
18:00	5	7	5	3	20
19:00	2	2	4	3	11
20:00	2	3	3	2	10
21:00	5	1	3	4	13
22:00	2	5	2	0	9
23:00	2	1	0	1	4
				TOTAL	618

AM PEAK HOUR	07:45-08:45
VOLUME	132
PM PEAK HOUR	13:15-14:15
VOLUME	60

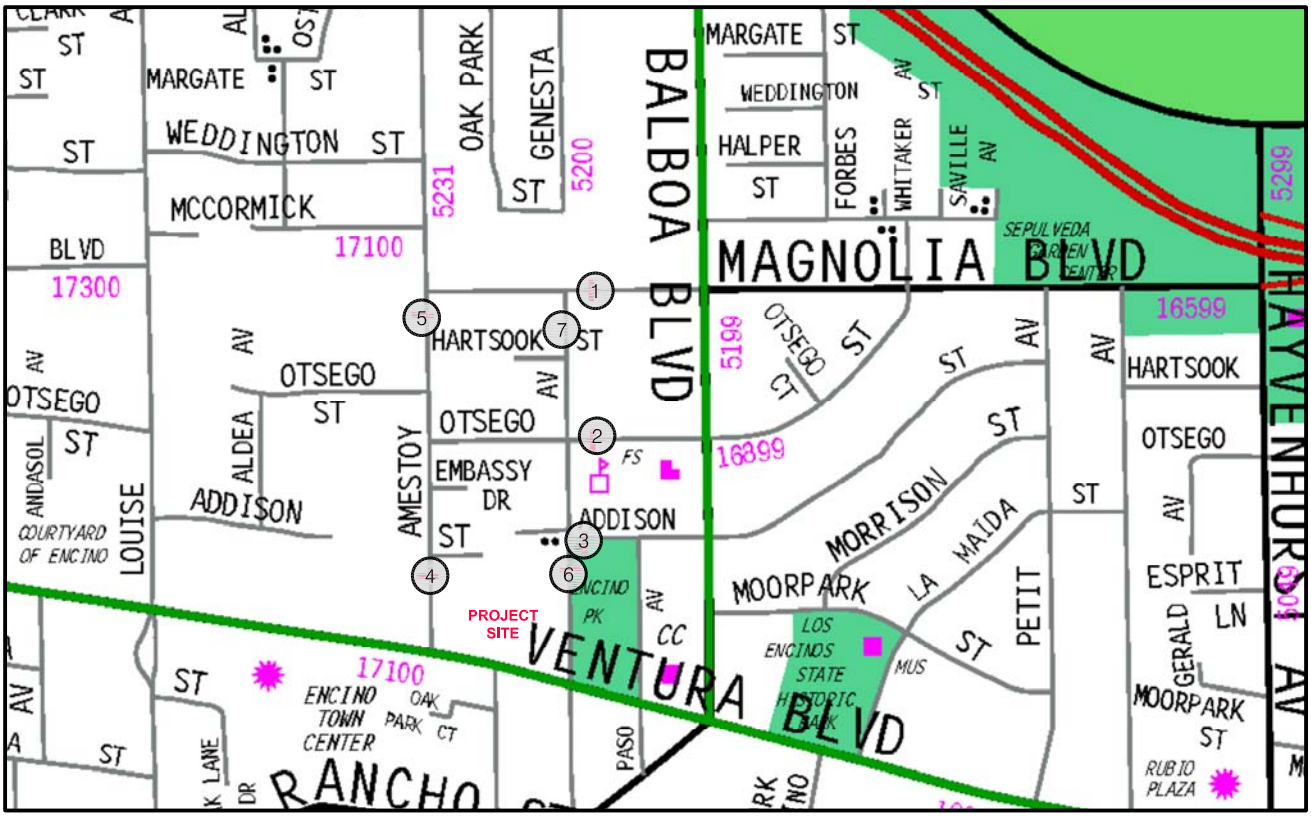
DIRECTION:	SOUTHBOUND				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
00:00	0	1	1	0	2
01:00	0	0	0	0	0
02:00	0	0	0	0	0
03:00	0	0	0	0	0
04:00	0	0	0	0	0
05:00	0	0	0	0	0
06:00	0	4	5	9	18
07:00	13	19	14	29	75
08:00	33	18	13	24	88
09:00	21	19	16	7	63
10:00	8	11	6	7	32
11:00	5	8	8	9	30
12:00	8	15	11	12	46
13:00	18	10	21	24	73
14:00	19	25	19	26	89
15:00	16	19	9	21	65
16:00	18	22	17	15	72
17:00	17	25	12	13	67
18:00	16	19	16	5	56
19:00	4	7	3	9	23
20:00	2	1	2	1	6
21:00	2	3	1	3	9
22:00	1	3	1	2	7
23:00	1	1	0	2	4
				TOTAL	825

AM PEAK HOUR	07:15-08:15
VOLUME	95
PM PEAK HOUR	13:45-14:45
VOLUME	87

TOTAL BI-DIRECTIONAL VOLUME	1443

Residential Street Daily Traffic Volume

	Location	10/9/2018 (Tuesday)			10/10/2018 (Wednesday)		
1	Magnolia Boulevard	Eastbound	Westbound	Total	Eastbound	Westbound	Total
	between Genesta Ave. & Balboa Bd.	3,390	2,459	5,849	3,693	2,585	6,278
2	Otsego Street	Eastbound	Westbound	Total	Eastbound	Westbound	Total
	between Genesta Ave. & Balboa Bd.	938	350	1,288	1,061	417	1,478
3	Addison Street	Eastbound	Westbound	Total	Eastbound	Westbound	Total
	between Genesta Ave. & Balboa Bd.	646	857	1,503	715	931	1,646
	Amestoy Avenue	Northbound	Southbound	Total	Northbound	Southbound	Total
4	S/O Addison St.	1,815	1,215	3,030	1,863	1,269	3,132
		11/9/2017 (Thursday)					
5	S/O Magnolia Bd.	1,666	1,364	3,030			
	Genesta Avenue	Northbound	Southbound	Total	Northbound	Southbound	Total
6	S/O Addison St.	933	760	1,693	978	799	1,777
		11/9/2017 (Thursday)					
7	S/O Magnolia Bd.	618	825	1,443			



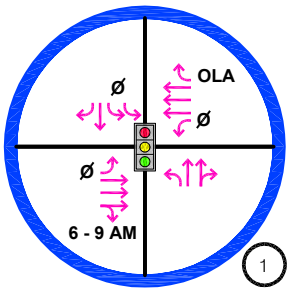
(X) **DAILY TRAFFIC COUNT LOCATIONS**

1/2019

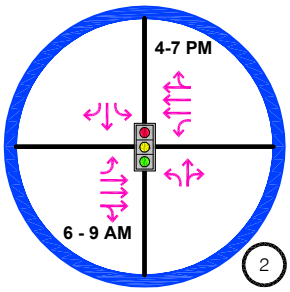
DAILY TRAFFIC VOLUMES

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661) 799 - 8423, OTC@overlandtraffic.com

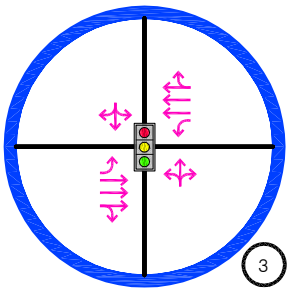
TRAFFIC VOLUME FIGURES



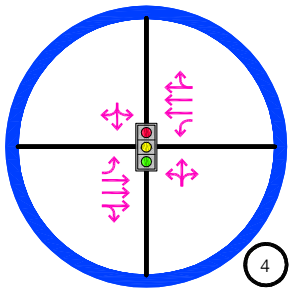
VENTURA BOULEVARD &
WHITE OAK AVENUE



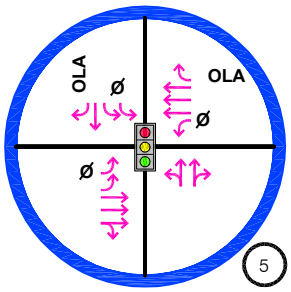
VENTURA BOULEVARD &
LOUISE AVENUE



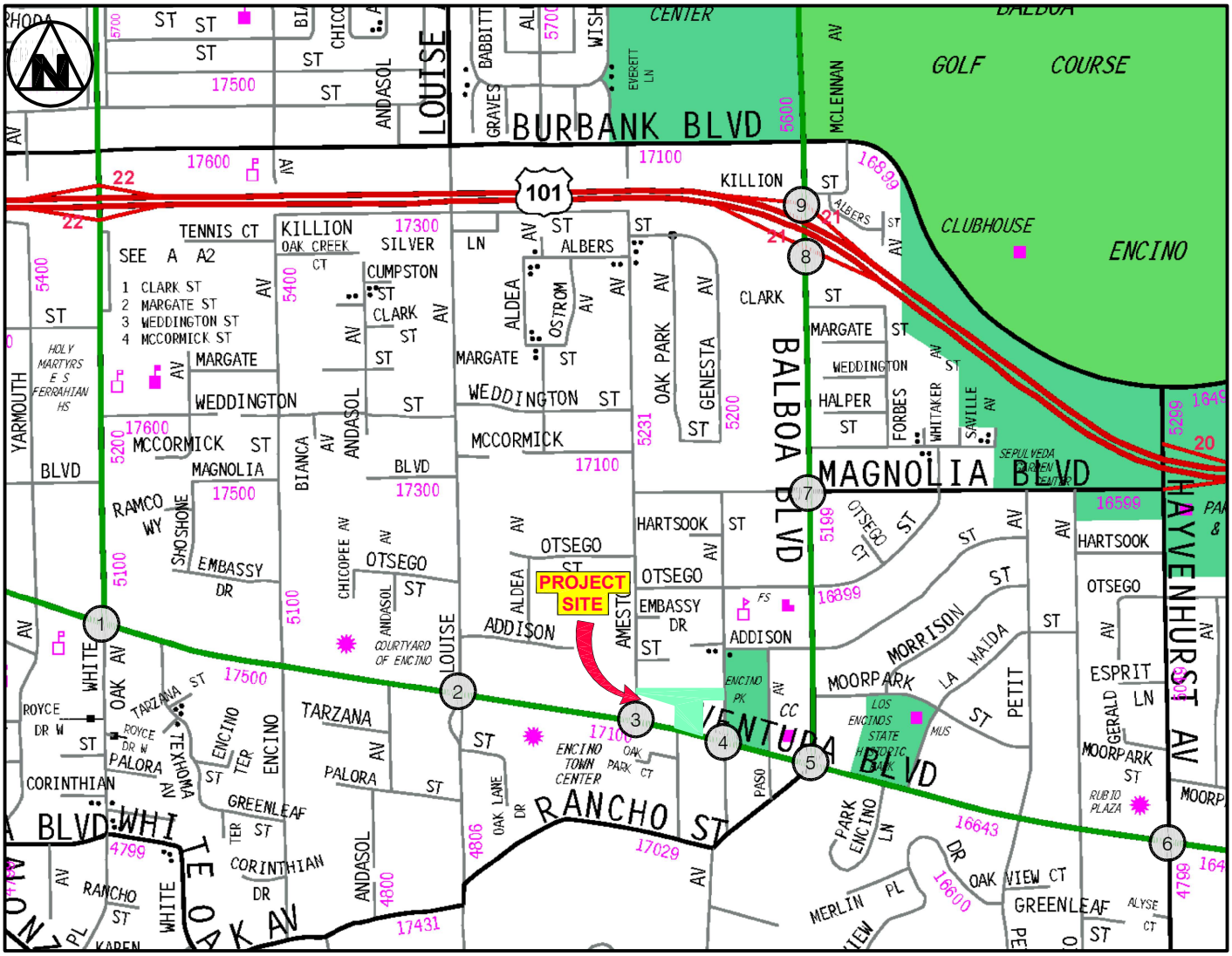
VENTURA BOULEVARD &
AMESTOY AVENUE

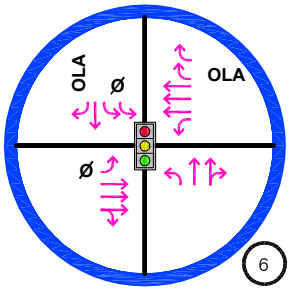


VENTURA BOULEVARD &
GENESTA AVENUE

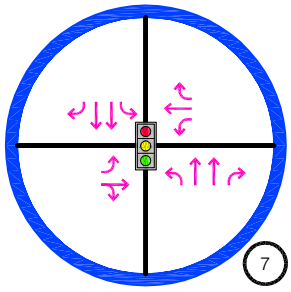


VENTURA BOULEVARD &
BALBOA BOULEVARD

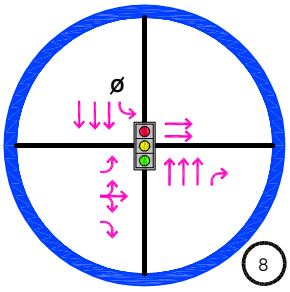




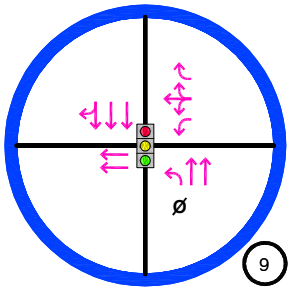
VENTURA BOULEVARD &
HAYVENHURST AVENUE



BALBOA BOULEVARD &
MAGNOLIA BOULEVARD



BALBOA BOULEVARD &
101 FREEWAY EB RAMPS



BALBOA BOULEVARD &
101 FREEWAY WB RAMPS

FIGURE 3

7/2020

STUDY INTERSECTIONS
LANE CONFIGURATIONS AND TRAFFIC CONTROL

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661) 799 - 8423, OTC@overlandtraffic.com

RESIDENTIAL DISTRIBUTION

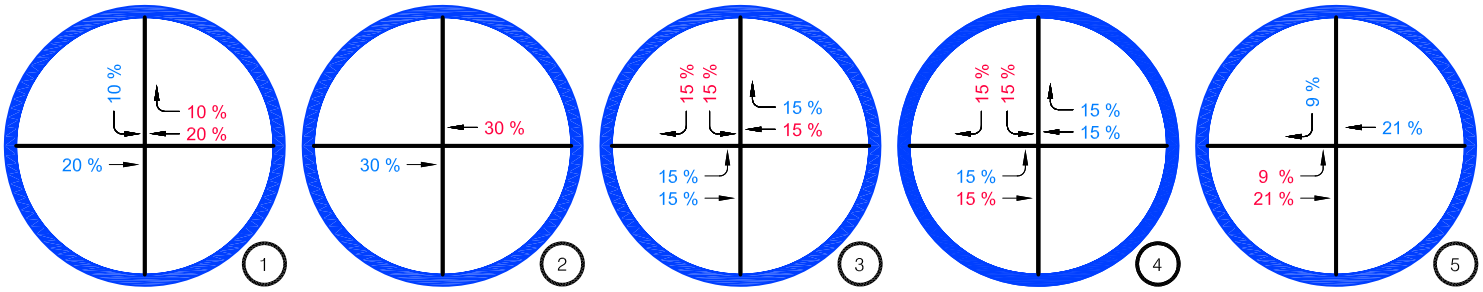
COMMERCIAL DISTRIBUTION

FIGURE 4

7/2020

PROJECT DISTRIBUTION
RESIDENTIAL AND COMMERCIAL PERCENTAGES

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661) 799 - 8423, OTC@overlandtraffic.com



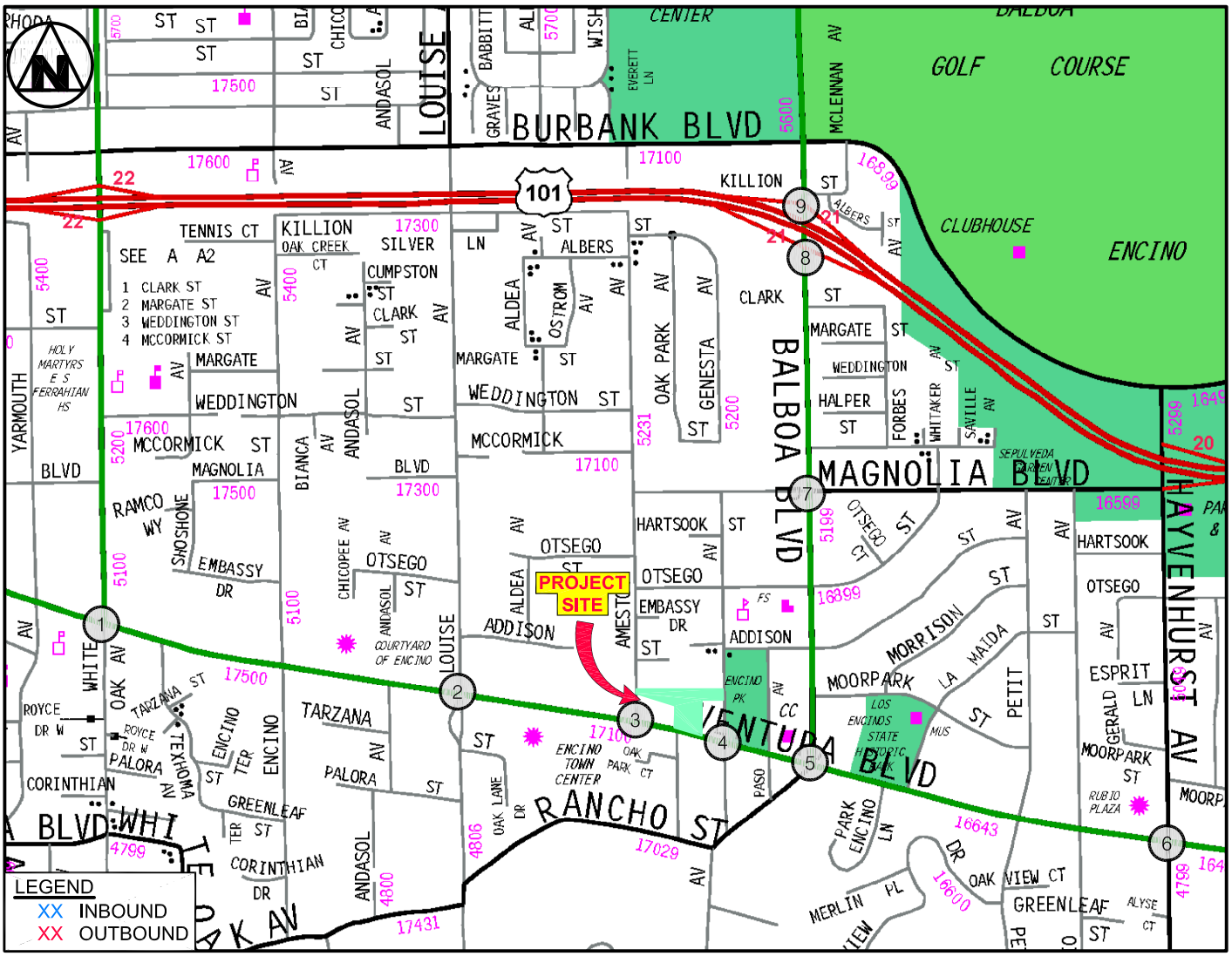
VENTURA BOULEVARD & WHITE OAK AVENUE

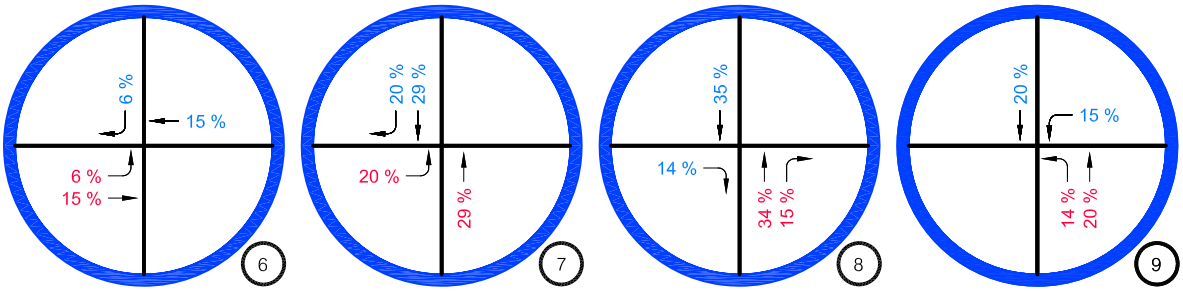
VENTURA BOULEVARD & LOUISE AVENUE

VENTURA BOULEVARD & AMESTOY AVENUE

VENTURA BOULEVARD & GENESTA AVENUE

VENTURA BOULEVARD & BALBOA BOULEVARD





VENTURA BOULEVARD & HAYVENHURST AVENUE

BALBOA BOULEVARD & MAGNOLIA BOULEVARD

BALBOA BOULEVARD & 101 FREEWAY EB RAMPS

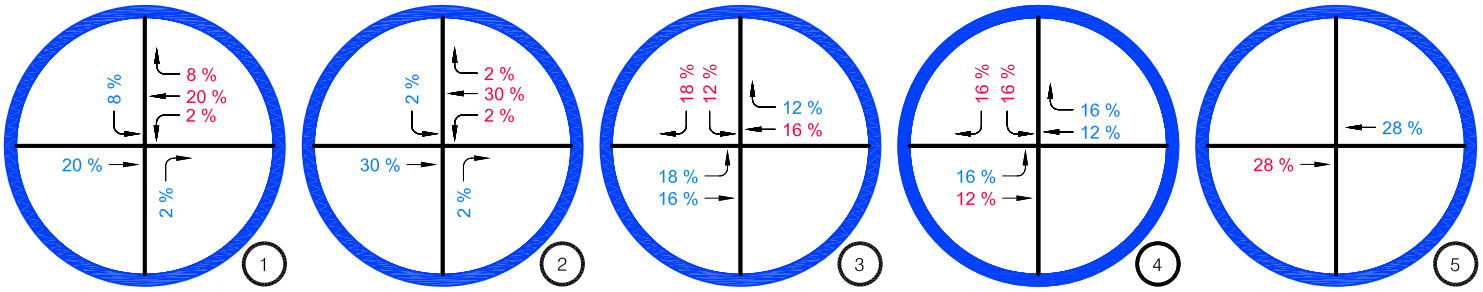
BALBOA BOULEVARD & 101 FREEWAY WB RAMPS

FIGURE 5A

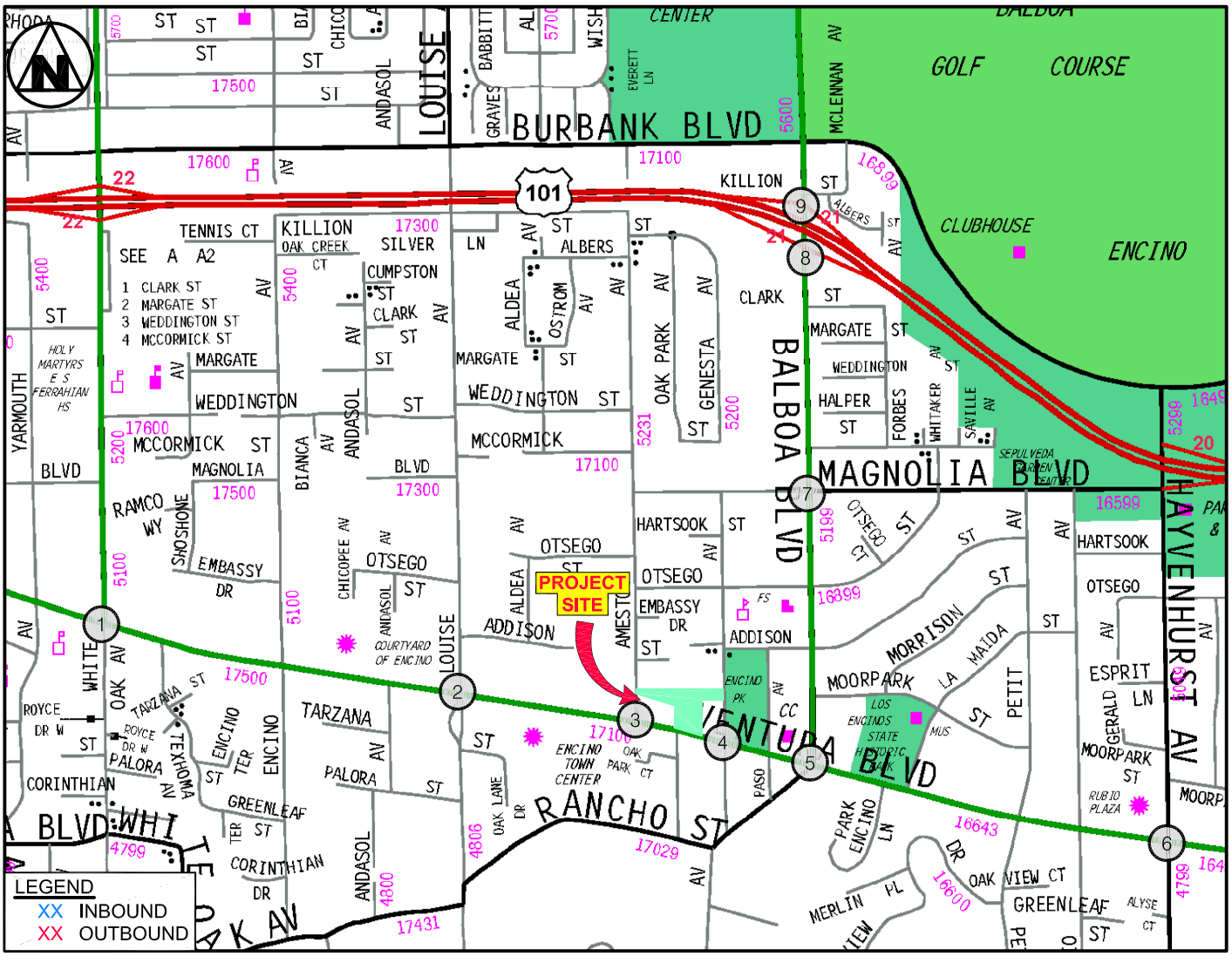
7/2020

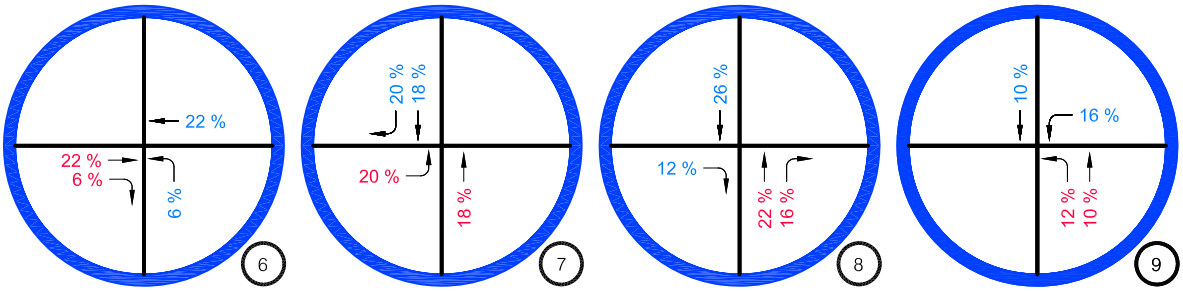
PROJECT TRAFFIC ASSIGNMENT
RESIDENTIAL PEAK HOUR

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661) 799 - 8423, OTC@overlandtraffic.com



VENTURA BOULEVARD & WHITE OAK AVENUE | VENTURA BOULEVARD & LOUISE AVENUE | VENTURA BOULEVARD & AMESTOY AVENUE | VENTURA BOULEVARD & GENESTA AVENUE | VENTURA BOULEVARD & BALBOA BOULEVARD





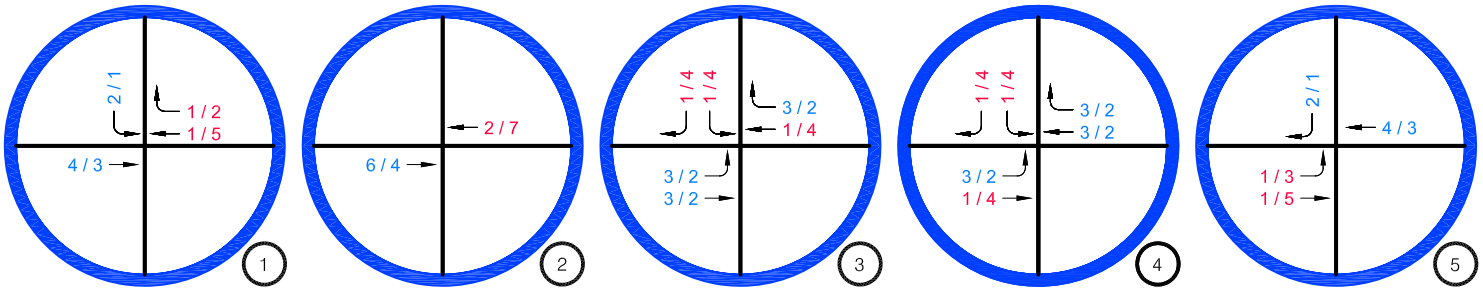
VENTURA BOULEVARD & HAYVENHURST AVENUE | BALBOA BOULEVARD & MAGNOLIA BOULEVARD | BALBOA BOULEVARD & 101 FREEWAY EB RAMPS | BALBOA BOULEVARD & 101 FREEWAY WB RAMPS

FIGURE 5B

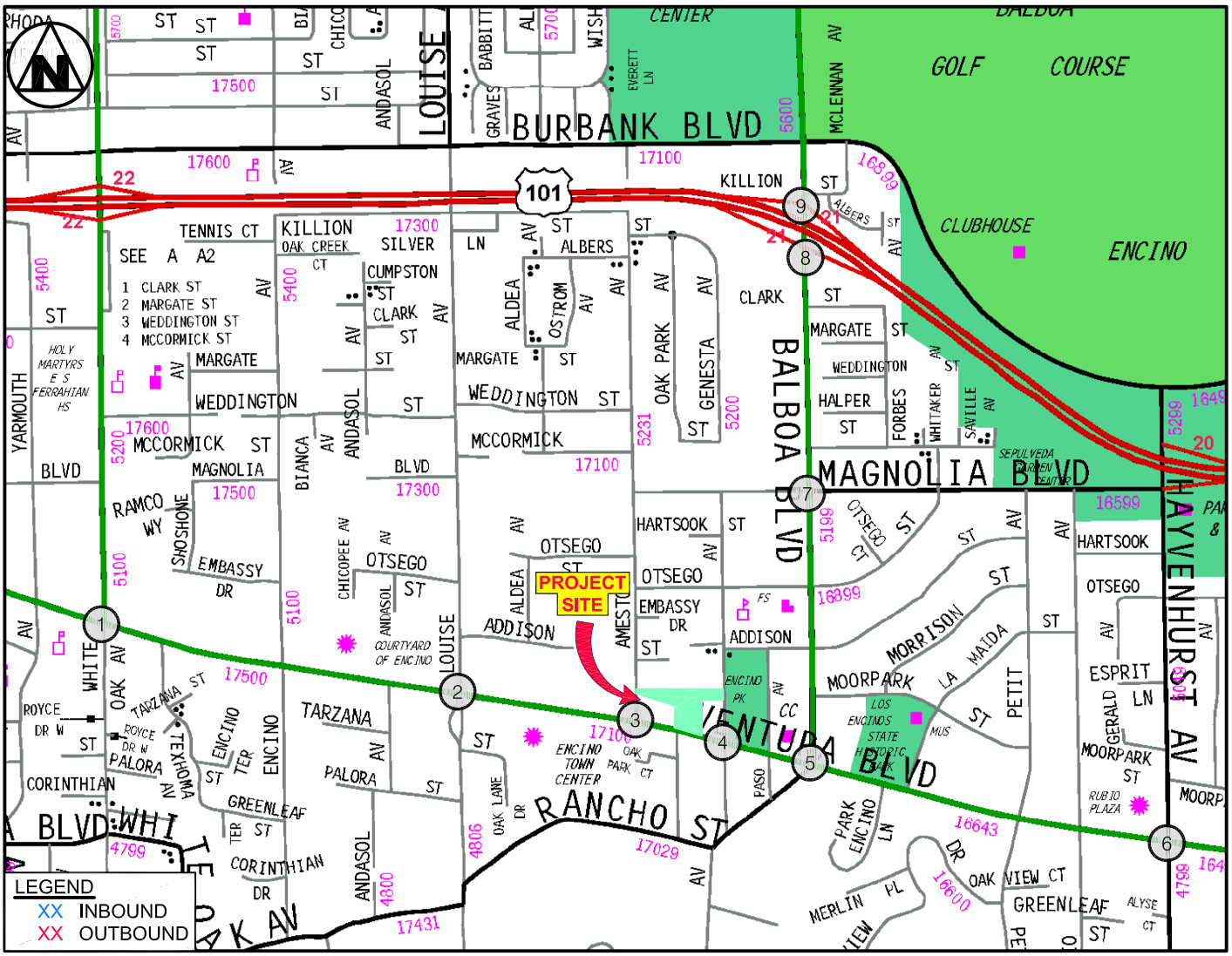
7/2020

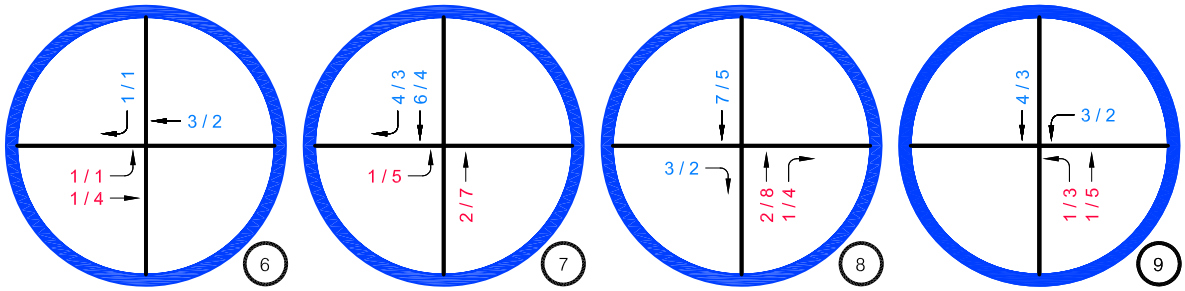
PROJECT TRAFFIC ASSIGNMENT
COMMERCIAL PEAK HOUR

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661) 799 - 8423, OTC@overlandtraffic.com



VENTURA BOULEVARD & WHITE OAK AVENUE | VENTURA BOULEVARD & LOUISE AVENUE | VENTURA BOULEVARD & AMESTOY AVENUE | VENTURA BOULEVARD & GENESTA AVENUE | VENTURA BOULEVARD & BALBOA BOULEVARD





VENTURA BOULEVARD & HAYVENHURST AVENUE | BALBOA BOULEVARD & MAGNOLIA BOULEVARD | BALBOA BOULEVARD & 101 FREEWAY EB RAMPS | BALBOA BOULEVARD & 101 FREEWAY WB RAMPS

FIGURE 6A

7/2020

RESIDENTIAL PROJECT TRAFFIC VOLUME
AM / PM PEAK HOUR

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
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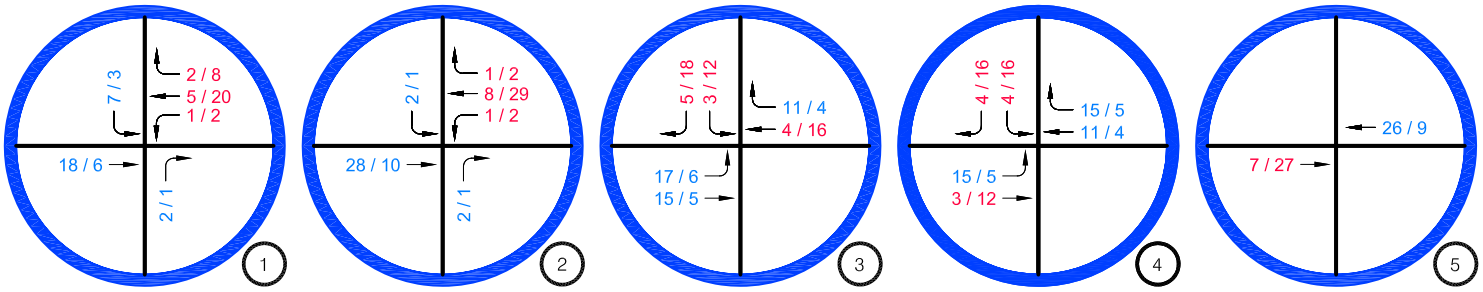
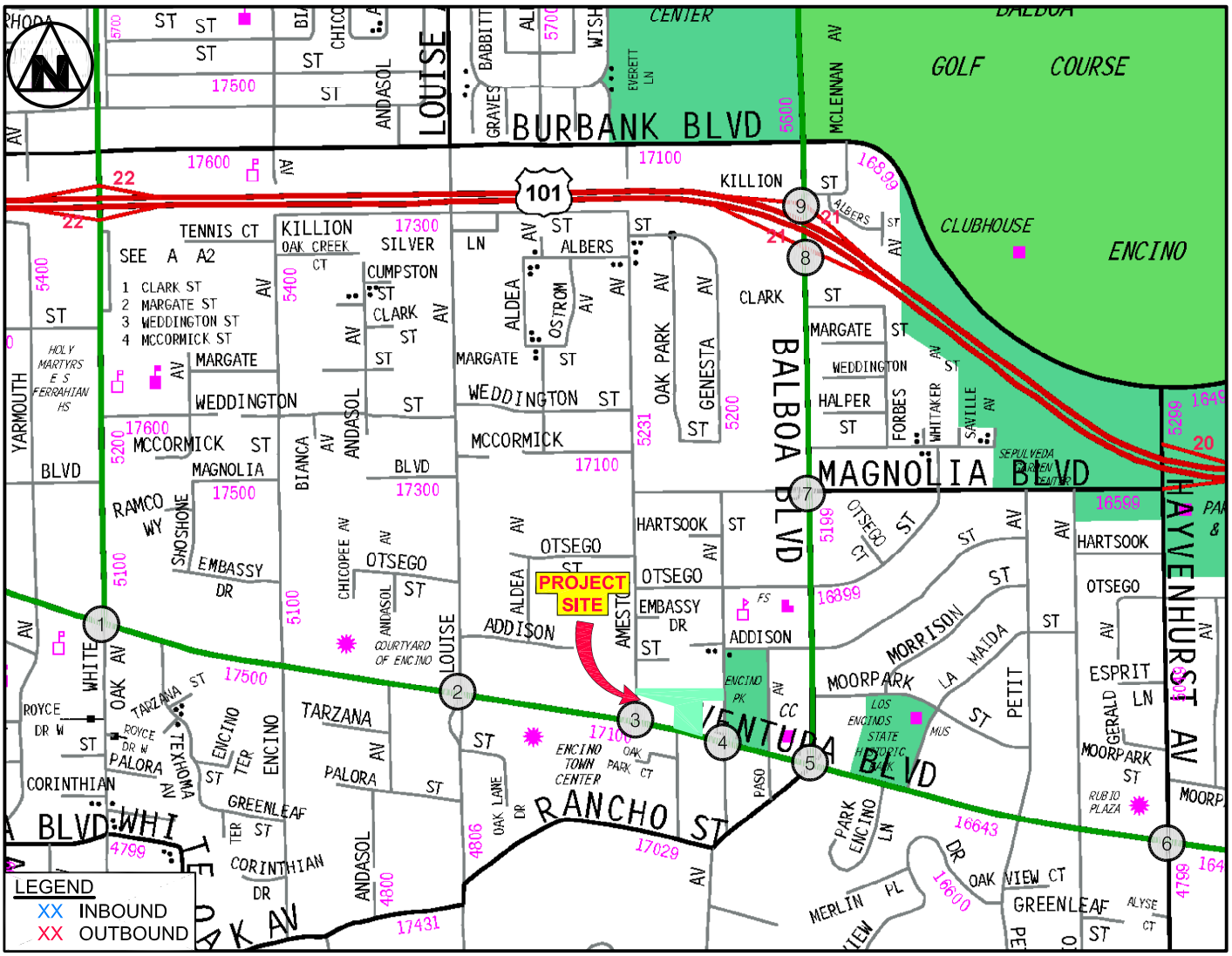
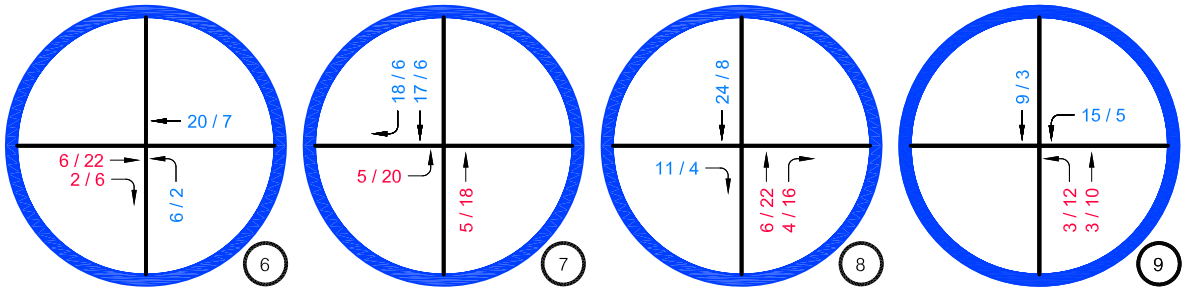


VENTURA BOULEVARD & WHITE OAK AVENUE | VENTURA BOULEVARD & LOUISE AVENUE | VENTURA BOULEVARD & AMESTOY AVENUE | VENTURA BOULEVARD & GENESTA AVENUE | VENTURA BOULEVARD & BALBOA BOULEVARD





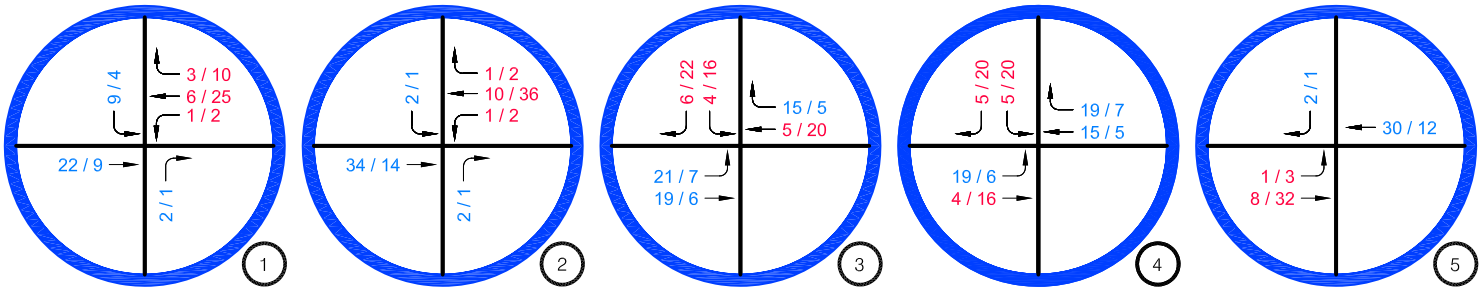
VENTURA BOULEVARD & HAYVENHURST AVENUE | BALBOA BOULEVARD & MAGNOLIA BOULEVARD | BALBOA BOULEVARD & 101 FREEWAY EB RAMPS | BALBOA BOULEVARD & 101 FREEWAY WB RAMPS

FIGURE 6B

7/2020

COMMERCIAL PROJECT TRAFFIC VOLUME
AM / PM PEAK HOUR

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661) 799 - 8423, OTC@overlandtraffic.com



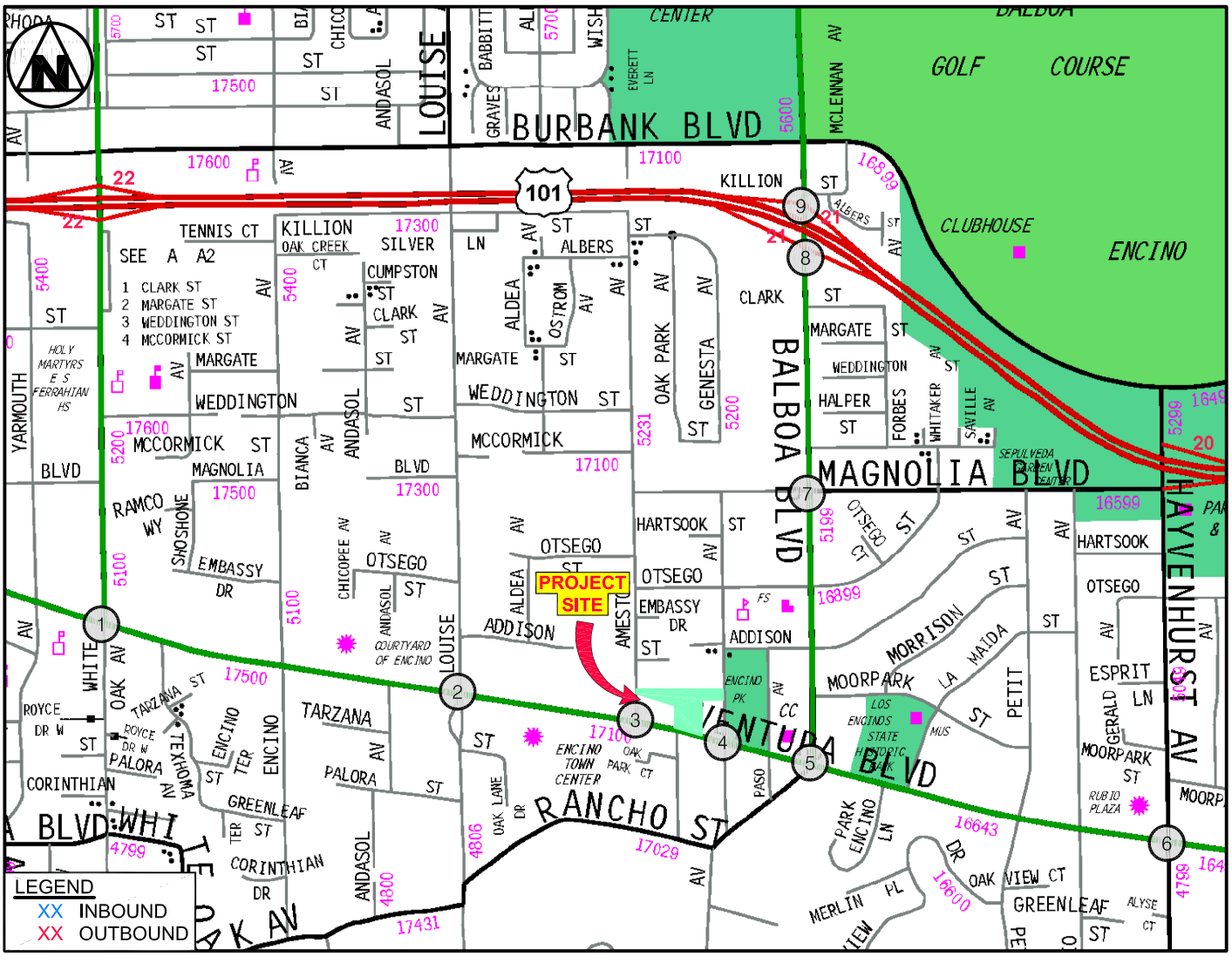
VENTURA BOULEVARD & WHITE OAK AVENUE

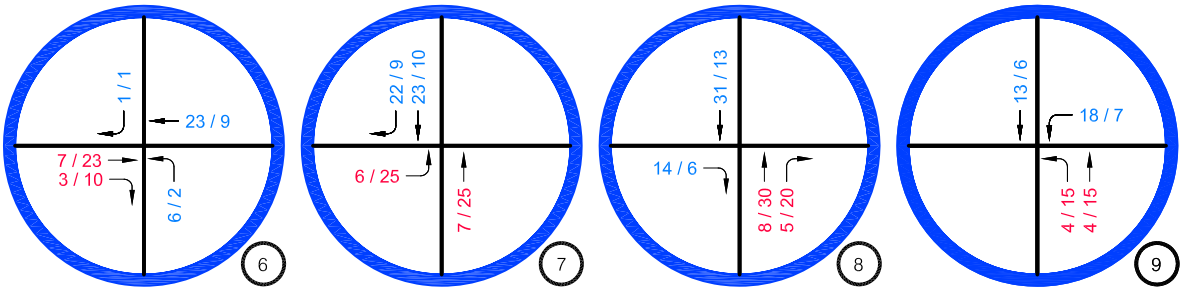
VENTURA BOULEVARD & LOUISE AVENUE

VENTURA BOULEVARD & AMESTOY AVENUE

VENTURA BOULEVARD & GENESTA AVENUE

VENTURA BOULEVARD & BALBOA BOULEVARD





VENTURA BOULEVARD & HAYVENHURST AVENUE

BALBOA BOULEVARD & MAGNOLIA BOULEVARD

BALBOA BOULEVARD & 101 FREEWAY EB RAMPS

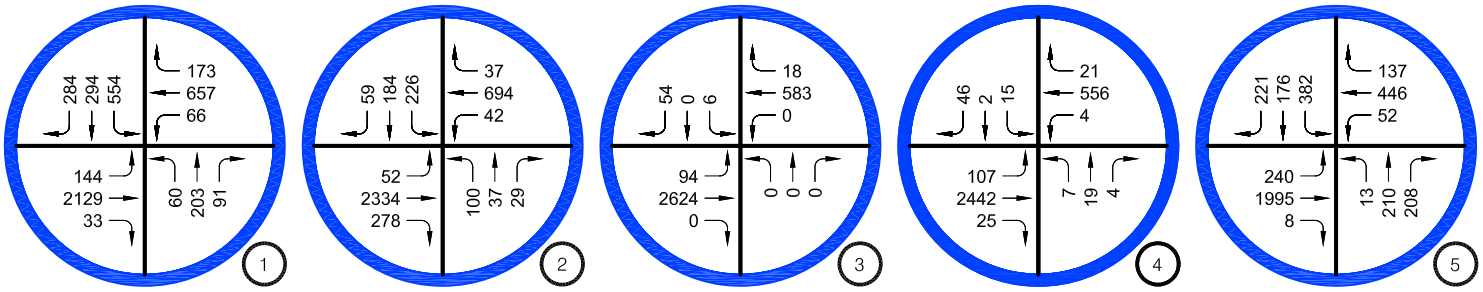
BALBOA BOULEVARD & 101 FREEWAY WB RAMPS

FIGURE 6C

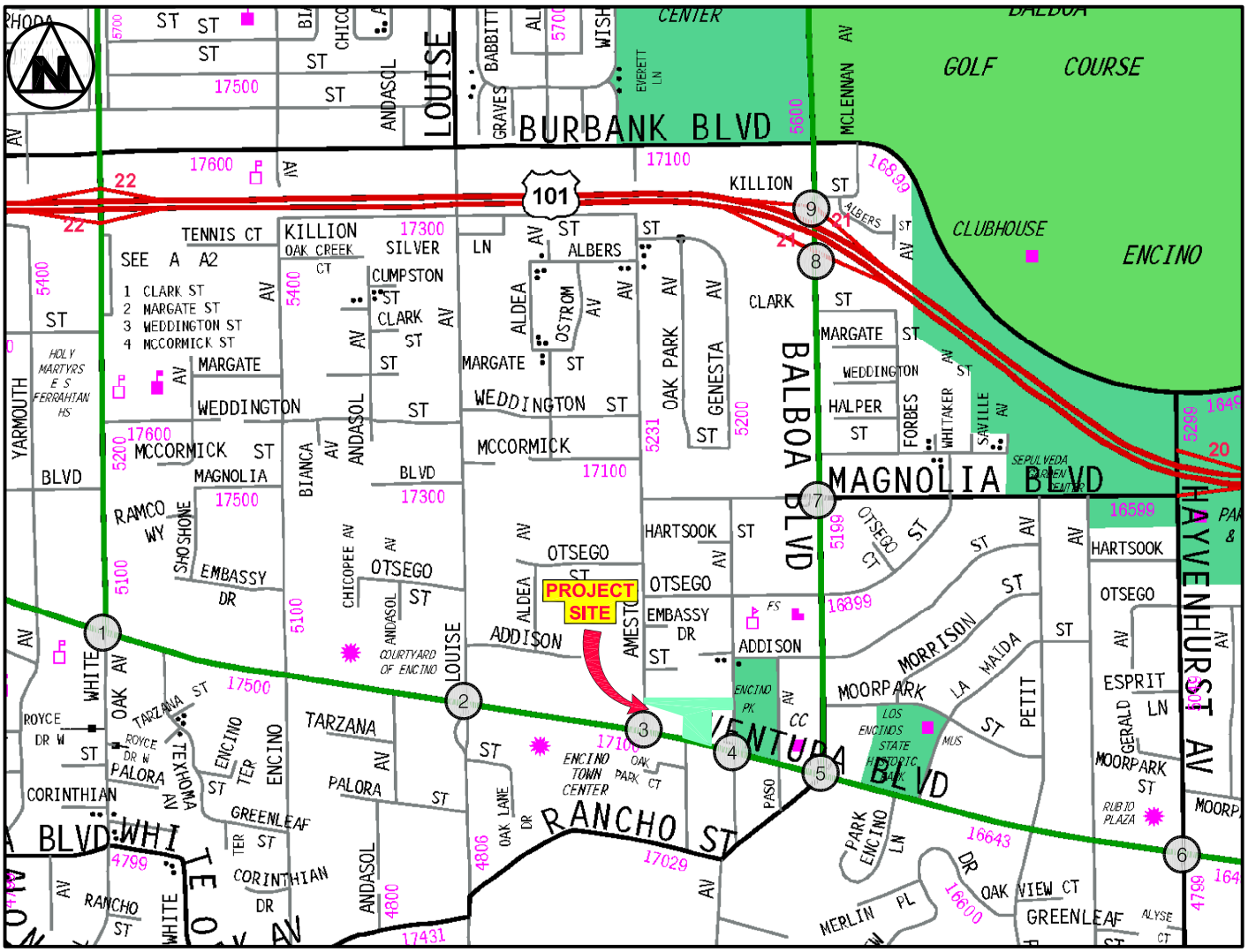
7/2020

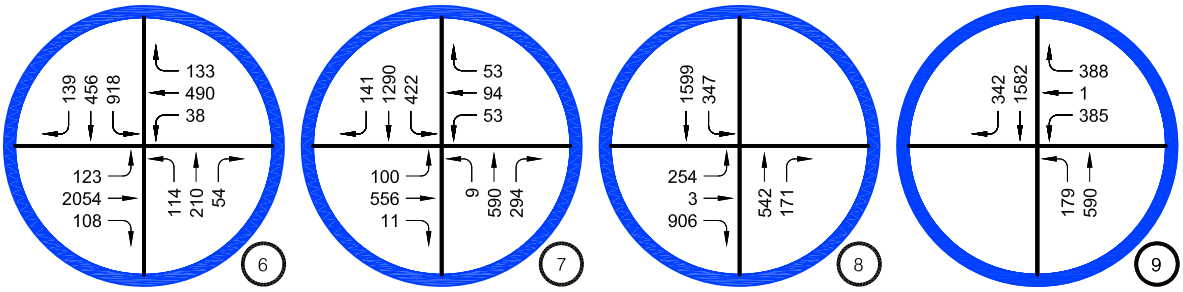
TOTAL PROJECT TRAFFIC VOLUME
AM / PM PEAK HOUR

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661) 799 - 8423, OTC@overlandtraffic.com



VENTURA BOULEVARD & WHITE OAK AVENUE | VENTURA BOULEVARD & LOUISE AVENUE | VENTURA BOULEVARD & AMESTOY AVENUE | VENTURA BOULEVARD & GENESTA AVENUE | VENTURA BOULEVARD & BALBOA BOULEVARD





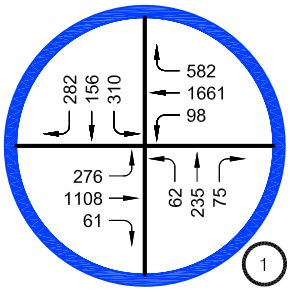
VENTURA BOULEVARD & HAYVENHURST AVENUE | BALBOA BOULEVARD & MAGNOLIA BOULEVARD | BALBOA BOULEVARD & 101 FREEWAY EB RAMPS | BALBOA BOULEVARD & 101 FREEWAY WB RAMPS

FIGURE 7

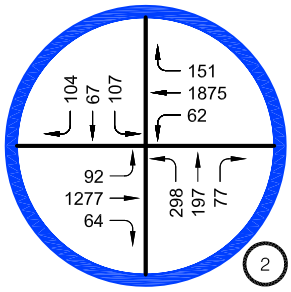
7/2020

EXISTING (2020) TRAFFIC VOLUME
AM PEAK HOUR

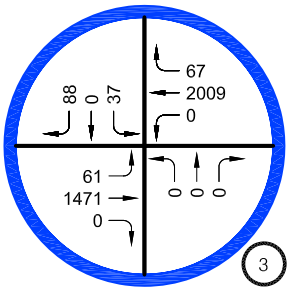
Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661) 799 - 8423, OTC@overlandtraffic.com



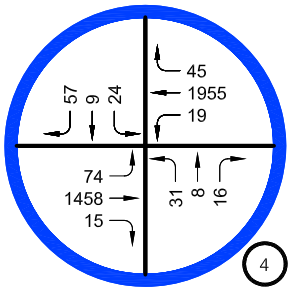
VENTURA BOULEVARD &
WHITE OAK AVENUE



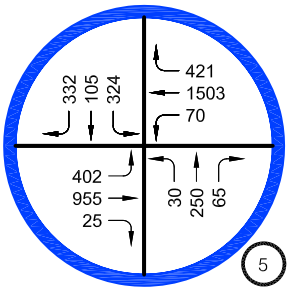
VENTURA BOULEVARD &
LOUISE AVENUE



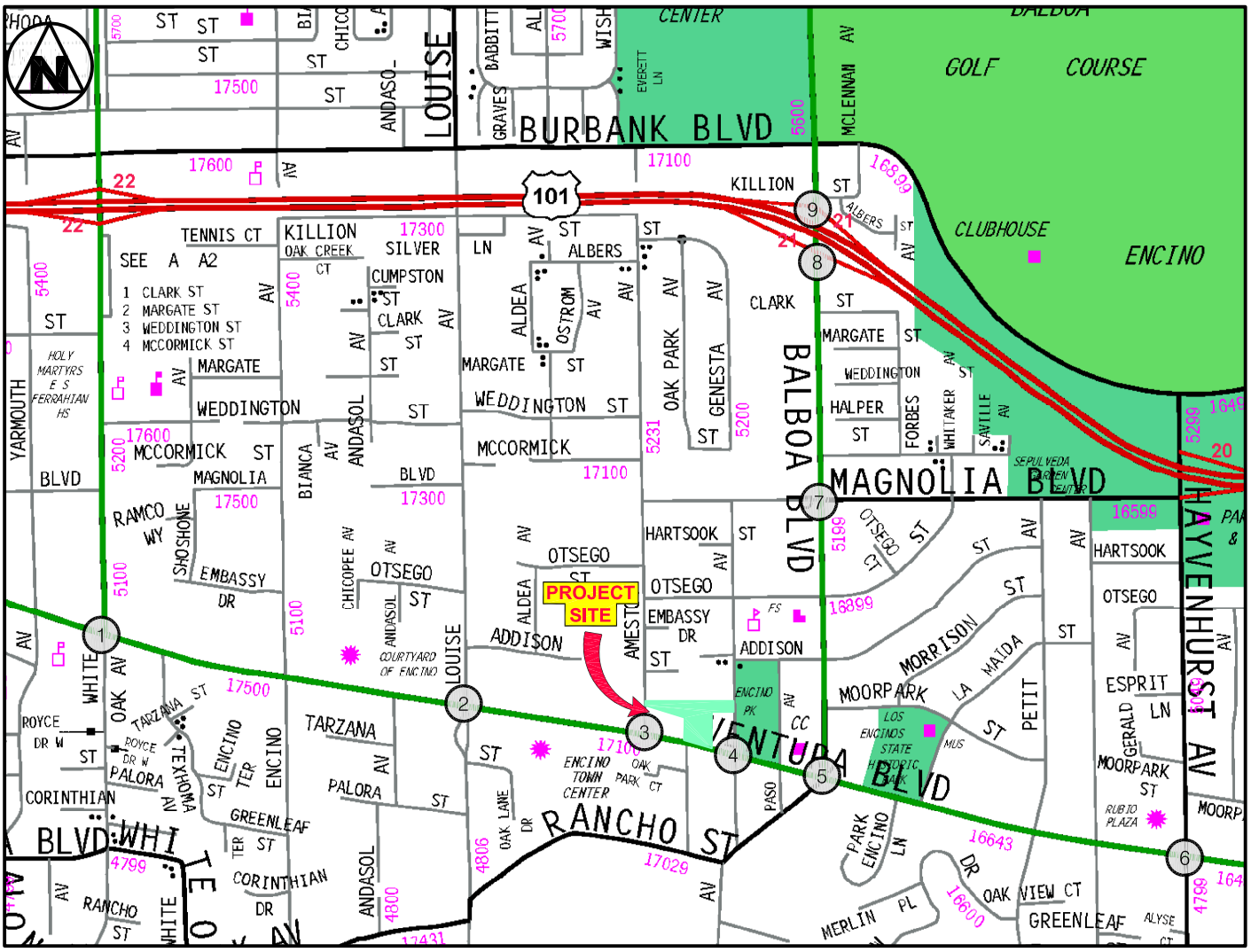
VENTURA BOULEVARD &
AMESTOY AVENUE

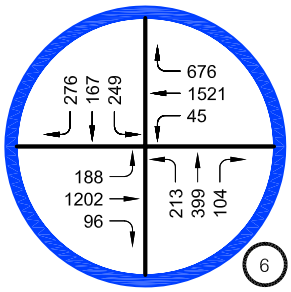


VENTURA BOULEVARD &
GENESTA AVENUE

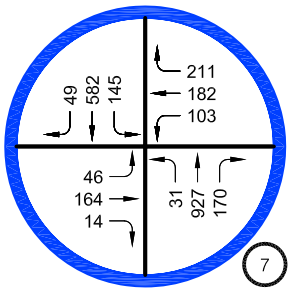


VENTURA BOULEVARD &
BALBOA BOULEVARD

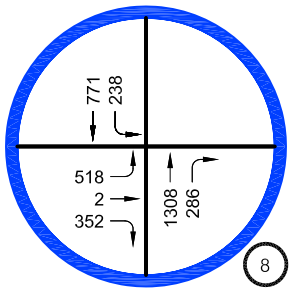




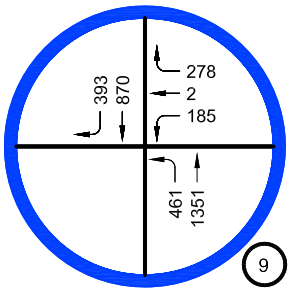
VENTURA BOULEVARD &
HAYVENHURST AVENUE



BALBOA BOULEVARD &
MAGNOLIA BOULEVARD



BALBOA BOULEVARD &
101 FREEWAY EB RAMPS



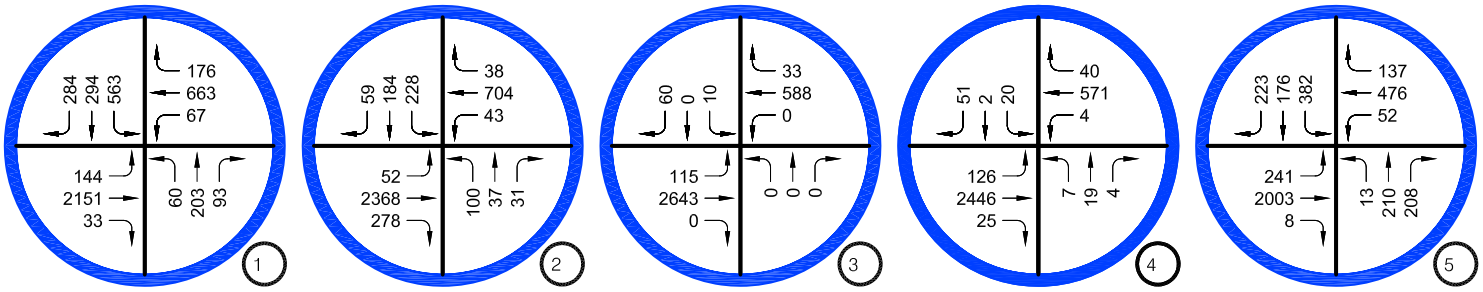
BALBOA BOULEVARD &
101 FREEWAY WB RAMPS

FIGURE 8

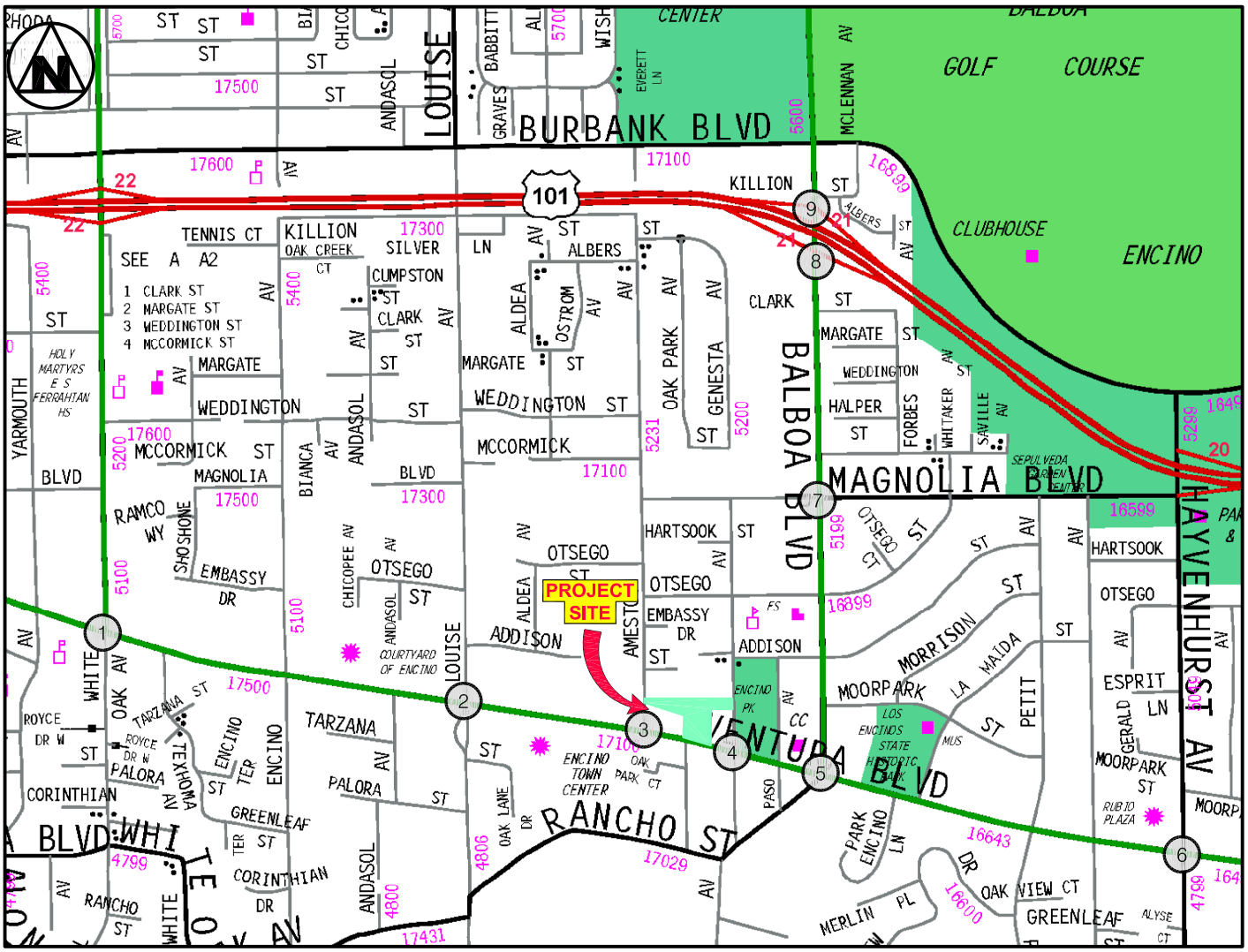
7/2020

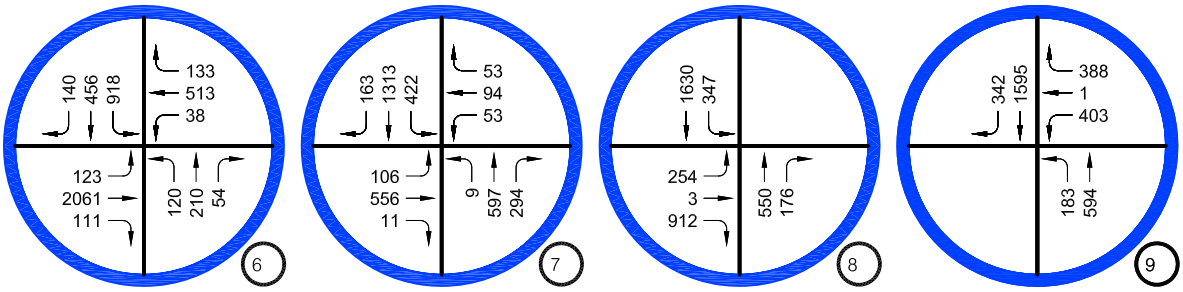
EXISTING (2020) TRAFFIC VOLUME
PM PEAK HOUR

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661) 799 - 8423, OTC@overlandtraffic.com



VENTURA BOULEVARD & WHITE OAK AVENUE | VENTURA BOULEVARD & LOUISE AVENUE | VENTURA BOULEVARD & AMESTOY AVENUE | VENTURA BOULEVARD & GENESTA AVENUE | VENTURA BOULEVARD & BALBOA BOULEVARD





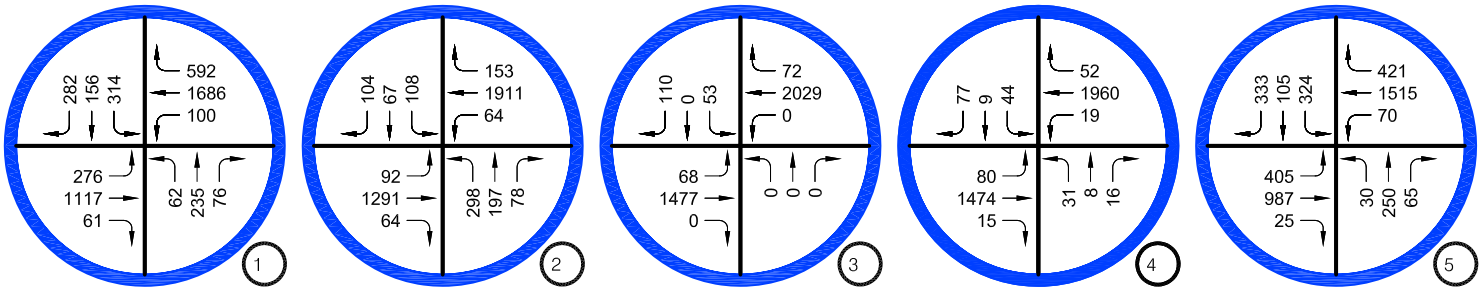
VENTURA BOULEVARD & HAYVENHURST AVENUE | BALBOA BOULEVARD & MAGNOLIA BOULEVARD | BALBOA BOULEVARD & 101 FREEWAY EB RAMPS | BALBOA BOULEVARD & 101 FREEWAY WB RAMPS

FIGURE 9

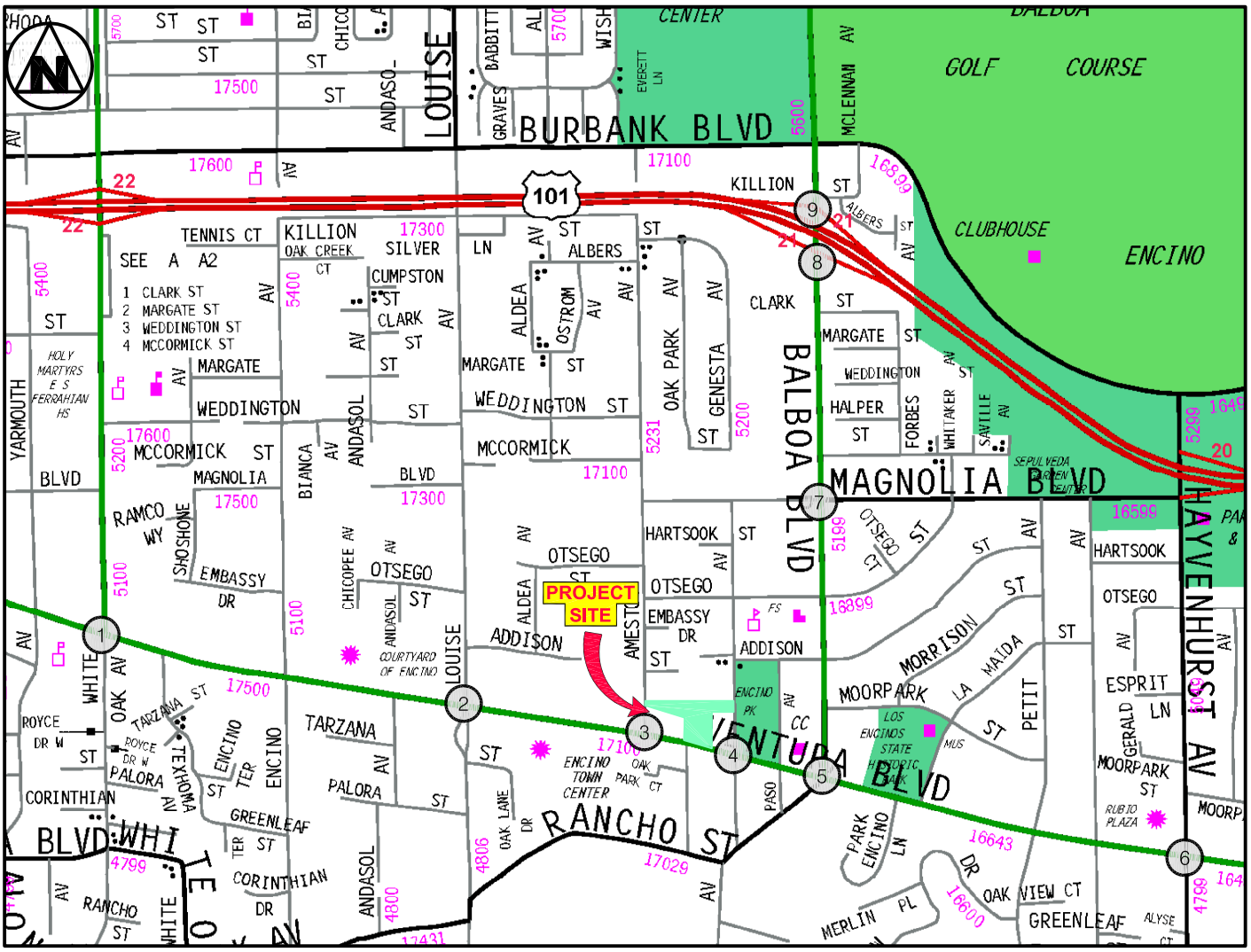
7/2020

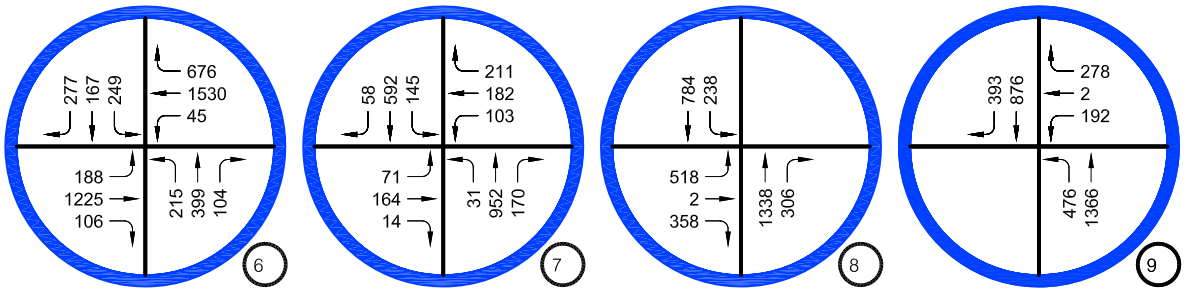
EXISTING + PROJECT TRAFFIC VOLUME
AM PEAK HOUR

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661) 799 - 8423, OTC@overlandtraffic.com



VENTURA BOULEVARD & WHITE OAK AVENUE | VENTURA BOULEVARD & LOUISE AVENUE | VENTURA BOULEVARD & AMESTOY AVENUE | VENTURA BOULEVARD & GENESTA AVENUE | VENTURA BOULEVARD & BALBOA BOULEVARD





VENTURA BOULEVARD & HAYVENHURST AVENUE | BALBOA BOULEVARD & MAGNOLIA BOULEVARD | BALBOA BOULEVARD & 101 FREEWAY EB RAMPS | BALBOA BOULEVARD & 101 FREEWAY WB RAMPS

FIGURE 10

7/2020

EXISTING + PROJECT TRAFFIC VOLUME
PM PEAK HOUR

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
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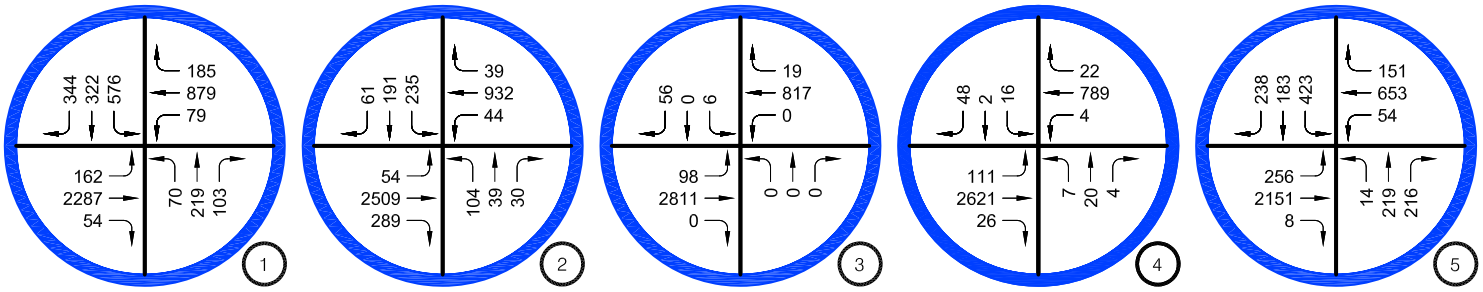
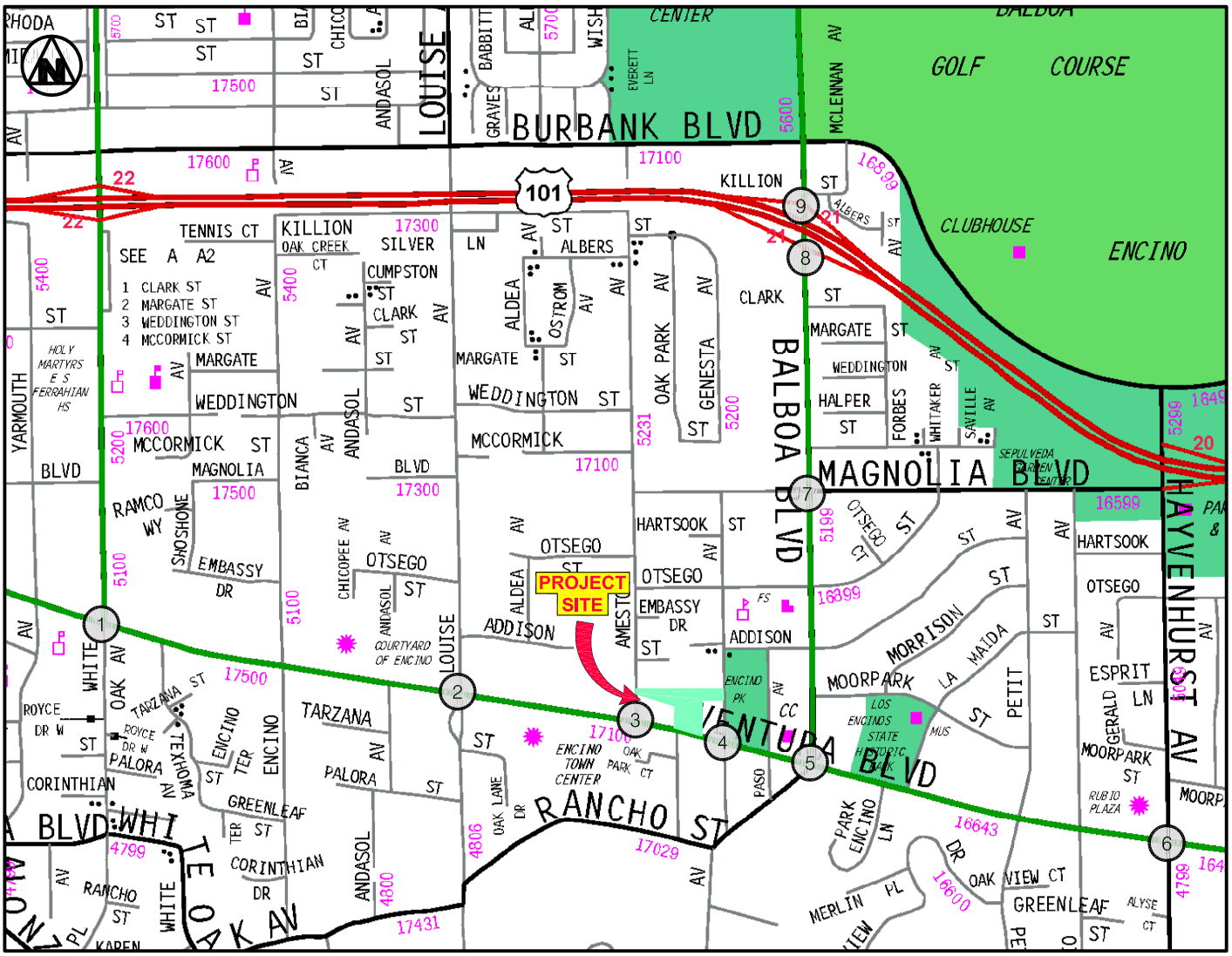
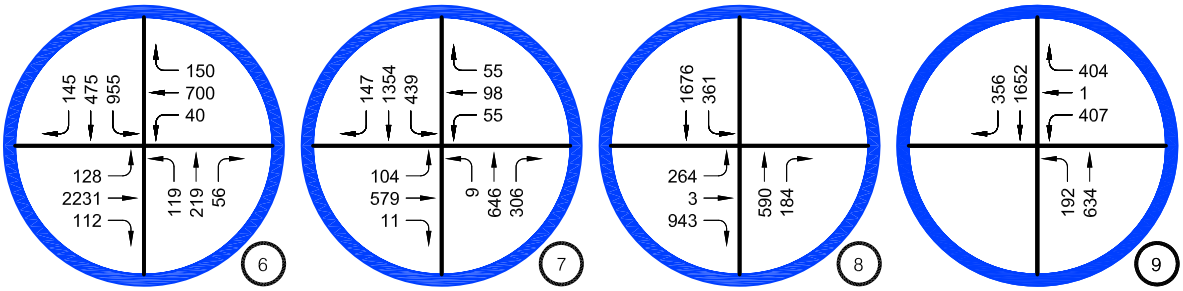


VENTURA BOULEVARD & WHITE OAK AVENUE | VENTURA BOULEVARD & LOUISE AVENUE | VENTURA BOULEVARD & AMESTOY AVENUE | VENTURA BOULEVARD & GENESTA AVENUE | VENTURA BOULEVARD & BALBOA BOULEVARD





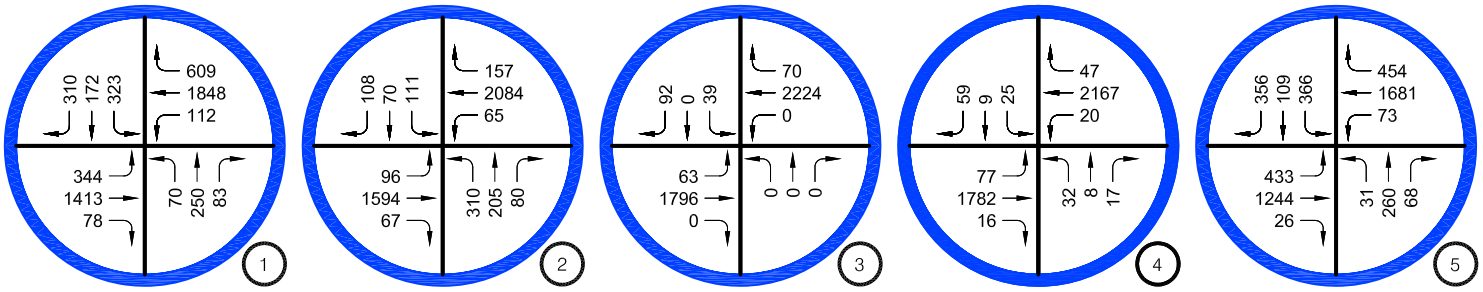
VENTURA BOULEVARD & HAYVENHURST AVENUE | BALBOA BOULEVARD & MAGNOLIA BOULEVARD | BALBOA BOULEVARD & 101 FREEWAY EB RAMPS | BALBOA BOULEVARD & 101 FREEWAY WB RAMPS

FIGURE 12

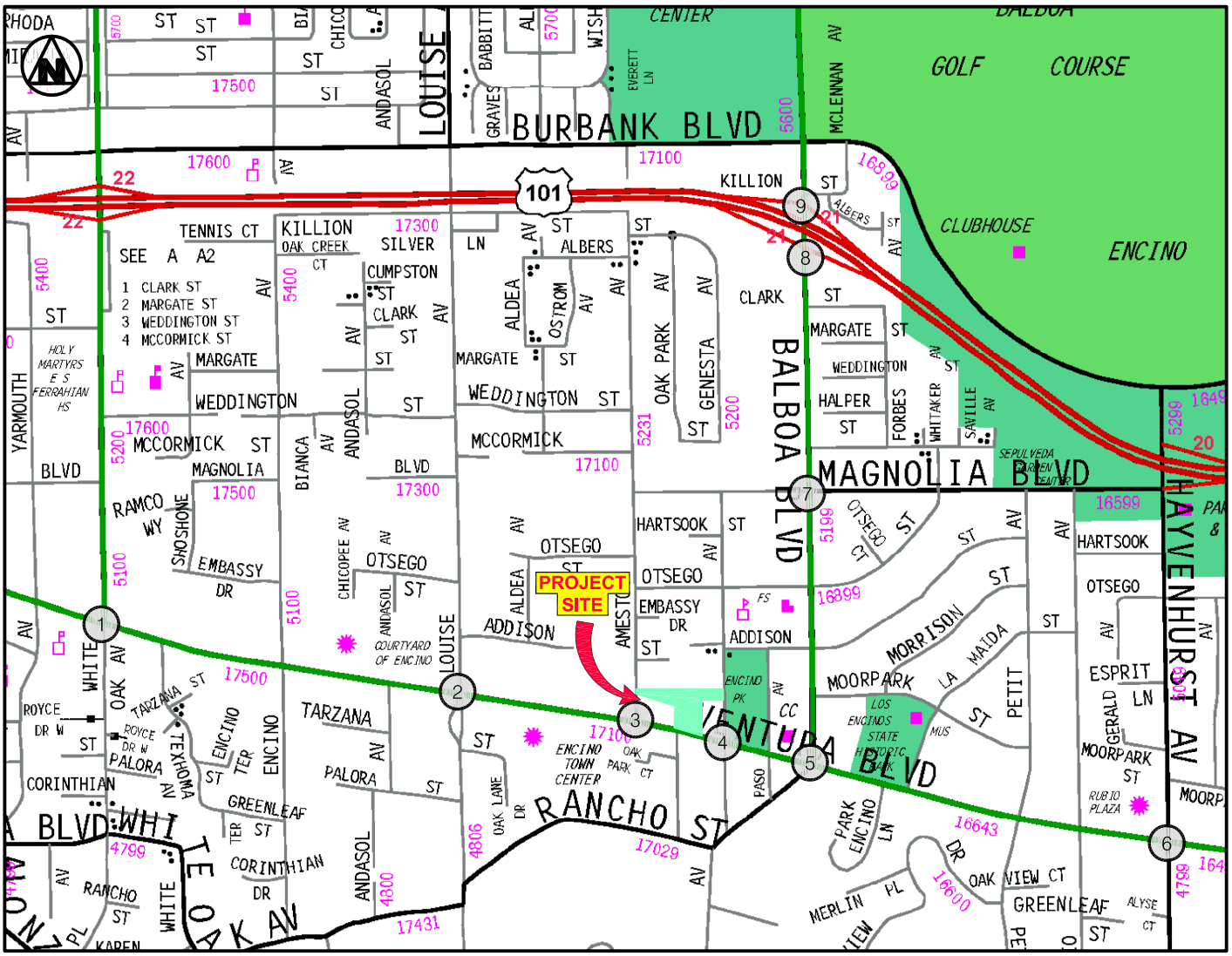
7/2020

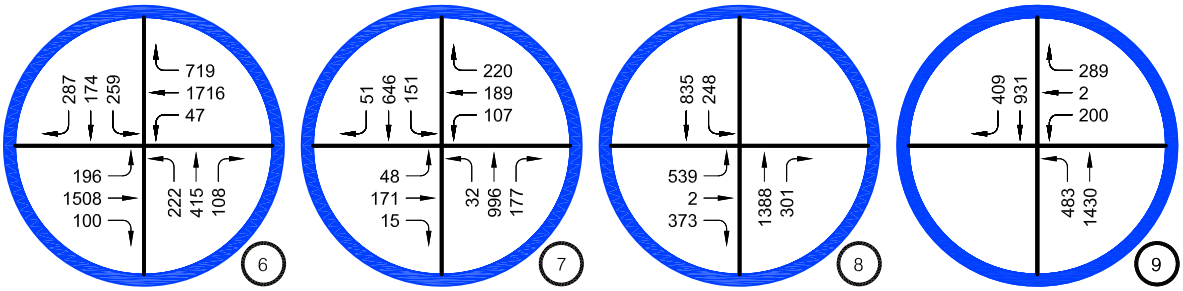
FUTURE (2024) TRAFFIC VOLUME
WITHOUT PROJECT
AM PEAK HOUR

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661) 799 - 8423, OTC@overlandtraffic.com



VENTURA BOULEVARD & WHITE OAK AVENUE | VENTURA BOULEVARD & LOUISE AVENUE | VENTURA BOULEVARD & AMESTOY AVENUE | VENTURA BOULEVARD & GENESTA AVENUE | VENTURA BOULEVARD & BALBOA BOULEVARD





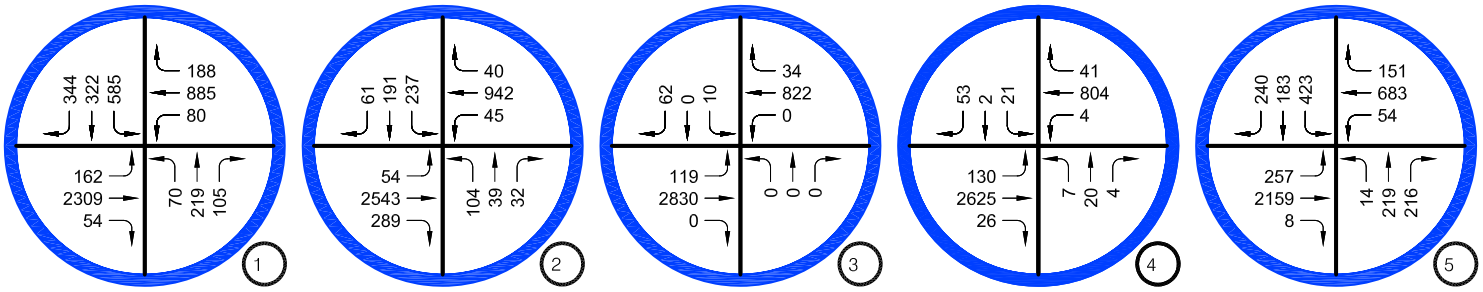
VENTURA BOULEVARD & HAYVENHURST AVENUE | BALBOA BOULEVARD & MAGNOLIA BOULEVARD | BALBOA BOULEVARD & 101 FREEWAY EB RAMPS | BALBOA BOULEVARD & 101 FREEWAY WB RAMPS

FIGURE 13

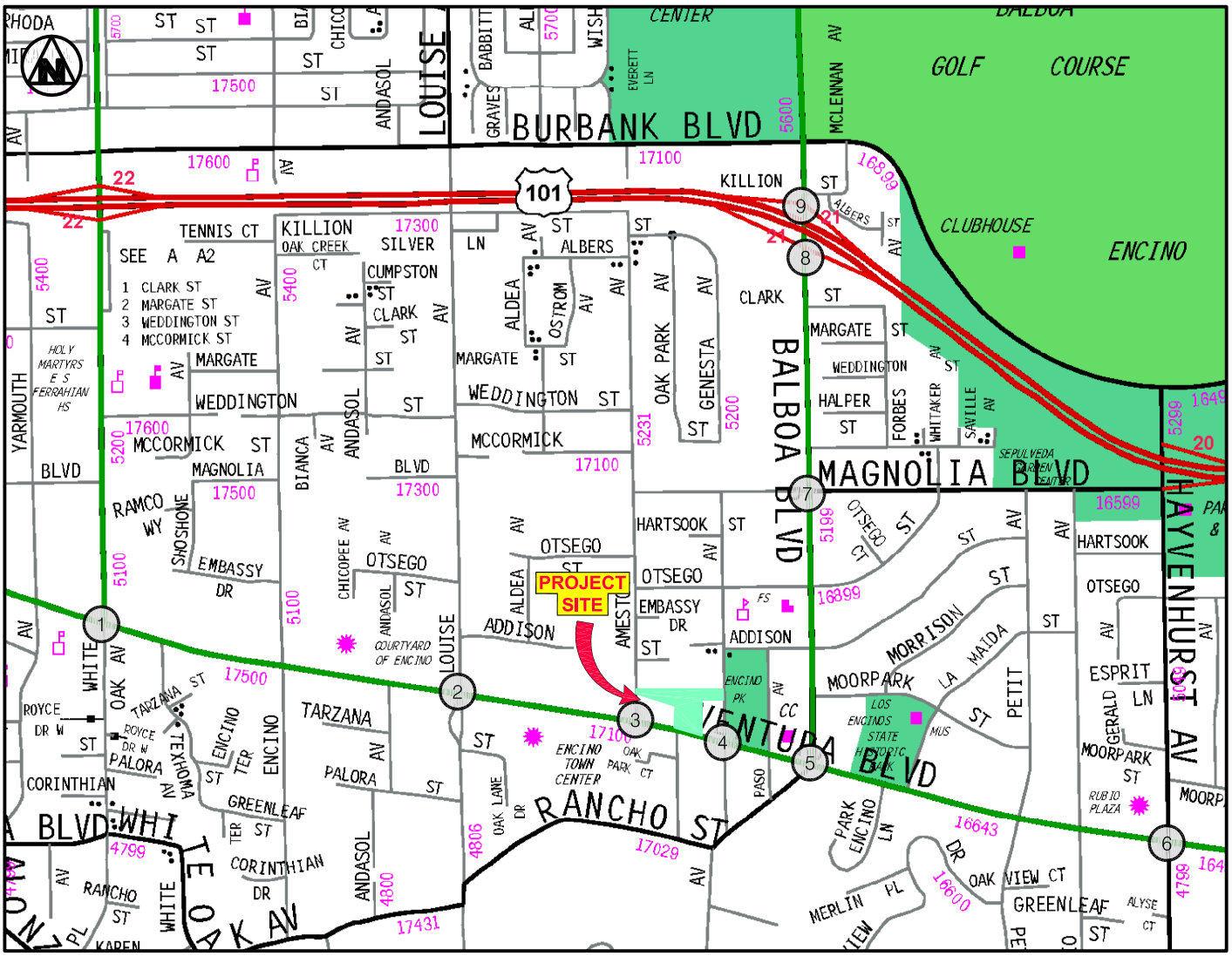
7/2020

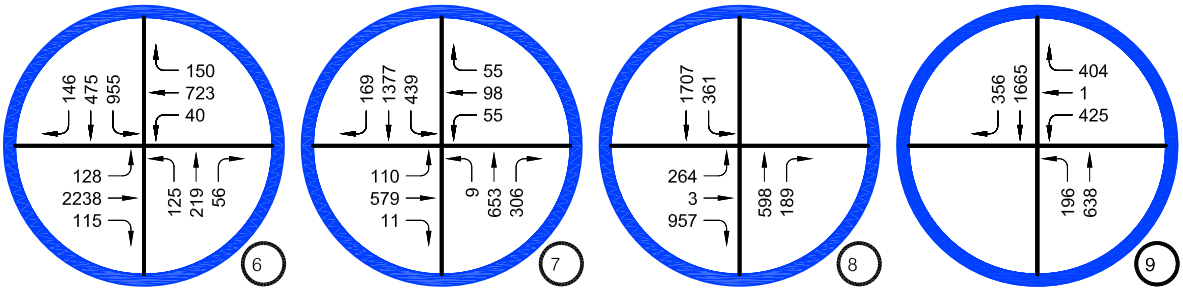
FUTURE (2024) TRAFFIC VOLUME
WITHOUT PROJECT
PM PEAK HOUR

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661) 799 - 8423, OTC@overlandtraffic.com



VENTURA BOULEVARD & WHITE OAK AVENUE | VENTURA BOULEVARD & LOUISE AVENUE | VENTURA BOULEVARD & AMESTOY AVENUE | VENTURA BOULEVARD & GENESTA AVENUE | VENTURA BOULEVARD & BALBOA BOULEVARD





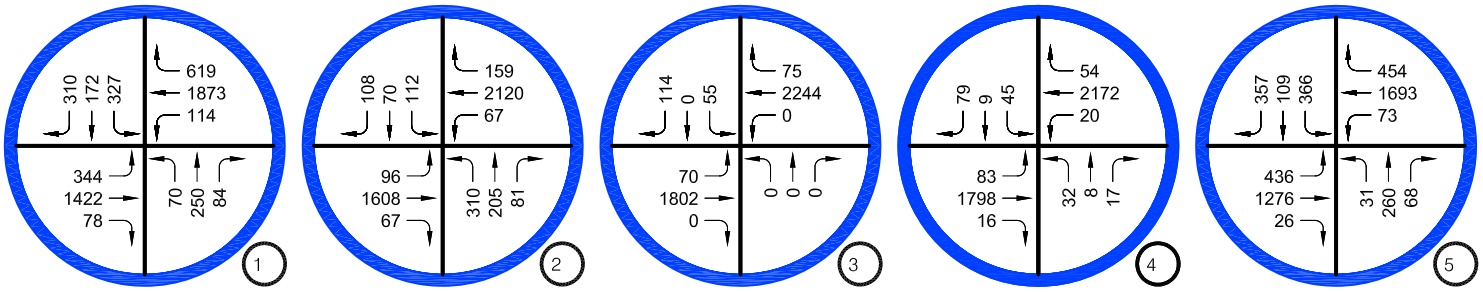
VENTURA BOULEVARD & HAYVENHURST AVENUE | BALBOA BOULEVARD & MAGNOLIA BOULEVARD | BALBOA BOULEVARD & 101 FREEWAY EB RAMPS | BALBOA BOULEVARD & 101 FREEWAY WB RAMPS

FIGURE 14

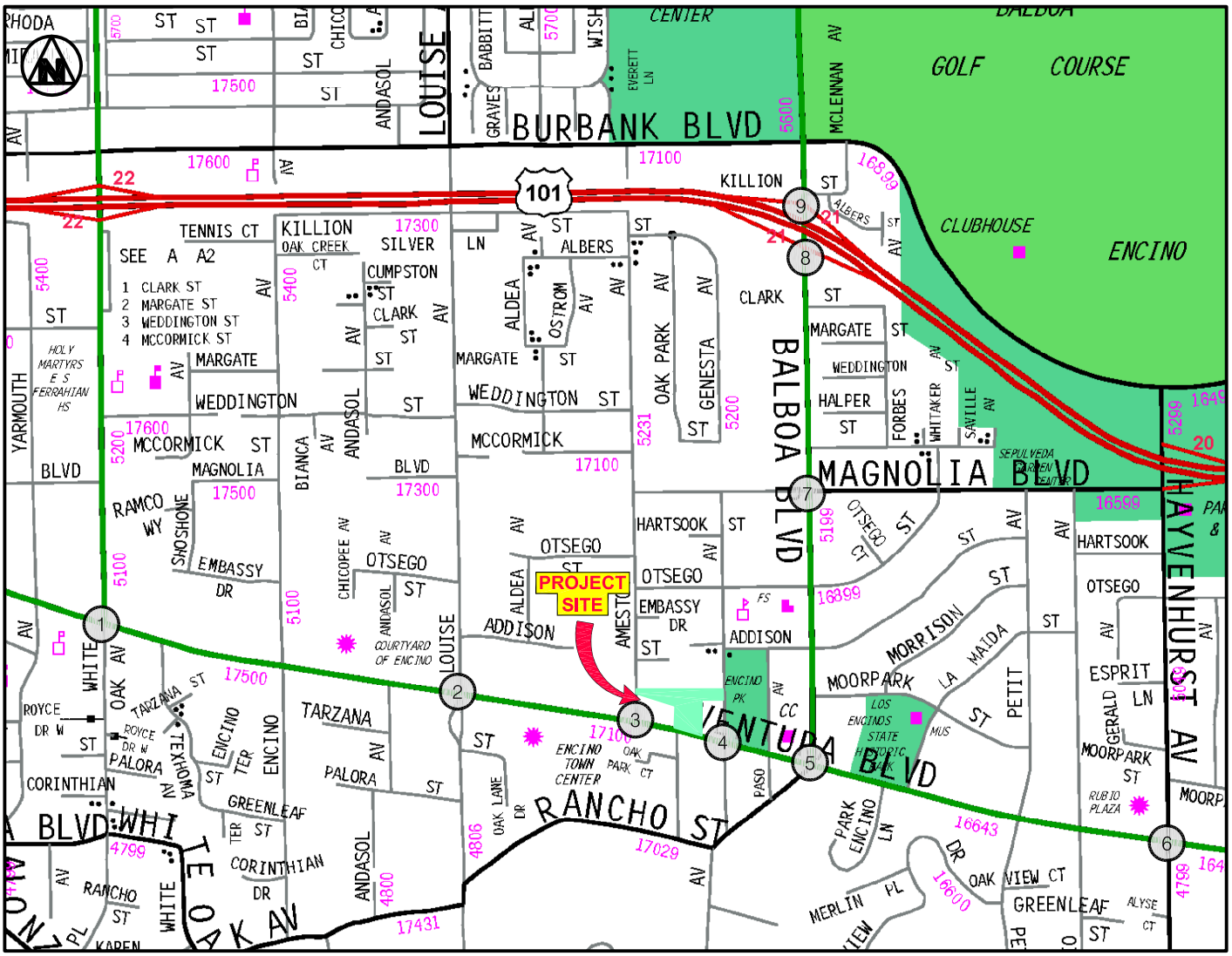
7/2020

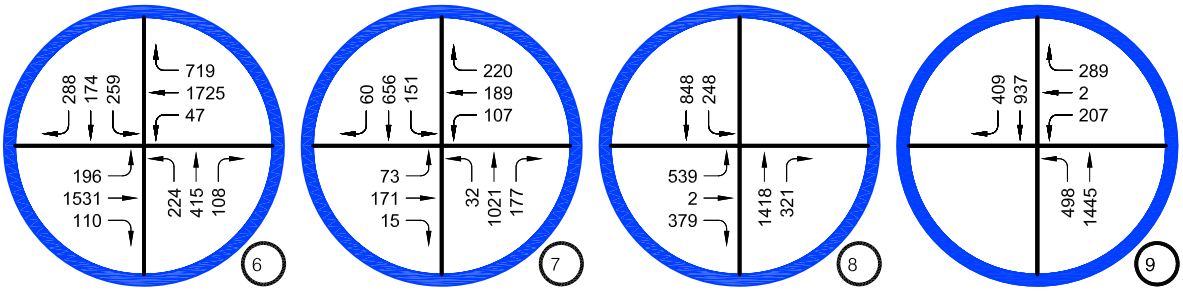
FUTURE (2024) TRAFFIC VOLUME
WITH PROJECT
AM PEAK HOUR

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661) 799 - 8423, OTC@overlandtraffic.com



VENTURA BOULEVARD & WHITE OAK AVENUE | VENTURA BOULEVARD & LOUISE AVENUE | VENTURA BOULEVARD & AMESTOY AVENUE | VENTURA BOULEVARD & GENESTA AVENUE | VENTURA BOULEVARD & BALBOA BOULEVARD





VENTURA BOULEVARD & HAYVENHURST AVENUE | BALBOA BOULEVARD & MAGNOLIA BOULEVARD | BALBOA BOULEVARD & 101 FREEWAY EB RAMPS | BALBOA BOULEVARD & 101 FREEWAY WB RAMPS

FIGURE 15

7/2020

FUTURE (2024) TRAFFIC VOLUME
WITH PROJECT
PM PEAK HOUR

Overland Traffic Consultants, Inc.
24325 Main Street #202, Santa Clarita, CA 91321
(661) 799 - 8423, OTC@overlandtraffic.com

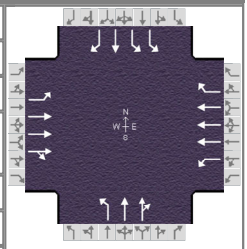
HCS WORKSHEETS

EXISTING HCS WORKSHEETS

EXISTING AM PEAK HOUR

HCS7 Signalized Intersection Results Summary

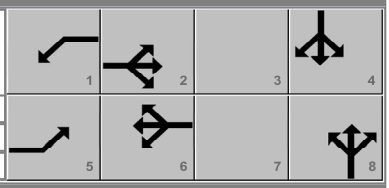
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am existing wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	White Oak Avenue	File Name	1AM WO.xus		
Project Description	Existing AM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	144	2129	33	66	657	173	60	203	91	554	294	284

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.3	1.4	61.2	22.9	13.2	0.0
Yellow	4.0	0.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	4.0	1.1	3.0		10.0		9.0
Phase Duration, s	10.7	66.6	9.3	65.2		17.2		26.9
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.2		3.2
Queue Clearance Time (g_s), s	6.5		4.0			12.6		20.3
Green Extension Time (g_e), s	0.3	0.0	0.1	0.0		0.6		2.5
Phase Call Probability	0.99		0.89			1.00		1.00
Max Out Probability	0.00		0.00			0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	144	1459	703	66	657	21	60	156	138	554	294	241
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1825	1810	1725	1525	1810	1900	1532	1757	1900	1517
Queue Service Time (g_s), s	4.5	35.8	36.0	2.0	8.5	0.8	3.7	9.5	10.6	18.2	17.8	18.3
Cycle Queue Clearance Time (g_c), s	4.5	35.8	36.0	2.0	8.5	0.8	3.7	9.5	10.6	18.2	17.8	18.3
Green Ratio (*g/C*)	0.57	0.52	0.52	0.55	0.51	0.51	0.11	0.11	0.11	0.19	0.19	0.19
Capacity (*c*), veh/h	507	1981	952	179	2640	778	199	209	169	670	362	289
Volume-to-Capacity Ratio (*X*)	0.284	0.736	0.738	0.369	0.249	0.027	0.301	0.745	0.819	0.827	0.812	0.833
Back of Queue (*Q*), ft/ln (50 th percentile)	44.6	397.6	400.8	20.6	84.3	7.4	41.6	115.5	105.1	198.6	211.9	175.8
Back of Queue (*Q*), veh/ln (50 th percentile)	1.8	15.9	16.0	0.8	3.4	0.3	1.7	4.6	4.2	7.9	8.5	7.0
Queue Storage Ratio (*RQ*) (50 th percentile)	0.32	0.00	0.00	0.11	0.00	0.02	0.76	0.00	0.00	0.99	0.00	0.50
Uniform Delay (d_1), s/veh	12.7	22.3	22.3	21.0	16.5	14.6	49.1	51.8	52.2	46.7	46.5	46.7
Incremental Delay (d_2), s/veh	0.1	2.5	5.1	0.5	0.2	0.1	0.3	2.0	3.7	1.0	1.7	2.4
Initial Queue Delay (d_3), 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
Control Delay (*d*), s/veh	12.8	24.8	27.5	21.5	16.7	14.7	49.5	53.7	55.9	47.7	48.2	49.1
Level of Service (LOS)	B	C	C	C	B	B	D	D	E	D	D	D
Approach Delay, s/veh / LOS	24.9	C		17.1	B		53.9	D		48.1	D	
Intersection Delay, s/veh / LOS	31.5						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.09	B	2.48	B	2.97	C	2.61	C
Bicycle LOS Score / LOS	1.76	B	0.90	A	0.78	A	2.28	B

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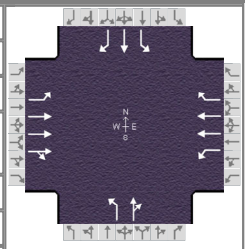
HCS7 Signalized Intersection Results Summary

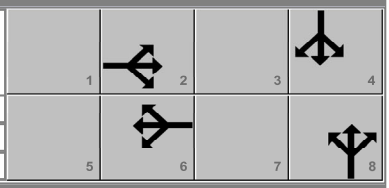
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am existing wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Louise Avenue	File Name	2AM WO.xus		
Project Description	Existing AM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	52	2334	278	42	694	37	100	37	29	226	184	59

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	85.2	26.8	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		5.0		6.0		5.0
Phase Duration, s		89.2		89.2		30.8		30.8
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		3.2		3.2
Queue Clearance Time (g_s), s						21.3		25.6
Green Extension Time (g_e), s		0.0		0.0		1.3		1.2
Phase Call Probability						1.00		1.00
Max Out Probability						0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	52	1773	839	42	694	37	100	66		226	184	59
Adjusted Saturation Flow Rate (*s*), veh/h/ln	759	1900	1722	119	1809	1516	1194	1735		1322	1900	1558
Queue Service Time (g_s), s	3.2	30.4	33.0	37.0	8.3	0.9	9.4	3.7		20.0	10.0	3.7
Cycle Queue Clearance Time (g_c), s	11.5	30.4	33.0	70.3	8.3	0.9	19.3	3.7		23.6	10.0	3.7
Green Ratio (*g/C*)	0.71	0.71	0.71	0.71	0.71	0.71	0.22	0.22		0.22	0.22	0.22
Capacity (*c*), veh/h	546	2699	1223	112	2569	1077	228	387		315	424	348
Volume-to-Capacity Ratio (*X*)	0.095	0.657	0.686	0.376	0.270	0.034	0.439	0.170		0.717	0.434	0.170
Back of Queue (*Q*), ft/ln (50 th percentile)	13.7	284	294.7	32.9	72.7	6.6	70.5	39.3		164.6	116.9	35.2
Back of Queue (*Q*), veh/ln (50 th percentile)	0.5	11.4	11.8	1.3	2.9	0.3	2.8	1.6		6.6	4.7	1.4
Queue Storage Ratio (*RQ*) (50 th percentile)	0.11	0.00	0.00	0.33	0.00	0.00	0.71	0.00		1.18	0.00	0.00
Uniform Delay (d_1), s/veh	8.3	9.4	9.8	29.8	6.2	5.2	48.4	37.6		47.1	40.1	37.6
Incremental Delay (d_2), s/veh	0.3	1.3	3.1	9.4	0.3	0.1	0.5	0.1		1.1	0.3	0.1
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Control Delay (*d*), s/veh	8.7	10.7	13.0	39.2	6.5	5.2	48.9	37.7		48.3	40.4	37.7
Level of Service (LOS)	A	B	B	D	A	A	D	D		D	D	D
Approach Delay, s/veh / LOS	11.4	B		8.2	A		44.4	D		43.8	D	
Intersection Delay, s/veh / LOS	15.9						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.86	B	2.05	B	2.60	C	2.45	B
Bicycle LOS Score / LOS	1.95	B	1.13	A	0.76	A	1.26	A

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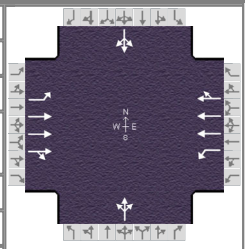
HCS7 Signalized Intersection Results Summary

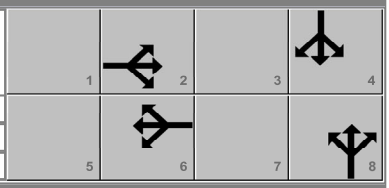
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am existing wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Amestoy Avenue	File Name	3AM WO.xus		
Project Description	Existing AM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	94	2624	0	0	583	18	0	0	0	6	0	54

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	106.6	5.4	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		12.0		12.0
Phase Duration, s		110.6		110.6		0.0		9.4
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		0.0		3.4
Queue Clearance Time (g_s), s								6.3
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability								0.86
Max Out Probability								1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	94	2624	0	0	406	195		0			60	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	831	1882	0	118	1900	1816		0			1670	
Queue Service Time (g_s), s	1.9	11.7	0.0	0.0	1.6	1.6		0.0			4.3	
Cycle Queue Clearance Time (g_c), s	3.5	11.7	0.0	0.0	1.6	1.6		0.0			4.3	
Green Ratio (*g/C*)	0.89	0.89		0.89	0.89	0.89					0.05	
Capacity (*c*), veh/h	786	5015		60	3375	1613					76	
Volume-to-Capacity Ratio (*X*)	0.120	0.523	0.000	0.000	0.120	0.121		0.000			0.793	
Back of Queue (*Q*), ft/ln (50 th percentile)	4.5	30.1	0	0	4.4	5.1		0			48.2	
Back of Queue (*Q*), veh/ln (50 th percentile)	0.2	1.2	0.0	0.0	0.2	0.2		0.0			1.9	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.06	0.00	0.00	0.00	0.00	0.00		0.00			0.00	
Uniform Delay (d_1), s/veh	1.1	1.4		0.0	0.8	0.8					56.7	
Incremental Delay (d_2), s/veh	0.3	0.4	0.0	0.0	0.1	0.2		0.0			6.8	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Control Delay (*d*), s/veh	1.4	1.8		0.0	0.9	1.0					63.5	
Level of Service (LOS)	A	A			A	A					E	
Approach Delay, s/veh / LOS	1.8	A		0.9	A		0.0			63.5	E	
Intersection Delay, s/veh / LOS	2.7						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.56	B	1.56	B	2.62	C	2.62	C
Bicycle LOS Score / LOS	1.98	B	0.82	A	0.49	A	0.59	A

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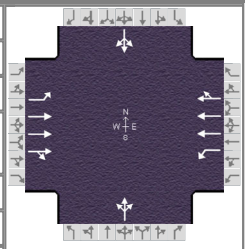
HCS7 Signalized Intersection Results Summary

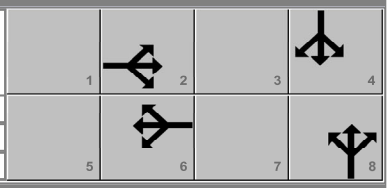
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am existing wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Genesta Avenue	File Name	4AM WO.xus		
Project Description	Existing AM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	107	2442	25	4	556	21	7	19	4	15	2	46

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	98.4	5.8	3.8	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		12.0		12.0
Phase Duration, s		102.4		102.4		7.8		9.8
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (MAH), s		0.0		0.0		3.2		3.4
Queue Clearance Time (g_s), s						4.0		6.6
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability						0.63		0.88
Max Out Probability						0.00		0.26

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	107	1662	805	4	390	187		30			63	
Adjusted Saturation Flow Rate (s), veh/h/ln	849	1900	1835	138	1900	1805		1782			1625	
Queue Service Time (g_s), s	3.5	16.8	16.9	1.2	2.5	2.5		2.0			4.6	
Cycle Queue Clearance Time (g_c), s	6.0	16.8	16.9	18.1	2.5	2.5		2.0			4.6	
Green Ratio (g/C)	0.82	0.82	0.82	0.82	0.82	0.82		0.03			0.05	
Capacity (c), veh/h	738	3115	1504	154	3115	1480		56			79	
Volume-to-Capacity Ratio (X)	0.145	0.533	0.535	0.026	0.125	0.126		0.532			0.799	
Back of Queue (Q), ft/ln (50 th percentile)	13.1	114.5	118.8	1.1	16.7	17		23.4			50.6	
Back of Queue (Q), veh/ln (50 th percentile)	0.5	4.6	4.8	0.0	0.7	0.7		0.9			2.0	
Queue Storage Ratio (RQ) (50 th percentile)	0.11	0.00	0.00	0.01	0.00	0.00		0.00			0.00	
Uniform Delay (d_1), s/veh	2.8	3.5	3.5	6.4	2.2	2.2		57.2			56.5	
Incremental Delay (d_2), s/veh	0.4	0.7	1.4	0.3	0.1	0.2		2.9			6.8	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Control Delay (d), s/veh	3.2	4.1	4.8	6.7	2.3	2.3		60.1			63.3	
Level of Service (LOS)	A	A	A	A	A	A		E			E	
Approach Delay, s/veh / LOS	4.3	A		2.3	A		60.1	E		63.3	E	
Intersection Delay, s/veh / LOS	5.6						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.60	B	1.60	B	2.62	C	2.61	C
Bicycle LOS Score / LOS	1.90	B	0.81	A	0.54	A	0.59	A

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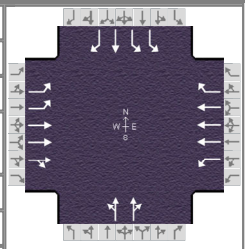
HCS7 Signalized Intersection Results Summary

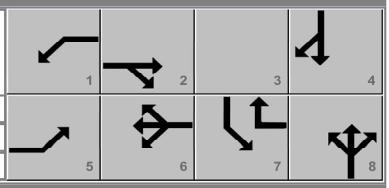
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am existing wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Balboa Boulevard	File Name	5AM WO.xus		
Project Description	Existing AM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	240	1995	8	52	446	137	13	210	208	382	176	221

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	4.9	1.6	57.8	16.2	19.4	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	1.1	3.0		12.0		9.0
Phase Duration, s	14.6	67.5	8.9	61.8		23.4		20.2
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.3		3.2
Queue Clearance Time (g_s), s	10.0		3.7			18.5		14.7
Green Extension Time (g_e), s	0.6	0.0	0.1	0.0		0.9		1.5
Phase Call Probability	1.00		0.82			1.00		1.00
Max Out Probability	0.00		0.00			0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	240	1349	654	52	446	137	223		208	382	176	155
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1841	1810	1725	1534	1894		1475	1757	1900	1481
Queue Service Time (g_s), s	8.0	31.1	31.1	1.7	5.9	4.5	13.4		16.5	12.7	10.6	12.1
Cycle Queue Clearance Time (g_c), s	8.0	31.1	31.1	1.7	5.9	4.5	13.4		16.5	12.7	10.6	12.1
Green Ratio (*g/C*)	0.09	0.53	0.53	0.52	0.48	0.62	0.16		0.16	0.13	0.13	0.13
Capacity (*c*), veh/h	310	2010	974	190	2494	950	307		239	473	256	199
Volume-to-Capacity Ratio (*X*)	0.774	0.671	0.672	0.274	0.179	0.144	0.727		0.871	0.807	0.688	0.777
Back of Queue (*Q*), ft/ln (50 th percentile)	89.6	341.9	344.6	17.4	58.5	38.4	159.5		156.6	140	127	114.8
Back of Queue (*Q*), veh/ln (50 th percentile)	3.6	13.7	13.8	0.7	2.3	1.5	6.4		6.3	5.6	5.1	4.6
Queue Storage Ratio (*RQ*) (50 th percentile)	0.56	0.00	0.00	0.11	0.00	0.09	0.00		0.00	0.64	0.00	0.72
Uniform Delay (d_1), s/veh	53.5	20.6	20.6	18.2	17.6	9.7	47.8		49.1	50.4	49.5	50.2
Incremental Delay (d_2), s/veh	1.6	1.8	3.7	0.3	0.2	0.3	1.2		3.8	1.3	1.2	2.5
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	55.1	22.5	24.3	18.5	17.8	10.0	49.0		52.9	51.7	50.7	52.7
Level of Service (LOS)	E	C	C	B	B	B	D		D	D	D	D
Approach Delay, s/veh / LOS	26.5	C		16.2	B		50.9	D		51.7	D	
Intersection Delay, s/veh / LOS	31.9						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.90	B	2.52	C	2.75	C	2.73	C
Bicycle LOS Score / LOS	1.72	B	0.84	A	0.84	A	1.66	B

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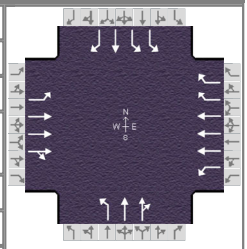
HCS7 Signalized Intersection Results Summary

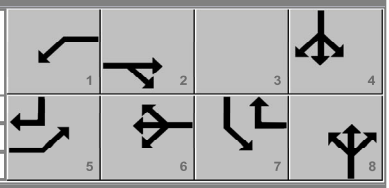
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am existing wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Hayvenhurst Avenue	File Name	6AM WO.xus		
Project Description	Existing AM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	123	2054	108	38	490	133	114	210	54	918	456	139

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.2	2.9	47.0	12.1	32.8	0.0
Yellow	4.0	0.0	4.0	4.0	0.0	0.0
Red	0.0	0.0	3.0	3.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	1.1	3.0		10.0		9.0
Phase Duration, s	14.1	56.8	11.2	54.0		19.1		32.8
Change Period, ($Y+R_c$), s	4.0	7.0	4.0	7.0		7.0		0.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.2		3.1
Queue Clearance Time (g_s), s	10.0		3.4			11.5		32.8
Green Extension Time (g_e), s	0.2	0.0	0.1	0.0		0.6		0.0
Phase Call Probability	0.98		0.72			1.00		1.00
Max Out Probability	0.00		0.00			0.00		1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	123	1516	646	38	490	133	114	139	125	918	456	139
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1606	1810	1725	1310	1810	1900	1550	1757	1900	1526
Queue Service Time (g_s), s	8.0	46.6	47.2	1.4	7.6	2.1	7.3	8.5	9.5	30.8	27.5	7.7
Cycle Queue Clearance Time (g_c), s	8.0	46.6	47.2	1.4	7.6	2.1	7.3	8.5	9.5	30.8	27.5	7.7
Green Ratio (*g/C*)	0.08	0.42	0.42	0.45	0.39	0.67	0.10	0.10	0.10	0.27	0.27	0.36
Capacity (*c*), veh/h	152	1579	667	170	2026	1795	183	192	157	962	520	551
Volume-to-Capacity Ratio (*X*)	0.812	0.960	0.968	0.224	0.242	0.074	0.624	0.724	0.799	0.954	0.877	0.252
Back of Queue (*Q*), ft/ln (50 th percentile)	94.7	598.7	571.2	15	78.8	14.5	83.3	103.2	95.1	390.2	370.7	70.3
Back of Queue (*Q*), veh/ln (50 th percentile)	3.8	23.9	22.8	0.6	3.2	0.6	3.3	4.1	3.8	15.6	14.8	2.8
Queue Storage Ratio (*RQ*) (50 th percentile)	0.54	0.00	0.00	0.08	0.00	0.04	0.54	0.00	0.00	1.82	0.00	0.33
Uniform Delay (d_1), s/veh	54.0	34.1	34.3	27.6	24.5	7.1	51.8	52.3	52.7	42.8	41.6	27.3
Incremental Delay (d_2), s/veh	3.9	15.0	27.8	0.2	0.3	0.1	1.3	1.9	3.5	18.7	15.0	0.1
Initial Queue Delay (d_3), 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
Control Delay (*d*), s/veh	58.0	49.1	62.1	27.9	24.8	7.2	53.1	54.3	56.3	61.6	56.6	27.3
Level of Service (LOS)	E	D	E	C	C	A	D	D	E	E	E	C
Approach Delay, s/veh / LOS	53.3	D		21.4	C		54.6	D		56.9	E	
Intersection Delay, s/veh / LOS	50.2						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.11	B	2.43	B	2.88	C	2.59	C
Bicycle LOS Score / LOS	1.74	B	0.85	A	0.80	A	2.98	C

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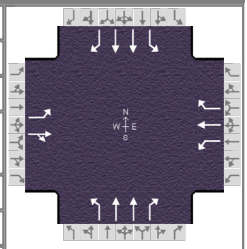
HCS7 Signalized Intersection Results Summary

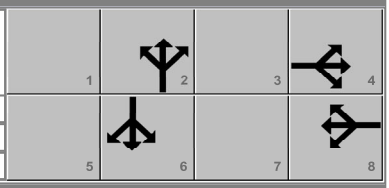
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	Jul 16, 2020	Area Type	Other
Jurisdiction	ladot	Time Period	am existing wo project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Magnolia Boulevard	File Name	7AM WO.xus		
Project Description	Existing AM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	100	556	11	53	94	53	9	590	294	422	1290	141

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	68.7	43.3	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		6.0		5.0		5.0		5.0
Phase Duration, s		47.3		47.3		72.7		72.7
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		3.2		3.2		0.0		0.0
Queue Clearance Time (g_s), s		34.8		41.5				
Green Extension Time (g_e), s		1.9		1.9		0.0		0.0
Phase Call Probability		1.00		1.00				
Max Out Probability		0.00		0.00				

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	100	567		53	94	53	9	590	294	422	1290	141
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1302	1893		857	1900	1581	434	1809	1556	836	1809	1596
Queue Service Time (g_s), s	6.7	32.8		7.2	4.0	2.7	1.7	10.0	11.9	58.4	28.4	5.0
Cycle Queue Clearance Time (g_c), s	10.4	32.8		39.5	4.0	2.7	30.7	10.0	11.9	68.8	28.4	5.0
Green Ratio (*g/C*)	0.36	0.36		0.36	0.36	0.36	0.57	0.57	0.57	0.57	0.57	0.57
Capacity (*c*), veh/h	489	681		138	684	569	204	2074	892	467	2074	915
Volume-to-Capacity Ratio (*X*)	0.205	0.832		0.385	0.137	0.093	0.044	0.284	0.330	0.903	0.622	0.154
Back of Queue (*Q*), ft/ln (50 th percentile)	52.3	373.5		39.1	45.2	25.1	5	100.6	107	374	289.3	45.3
Back of Queue (*Q*), veh/ln (50 th percentile)	2.1	14.9		1.6	1.8	1.0	0.2	4.0	4.3	15.0	11.6	1.8
Queue Storage Ratio (*RQ*) (50 th percentile)	0.75	0.00		0.29	0.00	0.19	0.04	0.84	0.89	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	29.2	35.1		52.9	25.9	25.4	27.4	13.1	13.5	31.8	17.0	12.0
Incremental Delay (d_2), s/veh	0.1	1.0		0.7	0.0	0.0	0.4	0.3	1.0	23.4	1.4	0.4
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	29.3	36.1		53.5	25.9	25.5	27.8	13.4	14.5	55.3	18.4	12.3
Level of Service (LOS)	C	D		D	C	C	C	B	B	E	B	B
Approach Delay, s/veh / LOS	35.1	D		33.1	C		13.9	B		26.3	C	
Intersection Delay, s/veh / LOS	25.2						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.44	B	2.44	B	2.08	B	1.89	B
Bicycle LOS Score / LOS	1.59	B	0.82	A	1.22	A	2.02	B

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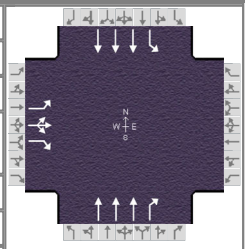
HCS7 Signalized Intersection Results Summary

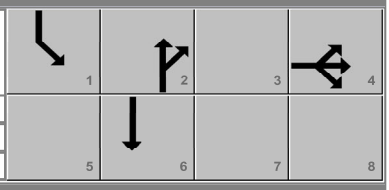
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	7/16/2020	Area Type	Other
Jurisdiction	ladot	Time Period	AM existing wo project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	101 Frwy EB off Ramp	File Name	8AM WO.xus		
Project Description	Existing AM WO Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	254	3	906					542	171	347	1599	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	18.0	18.0	63.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	3.0	3.0	3.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2	1	6
Case Number		9.0				7.3	2.0	4.0
Phase Duration, s		70.0				25.0	25.0	50.0
Change Period, ($Y+R_c$), s		7.0				7.0	7.0	7.0
Max Allow Headway (*MAH*), s		3.4				0.0	3.1	0.0
Queue Clearance Time (g_s), s		65.0					20.0	
Green Extension Time (g_e), s		0.0				0.0	0.0	0.0
Phase Call Probability		1.00					1.00	
Max Out Probability		1.00					1.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14					2	12	1	6	
Adjusted Flow Rate (*v*), veh/h	254	3	906					542	171	347	1599	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1800	1900	1586					1725	1604	1810	1723	
Queue Service Time (g_s), s	9.4	0.1	63.0					11.9	12.2	18.0	34.5	
Cycle Queue Clearance Time (g_c), s	9.4	0.1	63.0					11.9	12.2	18.0	34.5	
Green Ratio (*g/C*)	0.52	0.52	0.52					0.15	0.15	0.15	0.36	
Capacity (*c*), veh/h	945	998	833					776	241	271	1852	
Volume-to-Capacity Ratio (*X*)	0.269	0.003	1.088					0.698	0.711	1.278	0.863	
Back of Queue (*Q*), ft/ln (50 th percentile)	94.4	1	892.4					136.5	148	485.2	376.5	
Back of Queue (*Q*), veh/ln (50 th percentile)	3.8	0.0	35.7					5.5	5.9	19.4	15.1	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.29	0.00	2.79					0.00	0.74	2.21	0.00	
Uniform Delay (d_1), s/veh	15.8	13.6	28.5					48.4	48.5	51.0	35.8	
Incremental Delay (d_2), s/veh	0.1	0.0	57.9					5.2	16.3	150.6	5.6	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	15.8	13.6	86.4					53.6	64.9	201.6	41.4	
Level of Service (LOS)	B	B	F					D	E	F	D	
Approach Delay, s/veh / LOS	70.8	E		0.0			56.3	E		70.0	E	
Intersection Delay, s/veh / LOS	67.7						E					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.62	C	2.62	C	1.43	A	1.93	B
Bicycle LOS Score / LOS	2.41	B			0.88	A	1.56	B

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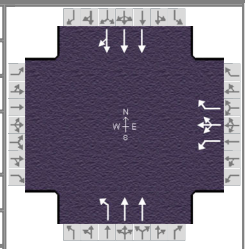
HCS7 Signalized Intersection Results Summary

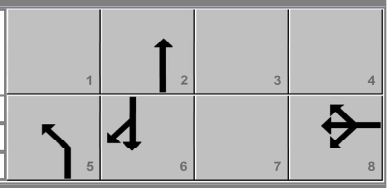
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	7/16/2020	Area Type	Other
Jurisdiction	ladot	Time Period	AM existing wo project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	101 Frwy WB off Ramp	File Name	9AM WO.xus		
Project Description	Existing AM WO Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h				385	1	388	179	590			1582	342

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	13.9	58.6	32.4	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	3.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase				8	5	2		6
Case Number				9.0	2.0	4.0		8.3
Phase Duration, s				36.4	17.9	83.6		65.6
Change Period, ($Y+R_c$), s				4.0	4.0	7.0		7.0
Max Allow Headway (*MAH*), s				3.3	3.1	0.0		0.0
Queue Clearance Time (g_s), s				30.7	13.6			
Green Extension Time (g_e), s				1.8	0.3	0.0		0.0
Phase Call Probability				1.00	1.00			
Max Out Probability				0.00	0.00			

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement				3	8	18	5	2			6	16
Adjusted Flow Rate (*v*), veh/h				385	1	388	179	590			1320	604
Adjusted Saturation Flow Rate (*s*), veh/h/ln				1806	1900	1574	1810	1809			1900	1724
Queue Service Time (g_s), s				23.7	0.0	28.7	11.6	8.5			59.1	33.1
Cycle Queue Clearance Time (g_c), s				23.7	0.0	28.7	11.6	8.5			59.1	33.1
Green Ratio (*g/C*)				0.27	0.27	0.27	0.12	0.64			0.49	0.49
Capacity (*c*), veh/h				488	513	425	210	2309			1857	843
Volume-to-Capacity Ratio (*X*)				0.789	0.002	0.913	0.852	0.256			0.711	0.717
Back of Queue (*Q*), ft/ln (50 th percentile)				263.3	0.5	282.6	136.4	81			367.4	354.5
Back of Queue (*Q*), veh/ln (50 th percentile)				10.5	0.0	11.3	5.5	3.2			14.7	14.2
Queue Storage Ratio (*RQ*) (50 th percentile)				0.52	0.00	0.55	0.45	0.00			0.00	0.00
Uniform Delay (d_1), s/veh				40.6	32.0	42.4	52.0	9.4			24.0	24.2
Incremental Delay (d_2), s/veh				1.1	0.0	3.3	3.7	0.3			2.3	5.2
Initial Queue Delay (d_3), s/veh				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Control Delay (*d*), s/veh				41.7	32.0	45.7	55.8	9.7			26.4	29.4
Level of Service (LOS)				D	C	D	E	A			C	C
Approach Delay, s/veh / LOS	0.0			43.7		D	20.4		C	27.3		C
Intersection Delay, s/veh / LOS	29.4						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.48	B	2.32	B	1.88	B	1.39	A
Bicycle LOS Score / LOS			1.76	B	1.12	A	1.55	B

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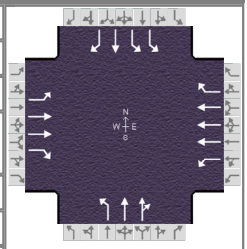
EXISTING PM PEAK HOUR

HCS7 Signalized Intersection Results Summary

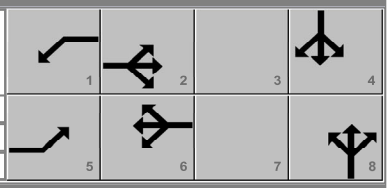
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm existing wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	White Oak Avenue	File Name	1PM WO.xus		
Project Description	Existing PM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	276	1108	61	98	1661	582	62	235	75	310	156	282

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.8	1.4	60.0	19.4	13.4	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	3.0	1.1	3.0		10.0		9.0
Phase Duration, s	15.2	69.4	9.8	64.0		17.4		23.4
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.2		3.3
Queue Clearance Time (g_s), s	10.6		5.1			12.7		17.9
Green Extension Time (g_e), s	0.5	0.0	0.2	0.0		0.7		1.4
Phase Call Probability	1.00		0.96			1.00		1.00
Max Out Probability	0.00		0.00			0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	276	1108	61	98	1661	497	62	162	148	310	156	190
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1809	1486	1810	1725	1525	1810	1900	1613	1757	1900	1390
Queue Service Time (g_s), s	8.6	24.1	2.3	3.1	28.3	29.0	3.8	10.0	10.7	9.7	9.0	15.9
Cycle Queue Clearance Time (g_c), s	8.6	24.1	2.3	3.1	28.3	29.0	3.8	10.0	10.7	9.7	9.0	15.9
Green Ratio (*g/C*)	0.61	0.55	0.55	0.55	0.50	0.50	0.11	0.11	0.11	0.16	0.16	0.16
Capacity (*c*), veh/h	309	1972	810	316	2589	763	203	213	181	567	307	224
Volume-to-Capacity Ratio (*X*)	0.894	0.562	0.075	0.310	0.642	0.652	0.306	0.762	0.817	0.547	0.509	0.847
Back of Queue (*Q*), ft/ln (50 th percentile)	105.4	248.4	20.2	31.3	283.5	272.3	42.9	120.7	112	106.2	106.7	141.9
Back of Queue (*Q*), veh/ln (50 th percentile)	4.2	9.9	0.8	1.3	11.3	10.9	1.7	4.8	4.5	4.2	4.3	5.7
Queue Storage Ratio (*RQ*) (50 th percentile)	0.75	0.00	0.00	0.17	0.00	0.74	0.78	0.00	0.00	0.53	0.00	0.41
Uniform Delay (d_1), s/veh	22.7	17.9	12.9	15.2	22.1	22.2	49.0	51.7	52.1	46.3	46.0	48.9
Incremental Delay (d_2), s/veh	3.7	1.2	0.2	0.2	1.2	4.3	0.3	2.1	3.4	0.3	0.5	3.4
Initial Queue Delay (d_3), 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
Control Delay (*d*), s/veh	26.4	19.1	13.1	15.4	23.3	26.5	49.3	53.9	55.5	46.6	46.5	52.3
Level of Service (LOS)	C	B	B	B	C	C	D	D	E	D	D	D
Approach Delay, s/veh / LOS	20.2	C		23.7	C		53.7	D		48.2	D	
Intersection Delay, s/veh / LOS	28.4						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.09	B	2.55	C	2.74	C	2.61	C
Bicycle LOS Score / LOS	1.68	B	1.73	B	0.79	A	1.57	B

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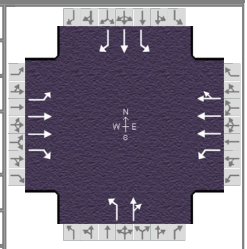
HCS7 Signalized Intersection Results Summary

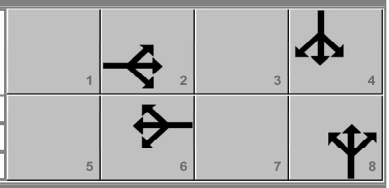
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm existing wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Louise Avenue	File Name	2PM WO.xus		
Project Description	Existing PM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	92	1277	64	62	1875	151	298	197	77	107	67	104

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	78.7	33.3	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		5.0		6.0		6.0		5.0
Phase Duration, s		82.7		82.7		37.3		37.3
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		3.3		3.3
Queue Clearance Time (g_s), s						31.3		28.6
Green Extension Time (g_e), s		0.0		0.0		1.9		1.9
Phase Call Probability						1.00		1.00
Max Out Probability						0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	92	1277	64	62	1382	644	298	274		107	67	104
Adjusted Saturation Flow Rate (*s*), veh/h/ln	213	1809	1527	439	1900	1757	1316	1783		1097	1900	1536
Queue Service Time (g_s), s	49.8	22.6	1.8	10.6	23.7	24.0	26.2	15.7		11.0	3.2	6.3
Cycle Queue Clearance Time (g_c), s	74.0	22.6	1.8	33.4	23.7	24.0	29.3	15.7		26.6	3.2	6.3
Green Ratio (*g/C*)	0.66	0.66	0.66	0.66	0.66	0.66	0.28	0.28		0.28	0.28	0.28
Capacity (*c*), veh/h	157	2369	1000	264	2489	1151	393	496		223	529	428
Volume-to-Capacity Ratio (*X*)	0.587	0.539	0.064	0.235	0.555	0.560	0.758	0.552		0.480	0.127	0.243
Back of Queue (*Q*), ft/ln (50 th percentile)	77.6	214.8	14.9	30.4	236.2	229.4	213	170.6		75.8	36.5	58.7
Back of Queue (*Q*), veh/ln (50 th percentile)	3.1	8.6	0.6	1.2	9.4	9.2	8.5	6.8		3.0	1.5	2.3
Queue Storage Ratio (*RQ*) (50 th percentile)	0.62	0.00	0.00	0.30	0.00	0.00	2.13	0.00		0.54	0.00	0.00
Uniform Delay (d_1), s/veh	31.5	11.0	7.5	20.0	11.2	11.3	43.3	36.9		48.2	32.4	33.5
Incremental Delay (d_2), s/veh	15.1	0.9	0.1	2.1	0.9	2.0	1.1	0.4		0.6	0.0	0.1
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Control Delay (*d*), s/veh	46.6	11.9	7.6	22.1	12.1	13.2	44.4	37.3		48.8	32.4	33.6
Level of Service (LOS)	D	B	A	C	B	B	D	D		D	C	C
Approach Delay, s/veh / LOS	14.0	B		12.8	B		41.0	D		39.2	D	
Intersection Delay, s/veh / LOS	18.5						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.88	B	2.07	B	2.45	B	2.59	C
Bicycle LOS Score / LOS	1.67	B	1.64	B	1.43	A	0.95	A

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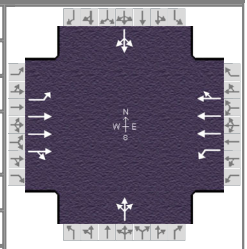
HCS7 Signalized Intersection Results Summary

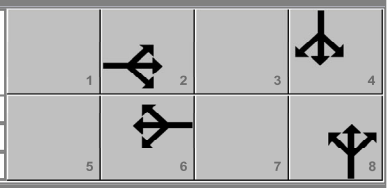
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm existing wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Amestoy Avenue	File Name	3PM WO.xus		
Project Description	Existing PM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	61	1471	0	0	2009	67	0	0	0	37	0	88

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	101.4	10.6	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		12.0		12.0
Phase Duration, s		105.4		105.4		0.0		14.6
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		0.0		3.3
Queue Clearance Time (g_s), s								10.7
Green Extension Time (g_e), s		0.0		0.0		0.0		0.1
Phase Call Probability								0.98
Max Out Probability								0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	61	1471	0	0	1404	672		0			125	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	203	1882	0	366	1900	1814		0			1699	
Queue Service Time (g_s), s	12.7	6.6	0.0	0.0	10.9	11.0		0.0			8.7	
Cycle Queue Clearance Time (g_c), s	23.8	6.6	0.0	0.0	10.9	11.0		0.0			8.7	
Green Ratio (*g/C*)	0.84	0.84		0.84	0.84	0.84					0.09	
Capacity (*c*), veh/h	213	4769		60	3209	1532					151	
Volume-to-Capacity Ratio (*X*)	0.287	0.308	0.000	0.000	0.437	0.439		0.000			0.829	
Back of Queue (*Q*), ft/ln (50 th percentile)	16.2	36.2	0	0	62.4	65.3		0			96.5	
Back of Queue (*Q*), veh/ln (50 th percentile)	0.6	1.4	0.0	0.0	2.5	2.6		0.0			3.9	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.23	0.00	0.00	0.00	0.00	0.00		0.00			0.00	
Uniform Delay (d_1), s/veh	5.2	2.0		0.0	2.3	2.3					53.8	
Incremental Delay (d_2), s/veh	3.4	0.2	0.0	0.0	0.4	0.9		0.0			4.4	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Control Delay (*d*), s/veh	8.6	2.1		0.0	2.7	3.2					58.2	
Level of Service (LOS)	A	A			A	A					E	
Approach Delay, s/veh / LOS	2.4	A		2.9	A		0.0			58.2	E	
Intersection Delay, s/veh / LOS	4.5						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.59	B	1.59	B	2.62	C	2.62	C
Bicycle LOS Score / LOS	1.33	A	1.63	B	0.49	A	0.69	A

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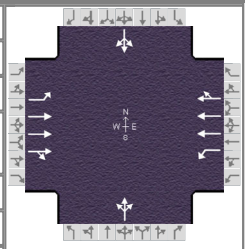
HCS7 Signalized Intersection Results Summary

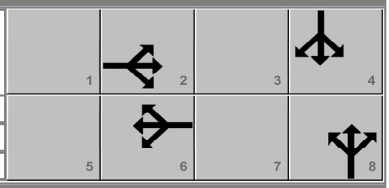
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm existing wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Genesta Avenue	File Name	4PM WO.xus		
Project Description	Existing PM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	74	1458	15	19	1955	45	31	8	16	24	9	57

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	94.6	8.2	5.1	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		12.0		12.0
Phase Duration, s		98.6		98.6		9.1		12.2
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		3.3		3.5
Queue Clearance Time (g_s), s						6.0		8.6
Green Extension Time (g_e), s		0.0		0.0		0.1		0.1
Phase Call Probability						0.84		0.95
Max Out Probability						0.00		0.09

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	74	993	480	19	1352	648		55			90	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	219	1900	1834	364	1900	1818		1639			1611	
Queue Service Time (g_s), s	20.2	9.0	9.0	1.9	14.0	14.0		4.0			6.6	
Cycle Queue Clearance Time (g_c), s	34.3	9.0	9.0	10.9	14.0	14.0		4.0			6.6	
Green Ratio (*g/C*)	0.79	0.79	0.79	0.79	0.79	0.79		0.04			0.07	
Capacity (*c*), veh/h	207	2997	1447	320	2997	1434		70			111	
Volume-to-Capacity Ratio (*X*)	0.358	0.331	0.331	0.059	0.451	0.452		0.787			0.813	
Back of Queue (*Q*), ft/ln (50 th percentile)	28.8	69.3	70.1	4	108.4	109.3		44.4			70.7	
Back of Queue (*Q*), veh/ln (50 th percentile)	1.2	2.8	2.8	0.2	4.3	4.4		1.8			2.8	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.24	0.00	0.00	0.05	0.00	0.00		0.00			0.00	
Uniform Delay (d_1), s/veh	9.8	3.6	3.6	5.2	4.2	4.2		56.9			55.1	
Incremental Delay (d_2), s/veh	4.8	0.3	0.6	0.4	0.5	1.0		7.1			5.3	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Control Delay (*d*), s/veh	14.6	3.9	4.2	5.5	4.7	5.2		64.0			60.5	
Level of Service (LOS)	B	A	A	A	A	A		E			E	
Approach Delay, s/veh / LOS	4.5	A		4.8	A		64.0	E		60.5	E	
Intersection Delay, s/veh / LOS	6.9						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.61	B	1.61	B	2.62	C	2.61	C
Bicycle LOS Score / LOS	1.34	A	1.60	B	0.58	A	0.64	A

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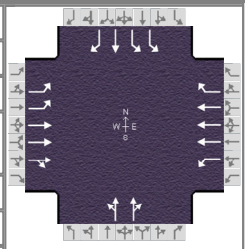
HCS7 Signalized Intersection Results Summary

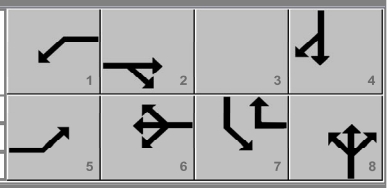
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm existing wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Balboa Boulevard	File Name	5PM WO.xus		
Project Description	Existing PM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	402	955	25	70	1503	421	30	250	65	324	105	332

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.4	6.9	52.5	20.8	14.3	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	1.1	3.0		12.0		9.0
Phase Duration, s	20.4	67.5	9.4	56.5		18.3		24.8
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.2		3.2
Queue Clearance Time (g_s), s	15.4		4.5			13.7		19.3
Green Extension Time (g_e), s	1.0	0.0	0.1	0.0		0.7		1.4
Phase Call Probability	1.00		0.90			1.00		1.00
Max Out Probability	0.00		0.00			0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	402	663	317	70	1503	421	188		157	324	105	222
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1810	1810	1725	1540	1885		1654	1757	1900	1492
Queue Service Time (g_s), s	13.4	12.0	12.0	2.5	27.6	17.6	11.7		11.1	10.1	5.8	17.3
Cycle Queue Clearance Time (g_c), s	13.4	12.0	12.0	2.5	27.6	17.6	11.7		11.1	10.1	5.8	17.3
Green Ratio (*g/C*)	0.14	0.53	0.53	0.48	0.44	0.61	0.12		0.12	0.17	0.17	0.17
Capacity (*c*), veh/h	479	2010	957	382	2265	945	225		197	609	329	258
Volume-to-Capacity Ratio (*X*)	0.839	0.330	0.331	0.183	0.664	0.445	0.833		0.797	0.532	0.319	0.859
Back of Queue (*Q*), ft/ln (50 th percentile)	148.3	129.8	127.1	25.8	284	152.6	141.4		118	109.7	68.4	165.1
Back of Queue (*Q*), veh/ln (50 th percentile)	5.9	5.2	5.1	1.0	11.4	6.1	5.7		4.7	4.4	2.7	6.6
Queue Storage Ratio (*RQ*) (50 th percentile)	0.93	0.00	0.00	0.17	0.00	0.37	0.00		0.00	0.50	0.00	1.03
Uniform Delay (d_1), s/veh	50.5	16.1	16.1	16.7	26.7	12.5	51.7		51.4	45.2	43.4	48.2
Incremental Delay (d_2), s/veh	1.5	0.4	0.9	0.1	1.6	1.5	3.1		2.8	0.3	0.2	3.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	52.1	16.6	17.1	16.8	28.3	14.0	54.7		54.2	45.5	43.6	51.4
Level of Service (LOS)	D	B	B	B	C	B	D		D	D	D	D
Approach Delay, s/veh / LOS	27.0	C		24.9	C		54.5	D		47.2	D	
Intersection Delay, s/veh / LOS	31.2						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.90	B	2.58	C	2.75	C	2.74	C
Bicycle LOS Score / LOS	1.25	A	1.58	B	0.77	A	1.56	B

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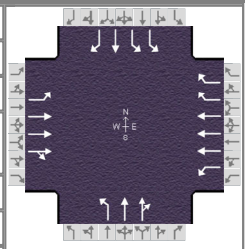
HCS7 Signalized Intersection Results Summary

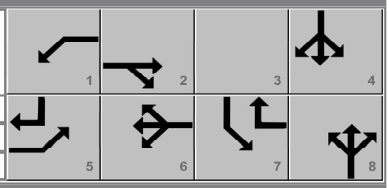
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm existing wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Hayvenhurst Avenue	File Name	6PM WO.xus		
Project Description	Existing PM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	188	1202	96	45	1521	676	213	399	104	249	167	276

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.8	2.8	43.6	20.8	23.1	0.0
Yellow	4.0	4.0	4.0	4.0	0.0	0.0
Red	0.0	0.0	3.0	3.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	1.1	3.0		10.0		9.0
Phase Duration, s	18.5	57.3	11.8	50.6		27.8		23.1
Change Period, ($Y+R_c$), s	4.0	7.0	4.0	7.0		7.0		0.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.2		3.3
Queue Clearance Time (g_s), s	14.2		3.8			19.4		21.6
Green Extension Time (g_e), s	0.3	0.0	0.1	0.0		1.4		1.4
Phase Call Probability	1.00		0.78			1.00		1.00
Max Out Probability	0.00		0.00			0.00		0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	188	917	381	45	1521	676	213	272	231	249	167	276
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1580	1810	1725	1233	1810	1900	1543	1757	1900	1435
Queue Service Time (g_s), s	12.2	22.1	22.2	1.8	31.8	20.1	13.2	16.6	17.4	7.4	9.3	19.6
Cycle Queue Clearance Time (g_c), s	12.2	22.1	22.2	1.8	31.8	20.1	13.2	16.6	17.4	7.4	9.3	19.6
Green Ratio (*g/C*)	0.12	0.42	0.42	0.43	0.36	0.56	0.17	0.17	0.17	0.19	0.19	0.31
Capacity (*c*), veh/h	219	1594	663	271	1879	1436	314	330	268	676	365	469
Volume-to-Capacity Ratio (*X*)	0.858	0.575	0.575	0.166	0.810	0.471	0.678	0.825	0.862	0.369	0.457	0.588
Back of Queue (*Q*), ft/ln (50 th percentile)	143	253.5	220.8	18.6	342.3	141.8	149.6	198.8	171.7	80.1	109.9	170.3
Back of Queue (*Q*), veh/ln (50 th percentile)	5.7	10.1	8.8	0.7	13.7	5.7	6.0	8.0	6.9	3.2	4.4	6.8
Queue Storage Ratio (*RQ*) (50 th percentile)	0.81	0.00	0.00	0.10	0.00	0.38	0.96	0.00	0.00	0.37	0.00	0.79
Uniform Delay (d_1), s/veh	51.7	26.7	26.7	21.6	34.5	16.3	46.4	47.8	48.2	42.1	42.9	35.0
Incremental Delay (d_2), s/veh	3.7	1.5	3.6	0.1	3.9	1.1	1.0	2.0	3.2	0.1	0.3	0.4
Initial Queue Delay (d_3), 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
Control Delay (*d*), s/veh	55.5	28.2	30.3	21.7	38.4	17.5	47.4	49.8	51.4	42.3	43.3	35.5
Level of Service (LOS)	E	C	C	C	D	B	D	D	D	D	D	D
Approach Delay, s/veh / LOS	32.2	C		31.7	C		49.6	D		39.8	D	
Intersection Delay, s/veh / LOS	35.4						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.11	B	2.44	B	2.88	C	2.60	C
Bicycle LOS Score / LOS	1.30	A	1.72	B	1.08	A	1.63	B

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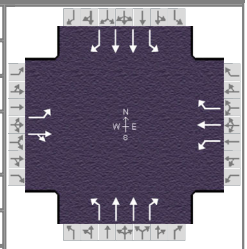
HCS7 Signalized Intersection Results Summary

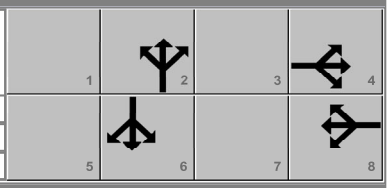
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	Jul 16, 2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm existing wo project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Magnolia Boulevard	File Name	7PM WO.xus		
Project Description	Existing PM W0 Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	46	164	14	103	182	211	31	927	170	145	582	49

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	88.5	23.5	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		6.0		5.0		5.0		5.0
Phase Duration, s		27.5		27.5		92.5		92.5
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (MAH), s		3.2		3.2		0.0		0.0
Queue Clearance Time (g_s), s		16.3		21.8				
Green Extension Time (g_e), s		1.5		1.5		0.0		0.0
Phase Call Probability		1.00		1.00				
Max Out Probability		0.00		0.00				

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (v), veh/h	46	178		103	182	211	31	927	170	145	582	49
Adjusted Saturation Flow Rate (s), veh/h/ln	1212	1870		1221	1900	1591	843	1809	1598	612	1809	1560
Queue Service Time (g_s), s	4.2	10.1		9.8	10.2	14.7	1.4	10.9	3.8	13.3	6.1	1.0
Cycle Queue Clearance Time (g_c), s	14.3	10.1		19.8	10.2	14.7	7.6	10.9	3.8	24.3	6.1	1.0
Green Ratio (g/C)	0.20	0.20		0.20	0.20	0.20	0.74	0.74	0.74	0.74	0.74	0.74
Capacity (c), veh/h	198	370		200	376	315	637	2660	1175	454	2660	1147
Volume-to-Capacity Ratio (X)	0.233	0.481		0.516	0.484	0.670	0.049	0.349	0.145	0.319	0.219	0.043
Back of Queue (Q), ft/ln (50 th percentile)	31.9	117.1		75.3	119.9	145.8	6.6	92.2	29.3	47.6	51.3	7.8
Back of Queue (Q), veh/ln (50 th percentile)	1.3	4.7		3.0	4.8	5.8	0.3	3.7	1.2	1.9	2.1	0.3
Queue Storage Ratio (RQ) (50 th percentile)	0.46	0.00		0.56	0.00	1.08	0.06	0.77	0.24	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	49.0	42.6		51.4	42.7	44.5	6.2	5.7	4.7	10.0	5.0	4.3
Incremental Delay (d_2), s/veh	0.2	0.4		0.8	0.4	0.9	0.1	0.4	0.3	1.8	0.2	0.1
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	49.2	43.0		52.2	43.0	45.4	6.4	6.0	5.0	11.9	5.2	4.4
Level of Service (LOS)	D	D		D	D	D	A	A	A	B	A	A
Approach Delay, s/veh / LOS	44.3	D		45.9	D		5.9	A		6.4	A	
Intersection Delay, s/veh / LOS	16.9						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.46	B	2.46	B	2.05	B	1.85	B
Bicycle LOS Score / LOS	0.86	A	1.31	A	1.42	A	1.13	A

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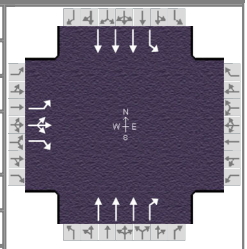
HCS7 Signalized Intersection Results Summary

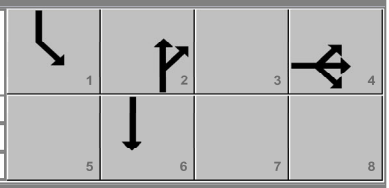
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	7/16/2020	Area Type	Other
Jurisdiction	ladot	Time Period	PM existing wo project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	101 Frwy EB off Ramp	File Name	8PM WO.xus		
Project Description	Existing PM WO Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	518	2	352					1308	286	238	771	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	17.9	43.9	37.3	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	3.0	3.0	3.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2	1	6
Case Number		9.0				7.3	2.0	4.0
Phase Duration, s		44.3				50.9	24.9	75.7
Change Period, ($Y+R_c$), s		7.0				7.0	7.0	7.0
Max Allow Headway (*MAH*), s		3.3				0.0	3.1	0.0
Queue Clearance Time (g_s), s		35.2					17.5	
Green Extension Time (g_e), s		2.0				0.0	0.4	0.0
Phase Call Probability		1.00					1.00	
Max Out Probability		0.00					0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14					2	12	1	6	
Adjusted Flow Rate (*v*), veh/h	518	2	352					1308	286	238	771	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1808	1900	1547					1725	1604	1810	1723	
Queue Service Time (g_s), s	33.2	0.1	24.4					25.8	16.5	15.5	9.0	
Cycle Queue Clearance Time (g_c), s	33.2	0.1	24.4					25.8	16.5	15.5	9.0	
Green Ratio (*g/C*)	0.31	0.31	0.31					0.37	0.37	0.15	0.57	
Capacity (*c*), veh/h	561	590	480					1891	586	270	2961	
Volume-to-Capacity Ratio (*X*)	0.923	0.003	0.733					0.692	0.488	0.882	0.260	
Back of Queue (*Q*), ft/ln (50 th percentile)	371.9	1	229.1					272.3	168.9	180	85.5	
Back of Queue (*Q*), veh/ln (50 th percentile)	14.9	0.0	9.2					10.9	6.8	7.2	3.4	
Queue Storage Ratio (*RQ*) (50 th percentile)	1.16	0.00	0.72					0.00	0.84	0.82	0.00	
Uniform Delay (d_1), s/veh	40.0	28.6	36.9					32.3	29.4	50.0	12.9	
Incremental Delay (d_2), s/veh	2.9	0.0	0.8					2.1	2.9	3.7	0.2	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	42.8	28.6	37.8					34.4	32.3	53.8	13.1	
Level of Service (LOS)	D	C	D					C	C	D	B	
Approach Delay, s/veh / LOS	40.8	D		0.0			34.0	C		22.7	C	
Intersection Delay, s/veh / LOS	32.4						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.62	C	2.62	C	1.41	A	1.89	B
Bicycle LOS Score / LOS	1.93	B			1.36	A	1.04	A

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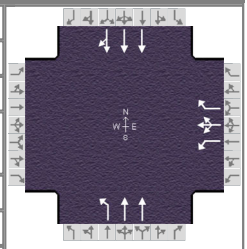
HCS7 Signalized Intersection Results Summary

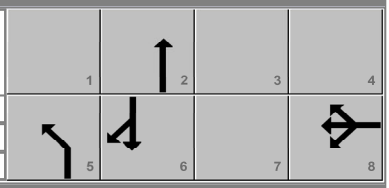
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	7/16/2020	Area Type	Other
Jurisdiction	ladot	Time Period	PM existing wo project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	101 Frwy WB off Ramp	File Name	9PM WO.xus		
Project Description	Existing PM WO Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h				185	2	278	461	1351			870	393

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	32.8	48.5	23.8	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	3.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase				8	5	2		6
Case Number				9.0	2.0	4.0		8.3
Phase Duration, s				27.8	36.8	92.2		55.5
Change Period, ($Y+R_c$), s				4.0	4.0	7.0		7.0
Max Allow Headway (*MAH*), s				3.3	3.1	0.0		0.0
Queue Clearance Time (g_s), s				22.8	31.8			
Green Extension Time (g_e), s				1.0	0.9	0.0		0.0
Phase Call Probability				1.00	1.00			
Max Out Probability				0.00	0.00			

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement				3	8	18	5	2			6	16
Adjusted Flow Rate (*v*), veh/h				185	2	278	461	1351			870	393
Adjusted Saturation Flow Rate (*s*), veh/h/ln				1801	1900	1565	1810	1809			1900	1610
Queue Service Time (g_s), s				11.0	0.1	20.8	29.8	20.7			28.6	23.1
Cycle Queue Clearance Time (g_c), s				11.0	0.1	20.8	29.8	20.7			28.6	23.1
Green Ratio (*g/C*)				0.20	0.20	0.20	0.27	0.71			0.40	0.40
Capacity (*c*), veh/h				357	376	310	494	2569			1535	650
Volume-to-Capacity Ratio (*X*)				0.518	0.005	0.896	0.933	0.526			0.567	0.604
Back of Queue (*Q*), ft/ln (50 th percentile)				122.9	1.2	207.7	339.4	183.3			244.6	236.7
Back of Queue (*Q*), veh/ln (50 th percentile)				4.9	0.0	8.3	13.6	7.3			9.8	9.5
Queue Storage Ratio (*RQ*) (50 th percentile)				0.24	0.00	0.41	1.13	0.00			0.00	0.00
Uniform Delay (d_1), s/veh				43.0	38.6	46.9	42.6	8.0			27.6	28.2
Incremental Delay (d_2), s/veh				0.4	0.0	3.7	3.7	0.8			1.5	4.1
Initial Queue Delay (d_3), s/veh				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Control Delay (*d*), s/veh				43.4	38.6	50.6	46.2	8.8			29.2	32.3
Level of Service (LOS)				D	D	D	D	A			C	C
Approach Delay, s/veh / LOS	0.0			47.7		D	18.3		B	30.2		C
Intersection Delay, s/veh / LOS	26.4						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.48	B	2.32	B	1.86	B	1.40	A
Bicycle LOS Score / LOS			1.25	A	1.98	B	1.18	A

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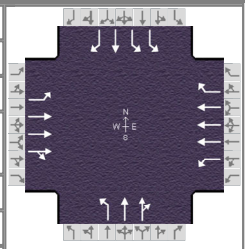
EXISTING + PROJECT HCS WORKSHEETS

EXISTING + PROJECT AM PEAK HOUR

HCS7 Signalized Intersection Results Summary

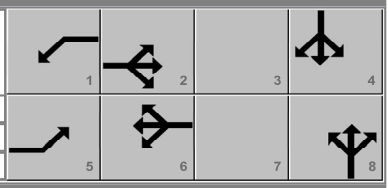
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am existing with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	White Oak Avenue	File Name	1AM with.xus		
Project Description	Existing AM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	144	2151	33	67	663	176	60	203	93	563	294	284

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.4	1.4	60.9	23.1	13.3	0.0
Yellow	4.0	0.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	4.0	1.1	3.0		10.0		9.0
Phase Duration, s	10.7	66.3	9.4	64.9		17.3		27.1
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.2		3.2
Queue Clearance Time (g_s), s	6.5		4.1			12.7		20.5
Green Extension Time (g_e), s	0.3	0.0	0.1	0.0		0.6		2.6
Phase Call Probability	0.99		0.89			1.00		1.00
Max Out Probability	0.00		0.00			0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	144	1474	710	67	663	21	60	157	139	563	294	241
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1825	1810	1725	1525	1810	1900	1528	1757	1900	1518
Queue Service Time (g_s), s	4.5	36.6	36.7	2.1	8.7	0.8	3.7	9.6	10.7	18.5	17.7	18.3
Cycle Queue Clearance Time (g_c), s	4.5	36.6	36.7	2.1	8.7	0.8	3.7	9.6	10.7	18.5	17.7	18.3
Green Ratio (*g/C*)	0.56	0.52	0.52	0.55	0.51	0.51	0.11	0.11	0.11	0.19	0.19	0.19
Capacity (*c*), veh/h	503	1972	947	177	2627	774	201	211	169	675	365	292
Volume-to-Capacity Ratio (*X*)	0.286	0.747	0.749	0.379	0.252	0.027	0.299	0.745	0.821	0.834	0.805	0.826
Back of Queue (*Q*), ft/ln (50 th percentile)	44.9	407.5	411.4	21.1	85.7	7.4	41.6	116.4	105.7	202.1	211.3	175.1
Back of Queue (*Q*), veh/ln (50 th percentile)	1.8	16.3	16.5	0.8	3.4	0.3	1.7	4.7	4.2	8.1	8.5	7.0
Queue Storage Ratio (*RQ*) (50 th percentile)	0.32	0.00	0.00	0.11	0.00	0.02	0.76	0.00	0.00	1.01	0.00	0.50
Uniform Delay (d_1), s/veh	12.8	22.7	22.7	21.7	16.7	14.7	49.1	51.7	52.2	46.6	46.3	46.5
Incremental Delay (d_2), s/veh	0.1	2.6	5.4	0.5	0.2	0.1	0.3	2.0	3.7	1.1	1.6	2.3
Initial Queue Delay (d_3), 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
Control Delay (*d*), s/veh	12.9	25.3	28.1	22.2	16.9	14.8	49.4	53.7	55.9	47.7	47.9	48.8
Level of Service (LOS)	B	C	C	C	B	B	D	D	E	D	D	D
Approach Delay, s/veh / LOS	25.4	C		17.3	B		53.8	D		48.0	D	
Intersection Delay, s/veh / LOS	31.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.09	B	2.48	B	2.97	C	2.61	C
Bicycle LOS Score / LOS	1.77	B	0.90	A	0.78	A	2.30	B

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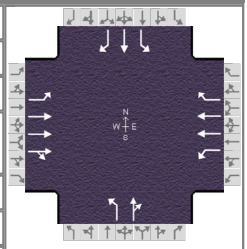
HCS7 Signalized Intersection Results Summary

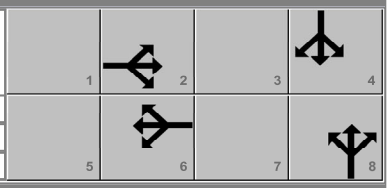
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am existing with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Louise Avenue	File Name	2AM With.xus		
Project Description	Existing AM With Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	52	2368	278	43	704	38	100	37	31	228	184	59

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	84.9	27.1	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		5.0		6.0		5.0
Phase Duration, s		88.9		88.9		31.1		31.1
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (MAH), s		0.0		0.0		3.2		3.2
Queue Clearance Time (g_s), s						21.3		25.9
Green Extension Time (g_e), s		0.0		0.0		1.3		1.2
Phase Call Probability						1.00		1.00
Max Out Probability						0.00		0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	52	1795	851	43	704	38	100	68		228	184	59
Adjusted Saturation Flow Rate (s), veh/h/ln	752	1900	1723	115	1809	1516	1194	1730		1321	1900	1559
Queue Service Time (g_s), s	3.2	31.4	34.3	41.4	8.5	0.9	9.4	3.8		20.2	10.0	3.7
Cycle Queue Clearance Time (g_c), s	11.8	31.4	34.3	75.9	8.5	0.9	19.3	3.8		23.9	10.0	3.7
Green Ratio (g/C)	0.71	0.71	0.71	0.71	0.71	0.71	0.23	0.23		0.23	0.23	0.23
Capacity (c), veh/h	538	2689	1219	108	2560	1073	231	391		317	429	352
Volume-to-Capacity Ratio (X)	0.097	0.667	0.698	0.397	0.275	0.035	0.432	0.174		0.719	0.429	0.168
Back of Queue (Q), ft/ln (50 th percentile)	13.9	294.1	307.3	35.7	74.7	6.9	70.1	40.4		166.1	116.4	35
Back of Queue (Q), veh/ln (50 th percentile)	0.6	11.8	12.3	1.4	3.0	0.3	2.8	1.6		6.6	4.7	1.4
Queue Storage Ratio (RQ) (50 th percentile)	0.11	0.00	0.00	0.36	0.00	0.00	0.70	0.00		1.19	0.00	0.00
Uniform Delay (d_1), s/veh	8.5	9.7	10.1	32.2	6.4	5.3	48.0	37.4		47.0	39.8	37.4
Incremental Delay (d_2), s/veh	0.4	1.3	3.3	10.5	0.3	0.1	0.5	0.1		1.2	0.3	0.1
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Control Delay (d), s/veh	8.9	11.1	13.5	42.7	6.6	5.3	48.5	37.5		48.2	40.1	37.5
Level of Service (LOS)	A	B	B	D	A	A	D	D		D	D	D
Approach Delay, s/veh / LOS	11.8	B		8.5	A		44.1	D		43.7	D	
Intersection Delay, s/veh / LOS	16.1						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.86	B	2.05	B	2.59	C	2.45	B
Bicycle LOS Score / LOS	1.97	B	1.14	A	0.76	A	1.26	A

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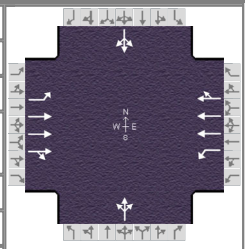
HCS7 Signalized Intersection Results Summary

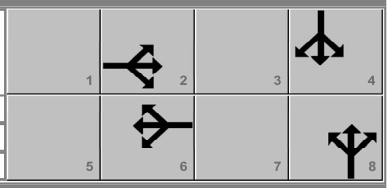
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am existing with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Amestoy Avenue	File Name	3AM With.xus		
Project Description	Existing AM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	115	2643	0	0	588	33	0	0	0	10	0	60

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	105.7	6.3	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		12.0		12.0
Phase Duration, s		109.7		109.7		0.0		10.3
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		0.0		3.4
Queue Clearance Time (g_s), s								7.0
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability								0.90
Max Out Probability								0.40

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	115	2643	0	0	421	200		0			70	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	815	1882	0	116	1900	1793		0			1670	
Queue Service Time (g_s), s	2.7	12.6	0.0	0.0	1.8	1.8		0.0			5.0	
Cycle Queue Clearance Time (g_c), s	4.5	12.6	0.0	0.0	1.8	1.8		0.0			5.0	
Green Ratio (*g/C*)	0.88	0.88		0.88	0.88	0.88					0.05	
Capacity (*c*), veh/h	766	4973		60	3346	1579					88	
Volume-to-Capacity Ratio (*X*)	0.150	0.532	0.000	0.000	0.126	0.127		0.000			0.795	
Back of Queue (*Q*), ft/ln (50 th percentile)	6.8	41.4	0	0	6	6.8		0			55.6	
Back of Queue (*Q*), veh/ln (50 th percentile)	0.3	1.7	0.0	0.0	0.2	0.3		0.0			2.2	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.10	0.00	0.00	0.00	0.00	0.00		0.00			0.00	
Uniform Delay (d_1), s/veh	1.3	1.6		0.0	1.0	1.0					56.2	
Incremental Delay (d_2), s/veh	0.4	0.4	0.0	0.0	0.1	0.2		0.0			6.0	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Control Delay (*d*), s/veh	1.7	2.0		0.0	1.0	1.1					62.2	
Level of Service (LOS)	A	A			A	A					E	
Approach Delay, s/veh / LOS	2.0	A		1.1	A		0.0			62.2	E	
Intersection Delay, s/veh / LOS	3.1						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.57	B	1.57	B	2.62	C	2.62	C
Bicycle LOS Score / LOS	2.00	B	0.83	A	0.49	A	0.60	A

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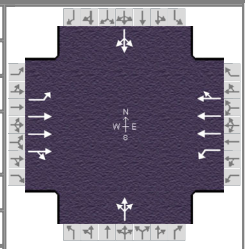
HCS7 Signalized Intersection Results Summary

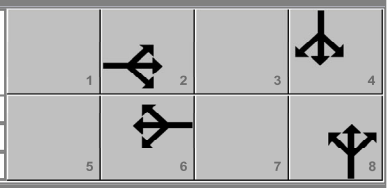
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am existing with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Genesta Avenue	File Name	4AM WITH.xus		
Project Description	Existing AM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	126	2446	25	4	571	40	7	19	4	20	2	51

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	97.5	6.7	3.8	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		12.0		12.0
Phase Duration, s		101.5		101.5		7.8		10.7
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (MAH), s		0.0		0.0		3.2		3.4
Queue Clearance Time (g_s), s						4.0		7.3
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability						0.63		0.91
Max Out Probability						0.00		0.65

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	126	1665	806	4	415	196		30			73	
Adjusted Saturation Flow Rate (s), veh/h/ln	823	1900	1835	137	1900	1772		1782			1644	
Queue Service Time (g_s), s	4.6	17.5	17.6	1.2	2.8	2.8		2.0			5.3	
Cycle Queue Clearance Time (g_c), s	7.4	17.5	17.6	18.8	2.8	2.8		2.0			5.3	
Green Ratio (g/C)	0.81	0.81	0.81	0.81	0.81	0.81		0.03			0.06	
Capacity (c), veh/h	710	3089	1491	151	3089	1441		56			91	
Volume-to-Capacity Ratio (X)	0.178	0.539	0.541	0.026	0.134	0.136		0.532			0.800	
Back of Queue (Q), ft/ln (50 th percentile)	17.2	123.5	127.2	1.2	19.1	19.3		23.4			58	
Back of Queue (Q), veh/ln (50 th percentile)	0.7	4.9	5.1	0.0	0.8	0.8		0.9			2.3	
Queue Storage Ratio (RQ) (50 th percentile)	0.14	0.00	0.00	0.01	0.00	0.00		0.00			0.00	
Uniform Delay (d_1), s/veh	3.1	3.7	3.7	6.9	2.4	2.4		57.2			56.0	
Incremental Delay (d_2), s/veh	0.5	0.7	1.4	0.3	0.1	0.2		2.9			5.9	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Control Delay (d), s/veh	3.7	4.4	5.2	7.2	2.4	2.6		60.1			62.0	
Level of Service (LOS)	A	A	A	A	A	A		E			E	
Approach Delay, s/veh / LOS	4.6	A		2.5	A		60.1	E		62.0	E	
Intersection Delay, s/veh / LOS	6.0						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.60	B	1.60	B	2.62	C	2.61	C
Bicycle LOS Score / LOS	1.92	B	0.83	A	0.54	A	0.61	A

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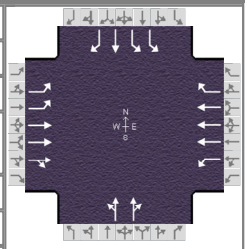
HCS7 Signalized Intersection Results Summary

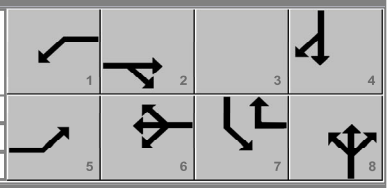
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	CBD
Jurisdiction	ladot	Time Period	am existing with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Balboa Boulevard	File Name	5AM WITH.xus		
Project Description	Existing AM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	241	2003	8	52	476	137	13	210	208	382	176	223

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	4.9	2.6	53.8	17.5	21.1	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	1.1	3.0		12.0		9.0
Phase Duration, s	15.5	64.4	8.9	57.8		25.1		21.5
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.3		3.2
Queue Clearance Time (g_s), s	10.9		4.0			20.2		16.1
Green Extension Time (g_e), s	0.6	0.0	0.1	0.0		0.9		1.5
Phase Call Probability	1.00		0.82			1.00		1.00
Max Out Probability	0.00		0.00			0.00		0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	241	1354	657	52	476	137	223		208	382	176	157
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1581	1710	1657	1629	1553	1380	1705		1335	1581	1710	1340
Queue Service Time (g_s), s	8.9	39.1	39.1	2.0	7.5	5.4	14.9		18.2	14.1	11.8	13.6
Cycle Queue Clearance Time (g_c), s	8.9	39.1	39.1	2.0	7.5	5.4	14.9		18.2	14.1	11.8	13.6
Green Ratio (*g/C*)	0.10	0.50	0.50	0.49	0.45	0.59	0.18		0.18	0.15	0.15	0.15
Capacity (*c*), veh/h	303	1721	834	158	2088	824	300		235	462	250	196
Volume-to-Capacity Ratio (*X*)	0.794	0.787	0.787	0.329	0.228	0.166	0.742		0.884	0.827	0.704	0.802
Back of Queue (*Q*), ft/ln (50 th percentile)	90	399.9	409.1	19.1	68.7	42	159		157	140	126.7	116.6
Back of Queue (*Q*), veh/ln (50 th percentile)	3.6	16.0	16.4	0.8	2.7	1.7	6.4		6.3	5.6	5.1	4.7
Queue Storage Ratio (*RQ*) (50 th percentile)	0.56	0.00	0.00	0.12	0.00	0.10	0.00		0.00	0.64	0.00	0.73
Uniform Delay (d_1), s/veh	53.1	24.5	24.5	22.9	20.3	11.0	46.8		48.2	49.8	48.8	49.6
Incremental Delay (d_2), s/veh	1.8	3.7	7.4	0.4	0.3	0.4	1.4		4.3	1.5	1.4	2.9
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	54.9	28.2	32.0	23.4	20.6	11.4	48.2		52.5	51.2	50.1	52.4
Level of Service (LOS)	D	C	C	C	C	B	D		D	D	D	D
Approach Delay, s/veh / LOS	32.2	C		18.9	B		50.3	D		51.2	D	
Intersection Delay, s/veh / LOS	35.3						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	2.52	C	2.75	C	2.73	C
Bicycle LOS Score / LOS	1.73	B	0.85	A	0.84	A	1.67	B

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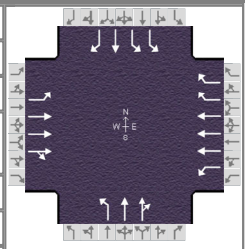
HCS7 Signalized Intersection Results Summary

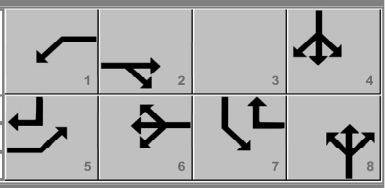
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am existing with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Hayvenhurst Avenue	File Name	6AM WITH.xus		
Project Description	Existing AM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	123	2061	111	38	513	133	120	210	54	918	456	140

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.2	2.9	45.5	12.2	34.3	0.0
Yellow	4.0	0.0	4.0	4.0	0.0	0.0
Red	0.0	0.0	3.0	3.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	1.1	3.0		10.0		9.0
Phase Duration, s	14.1	55.4	11.2	52.5		19.2		34.3
Change Period, ($Y+R_c$), s	4.0	7.0	4.0	7.0		7.0		0.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.2		3.1
Queue Clearance Time (g_s), s	10.0		3.4			11.5		32.3
Green Extension Time (g_e), s	0.2	0.0	0.1	0.0		0.7		1.9
Phase Call Probability	0.98		0.72			1.00		1.00
Max Out Probability	0.00		0.00			0.00		0.74

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	123	1523	649	38	513	133	120	139	125	918	456	140
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1605	1810	1725	1307	1810	1900	1551	1757	1900	1528
Queue Service Time (g_s), s	8.0	47.9	48.4	1.4	8.2	2.2	7.7	8.5	9.5	30.3	27.1	7.6
Cycle Queue Clearance Time (g_c), s	8.0	47.9	48.4	1.4	8.2	2.2	7.7	8.5	9.5	30.3	27.1	7.6
Green Ratio (*g/C*)	0.08	0.40	0.40	0.44	0.38	0.66	0.10	0.10	0.10	0.29	0.29	0.37
Capacity (*c*), veh/h	152	1532	647	168	1963	1793	184	193	157	1003	542	570
Volume-to-Capacity Ratio (*X*)	0.811	0.994	1.003	0.226	0.261	0.074	0.654	0.720	0.795	0.915	0.841	0.245
Back of Queue (*Q*), ft/ln (50 th percentile)	94.6	649	616.9	15.4	84.8	14.6	88.1	103.1	95.1	359.7	345.6	69.3
Back of Queue (*Q*), veh/ln (50 th percentile)	3.8	26.0	24.7	0.6	3.4	0.6	3.5	4.1	3.8	14.4	13.8	2.8
Queue Storage Ratio (*RQ*) (50 th percentile)	0.54	0.00	0.00	0.08	0.00	0.04	0.57	0.00	0.00	1.67	0.00	0.32
Uniform Delay (d_1), s/veh	54.0	35.7	35.8	27.9	25.7	7.1	51.9	52.3	52.7	41.5	40.3	26.3
Incremental Delay (d_2), s/veh	3.9	21.7	36.0	0.2	0.3	0.1	1.5	1.9	3.4	10.9	9.3	0.1
Initial Queue Delay (d_3), 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
Control Delay (*d*), s/veh	57.9	57.4	71.8	28.2	26.0	7.2	53.4	54.2	56.1	52.4	49.6	26.4
Level of Service (LOS)	E	E	F	C	C	A	D	D	E	D	D	C
Approach Delay, s/veh / LOS	61.5	E		22.5	C		54.5	D		49.1	D	
Intersection Delay, s/veh / LOS	51.6						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.11	B	2.44	B	2.88	C	2.59	C
Bicycle LOS Score / LOS	1.75	B	0.86	A	0.80	A	2.99	C

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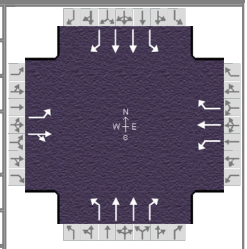
HCS7 Signalized Intersection Results Summary

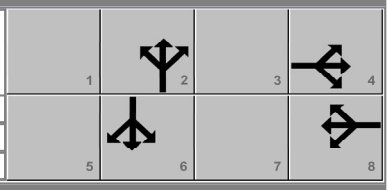
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	Jul 16, 2020	Area Type	Other
Jurisdiction	ladot	Time Period	am existing with project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Magnolia Boulevard	File Name	7AM WITH.xus		
Project Description	Existing AM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	106	556	11	53	94	53	9	597	294	422	1313	163

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	68.7	43.3	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		6.0		5.0		5.0		5.0
Phase Duration, s		47.3		47.3		72.7		72.7
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (MAH), s		3.2		3.2		0.0		0.0
Queue Clearance Time (g_s), s		34.8		41.5				
Green Extension Time (g_e), s		1.9		1.9		0.0		0.0
Phase Call Probability		1.00		1.00				
Max Out Probability		0.00		0.00				

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (v), veh/h	106	567		53	94	53	9	597	294	422	1313	163
Adjusted Saturation Flow Rate (s), veh/h/ln	1302	1893		857	1900	1581	425	1809	1556	831	1809	1590
Queue Service Time (g_s), s	7.1	32.8		7.2	4.0	2.7	1.8	10.1	11.9	58.3	29.2	5.9
Cycle Queue Clearance Time (g_c), s	10.8	32.8		39.5	4.0	2.7	31.5	10.1	11.9	68.8	29.2	5.9
Green Ratio (g/C)	0.36	0.36		0.36	0.36	0.36	0.57	0.57	0.57	0.57	0.57	0.57
Capacity (c), veh/h	489	682		138	684	569	198	2074	892	463	2074	911
Volume-to-Capacity Ratio (X)	0.217	0.832		0.385	0.137	0.093	0.045	0.288	0.330	0.911	0.633	0.179
Back of Queue (Q), ft/ln (50 th percentile)	55.8	373.4		39.1	45.2	25.1	5.1	102	107	380.3	297.5	53.2
Back of Queue (Q), veh/ln (50 th percentile)	2.2	14.9		1.6	1.8	1.0	0.2	4.1	4.3	15.2	11.9	2.1
Queue Storage Ratio (RQ) (50 th percentile)	0.80	0.00		0.29	0.00	0.19	0.04	0.85	0.89	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	29.4	35.1		52.9	25.8	25.4	27.9	13.1	13.5	32.2	17.2	12.2
Incremental Delay (d_2), s/veh	0.1	1.0		0.7	0.0	0.0	0.4	0.4	1.0	24.6	1.5	0.4
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	29.5	36.1		53.5	25.9	25.4	28.4	13.4	14.5	56.7	18.6	12.6
Level of Service (LOS)	C	D		D	C	C	C	B	B	E	B	B
Approach Delay, s/veh / LOS	35.1	D		33.1	C		13.9	B		26.6	C	
Intersection Delay, s/veh / LOS	25.4						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.44	B	2.44	B	2.08	B	1.89	B
Bicycle LOS Score / LOS	1.60	B	0.82	A	1.23	A	2.05	B

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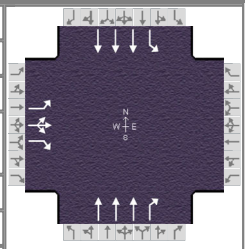
HCS7 Signalized Intersection Results Summary

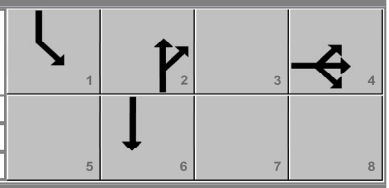
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	7/16/2020	Area Type	Other
Jurisdiction	ladot	Time Period	AM existing with project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	101 Frwy EB off Ramp	File Name	8AM With.xus		
Project Description	Existing AM With Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	254	3	912					550	176	347	1630	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	18.0	17.0	64.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	3.0	3.0	3.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2	1	6
Case Number		9.0				7.3	2.0	4.0
Phase Duration, s		71.0				24.0	25.0	49.0
Change Period, ($Y+R_c$), s		7.0				7.0	7.0	7.0
Max Allow Headway (*MAH*), s		3.4				0.0	3.1	0.0
Queue Clearance Time (g_s), s		66.0					20.0	
Green Extension Time (g_e), s		0.0				0.0	0.0	0.0
Phase Call Probability		1.00					1.00	
Max Out Probability		1.00					1.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14					2	12	1	6	
Adjusted Flow Rate (*v*), veh/h	254	3	912					550	176	347	1630	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1800	1900	1586					1725	1604	1810	1723	
Queue Service Time (g_s), s	9.2	0.1	64.0					12.2	12.7	18.0	35.9	
Cycle Queue Clearance Time (g_c), s	9.2	0.1	64.0					12.2	12.7	18.0	35.9	
Green Ratio (*g/C*)	0.53	0.53	0.53					0.14	0.14	0.15	0.35	
Capacity (*c*), veh/h	960	1013	846					733	227	271	1809	
Volume-to-Capacity Ratio (*X*)	0.265	0.003	1.078					0.750	0.775	1.278	0.901	
Back of Queue (*Q*), ft/ln (50 th percentile)	92.3	0.9	882.5					142.5	161.2	485.2	400.2	
Back of Queue (*Q*), veh/ln (50 th percentile)	3.7	0.0	35.3					5.7	6.4	19.4	16.0	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.29	0.00	2.76					0.00	0.81	2.21	0.00	
Uniform Delay (d_1), s/veh	15.2	13.1	28.0					49.5	49.7	51.0	37.0	
Incremental Delay (d_2), s/veh	0.1	0.0	54.2					6.9	22.3	150.6	7.7	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	15.3	13.1	82.2					56.4	72.0	201.6	44.7	
Level of Service (LOS)	B	B	F					E	E	F	D	
Approach Delay, s/veh / LOS	67.5	E		0.0			60.2	E		72.3	E	
Intersection Delay, s/veh / LOS	68.6						E					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.62	C	2.62	C	1.43	A	1.93	B
Bicycle LOS Score / LOS	2.42	B			0.89	A	1.57	B

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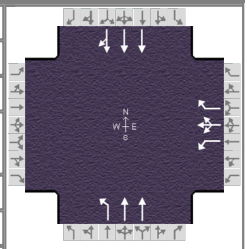
HCS7 Signalized Intersection Results Summary

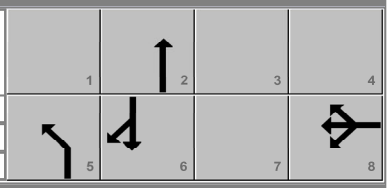
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	7/16/2020	Area Type	Other
Jurisdiction	ladot	Time Period	AM existing with project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	101 Frwy WB off Ramp	File Name	9AM WITH.xus		
Project Description	Existing AM With Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				403	1	388	183	594			1595	342

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	14.2	58.3	32.5	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	3.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase				8	5	2		6
Case Number				9.0	2.0	4.0		8.3
Phase Duration, s				36.5	18.2	83.5		65.3
Change Period, ($Y+R_c$), s				4.0	4.0	7.0		7.0
Max Allow Headway (MAH), s				3.3	3.1	0.0		0.0
Queue Clearance Time (g_s), s				30.6	13.9			
Green Extension Time (g_e), s				1.8	0.3	0.0		0.0
Phase Call Probability				1.00	1.00			
Max Out Probability				0.00	0.00			

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement				3	8	18	5	2			6	16
Adjusted Flow Rate (v), veh/h				403	1	388	183	594			1328	609
Adjusted Saturation Flow Rate (s), veh/h/ln				1806	1900	1574	1810	1809			1900	1726
Queue Service Time (g_s), s				25.2	0.0	28.6	11.9	8.5			59.7	33.6
Cycle Queue Clearance Time (g_c), s				25.2	0.0	28.6	11.9	8.5			59.7	33.6
Green Ratio (g/C)				0.27	0.27	0.27	0.12	0.64			0.49	0.49
Capacity (c), veh/h				488	514	426	214	2308			1847	839
Volume-to-Capacity Ratio (X)				0.825	0.002	0.912	0.854	0.257			0.719	0.726
Back of Queue (Q), ft/ln (50 th percentile)				279.8	0.5	282.5	139.3	81.8			373.5	361.6
Back of Queue (Q), veh/ln (50 th percentile)				11.2	0.0	11.3	5.6	3.3			14.9	14.5
Queue Storage Ratio (RQ) (50 th percentile)				0.55	0.00	0.55	0.46	0.00			0.00	0.00
Uniform Delay (d_1), s/veh				41.1	32.0	42.4	51.9	9.4			24.4	24.5
Incremental Delay (d_2), s/veh				1.4	0.0	3.2	3.7	0.3			2.4	5.4
Initial Queue Delay (d_3), s/veh				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Control Delay (d), s/veh				42.5	32.0	45.6	55.6	9.7			26.8	29.9
Level of Service (LOS)				D	C	D	E	A			C	C
Approach Delay, s/veh / LOS	0.0			44.0		D	20.5		C	27.8		C
Intersection Delay, s/veh / LOS	29.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.48	B	2.32	B	1.88	B	1.39	A
Bicycle LOS Score / LOS			1.79	B	1.13	A	1.55	B

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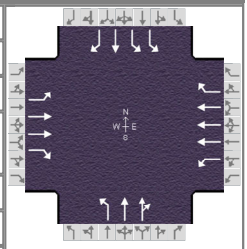
EXISTING + PROJECT PM PEAK HOUR

HCS7 Signalized Intersection Results Summary

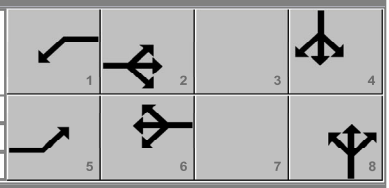
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm existing with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	White Oak Avenue	File Name	1PM with.xus		
Project Description	Existing PM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	276	1117	61	100	1686	592	62	235	76	314	156	282

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.8	1.9	58.8	20.1	13.5	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	3.0	1.1	3.0		10.0		9.0
Phase Duration, s	15.7	68.7	9.8	62.8		17.5		24.1
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.2		3.3
Queue Clearance Time (g_s), s	11.2		5.2			12.8		18.6
Green Extension Time (g_e), s	0.5	0.0	0.2	0.0		0.7		1.4
Phase Call Probability	1.00		0.96			1.00		1.00
Max Out Probability	0.00		0.00			0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	276	1117	61	100	1686	506	62	163	148	314	156	199
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1809	1485	1810	1725	1524	1810	1900	1611	1757	1900	1397
Queue Service Time (g_s), s	9.2	24.7	2.4	3.2	29.6	30.4	3.8	10.0	10.8	9.8	8.9	16.6
Cycle Queue Clearance Time (g_c), s	9.2	24.7	2.4	3.2	29.6	30.4	3.8	10.0	10.8	9.8	8.9	16.6
Green Ratio (*g/C*)	0.60	0.54	0.54	0.54	0.49	0.49	0.11	0.11	0.11	0.17	0.17	0.17
Capacity (*c*), veh/h	308	1950	800	309	2534	746	203	214	181	587	317	233
Volume-to-Capacity Ratio (*X*)	0.895	0.573	0.076	0.323	0.665	0.678	0.305	0.763	0.818	0.535	0.491	0.853
Back of Queue (*Q*), ft/ln (50 th percentile)	103	256.2	20.5	32.9	298.2	288.6	42.9	121.2	112.3	106.9	105.7	150.6
Back of Queue (*Q*), veh/ln (50 th percentile)	4.1	10.2	0.8	1.3	11.9	11.5	1.7	4.8	4.5	4.3	4.2	6.0
Queue Storage Ratio (*RQ*) (50 th percentile)	0.74	0.00	0.00	0.18	0.00	0.78	0.78	0.00	0.00	0.53	0.00	0.43
Uniform Delay (d_1), s/veh	24.3	18.5	13.3	15.8	23.2	23.4	48.9	51.7	52.1	45.7	45.3	48.5
Incremental Delay (d_2), s/veh	3.7	1.2	0.2	0.2	1.4	4.9	0.3	2.1	3.4	0.3	0.4	4.7
Initial Queue Delay (d_3), 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
Control Delay (*d*), s/veh	28.0	19.7	13.5	16.0	24.6	28.3	49.3	53.8	55.5	46.0	45.8	53.3
Level of Service (LOS)	C	B	B	B	C	C	D	D	E	D	D	D
Approach Delay, s/veh / LOS	21.0	C		25.0	C		53.7	D		48.1	D	
Intersection Delay, s/veh / LOS	29.3						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.09	B	2.54	C	2.74	C	2.61	C
Bicycle LOS Score / LOS	1.69	B	1.75	B	0.80	A	1.59	B

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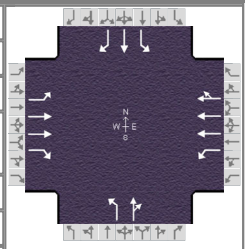
HCS7 Signalized Intersection Results Summary

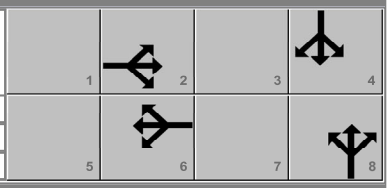
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm existing with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Louise Avenue	File Name	2PM With.xus		
Project Description	Existing PM With Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	92	1291	64	64	1911	153	298	197	78	108	67	104

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	78.7	33.3	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		5.0		6.0		6.0		5.0
Phase Duration, s		82.7		82.7		37.3		37.3
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (MAH), s		0.0		0.0		3.3		3.3
Queue Clearance Time (g_s), s						31.3		28.8
Green Extension Time (g_e), s		0.0		0.0		1.9		1.9
Phase Call Probability						1.00		1.00
Max Out Probability						0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	92	1291	64	64	1408	656	298	275		108	67	104
Adjusted Saturation Flow Rate (s), veh/h/ln	205	1809	1527	433	1900	1757	1316	1781		1096	1900	1536
Queue Service Time (g_s), s	53.7	23.0	1.8	11.2	24.4	24.7	26.2	15.8		11.2	3.2	6.3
Cycle Queue Clearance Time (g_c), s	78.6	23.0	1.8	34.4	24.4	24.7	29.3	15.8		26.8	3.2	6.3
Green Ratio (g/C)	0.66	0.66	0.66	0.66	0.66	0.66	0.28	0.28		0.28	0.28	0.28
Capacity (c), veh/h	152	2369	1000	260	2489	1151	393	496		222	529	428
Volume-to-Capacity Ratio (X)	0.606	0.545	0.064	0.246	0.566	0.570	0.758	0.554		0.486	0.127	0.243
Back of Queue (Q), ft/ln (50 th percentile)	81.5	218.6	14.9	31.9	243.2	236.6	213	171.4		76.7	36.5	58.7
Back of Queue (Q), veh/ln (50 th percentile)	3.3	8.7	0.6	1.3	9.7	9.5	8.5	6.9		3.1	1.5	2.3
Queue Storage Ratio (RQ) (50 th percentile)	0.65	0.00	0.00	0.32	0.00	0.00	2.13	0.00		0.55	0.00	0.00
Uniform Delay (d_1), s/veh	33.2	11.1	7.5	20.4	11.4	11.4	43.3	36.9		48.3	32.4	33.5
Incremental Delay (d_2), s/veh	16.7	0.9	0.1	2.2	0.9	2.1	1.1	0.4		0.6	0.0	0.1
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Control Delay (d), s/veh	49.9	12.0	7.6	22.7	12.3	13.5	44.4	37.3		48.9	32.4	33.6
Level of Service (LOS)	D	B	A	C	B	B	D	D		D	C	C
Approach Delay, s/veh / LOS	14.2	B		13.0	B		41.0	D		39.3	D	
Intersection Delay, s/veh / LOS	18.7						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.88	B	2.07	B	2.45	B	2.59	C
Bicycle LOS Score / LOS	1.68	B	1.66	B	1.43	A	0.95	A

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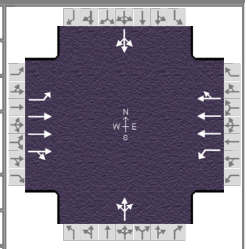
HCS7 Signalized Intersection Results Summary

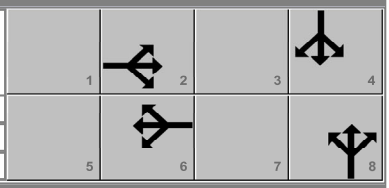
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm existing with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Amestoy Avenue	File Name	3PM With.xus		
Project Description	Existing PM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	68	1477	0	0	2029	72	0	0	0	53	0	110

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	98.6	13.4	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		12.0		12.0
Phase Duration, s		102.6		102.6		0.0		17.4
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		0.0		3.3
Queue Clearance Time (g_s), s								13.2
Green Extension Time (g_e), s		0.0		0.0		0.0		0.2
Phase Call Probability								1.00
Max Out Probability								0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	68	1477	0	0	1421	680		0			163	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	198	1882	0	363	1900	1812		0			1709	
Queue Service Time (g_s), s	18.0	7.6	0.0	0.0	12.8	12.9		0.0			11.2	
Cycle Queue Clearance Time (g_c), s	30.9	7.6	0.0	0.0	12.8	12.9		0.0			11.2	
Green Ratio (*g/C*)	0.82	0.82		0.82	0.82	0.82					0.11	
Capacity (*c*), veh/h	201	4639		60	3122	1489					191	
Volume-to-Capacity Ratio (*X*)	0.338	0.318	0.000	0.000	0.455	0.457		0.000			0.854	
Back of Queue (*Q*), ft/ln (50 th percentile)	22.9	49.5	0	0	86.1	87.9		0			124.8	
Back of Queue (*Q*), veh/ln (50 th percentile)	0.9	2.0	0.0	0.0	3.4	3.5		0.0			5.0	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.33	0.00	0.00	0.00	0.00	0.00		0.00			0.00	
Uniform Delay (d_1), s/veh	7.5	2.6		0.0	3.1	3.1					52.3	
Incremental Delay (d_2), s/veh	4.5	0.2	0.0	0.0	0.5	1.0		0.0			4.2	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Control Delay (*d*), s/veh	12.0	2.8		0.0	3.5	4.1					56.5	
Level of Service (LOS)	B	A			A	A					E	
Approach Delay, s/veh / LOS	3.2	A		3.7	A		0.0			56.5	E	
Intersection Delay, s/veh / LOS	5.7						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.60	B	1.60	B	2.62	C	2.62	C
Bicycle LOS Score / LOS	1.34	A	1.64	B	0.49	A	0.76	A

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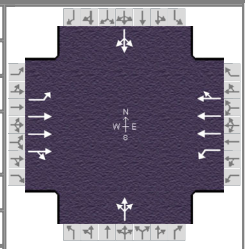
HCS7 Signalized Intersection Results Summary

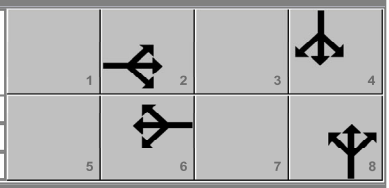
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm existing with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Genesta Avenue	File Name	4PM WITH.xus		
Project Description	Existing PM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	80	1474	15	19	1960	52	31	8	16	44	9	77

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	91.7	11.2	5.1	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		12.0		12.0
Phase Duration, s		95.7		95.7		9.1		15.2
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		3.3		3.4
Queue Clearance Time (g_s), s						6.0		11.3
Green Extension Time (g_e), s		0.0		0.0		0.1		0.1
Phase Call Probability						0.84		0.99
Max Out Probability						0.00		0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	80	1004	485	19	1361	651		55			130	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	216	1900	1834	359	1900	1814		1639			1658	
Queue Service Time (g_s), s	26.0	10.2	10.2	2.2	15.8	15.9		4.0			9.3	
Cycle Queue Clearance Time (g_c), s	41.9	10.2	10.2	12.3	15.8	15.9		4.0			9.3	
Green Ratio (*g/C*)	0.76	0.76	0.76	0.76	0.76	0.76		0.04			0.09	
Capacity (*c*), veh/h	196	2903	1401	304	2903	1386		70			155	
Volume-to-Capacity Ratio (*X*)	0.407	0.346	0.346	0.063	0.469	0.470		0.790			0.837	
Back of Queue (*Q*), ft/ln (50 th percentile)	37.6	84.5	85	4.6	131.7	132.2		44.5			100.5	
Back of Queue (*Q*), veh/ln (50 th percentile)	1.5	3.4	3.4	0.2	5.3	5.3		1.8			4.0	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.31	0.00	0.00	0.06	0.00	0.00		0.00			0.00	
Uniform Delay (d_1), s/veh	12.9	4.5	4.5	6.5	5.2	5.2		56.9			53.5	
Incremental Delay (d_2), s/veh	6.2	0.3	0.7	0.4	0.5	1.1		7.3			4.5	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Control Delay (*d*), s/veh	19.1	4.9	5.2	6.9	5.8	6.4		64.2			58.0	
Level of Service (LOS)	B	A	A	A	A	A		E			E	
Approach Delay, s/veh / LOS	5.7	A		6.0	A		64.2	E		58.0	E	
Intersection Delay, s/veh / LOS	8.5						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.62	B	1.62	B	2.62	C	2.61	C
Bicycle LOS Score / LOS	1.35	A	1.60	B	0.58	A	0.70	A

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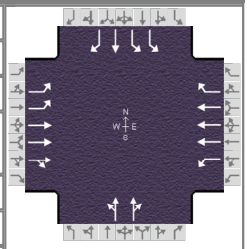
HCS7 Signalized Intersection Results Summary

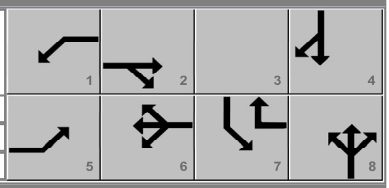
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm existing with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Balboa Boulevard	File Name	5PM WITH.xus		
Project Description	Existing PM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	405	987	25	70	1515	421	30	250	65	324	105	333

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.4	7.1	52.3	20.9	14.3	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	1.1	3.0		12.0		9.0
Phase Duration, s	20.5	67.4	9.4	56.3		18.3		24.9
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.2		3.2
Queue Clearance Time (g_s), s	15.5		4.5			13.7		19.4
Green Extension Time (g_e), s	1.0	0.0	0.1	0.0		0.7		1.4
Phase Call Probability	1.00		0.90			1.00		1.00
Max Out Probability	0.00		0.00			0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	405	685	327	70	1515	421	188		157	324	105	223
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1811	1810	1725	1540	1885		1654	1757	1900	1492
Queue Service Time (g_s), s	13.5	12.4	12.5	2.5	28.0	17.6	11.7		11.1	10.1	5.8	17.4
Cycle Queue Clearance Time (g_c), s	13.5	12.4	12.5	2.5	28.0	17.6	11.7		11.1	10.1	5.8	17.4
Green Ratio (*g/C*)	0.14	0.53	0.53	0.48	0.44	0.61	0.12		0.12	0.17	0.17	0.17
Capacity (*c*), veh/h	482	2007	957	372	2257	944	225		197	611	330	259
Volume-to-Capacity Ratio (*X*)	0.840	0.341	0.342	0.188	0.671	0.446	0.833		0.797	0.530	0.318	0.860
Back of Queue (*Q*), ft/ln (50 th percentile)	149.4	135.2	132.5	25.9	288.3	153	141.4		118	109.6	68.4	165.9
Back of Queue (*Q*), veh/ln (50 th percentile)	6.0	5.4	5.3	1.0	11.5	6.1	5.7		4.7	4.4	2.7	6.6
Queue Storage Ratio (*RQ*) (50 th percentile)	0.93	0.00	0.00	0.17	0.00	0.37	0.00		0.00	0.50	0.00	1.04
Uniform Delay (d_1), s/veh	50.5	16.3	16.3	16.8	27.0	12.6	51.7		51.4	45.1	43.3	48.1
Incremental Delay (d_2), s/veh	1.5	0.5	1.0	0.1	1.6	1.5	3.1		2.8	0.3	0.2	3.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	52.0	16.8	17.3	16.9	28.6	14.1	54.7		54.2	45.4	43.6	51.4
Level of Service (LOS)	D	B	B	B	C	B	D		D	D	D	D
Approach Delay, s/veh / LOS	27.0	C		25.1	C		54.5	D		47.1	D	
Intersection Delay, s/veh / LOS	31.3						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.90	B	2.58	C	2.75	C	2.74	C
Bicycle LOS Score / LOS	1.27	A	1.59	B	0.77	A	1.56	B

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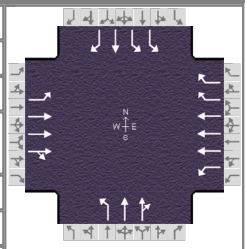
HCS7 Signalized Intersection Results Summary

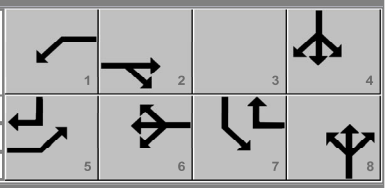
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm existing with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Hayvenhurst Avenue	File Name	6PM WITH.xus		
Project Description	Existing PM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	188	1225	106	45	1530	676	215	399	104	249	167	277

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.8	2.8	43.7	20.8	22.9	0.0
Yellow	4.0	4.0	4.0	4.0	0.0	0.0
Red	0.0	0.0	3.0	3.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	1.1	3.0		10.0		9.0
Phase Duration, s	18.5	57.5	11.8	50.7		27.8		22.9
Change Period, ($Y+R_c$), s	4.0	7.0	4.0	7.0		7.0		0.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.2		3.3
Queue Clearance Time (g_s), s	14.2		3.7			19.5		21.8
Green Extension Time (g_e), s	0.3	0.0	0.1	0.0		1.3		1.2
Phase Call Probability	1.00		0.78			1.00		1.00
Max Out Probability	0.00		0.00			0.01		0.15

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	188	941	390	45	1530	676	215	272	231	249	167	277
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1574	1810	1725	1234	1810	1900	1542	1757	1900	1434
Queue Service Time (g_s), s	12.2	22.9	22.9	1.7	32.0	20.1	13.4	16.6	17.5	7.4	9.4	19.8
Cycle Queue Clearance Time (g_c), s	12.2	22.9	22.9	1.7	32.0	20.1	13.4	16.6	17.5	7.4	9.4	19.8
Green Ratio (*g/C*)	0.12	0.42	0.42	0.43	0.36	0.56	0.17	0.17	0.17	0.19	0.19	0.31
Capacity (*c*), veh/h	219	1599	662	266	1886	1437	314	329	267	671	363	467
Volume-to-Capacity Ratio (*X*)	0.858	0.588	0.589	0.169	0.811	0.471	0.686	0.827	0.863	0.371	0.460	0.593
Back of Queue (*Q*), ft/ln (50 th percentile)	143.1	261.8	227.4	18.5	344.3	141.5	151.3	199.6	175.6	80.2	110	171.7
Back of Queue (*Q*), veh/ln (50 th percentile)	5.7	10.5	9.1	0.7	13.8	5.7	6.1	8.0	7.0	3.2	4.4	6.9
Queue Storage Ratio (*RQ*) (50 th percentile)	0.81	0.00	0.00	0.10	0.00	0.38	0.98	0.00	0.00	0.37	0.00	0.80
Uniform Delay (d_1), s/veh	51.7	26.7	26.8	21.6	34.4	16.3	46.5	47.9	48.2	42.3	43.0	35.2
Incremental Delay (d_2), s/veh	3.8	1.6	3.8	0.1	3.9	1.1	1.0	2.3	5.2	0.1	0.3	0.6
Initial Queue Delay (d_3), 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
Control Delay (*d*), s/veh	55.5	28.3	30.6	21.7	38.3	17.4	47.5	50.2	53.4	42.4	43.4	35.7
Level of Service (LOS)	E	C	C	C	D	B	D	D	D	D	D	D
Approach Delay, s/veh / LOS	32.3	C		31.7	C		50.4	D		40.0	D	
Intersection Delay, s/veh / LOS	35.6						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.11	B	2.44	B	2.88	C	2.60	C
Bicycle LOS Score / LOS	1.32	A	1.73	B	1.08	A	1.63	B

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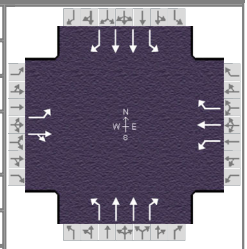
HCS7 Signalized Intersection Results Summary

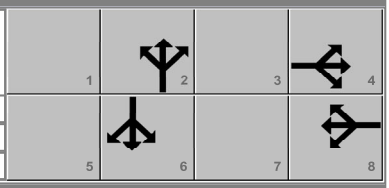
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	Jul 16, 2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm existing with project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Magnolia Boulevard	File Name	7PM WITH.xus		
Project Description	Existing PM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	71	164	14	103	182	211	31	952	170	145	592	58

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	88.4	23.6	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		6.0		5.0		5.0		5.0
Phase Duration, s		27.6		27.6		92.4		92.4
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (MAH), s		3.2		3.2		0.0		0.0
Queue Clearance Time (g_s), s		18.7		21.8				
Green Extension Time (g_e), s		1.5		1.5		0.0		0.0
Phase Call Probability		1.00		1.00				
Max Out Probability		0.00		0.00				

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (v), veh/h	71	178		103	182	211	31	952	170	145	592	58
Adjusted Saturation Flow Rate (s), veh/h/ln	1212	1870		1221	1900	1591	836	1809	1598	598	1809	1560
Queue Service Time (g_s), s	6.6	10.1		9.8	10.2	14.7	1.5	11.4	3.8	13.8	6.2	1.2
Cycle Queue Clearance Time (g_c), s	16.7	10.1		19.8	10.2	14.7	7.8	11.4	3.8	25.3	6.2	1.2
Green Ratio (g/C)	0.20	0.20		0.20	0.20	0.20	0.74	0.74	0.74	0.74	0.74	0.74
Capacity (c), veh/h	198	371		200	377	316	630	2658	1174	442	2658	1146
Volume-to-Capacity Ratio (X)	0.358	0.480		0.515	0.483	0.668	0.049	0.358	0.145	0.328	0.223	0.051
Back of Queue (Q), ft/ln (50 th percentile)	50.4	117		75.3	119.7	145.5	6.7	96	29.4	48.6	52.6	9.3
Back of Queue (Q), veh/ln (50 th percentile)	2.0	4.7		3.0	4.8	5.8	0.3	3.8	1.2	1.9	2.1	0.4
Queue Storage Ratio (RQ) (50 th percentile)	0.72	0.00		0.56	0.00	1.08	0.06	0.80	0.24	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	50.0	42.6		51.4	42.6	44.4	6.3	5.7	4.7	10.3	5.0	4.4
Incremental Delay (d_2), s/veh	0.4	0.4		0.8	0.4	0.9	0.1	0.4	0.3	2.0	0.2	0.1
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	50.4	43.0		52.1	43.0	45.4	6.4	6.1	5.0	12.3	5.2	4.5
Level of Service (LOS)	D	D		D	D	D	A	A	A	B	A	A
Approach Delay, s/veh / LOS	45.1	D		45.9	D		5.9	A		6.5	A	
Intersection Delay, s/veh / LOS	17.1						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.46	B	2.46	B	2.05	B	1.85	B
Bicycle LOS Score / LOS	0.90	A	1.31	A	1.44	A	1.14	A

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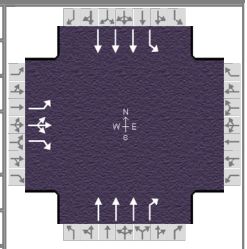
HCS7 Signalized Intersection Results Summary

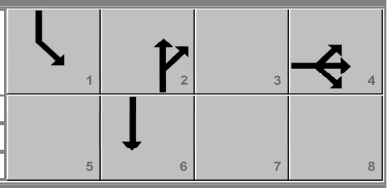
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	7/16/2020	Area Type	Other
Jurisdiction	ladot	Time Period	PM existing with project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	101 Frwy EB off Ramp	File Name	8PM WITH.xus		
Project Description	Existing PM WITH Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	518	2	358					1338	306	238	784	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	17.9	43.8	37.3	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	3.0	3.0	3.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2	1	6
Case Number		9.0				7.3	2.0	4.0
Phase Duration, s		44.3				50.8	24.9	75.7
Change Period, ($Y+R_c$), s		7.0				7.0	7.0	7.0
Max Allow Headway (*MAH*), s		3.3				0.0	3.1	0.0
Queue Clearance Time (g_s), s		35.2					17.5	
Green Extension Time (g_e), s		2.0				0.0	0.4	0.0
Phase Call Probability		1.00					1.00	
Max Out Probability		0.00					0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14					2	12	1	6	
Adjusted Flow Rate (*v*), veh/h	518	2	358					1338	306	238	784	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1808	1900	1547					1725	1604	1810	1723	
Queue Service Time (g_s), s	33.2	0.1	24.9					26.6	18.0	15.5	9.2	
Cycle Queue Clearance Time (g_c), s	33.2	0.1	24.9					26.6	18.0	15.5	9.2	
Green Ratio (*g/C*)	0.31	0.31	0.31					0.37	0.37	0.15	0.57	
Capacity (*c*), veh/h	561	590	480					1891	586	270	2961	
Volume-to-Capacity Ratio (*X*)	0.923	0.003	0.745					0.708	0.522	0.882	0.265	
Back of Queue (*Q*), ft/ln (50 th percentile)	371.9	1	234.4					281.2	184.1	180	87.2	
Back of Queue (*Q*), veh/ln (50 th percentile)	14.9	0.0	9.4					11.2	7.4	7.2	3.5	
Queue Storage Ratio (*RQ*) (50 th percentile)	1.16	0.00	0.73					0.00	0.92	0.82	0.00	
Uniform Delay (d_1), s/veh	40.0	28.6	37.1					32.6	29.9	50.0	12.9	
Incremental Delay (d_2), s/veh	2.8	0.0	0.9					2.3	3.3	3.7	0.2	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	42.8	28.6	38.0					34.9	33.2	53.8	13.1	
Level of Service (LOS)	D	C	D					C	C	D	B	
Approach Delay, s/veh / LOS	40.8	D		0.0			34.5	C		22.6	C	
Intersection Delay, s/veh / LOS	32.7						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.62	C	2.62	C	1.41	A	1.89	B
Bicycle LOS Score / LOS	1.94	B			1.39	A	1.05	A

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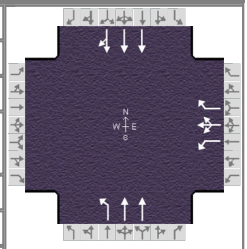
HCS7 Signalized Intersection Results Summary

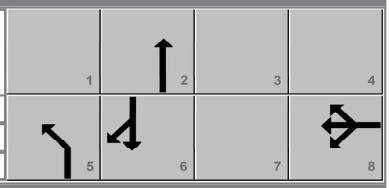
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	7/16/2020	Area Type	Other
Jurisdiction	ladot	Time Period	PM existing with project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	101 Frwy WB off Ramp	File Name	9PM WITH.xus		
Project Description	Existing PM WITH Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h				192	2	278	476	1366			876	393

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	33.7	47.5	23.8	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	3.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase				8	5	2		6
Case Number				9.0	2.0	4.0		8.3
Phase Duration, s				27.8	37.7	92.2		54.5
Change Period, ($Y+R_c$), s				4.0	4.0	7.0		7.0
Max Allow Headway (*MAH*), s				3.3	3.1	0.0		0.0
Queue Clearance Time (g_s), s				22.8	32.8			
Green Extension Time (g_e), s				1.0	1.0	0.0		0.0
Phase Call Probability				1.00	1.00			
Max Out Probability				0.00	0.00			

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement				3	8	18	5	2			6	16
Adjusted Flow Rate (*v*), veh/h				192	2	278	476	1366			876	393
Adjusted Saturation Flow Rate (*s*), veh/h/ln				1801	1900	1565	1810	1809			1900	1610
Queue Service Time (g_s), s				11.5	0.1	20.8	30.8	21.1			32.3	23.4
Cycle Queue Clearance Time (g_c), s				11.5	0.1	20.8	30.8	21.1			32.3	23.4
Green Ratio (*g/C*)				0.20	0.20	0.20	0.28	0.71			0.40	0.40
Capacity (*c*), veh/h				357	377	311	507	2568			1507	638
Volume-to-Capacity Ratio (*X*)				0.537	0.005	0.895	0.939	0.532			0.581	0.616
Back of Queue (*Q*), ft/ln (50 th percentile)				128	1.2	207.4	350.8	187.3			250.7	240.6
Back of Queue (*Q*), veh/ln (50 th percentile)				5.1	0.0	8.3	14.0	7.5			10.0	9.6
Queue Storage Ratio (*RQ*) (50 th percentile)				0.25	0.00	0.41	1.17	0.00			0.00	0.00
Uniform Delay (d_1), s/veh				43.2	38.6	46.9	42.2	8.1			28.4	28.9
Incremental Delay (d_2), s/veh				0.5	0.0	3.7	3.9	0.8			1.6	4.4
Initial Queue Delay (d_3), s/veh				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Control Delay (*d*), s/veh				43.6	38.6	50.6	46.1	8.9			30.0	33.3
Level of Service (LOS)				D	D	D	D	A			C	C
Approach Delay, s/veh / LOS	0.0			47.7		D	18.5		B	31.1		C
Intersection Delay, s/veh / LOS	26.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.48	B	2.32	B	1.86	B	1.40	A
Bicycle LOS Score / LOS			1.27	A	2.01	B	1.19	A

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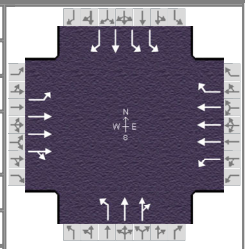
FUTURE HCS WORKSHEETS

WITHOUT PROJECT AM PEAK HOUR

HCS7 Signalized Intersection Results Summary

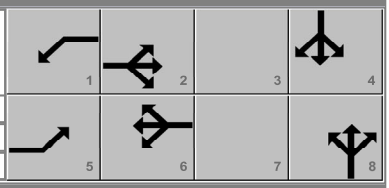
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am future wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	White Oak Avenue	File Name	1AM WO 2024.xus		
Project Description	Future AM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	162	2287	54	79	879	185	70	219	103	576	322	344

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.6	2.3	54.7	27.2	14.3	0.0
Yellow	4.0	0.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	4.0	1.1	3.0		10.0		9.0
Phase Duration, s	11.9	61.0	9.6	58.7		18.3		31.2
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.2		3.2
Queue Clearance Time (g_s), s	7.6		4.7			13.5		24.2
Green Extension Time (g_e), s	0.3	0.0	0.1	0.0		0.8		2.9
Phase Call Probability	1.00		0.93			1.00		1.00
Max Out Probability	0.00		0.00			0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	162	1581	760	79	879	27	70	171	151	576	322	295
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1814	1810	1725	1522	1810	1900	1532	1757	1900	1527
Queue Service Time (g_s), s	5.6	44.9	45.4	2.7	13.4	1.2	4.3	10.5	11.5	18.2	18.9	22.2
Cycle Queue Clearance Time (g_c), s	5.6	44.9	45.4	2.7	13.4	1.2	4.3	10.5	11.5	18.2	18.9	22.2
Green Ratio (*g/C*)	0.52	0.47	0.47	0.50	0.46	0.46	0.12	0.12	0.12	0.23	0.23	0.23
Capacity (*c*), veh/h	399	1804	861	156	2357	693	216	226	183	795	430	346
Volume-to-Capacity Ratio (*X*)	0.406	0.877	0.882	0.505	0.373	0.039	0.325	0.756	0.825	0.724	0.749	0.854
Back of Queue (*Q*), ft/ln (50 th percentile)	57.4	527.4	546.8	28.8	135.1	10.8	48.3	126.5	114.2	196.7	222.8	212.8
Back of Queue (*Q*), veh/ln (50 th percentile)	2.3	21.1	21.9	1.2	5.4	0.4	1.9	5.1	4.6	7.9	8.9	8.5
Queue Storage Ratio (*RQ*) (50 th percentile)	0.41	0.00	0.00	0.16	0.00	0.03	0.88	0.00	0.00	0.98	0.00	0.61
Uniform Delay (d_1), s/veh	16.0	28.4	28.5	27.3	21.4	18.1	48.4	51.2	51.6	43.0	43.2	44.5
Incremental Delay (d_2), s/veh	0.2	6.4	12.7	0.9	0.5	0.1	0.3	1.9	3.6	0.5	1.0	2.4
Initial Queue Delay (d_3), 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
Control Delay (*d*), s/veh	16.2	34.7	41.1	28.2	21.9	18.2	48.7	53.1	55.2	43.4	44.2	46.9
Level of Service (LOS)	B	C	D	C	C	B	D	D	E	D	D	D
Approach Delay, s/veh / LOS	35.5	D		22.3	C		53.1	D		44.5	D	
Intersection Delay, s/veh / LOS	36.4						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.10	B	2.50	B	2.97	C	2.61	C
Bicycle LOS Score / LOS	1.86	B	1.03	A	0.81	A	2.46	B

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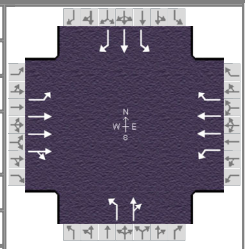
HCS7 Signalized Intersection Results Summary

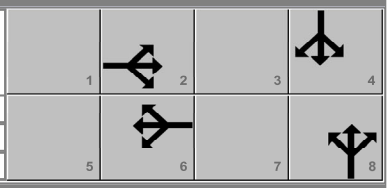
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am future wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Louise Avenue	File Name	2AM WO 2024.xus		
Project Description	Future AM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	54	2509	289	44	932	39	104	39	30	235	191	61

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	84.2	27.8	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		5.0		6.0		5.0
Phase Duration, s		88.2		88.2		31.8		31.8
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (MAH), s		0.0		0.0		3.2		3.2
Queue Clearance Time (g_s), s						22.1		26.5
Green Extension Time (g_e), s		0.0		0.0		1.3		1.3
Phase Call Probability						1.00		1.00
Max Out Probability						0.00		0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	54	1890	908	44	932	39	104	69		235	191	61
Adjusted Saturation Flow Rate (s), veh/h/ln	608	1900	1726	99	1809	1516	1187	1738		1320	1900	1560
Queue Service Time (g_s), s	4.7	35.4	39.7	44.3	12.4	0.9	9.8	3.8		20.8	10.3	3.8
Cycle Queue Clearance Time (g_c), s	17.2	35.4	39.7	84.2	12.4	0.9	20.1	3.8		24.5	10.3	3.8
Green Ratio (g/C)	0.70	0.70	0.70	0.70	0.70	0.70	0.23	0.23		0.23	0.23	0.23
Capacity (c), veh/h	424	2667	1212	96	2539	1064	234	402		324	440	361
Volume-to-Capacity Ratio (X)	0.127	0.708	0.750	0.456	0.367	0.037	0.445	0.172		0.724	0.434	0.169
Back of Queue (Q), ft/ln (50 th percentile)	17.1	335.9	363.4	43.1	110.7	7.3	73	40.6		170.9	120.3	36
Back of Queue (Q), veh/ln (50 th percentile)	0.7	13.4	14.5	1.7	4.4	0.3	2.9	1.6		6.8	4.8	1.4
Queue Storage Ratio (RQ) (50 th percentile)	0.14	0.00	0.00	0.43	0.00	0.00	0.73	0.00		1.22	0.00	0.00
Uniform Delay (d_1), s/veh	10.7	10.6	11.2	41.6	7.2	5.5	47.9	36.9		46.7	39.4	36.9
Incremental Delay (d_2), s/veh	0.6	1.6	4.3	14.8	0.4	0.1	0.5	0.1		1.2	0.3	0.1
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Control Delay (d), s/veh	11.3	12.2	15.5	56.4	7.6	5.5	48.4	37.0		47.8	39.7	37.0
Level of Service (LOS)	B	B	B	E	A	A	D	D		D	D	D
Approach Delay, s/veh / LOS	13.3	B		9.6	A		43.9	D		43.3	D	
Intersection Delay, s/veh / LOS	16.8						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.86	B	2.06	B	2.59	C	2.45	B
Bicycle LOS Score / LOS	2.06	B	1.32	A	0.77	A	1.29	A

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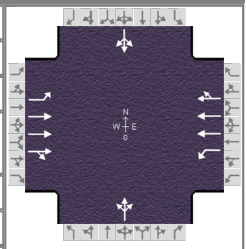
HCS7 Signalized Intersection Results Summary

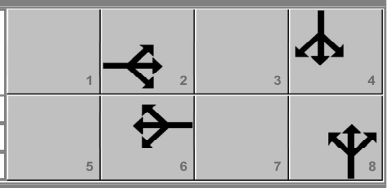
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am future wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Amestoy Avenue	File Name	3AM WO 2024.xus		
Project Description	Future AM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	98	2811	0	0	817	19	0	0	0	6	0	56

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	106.4	5.6	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		12.0		12.0
Phase Duration, s		110.4		110.4		0.0		9.6
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		0.0		3.4
Queue Clearance Time (g_s), s								6.4
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability								0.87
Max Out Probability								1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	98	2811	0	0	564	272		0			62	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	667	1820	0	98	1900	1824		0			1671	
Queue Service Time (g_s), s	2.8	14.5	0.0	0.0	2.4	2.4		0.0			4.4	
Cycle Queue Clearance Time (g_c), s	5.1	14.5	0.0	0.0	2.4	2.4		0.0			4.4	
Green Ratio (*g/C*)	0.89	0.89		0.89	0.89	0.89					0.05	
Capacity (*c*), veh/h	638	4839		60	3369	1617					78	
Volume-to-Capacity Ratio (*X*)	0.154	0.581	0.000	0.000	0.168	0.168		0.000			0.794	
Back of Queue (*Q*), ft/ln (50 th percentile)	6.1	38.9	0	0	6.9	8		0			49.7	
Back of Queue (*Q*), veh/ln (50 th percentile)	0.2	1.6	0.0	0.0	0.3	0.3		0.0			2.0	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.09	0.00	0.00	0.00	0.00	0.00		0.00			0.00	
Uniform Delay (d_1), s/veh	1.3	1.6		0.0	0.9	0.9					56.6	
Incremental Delay (d_2), s/veh	0.5	0.5	0.0	0.0	0.1	0.2		0.0			6.6	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Control Delay (*d*), s/veh	1.8	2.1		0.0	1.0	1.1					63.3	
Level of Service (LOS)	A	A			A	A					E	
Approach Delay, s/veh / LOS	2.1	A		1.1	A		0.0			63.3	E	
Intersection Delay, s/veh / LOS	2.9						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.56	B	1.56	B	2.62	C	2.62	C
Bicycle LOS Score / LOS	2.09	B	0.95	A	0.49	A	0.59	A

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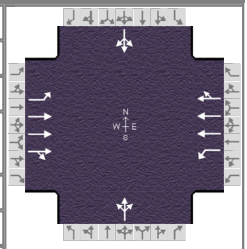
HCS7 Signalized Intersection Results Summary

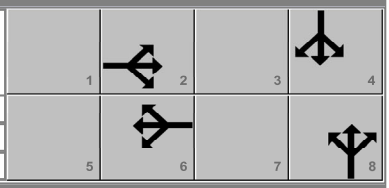
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am future wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Genesta Avenue	File Name	4AM WO 2024.xus		
Project Description	Future AM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	111	2621	26	4	789	22	7	20	4	16	2	48

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	98.0	6.1	3.9	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		12.0		12.0
Phase Duration, s		102.0		102.0		7.9		10.1
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		3.1		3.4
Queue Clearance Time (g_s), s						4.1		6.8
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability						0.64		0.89
Max Out Probability						0.00		0.35

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	111	1783	864	4	548	263		31			66	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	683	1900	1835	115	1900	1815		1786			1627	
Queue Service Time (g_s), s	5.0	19.4	19.6	1.5	3.7	3.7		2.1			4.8	
Cycle Queue Clearance Time (g_c), s	8.7	19.4	19.6	21.1	3.7	3.7		2.1			4.8	
Green Ratio (*g/C*)	0.82	0.82	0.82	0.82	0.82	0.82		0.03			0.05	
Capacity (*c*), veh/h	597	3105	1499	135	3105	1483		58			83	
Volume-to-Capacity Ratio (*X*)	0.186	0.574	0.577	0.030	0.177	0.177		0.539			0.800	
Back of Queue (*Q*), ft/ln (50 th percentile)	16.2	134	139.3	1.3	25.3	25.7		24.1			52.8	
Back of Queue (*Q*), veh/ln (50 th percentile)	0.6	5.4	5.6	0.1	1.0	1.0		1.0			2.1	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.13	0.00	0.00	0.02	0.00	0.00		0.00			0.00	
Uniform Delay (d_1), s/veh	3.3	3.8	3.8	7.4	2.3	2.3		57.2			56.4	
Incremental Delay (d_2), s/veh	0.7	0.8	1.6	0.4	0.1	0.3		2.9			6.5	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Control Delay (*d*), s/veh	4.0	4.6	5.4	7.8	2.5	2.6		60.1			62.9	
Level of Service (LOS)	A	A	A	A	A	A		E			E	
Approach Delay, s/veh / LOS	4.8	A		2.5	A		60.1	E		62.9	E	
Intersection Delay, s/veh / LOS	5.8						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.60	B	1.60	B	2.62	C	2.61	C
Bicycle LOS Score / LOS	2.00	B	0.94	A	0.54	A	0.60	A

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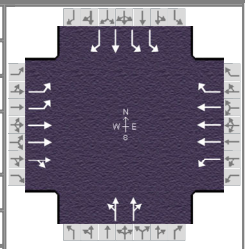
HCS7 Signalized Intersection Results Summary

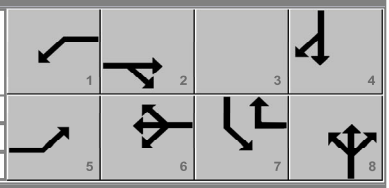
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am future wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Balboa Boulevard	File Name	5AM WO 2024.xus		
Project Description	Future AM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	256	2151	8	54	653	151	14	219	216	423	183	238

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.0	2.1	55.2	17.6	20.1	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	1.1	3.0		12.0		9.0
Phase Duration, s	15.2	65.3	9.0	59.2		24.1		21.6
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.3		3.2
Queue Clearance Time (g_s), s	10.6		3.8			19.1		16.0
Green Extension Time (g_e), s	0.6	0.0	0.1	0.0		1.0		1.6
Phase Call Probability	1.00		0.83			1.00		1.00
Max Out Probability	0.00		0.00			0.00		0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	256	1454	705	54	653	151	233		216	423	183	168
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1842	1810	1725	1533	1894		1478	1757	1900	1489
Queue Service Time (g_s), s	8.6	36.4	36.4	1.8	9.4	5.2	14.0		17.1	14.0	10.9	13.0
Cycle Queue Clearance Time (g_c), s	8.6	36.4	36.4	1.8	9.4	5.2	14.0		17.1	14.0	10.9	13.0
Green Ratio (*g/C*)	0.09	0.51	0.51	0.50	0.46	0.61	0.17		0.17	0.15	0.15	0.15
Capacity (*c*), veh/h	327	1942	941	171	2380	935	317		247	516	279	219
Volume-to-Capacity Ratio (*X*)	0.784	0.749	0.749	0.315	0.274	0.162	0.736		0.874	0.820	0.656	0.769
Back of Queue (*Q*), ft/ln (50 th percentile)	95.4	406.4	412.1	19.2	94.4	44.2	166.5		162.4	154.4	130.1	123.1
Back of Queue (*Q*), veh/ln (50 th percentile)	3.8	16.3	16.5	0.8	3.8	1.8	6.7		6.5	6.2	5.2	4.9
Queue Storage Ratio (*RQ*) (50 th percentile)	0.60	0.00	0.00	0.12	0.00	0.11	0.00		0.00	0.70	0.00	0.77
Uniform Delay (d_1), s/veh	53.2	23.2	23.2	21.5	20.0	10.3	47.5		48.7	49.7	48.3	49.2
Incremental Delay (d_2), s/veh	1.6	2.7	5.5	0.4	0.3	0.4	1.3		3.8	1.3	1.0	2.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	54.8	25.9	28.7	21.9	20.3	10.7	48.7		52.5	50.9	49.3	51.4
Level of Service (LOS)	D	C	C	C	C	B	D		D	D	D	D
Approach Delay, s/veh / LOS	29.8	C		18.7	B		50.6	D		50.6	D	
Intersection Delay, s/veh / LOS	33.3						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.90	B	2.52	C	2.75	C	2.73	C
Bicycle LOS Score / LOS	1.82	B	0.96	A	0.86	A	1.76	B

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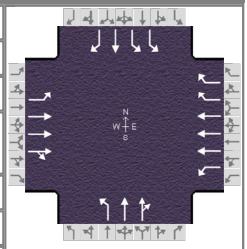
HCS7 Signalized Intersection Results Summary

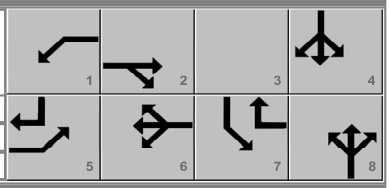
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am future wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Hayvenhurst Avenue	File Name	6AM WO 2024.xus		
Project Description	Future AM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	128	2231	112	40	700	150	119	219	56	955	475	145

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.4	3.1	46.1	11.0	34.5	0.0
Yellow	4.0	0.0	4.0	4.0	0.0	0.0
Red	0.0	0.0	3.0	3.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	1.1	3.0		10.0		9.0
Phase Duration, s	14.4	56.1	11.4	53.1		18.0		34.5
Change Period, ($Y+R_c$), s	4.0	7.0	4.0	7.0		7.0		0.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.2		3.1
Queue Clearance Time (g_s), s	10.3		3.5			12.1		33.9
Green Extension Time (g_e), s	0.2	0.0	0.1	0.0		0.0		0.6
Phase Call Probability	0.99		0.74			1.00		1.00
Max Out Probability	0.00		0.00			1.00		1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	128	1640	703	40	700	150	119	145	130	955	475	145
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1609	1810	1725	1308	1810	1900	1526	1757	1900	1529
Queue Service Time (g_s), s	8.3	49.1	49.1	1.5	11.6	2.4	7.7	9.0	10.1	31.9	28.5	7.9
Cycle Queue Clearance Time (g_c), s	8.3	49.1	49.1	1.5	11.6	2.4	7.7	9.0	10.1	31.9	28.5	7.9
Green Ratio (*g/C*)	0.09	0.41	0.41	0.45	0.38	0.67	0.09	0.09	0.09	0.29	0.29	0.37
Capacity (*c*), veh/h	157	1555	658	171	1987	1813	166	174	140	1011	547	578
Volume-to-Capacity Ratio (*X*)	0.815	1.055	1.067	0.234	0.352	0.083	0.717	0.835	0.926	0.945	0.869	0.251
Back of Queue (*Q*), ft/ln (50 th percentile)	98.3	754.8	710.5	16	119.9	16.1	100.4	139.4	147.9	394.9	376.6	71.3
Back of Queue (*Q*), veh/ln (50 th percentile)	3.9	30.2	28.4	0.6	4.8	0.6	4.0	5.6	5.9	15.8	15.1	2.9
Queue Storage Ratio (*RQ*) (50 th percentile)	0.56	0.00	0.00	0.08	0.00	0.04	0.65	0.00	0.00	1.84	0.00	0.33
Uniform Delay (d_1), s/veh	53.8	35.4	35.4	27.7	26.3	6.9	53.0	53.6	54.1	41.8	40.6	25.9
Incremental Delay (d_2), s/veh	3.9	38.8	54.4	0.3	0.5	0.1	12.1	26.8	53.4	16.1	13.2	0.1
Initial Queue Delay (d_3), 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
Control Delay (*d*), s/veh	57.7	74.2	89.8	28.0	26.8	7.0	65.1	80.4	107.5	57.9	53.8	26.0
Level of Service (LOS)	E	F	F	C	C	A	E	F	F	E	D	C
Approach Delay, s/veh / LOS	77.8	E		23.5	C		84.7	F		53.7	D	
Intersection Delay, s/veh / LOS	62.1						E					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.11	B	2.44	B	2.88	C	2.59	C
Bicycle LOS Score / LOS	1.85	B	0.98	A	0.81	A	3.09	C

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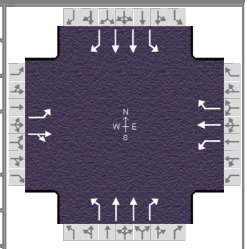
HCS7 Signalized Intersection Results Summary

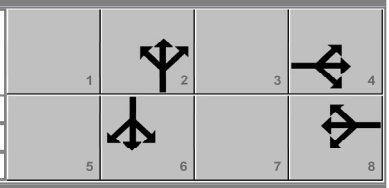
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	Jul 16, 2020	Area Type	Other
Jurisdiction	ladot	Time Period	am future wo project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Magnolia Boulevard	File Name	7AM WO 2024.xus		
Project Description	Future AM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	104	579	11	55	98	55	9	646	306	439	1354	147

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	71.0	41.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		6.0		5.0		5.0		5.0
Phase Duration, s		45.0		45.0		75.0		75.0
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (MAH), s		3.2		3.2		0.0		0.0
Queue Clearance Time (g_s), s		37.8		43.0				
Green Extension Time (g_e), s		0.8		0.0		0.0		0.0
Phase Call Probability		1.00		1.00				
Max Out Probability		0.99		1.00				

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (v), veh/h	104	590		55	98	55	9	646	306	439	1354	147
Adjusted Saturation Flow Rate (s), veh/h/ln	1297	1893		839	1900	1579	408	1809	1556	794	1809	1590
Queue Service Time (g_s), s	7.3	35.8		5.2	4.3	2.9	1.8	10.7	12.0	60.3	29.3	5.0
Cycle Queue Clearance Time (g_c), s	11.6	35.8		41.0	4.3	2.9	31.1	10.7	12.0	71.0	29.3	5.0
Green Ratio (g/C)	0.34	0.34		0.34	0.34	0.34	0.59	0.59	0.59	0.59	0.59	0.59
Capacity (c), veh/h	457	647		97	649	540	202	2140	921	459	2140	941
Volume-to-Capacity Ratio (X)	0.228	0.912		0.570	0.151	0.102	0.045	0.302	0.332	0.956	0.633	0.156
Back of Queue (Q), ft/ln (50 th percentile)	56.8	479.8		44.9	48.8	26.9	4.9	105.9	106.1	433.4	294.6	44.8
Back of Queue (Q), veh/ln (50 th percentile)	2.3	19.2		1.8	2.0	1.1	0.2	4.2	4.2	17.3	11.8	1.8
Queue Storage Ratio (RQ) (50 th percentile)	0.81	0.00		0.33	0.00	0.20	0.04	0.88	0.88	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	31.4	37.8		58.3	27.4	26.9	26.1	12.2	12.5	32.5	16.0	11.0
Incremental Delay (d_2), s/veh	0.1	17.0		5.0	0.0	0.0	0.4	0.4	1.0	32.3	1.4	0.4
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	31.5	54.8		63.3	27.5	27.0	26.5	12.5	13.4	64.8	17.4	11.4
Level of Service (LOS)	C	D		E	C	C	C	B	B	E	B	B
Approach Delay, s/veh / LOS	51.3	D		36.8	D		13.0	B		27.7	C	
Intersection Delay, s/veh / LOS	28.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.44	B	2.44	B	2.08	B	1.89	B
Bicycle LOS Score / LOS	1.63	B	0.83	A	1.28	A	2.09	B

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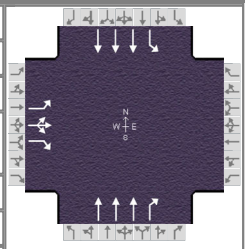
HCS7 Signalized Intersection Results Summary

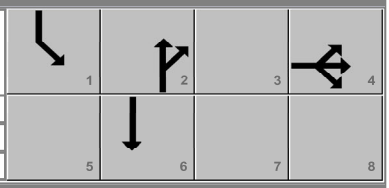
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	7/16/2020	Area Type	Other
Jurisdiction	ladot	Time Period	AM future wo project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	101 Frwy EB off Ramp	File Name	8AM WO 2024.xus		
Project Description	Future AM WO Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	264	3	943					590	184	361	1676	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	17.0	17.0	65.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	3.0	3.0	3.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2	1	6
Case Number		9.0				7.3	2.0	4.0
Phase Duration, s		72.0				24.0	24.0	48.0
Change Period, ($Y+R_c$), s		7.0				7.0	7.0	7.0
Max Allow Headway (*MAH*), s		3.4				0.0	3.1	0.0
Queue Clearance Time (g_s), s		67.0					19.0	
Green Extension Time (g_e), s		0.0				0.0	0.0	0.0
Phase Call Probability		1.00					1.00	
Max Out Probability		1.00					1.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14					2	12	1	6	
Adjusted Flow Rate (*v*), veh/h	264	3	943					590	184	361	1676	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1801	1900	1586					1725	1604	1810	1723	
Queue Service Time (g_s), s	9.5	0.1	65.0					13.3	13.3	17.0	37.9	
Cycle Queue Clearance Time (g_c), s	9.5	0.1	65.0					13.3	13.3	17.0	37.9	
Green Ratio (*g/C*)	0.54	0.54	0.54					0.14	0.14	0.14	0.34	
Capacity (*c*), veh/h	975	1029	859					733	227	256	1766	
Volume-to-Capacity Ratio (*X*)	0.271	0.003	1.098					0.805	0.810	1.408	0.949	
Back of Queue (*Q*), ft/ln (50 th percentile)	94.4	0.9	933.3					157	173.2	555.9	439.6	
Back of Queue (*Q*), veh/ln (50 th percentile)	3.8	0.0	37.3					6.3	6.9	22.2	17.6	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.30	0.00	2.92					0.00	0.87	2.53	0.00	
Uniform Delay (d_1), s/veh	14.8	12.6	27.5					49.9	49.9	51.5	38.5	
Incremental Delay (d_2), s/veh	0.1	0.0	60.9					9.2	25.9	205.4	12.3	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	14.8	12.6	88.4					59.1	75.8	256.9	50.8	
Level of Service (LOS)	B	B	F					E	E	F	D	
Approach Delay, s/veh / LOS	72.2	E		0.0			63.0	E		87.3	F	
Intersection Delay, s/veh / LOS	78.1						E					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.62	C	2.62	C	1.43	A	1.93	B
Bicycle LOS Score / LOS	2.48	B			0.91	A	1.61	B

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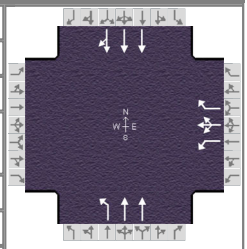
HCS7 Signalized Intersection Results Summary

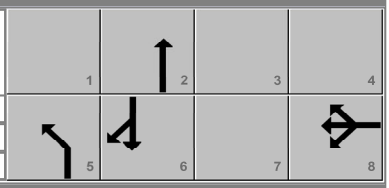
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	7/16/2020	Area Type	Other
Jurisdiction	ladot	Time Period	AM future wo project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	101 Frwy WB off Ramp	File Name	9AM WO 2024.xus		
Project Description	Future AM WO Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h				407	1	404	192	634			1652	356

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	14.8	56.5	33.7	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	3.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase				8	5	2		6
Case Number				9.0	2.0	4.0		8.3
Phase Duration, s				37.7	18.8	82.3		63.5
Change Period, ($Y+R_c$), s				4.0	4.0	7.0		7.0
Max Allow Headway (*MAH*), s				3.3	3.1	0.0		0.0
Queue Clearance Time (g_s), s				31.8	14.5			
Green Extension Time (g_e), s				1.9	0.4	0.0		0.0
Phase Call Probability				1.00	1.00			
Max Out Probability				0.00	0.00			

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement				3	8	18	5	2			6	16
Adjusted Flow Rate (*v*), veh/h				407	1	404	192	634			1375	633
Adjusted Saturation Flow Rate (*s*), veh/h/ln				1806	1900	1574	1810	1809			1900	1725
Queue Service Time (g_s), s				25.1	0.0	29.8	12.5	9.5			63.1	36.8
Cycle Queue Clearance Time (g_c), s				25.1	0.0	29.8	12.5	9.5			63.1	36.8
Green Ratio (*g/C*)				0.28	0.28	0.28	0.12	0.63			0.47	0.47
Capacity (*c*), veh/h				507	533	442	223	2271			1790	813
Volume-to-Capacity Ratio (*X*)				0.803	0.002	0.915	0.859	0.279			0.768	0.779
Back of Queue (*Q*), ft/ln (50 th percentile)				278.2	0.5	293.6	145.9	91.8			411.2	403.4
Back of Queue (*Q*), veh/ln (50 th percentile)				11.1	0.0	11.7	5.8	3.7			16.4	16.1
Queue Storage Ratio (*RQ*) (50 th percentile)				0.55	0.00	0.58	0.49	0.00			0.00	0.00
Uniform Delay (d_1), s/veh				40.1	31.1	41.8	51.6	10.1			26.3	26.5
Incremental Delay (d_2), s/veh				1.2	0.0	3.2	3.7	0.3			3.2	7.3
Initial Queue Delay (d_3), s/veh				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Control Delay (*d*), s/veh				41.2	31.1	45.0	55.3	10.4			29.6	33.8
Level of Service (LOS)				D	C	D	E	B			C	C
Approach Delay, s/veh / LOS	0.0			43.1		D	20.8		C	30.9		C
Intersection Delay, s/veh / LOS	31.3						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.48	B	2.32	B	1.88	B	1.39	A
Bicycle LOS Score / LOS			1.83	B	1.17	A	1.59	B

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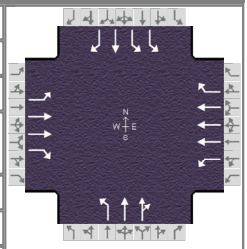
PM PEAK HOUR WITHOUT PROJECT

HCS7 Signalized Intersection Results Summary

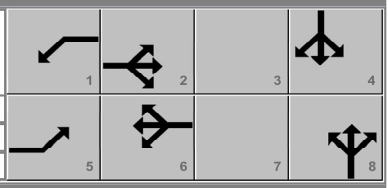
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm future wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	White Oak Avenue	File Name	1PM WO 2024.xus		
Project Description	Future PM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	344	1413	78	122	1848	609	70	250	83	323	172	310

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.4	8.1	54.2	17.0	14.3	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	3.0	1.1	3.0		10.0		9.0
Phase Duration, s	22.5	70.3	10.4	58.2		18.3		21.0
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.2		3.3
Queue Clearance Time (g_s), s	17.9		6.3			13.5		19.0
Green Extension Time (g_e), s	0.7	0.0	0.2	0.0		0.8		0.0
Phase Call Probability	1.00		0.98			1.00		1.00
Max Out Probability	0.00		0.00			0.00		1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	344	1413	78	122	1848	523	70	175	158	323	172	207
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1809	1486	1810	1725	1523	1810	1900	1612	1757	1900	1364
Queue Service Time (g_s), s	15.9	34.4	3.0	4.3	36.6	34.4	4.3	10.7	11.5	10.4	10.3	17.0
Cycle Queue Clearance Time (g_c), s	15.9	34.4	3.0	4.3	36.6	34.4	4.3	10.7	11.5	10.4	10.3	17.0
Green Ratio (*g/C*)	0.62	0.55	0.55	0.50	0.45	0.45	0.12	0.12	0.12	0.14	0.14	0.14
Capacity (*c*), veh/h	377	1999	821	253	2336	687	215	226	192	498	269	193
Volume-to-Capacity Ratio (*X*)	0.913	0.707	0.095	0.483	0.791	0.761	0.325	0.774	0.825	0.649	0.639	1.071
Back of Queue (*Q*), ft/ln (50 th percentile)	256.8	356.8	25.6	44.6	378.9	339.6	48.3	129.7	119.7	117.3	127.8	257.4
Back of Queue (*Q*), veh/ln (50 th percentile)	10.3	14.3	1.0	1.8	15.2	13.6	1.9	5.2	4.8	4.7	5.1	10.3
Queue Storage Ratio (*RQ*) (50 th percentile)	1.83	0.00	0.00	0.24	0.00	0.92	0.88	0.00	0.00	0.59	0.00	0.74
Uniform Delay (d_1), s/veh	33.6	19.7	12.7	19.4	28.1	27.5	48.5	51.3	51.6	48.7	48.6	51.5
Incremental Delay (d_2), s/veh	3.7	2.1	0.2	0.5	2.8	7.8	0.3	2.1	3.4	2.3	3.9	84.9
Initial Queue Delay (d_3), 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
Control Delay (*d*), s/veh	37.3	21.8	12.9	19.9	30.9	35.3	48.8	53.4	55.1	51.0	52.5	136.4
Level of Service (LOS)	D	C	B	B	C	D	D	D	E	D	D	F
Approach Delay, s/veh / LOS	24.4	C		31.3	C		53.3	D		76.6	E	
Intersection Delay, s/veh / LOS	36.4						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.09	B	2.57	C	2.74	C	2.61	C
Bicycle LOS Score / LOS	2.00	B	1.86	B	0.82	A	1.65	B

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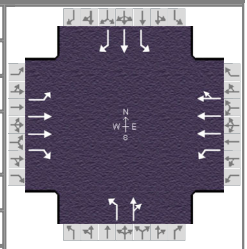
HCS7 Signalized Intersection Results Summary

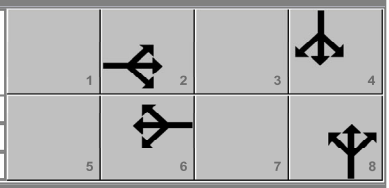
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm future wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Louise Avenue	File Name	2PM WO 2024.xus		
Project Description	Future PM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	96	1594	67	65	2084	157	310	205	80	111	70	108

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	83.0	29.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		5.0		6.0		6.0		5.0
Phase Duration, s		87.0		87.0		33.0		33.0
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (MAH), s		0.0		0.0		3.3		3.3
Queue Clearance Time (g_s), s						31.0		31.0
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability						1.00		1.00
Max Out Probability						1.00		1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	96	1594	67	65	1524	717	310	285		111	70	108
Adjusted Saturation Flow Rate (s), veh/h/ln	172	1809	1529	324	1900	1763	1307	1779		1085	1900	1527
Queue Service Time (g_s), s	57.7	29.1	1.7	16.6	24.8	25.3	25.5	17.4		11.6	3.5	6.9
Cycle Queue Clearance Time (g_c), s	83.0	29.1	1.7	45.7	24.8	25.3	29.0	17.4		29.0	3.5	6.9
Green Ratio (g/C)	0.69	0.69	0.69	0.69	0.69	0.69	0.24	0.24		0.24	0.24	0.24
Capacity (c), veh/h	143	2502	1057	205	2628	1219	338	430		165	459	369
Volume-to-Capacity Ratio (X)	0.672	0.637	0.063	0.316	0.580	0.588	0.917	0.663		0.672	0.152	0.293
Back of Queue (Q), ft/ln (50 th percentile)	94.7	266	13.4	36.8	236.2	233.6	300.6	197.2		93	40.4	64.8
Back of Queue (Q), veh/ln (50 th percentile)	3.8	10.6	0.5	1.5	9.4	9.3	12.0	7.9		3.7	1.6	2.6
Queue Storage Ratio (RQ) (50 th percentile)	0.76	0.00	0.00	0.37	0.00	0.00	3.01	0.00		0.66	0.00	0.00
Uniform Delay (d_1), s/veh	35.1	10.2	6.0	22.8	9.5	9.6	48.6	41.1		54.5	35.8	37.1
Incremental Delay (d_2), s/veh	22.4	1.3	0.1	4.0	0.9	2.1	28.4	3.1		8.4	0.1	0.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Control Delay (d), s/veh	57.5	11.5	6.1	26.8	10.5	11.7	76.9	44.2		62.9	35.9	37.3
Level of Service (LOS)	E	B	A	C	B	B	E	D		E	D	D
Approach Delay, s/veh / LOS	13.8	B		11.3	B		61.2	E		46.8	D	
Intersection Delay, s/veh / LOS	20.3						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.87	B	2.06	B	2.45	B	2.59	C
Bicycle LOS Score / LOS	1.94	B	1.76	B	1.47	A	0.96	A

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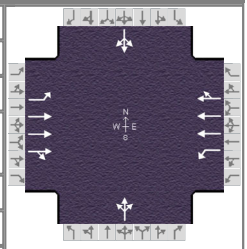
HCS7 Signalized Intersection Results Summary

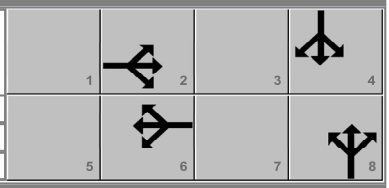
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm future wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Amestoy Avenue	File Name	3PM WO 2024.xus		
Project Description	Future PM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	63	1796	0	0	2224	70	0	0	0	39	0	92

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	100.9	11.1	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		12.0		12.0
Phase Duration, s		104.9		104.9		0.0		15.1
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		0.0		3.3
Queue Clearance Time (g_s), s								11.1
Green Extension Time (g_e), s		0.0		0.0		0.0		0.1
Phase Call Probability								0.99
Max Out Probability								0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	63	1796	0	0	1549	745		0			131	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	164	1882	0	267	1900	1816		0			1701	
Queue Service Time (g_s), s	20.3	8.9	0.0	0.0	13.1	13.3		0.0			9.1	
Cycle Queue Clearance Time (g_c), s	33.6	8.9	0.0	0.0	13.1	13.3		0.0			9.1	
Green Ratio (*g/C*)	0.84	0.84		0.84	0.84	0.84					0.09	
Capacity (*c*), veh/h	180	4749		60	3196	1527					157	
Volume-to-Capacity Ratio (*X*)	0.351	0.378	0.000	0.000	0.485	0.488		0.000			0.834	
Back of Queue (*Q*), ft/ln (50 th percentile)	21.7	50.3	0	0	77.4	80.6		0			101.1	
Back of Queue (*Q*), veh/ln (50 th percentile)	0.9	2.0	0.0	0.0	3.1	3.2		0.0			4.0	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.31	0.00	0.00	0.00	0.00	0.00		0.00			0.00	
Uniform Delay (d_1), s/veh	7.1	2.2		0.0	2.6	2.6					53.6	
Incremental Delay (d_2), s/veh	5.3	0.2	0.0	0.0	0.5	1.1		0.0			4.4	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Control Delay (*d*), s/veh	12.4	2.5		0.0	3.1	3.7					57.9	
Level of Service (LOS)	B	A			A	A					E	
Approach Delay, s/veh / LOS	2.8	A		3.3	A		0.0			57.9	E	
Intersection Delay, s/veh / LOS	4.7						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.59	B	1.59	B	2.62	C	2.62	C
Bicycle LOS Score / LOS	1.51	B	1.75	B	0.49	A	0.70	A

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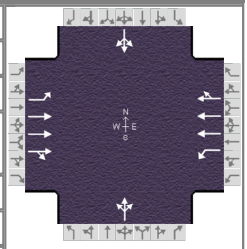
HCS7 Signalized Intersection Results Summary

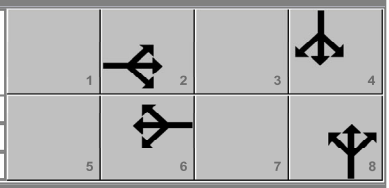
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm future wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Genesta Avenue	File Name	4PM WO 2024.xus		
Project Description	Future PM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	77	1782	16	20	2167	47	32	8	17	25	9	59

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	94.2	8.5	5.3	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		12.0		12.0
Phase Duration, s		98.2		98.2		9.3		12.5
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		3.3		3.5
Queue Clearance Time (g_s), s						6.1		8.8
Green Extension Time (g_e), s		0.0		0.0		0.1		0.1
Phase Call Probability						0.85		0.95
Max Out Probability						0.00		0.12

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	77	1212	586	20	1495	719		57			93	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	177	1900	1836	266	1900	1820		1635			1614	
Queue Service Time (g_s), s	32.8	12.1	12.1	3.1	16.7	16.8		4.1			6.8	
Cycle Queue Clearance Time (g_c), s	49.7	12.1	12.1	15.2	16.7	16.8		4.1			6.8	
Green Ratio (*g/C*)	0.79	0.79	0.79	0.79	0.79	0.79		0.04			0.07	
Capacity (*c*), veh/h	174	2983	1441	242	2983	1429		72			114	
Volume-to-Capacity Ratio (*X*)	0.442	0.406	0.406	0.083	0.501	0.503		0.787			0.815	
Back of Queue (*Q*), ft/ln (50 th percentile)	39.4	94.3	95.6	5.1	130.9	132.9		45.9			72.9	
Back of Queue (*Q*), veh/ln (50 th percentile)	1.6	3.8	3.8	0.2	5.2	5.3		1.8			2.9	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.33	0.00	0.00	0.06	0.00	0.00		0.00			0.00	
Uniform Delay (d_1), s/veh	13.4	4.1	4.1	6.5	4.6	4.6		56.8			55.0	
Incremental Delay (d_2), s/veh	7.9	0.4	0.9	0.7	0.6	1.3		6.9			5.3	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Control Delay (*d*), s/veh	21.4	4.5	4.9	7.1	5.2	5.9		63.7			60.2	
Level of Service (LOS)	C	A	A	A	A	A		E			E	
Approach Delay, s/veh / LOS	5.3	A		5.4	A		63.7	E		60.2	E	
Intersection Delay, s/veh / LOS	7.3						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.61	B	1.61	B	2.62	C	2.61	C
Bicycle LOS Score / LOS	1.52	B	1.72	B	0.58	A	0.64	A

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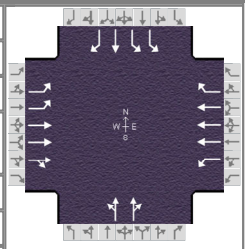
HCS7 Signalized Intersection Results Summary

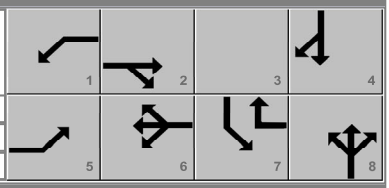
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm future wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Balboa Boulevard	File Name	5PM WO 2024.xus		
Project Description	Future PM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	433	1244	26	73	1681	454	31	260	68	366	109	356

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.5	8.0	49.7	22.0	14.8	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	1.1	3.0		12.0		9.0
Phase Duration, s	21.5	65.7	9.5	53.7		18.8		26.0
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.2		3.2
Queue Clearance Time (g_s), s	16.4		4.7			14.2		20.4
Green Extension Time (g_e), s	1.1	0.0	0.1	0.0		0.7		1.6
Phase Call Probability	1.00		0.91			1.00		1.00
Max Out Probability	0.00		0.00			0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	433	859	411	73	1681	454	195		164	366	109	237
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1817	1810	1725	1539	1885		1656	1757	1900	1497
Queue Service Time (g_s), s	14.4	17.0	17.1	2.7	33.8	20.2	12.2		11.5	11.4	6.0	18.4
Cycle Queue Clearance Time (g_c), s	14.4	17.0	17.1	2.7	33.8	20.2	12.2		11.5	11.4	6.0	18.4
Green Ratio (*g/C*)	0.15	0.51	0.51	0.46	0.41	0.60	0.12		0.12	0.18	0.18	0.18
Capacity (*c*), veh/h	512	1952	933	300	2142	924	233		205	645	349	275
Volume-to-Capacity Ratio (*X*)	0.846	0.440	0.440	0.244	0.785	0.491	0.838		0.800	0.567	0.312	0.862
Back of Queue (*Q*), ft/ln (50 th percentile)	159.4	186.6	183.5	28.6	355.6	177.8	147.1		122.5	123.7	70.1	175.6
Back of Queue (*Q*), veh/ln (50 th percentile)	6.4	7.5	7.3	1.1	14.2	7.1	5.9		4.9	4.9	2.8	7.0
Queue Storage Ratio (*RQ*) (50 th percentile)	1.00	0.00	0.00	0.18	0.00	0.43	0.00		0.00	0.56	0.00	1.10
Uniform Delay (d_1), s/veh	50.0	18.3	18.3	18.5	30.5	13.8	51.4		51.1	44.6	42.4	47.5
Incremental Delay (d_2), s/veh	1.5	0.7	1.5	0.2	3.0	1.9	3.1		2.7	0.3	0.2	3.1
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	51.5	19.0	19.8	18.7	33.5	15.7	54.5		53.9	44.9	42.6	50.6
Level of Service (LOS)	D	B	B	B	C	B	D		D	D	D	D
Approach Delay, s/veh / LOS	27.5	C		29.3	C		54.2	D		46.5	D	
Intersection Delay, s/veh / LOS	32.9						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.90	B	2.60	C	2.75	C	2.74	C
Bicycle LOS Score / LOS	1.42	A	1.70	B	0.78	A	1.66	B

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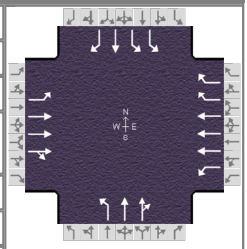
HCS7 Signalized Intersection Results Summary

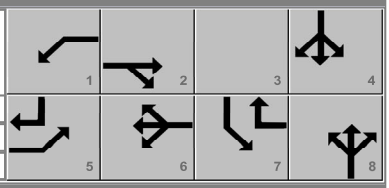
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm future wo project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Hayvenhurst Avenue	File Name	6PM WO 2024.xus		
Project Description	Future PM WO Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	196	1508	100	47	1716	719	222	415	108	259	174	287

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.9	3.2	41.5	21.5	23.9	0.0
Yellow	4.0	4.0	4.0	4.0	0.0	0.0
Red	0.0	0.0	3.0	3.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	1.1	3.0		10.0		9.0
Phase Duration, s	19.1	55.7	11.9	48.5		28.5		23.9
Change Period, ($Y+R_c$), s	4.0	7.0	4.0	7.0		7.0		0.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.2		3.3
Queue Clearance Time (g_s), s	14.7		3.9			20.0		22.2
Green Extension Time (g_e), s	0.4	0.0	0.1	0.0		1.5		1.7
Phase Call Probability	1.00		0.79			1.00		1.00
Max Out Probability	0.00		0.00			0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	196	1133	475	47	1716	719	222	283	240	259	174	287
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1593	1810	1725	1226	1810	1900	1550	1757	1900	1440
Queue Service Time (g_s), s	12.7	30.3	30.3	1.9	38.9	22.7	13.8	17.2	18.0	7.6	9.7	20.2
Cycle Queue Clearance Time (g_c), s	12.7	30.3	30.3	1.9	38.9	22.7	13.8	17.2	18.0	7.6	9.7	20.2
Green Ratio (*g/C*)	0.13	0.41	0.41	0.41	0.35	0.54	0.18	0.18	0.18	0.20	0.20	0.32
Capacity (*c*), veh/h	227	1541	646	223	1790	1407	325	341	278	699	378	487
Volume-to-Capacity Ratio (*X*)	0.862	0.735	0.736	0.211	0.959	0.511	0.683	0.830	0.862	0.370	0.460	0.589
Back of Queue (*Q*), ft/ln (50 th percentile)	149	354	315.5	20.1	456.5	159.8	155.5	206.2	178	82.8	113.8	175.1
Back of Queue (*Q*), veh/ln (50 th percentile)	6.0	14.2	12.6	0.8	18.3	6.4	6.2	8.2	7.1	3.3	4.6	7.0
Queue Storage Ratio (*RQ*) (50 th percentile)	0.85	0.00	0.00	0.11	0.00	0.43	1.00	0.00	0.00	0.38	0.00	0.81
Uniform Delay (d_1), s/veh	51.4	30.2	30.2	24.4	38.4	17.6	46.0	47.5	47.8	41.6	42.4	34.2
Incremental Delay (d_2), s/veh	3.7	3.2	7.3	0.2	13.5	1.3	1.0	2.0	3.1	0.1	0.3	0.4
Initial Queue Delay (d_3), 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
Control Delay (*d*), s/veh	55.2	33.4	37.5	24.6	52.0	18.9	47.0	49.5	50.9	41.7	42.7	34.6
Level of Service (LOS)	E	C	D	C	D	B	D	D	D	D	D	C
Approach Delay, s/veh / LOS	36.8	D		41.9	D		49.2	D		39.1	D	
Intersection Delay, s/veh / LOS	40.9						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.11	B	2.44	B	2.88	C	2.60	C
Bicycle LOS Score / LOS	1.48	A	1.85	B	1.10	A	1.68	B

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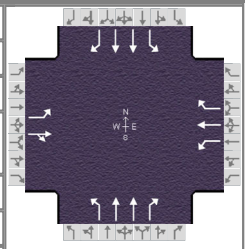
HCS7 Signalized Intersection Results Summary

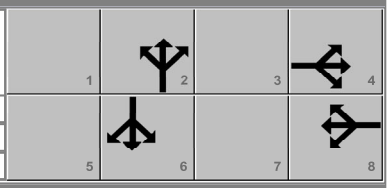
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	Jul 16, 2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm future wo project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Magnolia Boulevard	File Name	7PM WO 2024.xus		
Project Description	Future PM W0 Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	48	171	15	107	189	220	32	996	177	151	649	51

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	86.7	25.3	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		6.0		5.0		5.0		5.0
Phase Duration, s		29.3		29.3		90.7		90.7
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		3.2		3.2		0.0		0.0
Queue Clearance Time (g_s), s		16.7		24.0				
Green Extension Time (g_e), s		1.5		1.3		0.0		0.0
Phase Call Probability		1.00		1.00				
Max Out Probability		0.00		0.06				

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	48	186		107	189	220	32	996	177	151	649	51
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1205	1682		1212	1900	1592	793	1809	1598	574	1809	1559
Queue Service Time (g_s), s	4.4	11.8		10.3	10.5	15.2	1.7	12.6	4.1	16.4	7.3	1.1
Cycle Queue Clearance Time (g_c), s	14.7	11.8		22.0	10.5	15.2	9.1	12.6	4.1	29.2	7.3	1.1
Green Ratio (*g/C*)	0.21	0.21		0.21	0.21	0.21	0.72	0.72	0.72	0.72	0.72	0.72
Capacity (*c*), veh/h	210	354		197	400	335	584	2614	1155	414	2614	1127
Volume-to-Capacity Ratio (*X*)	0.229	0.525		0.542	0.472	0.656	0.055	0.381	0.153	0.365	0.248	0.045
Back of Queue (*Q*), ft/ln (50 th percentile)	32.9	122.4		78.8	122.7	150.1	7.5	109	32.7	56.7	62.7	8.7
Back of Queue (*Q*), veh/ln (50 th percentile)	1.3	4.9		3.2	4.9	6.0	0.3	4.4	1.3	2.3	2.5	0.3
Queue Storage Ratio (*RQ*) (50 th percentile)	0.47	0.00		0.58	0.00	1.11	0.06	0.91	0.27	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	47.9	42.0		51.7	41.5	43.4	7.2	6.4	5.2	12.0	5.6	4.8
Incremental Delay (d_2), s/veh	0.2	0.4		0.9	0.3	0.8	0.2	0.4	0.3	2.5	0.2	0.1
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	48.1	42.5		52.6	41.8	44.2	7.4	6.8	5.5	14.5	5.9	4.8
Level of Service (LOS)	D	D		D	D	D	A	A	A	B	A	A
Approach Delay, s/veh / LOS	43.6	D		45.1	D		6.6	A		7.3	A	
Intersection Delay, s/veh / LOS	17.0						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.46	B	2.46	B	2.05	B	1.86	B
Bicycle LOS Score / LOS	0.87	A	1.34	A	1.48	A	1.19	A

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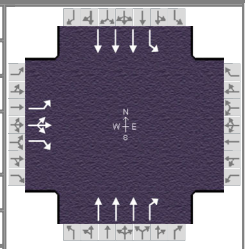
HCS7 Signalized Intersection Results Summary

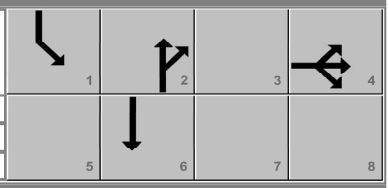
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	7/16/2020	Area Type	Other
Jurisdiction	ladot	Time Period	PM future wo project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	101 Frwy EB off Ramp	File Name	8PM WO 2024.xus		
Project Description	Future PM WO Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	539	2	373					1388	301	248	835	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	18.6	41.8	38.7	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	3.0	3.0	3.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2	1	6
Case Number		9.0				7.3	2.0	4.0
Phase Duration, s		45.7				48.8	25.6	74.3
Change Period, ($Y+R_c$), s		7.0				7.0	7.0	7.0
Max Allow Headway (*MAH*), s		3.3				0.0	3.1	0.0
Queue Clearance Time (g_s), s		36.5					18.1	
Green Extension Time (g_e), s		2.1				0.0	0.5	0.0
Phase Call Probability		1.00					1.00	
Max Out Probability		0.00					0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14					2	12	1	6	
Adjusted Flow Rate (*v*), veh/h	539	2	373					1388	301	248	835	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1808	1900	1549					1725	1604	1810	1723	
Queue Service Time (g_s), s	34.5	0.1	25.8					28.7	18.1	16.1	10.2	
Cycle Queue Clearance Time (g_c), s	34.5	0.1	25.8					28.7	18.1	16.1	10.2	
Green Ratio (*g/C*)	0.32	0.32	0.32					0.35	0.35	0.15	0.56	
Capacity (*c*), veh/h	583	612	499					1801	558	280	2900	
Volume-to-Capacity Ratio (*X*)	0.925	0.003	0.747					0.771	0.539	0.886	0.288	
Back of Queue (*Q*), ft/ln (50 th percentile)	385.7	1	242.3					307.9	187	187.4	97.2	
Back of Queue (*Q*), veh/ln (50 th percentile)	15.4	0.0	9.7					12.3	7.5	7.5	3.9	
Queue Storage Ratio (*RQ*) (50 th percentile)	1.21	0.00	0.76					0.00	0.94	0.85	0.00	
Uniform Delay (d_1), s/veh	39.3	27.6	36.3					34.9	31.4	49.7	13.8	
Incremental Delay (d_2), s/veh	2.8	0.0	0.8					3.3	3.7	3.7	0.3	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	42.1	27.6	37.1					38.1	35.1	53.4	14.0	
Level of Service (LOS)	D	C	D					D	D	D	B	
Approach Delay, s/veh / LOS	40.0	D		0.0			37.6	D		23.1	C	
Intersection Delay, s/veh / LOS	33.9						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.62	C	2.62	C	1.41	A	1.90	B
Bicycle LOS Score / LOS	2.00	B			1.42	A	1.08	A

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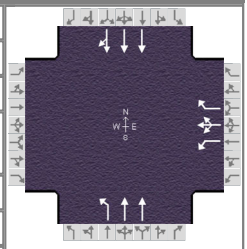
HCS7 Signalized Intersection Results Summary

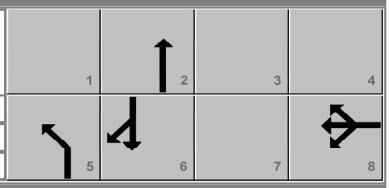
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	7/16/2020	Area Type	Other
Jurisdiction	ladot	Time Period	PM existing wo project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	101 Frwy WB off Ramp	File Name	9PM WO 2024.xus		
Project Description	Future PM WO Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h				200	2	289	483	1430			931	409

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	34.1	46.3	24.7	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	3.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase				8	5	2		6
Case Number				9.0	2.0	4.0		8.3
Phase Duration, s				28.7	38.1	91.3		53.3
Change Period, ($Y+R_c$), s				4.0	4.0	7.0		7.0
Max Allow Headway (*MAH*), s				3.3	3.1	0.0		0.0
Queue Clearance Time (g_s), s				23.6	33.4			
Green Extension Time (g_e), s				1.1	1.0	0.0		0.0
Phase Call Probability				1.00	1.00			
Max Out Probability				0.00	0.00			

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement				3	8	18	5	2			6	16
Adjusted Flow Rate (*v*), veh/h				200	2	289	483	1430			931	409
Adjusted Saturation Flow Rate (*s*), veh/h/ln				1802	1900	1566	1810	1809			1900	1610
Queue Service Time (g_s), s				11.9	0.1	21.6	31.4	23.3			32.2	25.0
Cycle Queue Clearance Time (g_c), s				11.9	0.1	21.6	31.4	23.3			32.2	25.0
Green Ratio (*g/C*)				0.21	0.21	0.21	0.28	0.70			0.39	0.39
Capacity (*c*), veh/h				370	390	322	510	2543			1474	625
Volume-to-Capacity Ratio (*X*)				0.540	0.005	0.898	0.948	0.562			0.632	0.655
Back of Queue (*Q*), ft/ln (50 th percentile)				132.7	1.2	215.3	358.8	209.1			277.3	260.1
Back of Queue (*Q*), veh/ln (50 th percentile)				5.3	0.0	8.6	14.4	8.4			11.1	10.4
Queue Storage Ratio (*RQ*) (50 th percentile)				0.26	0.00	0.42	1.20	0.00			0.00	0.00
Uniform Delay (d_1), s/veh				42.6	37.9	46.4	42.2	8.8			29.8	30.1
Incremental Delay (d_2), s/veh				0.5	0.0	3.7	4.3	0.9			2.1	5.3
Initial Queue Delay (d_3), s/veh				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Control Delay (*d*), s/veh				43.1	37.9	50.1	46.6	9.7			31.8	35.4
Level of Service (LOS)				D	D	D	D	A			C	D
Approach Delay, s/veh / LOS	0.0			47.2		D	19.0		B	32.9		C
Intersection Delay, s/veh / LOS	27.7						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.48	B	2.32	B	1.86	B	1.41	A
Bicycle LOS Score / LOS			1.30	A	2.07	B	1.22	A

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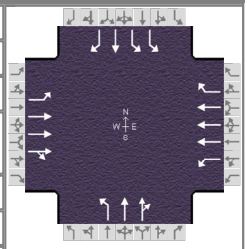
FUTURE + PROJECT HCS WORKSHEETS

WITH PROJECT AM PEAK HOUR

HCS7 Signalized Intersection Results Summary

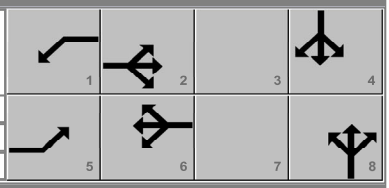
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am future with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	White Oak Avenue	File Name	1AM With 2024.xus		
Project Description	Future AM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	162	2309	54	80	885	188	70	219	105	585	322	344

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.6	2.3	54.5	27.2	14.4	0.0
Yellow	4.0	0.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	4.0	1.1	3.0		10.0		9.0
Phase Duration, s	11.9	60.8	9.6	58.5		18.4		31.2
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.2		3.2
Queue Clearance Time (g_s), s	7.6		4.8			13.6		24.2
Green Extension Time (g_e), s	0.3	0.0	0.1	0.0		0.8		3.0
Phase Call Probability	1.00		0.93			1.00		1.00
Max Out Probability	0.00		0.00			0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	162	1596	767	80	885	28	70	172	152	585	322	295
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1814	1810	1725	1522	1810	1900	1529	1757	1900	1527
Queue Service Time (g_s), s	5.6	45.7	46.3	2.8	13.5	1.2	4.2	10.5	11.6	18.5	18.9	22.2
Cycle Queue Clearance Time (g_c), s	5.6	45.7	46.3	2.8	13.5	1.2	4.2	10.5	11.6	18.5	18.9	22.2
Green Ratio (*g/C*)	0.52	0.47	0.47	0.50	0.45	0.45	0.12	0.12	0.12	0.23	0.23	0.23
Capacity (*c*), veh/h	397	1800	859	155	2352	692	217	228	183	796	430	346
Volume-to-Capacity Ratio (*X*)	0.408	0.887	0.893	0.516	0.376	0.040	0.323	0.757	0.826	0.735	0.748	0.853
Back of Queue (*Q*), ft/ln (50 th percentile)	57.5	539.6	561.1	29.3	136.7	11.3	48.3	127.5	114.8	200.4	222.8	212.8
Back of Queue (*Q*), veh/ln (50 th percentile)	2.3	21.6	22.4	1.2	5.5	0.5	1.9	5.1	4.6	8.0	8.9	8.5
Queue Storage Ratio (*RQ*) (50 th percentile)	0.41	0.00	0.00	0.16	0.00	0.03	0.88	0.00	0.00	1.00	0.00	0.61
Uniform Delay (d_1), s/veh	16.1	28.7	28.8	27.4	21.5	18.2	48.3	51.1	51.6	43.1	43.2	44.5
Incremental Delay (d_2), s/veh	0.3	6.9	13.6	1.0	0.5	0.1	0.3	1.9	3.6	0.5	1.0	2.3
Initial Queue Delay (d_3), 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
Control Delay (*d*), s/veh	16.3	35.5	42.4	28.4	22.0	18.3	48.7	53.0	55.2	43.6	44.2	46.8
Level of Service (LOS)	B	D	D	C	C	B	D	D	E	D	D	D
Approach Delay, s/veh / LOS	36.4	D		22.4	C		53.1	D		44.5	D	
Intersection Delay, s/veh / LOS	36.9						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.10	B	2.50	B	2.98	C	2.61	C
Bicycle LOS Score / LOS	1.88	B	1.03	A	0.81	A	2.47	B

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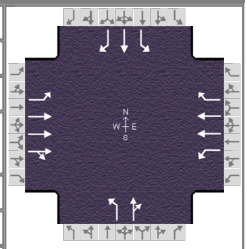
HCS7 Signalized Intersection Results Summary

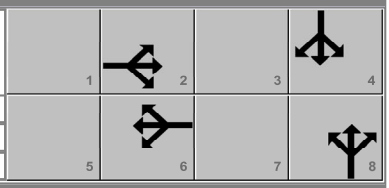
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am future with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Louise Avenue	File Name	2AM WITH 2024.xus		
Project Description	Future AM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	54	2543	289	45	942	40	104	39	32	237	191	61

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	83.9	28.1	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		5.0		6.0		5.0
Phase Duration, s		87.9		87.9		32.1		32.1
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (MAH), s		0.0		0.0		3.2		3.2
Queue Clearance Time (g_s), s						22.0		26.8
Green Extension Time (g_e), s		0.0		0.0		1.3		1.3
Phase Call Probability						1.00		1.00
Max Out Probability						0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	54	1911	921	45	942	40	104	71		237	191	61
Adjusted Saturation Flow Rate (s), veh/h/ln	603	1900	1728	96	1809	1516	1188	1733		1318	1900	1561
Queue Service Time (g_s), s	4.8	36.5	41.2	42.4	12.7	1.0	9.8	3.9		21.0	10.3	3.7
Cycle Queue Clearance Time (g_c), s	17.7	36.5	41.2	83.9	12.7	1.0	20.0	3.9		24.8	10.3	3.7
Green Ratio (g/C)	0.70	0.70	0.70	0.70	0.70	0.70	0.23	0.23		0.23	0.23	0.23
Capacity (c), veh/h	417	2657	1208	94	2529	1060	237	406		326	445	365
Volume-to-Capacity Ratio (X)	0.130	0.719	0.763	0.480	0.372	0.038	0.438	0.175		0.726	0.429	0.167
Back of Queue (Q), ft/ln (50 th percentile)	17.4	347.5	379.5	44.7	113.6	7.6	72.7	41.7		172.3	119.9	35.8
Back of Queue (Q), veh/ln (50 th percentile)	0.7	13.9	15.2	1.8	4.5	0.3	2.9	1.7		6.9	4.8	1.4
Queue Storage Ratio (RQ) (50 th percentile)	0.14	0.00	0.00	0.45	0.00	0.00	0.73	0.00		1.23	0.00	0.00
Uniform Delay (d_1), s/veh	11.0	10.9	11.6	44.1	7.3	5.6	47.6	36.7		46.6	39.1	36.6
Incremental Delay (d_2), s/veh	0.6	1.7	4.6	16.5	0.4	0.1	0.5	0.1		1.2	0.2	0.1
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Control Delay (d), s/veh	11.6	12.6	16.2	60.6	7.8	5.6	48.1	36.8		47.7	39.4	36.7
Level of Service (LOS)	B	B	B	E	A	A	D	D		D	D	D
Approach Delay, s/veh / LOS	13.8	B		10.0	A		43.5	D		43.1	D	
Intersection Delay, s/veh / LOS	17.2						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.87	B	2.06	B	2.59	C	2.45	B
Bicycle LOS Score / LOS	2.07	B	1.33	A	0.78	A	1.29	A

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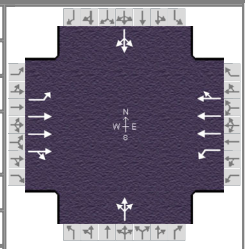
HCS7 Signalized Intersection Results Summary

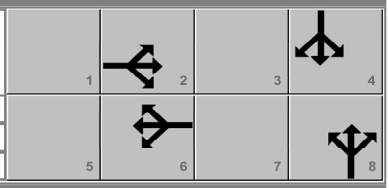
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am future with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Amestoy Avenue	File Name	3AM WITH 2024.xus		
Project Description	Future AM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	119	2830	0	0	822	34	0	0	0	10	0	62

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	105.5	6.5	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		12.0		12.0
Phase Duration, s		109.5		109.5		0.0		10.5
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		0.0		3.4
Queue Clearance Time (g_s), s								7.1
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability								0.91
Max Out Probability								0.49

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	119	2830	0	0	579	277		0			72	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	655	1882	0	96	1900	1807		0			1671	
Queue Service Time (g_s), s	3.8	14.6	0.0	0.0	2.6	2.6		0.0			5.1	
Cycle Queue Clearance Time (g_c), s	6.4	14.6	0.0	0.0	2.6	2.6		0.0			5.1	
Green Ratio (*g/C*)	0.88	0.88		0.88	0.88	0.88					0.05	
Capacity (*c*), veh/h	621	4965		60	3341	1588					90	
Volume-to-Capacity Ratio (*X*)	0.191	0.570	0.000	0.000	0.173	0.174		0.000			0.796	
Back of Queue (*Q*), ft/ln (50 th percentile)	9	48.7	0	0	9	9.9		0			57.2	
Back of Queue (*Q*), veh/ln (50 th percentile)	0.4	1.9	0.0	0.0	0.4	0.4		0.0			2.3	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.13	0.00	0.00	0.00	0.00	0.00		0.00			0.00	
Uniform Delay (d_1), s/veh	1.5	1.8		0.0	1.0	1.0					56.1	
Incremental Delay (d_2), s/veh	0.7	0.5	0.0	0.0	0.1	0.2		0.0			5.9	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Control Delay (*d*), s/veh	2.2	2.2		0.0	1.1	1.3					62.0	
Level of Service (LOS)	A	A			A	A					E	
Approach Delay, s/veh / LOS	2.2	A		1.2	A		0.0			62.0	E	
Intersection Delay, s/veh / LOS	3.1						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.57	B	1.57	B	2.62	C	2.62	C
Bicycle LOS Score / LOS	2.11	B	0.96	A	0.49	A	0.61	A

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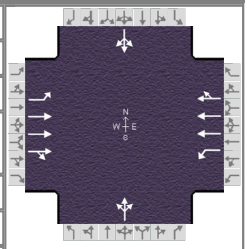
HCS7 Signalized Intersection Results Summary

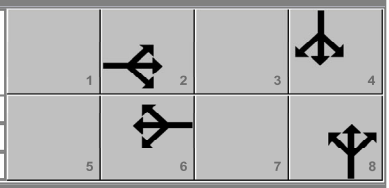
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am future with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Genesta Avenue	File Name	4AM With 2024.xus		
Project Description	Future AM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	130	2625	26	4	804	41	7	20	4	21	2	53

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	97.2	6.9	3.9	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		12.0		12.0
Phase Duration, s		101.2		101.2		7.9		10.9
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (MAH), s		0.0		0.0		3.1		3.4
Queue Clearance Time (g_s), s						4.1		7.5
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability						0.64		0.92
Max Out Probability						0.00		0.06

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	130	1785	866	4	573	272		31			76	
Adjusted Saturation Flow Rate (s), veh/h/ln	662	1900	1835	115	1900	1791		1786			1648	
Queue Service Time (g_s), s	6.6	20.2	20.4	1.6	4.0	4.1		2.1			5.5	
Cycle Queue Clearance Time (g_c), s	10.7	20.2	20.4	21.9	4.0	4.1		2.1			5.5	
Green Ratio (g/C)	0.81	0.81	0.81	0.81	0.81	0.81		0.03			0.06	
Capacity (c), veh/h	574	3078	1487	133	3078	1451		58			95	
Volume-to-Capacity Ratio (X)	0.227	0.580	0.582	0.030	0.186	0.187		0.539			0.800	
Back of Queue (Q), ft/ln (50 th percentile)	21.3	143.7	148.9	1.3	28.5	28.5		24.1			60.1	
Back of Queue (Q), veh/ln (50 th percentile)	0.9	5.7	6.0	0.1	1.1	1.1		1.0			2.4	
Queue Storage Ratio (RQ) (50 th percentile)	0.18	0.00	0.00	0.02	0.00	0.00		0.00			0.00	
Uniform Delay (d_1), s/veh	3.7	4.1	4.1	8.0	2.5	2.5		57.2			55.9	
Incremental Delay (d_2), s/veh	0.9	0.8	1.7	0.4	0.1	0.3		2.9			5.7	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Control Delay (d), s/veh	4.7	4.9	5.8	8.5	2.7	2.8		60.1			61.6	
Level of Service (LOS)	A	A	A	A	A	A		E			E	
Approach Delay, s/veh / LOS	5.1	A		2.8	A		60.1	E		61.6	E	
Intersection Delay, s/veh / LOS	6.2						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.60	B	1.60	B	2.62	C	2.61	C
Bicycle LOS Score / LOS	2.02	B	0.95	A	0.54	A	0.61	A

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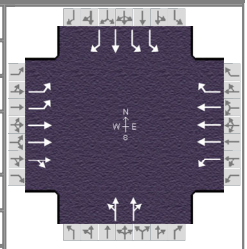
HCS7 Signalized Intersection Results Summary

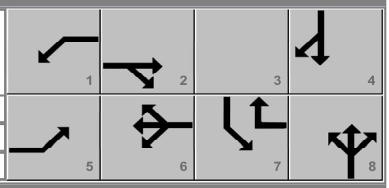
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am future with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Balboa Boulevard	File Name	5AM WITH 2024.xus		
Project Description	Future AM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	257	2159	8	54	683	151	14	219	216	423	183	240

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.0	2.2	55.1	17.6	20.1	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	1.1	3.0		12.0		9.0
Phase Duration, s	15.2	65.3	9.0	59.1		24.1		21.6
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.3		3.2
Queue Clearance Time (g_s), s	10.6		3.8			19.1		16.0
Green Extension Time (g_e), s	0.6	0.0	0.1	0.0		1.0		1.6
Phase Call Probability	1.00		0.83			1.00		1.00
Max Out Probability	0.00		0.00			0.00		0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	257	1459	708	54	683	151	233		216	423	183	170
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1842	1810	1725	1533	1894		1478	1757	1900	1489
Queue Service Time (g_s), s	8.6	36.6	36.6	1.8	9.9	5.2	14.0		17.1	14.0	10.9	13.2
Cycle Queue Clearance Time (g_c), s	8.6	36.6	36.6	1.8	9.9	5.2	14.0		17.1	14.0	10.9	13.2
Green Ratio (*g/C*)	0.09	0.51	0.51	0.50	0.46	0.61	0.17		0.17	0.15	0.15	0.15
Capacity (*c*), veh/h	328	1942	941	171	2378	934	317		247	516	279	219
Volume-to-Capacity Ratio (*X*)	0.784	0.752	0.752	0.317	0.287	0.162	0.736		0.874	0.820	0.656	0.778
Back of Queue (*Q*), ft/ln (50 th percentile)	95.8	409.1	415	19.2	99.4	44.2	166.5		162.4	154.4	130.1	124.9
Back of Queue (*Q*), veh/ln (50 th percentile)	3.8	16.4	16.6	0.8	4.0	1.8	6.7		6.5	6.2	5.2	5.0
Queue Storage Ratio (*RQ*) (50 th percentile)	0.60	0.00	0.00	0.12	0.00	0.11	0.00		0.00	0.70	0.00	0.78
Uniform Delay (d_1), s/veh	53.2	23.3	23.3	21.6	20.2	10.3	47.5		48.7	49.7	48.3	49.3
Incremental Delay (d_2), s/veh	1.6	2.7	5.5	0.4	0.3	0.4	1.3		3.8	1.3	1.0	2.3
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	54.8	26.0	28.8	22.0	20.5	10.7	48.7		52.5	50.9	49.3	51.6
Level of Service (LOS)	D	C	C	C	C	B	D		D	D	D	D
Approach Delay, s/veh / LOS	29.9	C		18.9	B		50.6	D		50.7	D	
Intersection Delay, s/veh / LOS	33.3						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.90	B	2.52	C	2.75	C	2.73	C
Bicycle LOS Score / LOS	1.82	B	0.98	A	0.86	A	1.77	B

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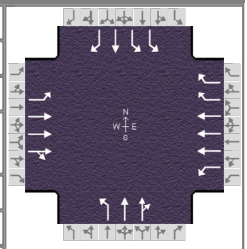
HCS7 Signalized Intersection Results Summary

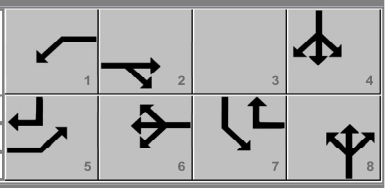
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	am future with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Hayvenhurst Avenue	File Name	6AM WITH 2024.xus		
Project Description	Future AM With Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	128	2238	115	40	723	150	125	219	56	955	475	146

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.4	3.1	46.1	11.0	34.5	0.0
Yellow	4.0	0.0	4.0	4.0	0.0	0.0
Red	0.0	0.0	3.0	3.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	1.1	3.0		10.0		9.0
Phase Duration, s	14.4	56.1	11.4	53.1		18.0		34.5
Change Period, ($Y+R_c$), s	4.0	7.0	4.0	7.0		7.0		0.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.2		3.1
Queue Clearance Time (g_s), s	10.3		3.5			12.1		33.9
Green Extension Time (g_e), s	0.2	0.0	0.1	0.0		0.0		0.6
Phase Call Probability	0.99		0.74			1.00		1.00
Max Out Probability	0.00		0.00			1.00		1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	128	1647	706	40	723	150	125	145	130	955	475	146
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1607	1810	1725	1308	1810	1900	1526	1757	1900	1529
Queue Service Time (g_s), s	8.3	49.1	49.1	1.5	12.0	2.4	8.1	9.0	10.1	31.9	28.5	7.9
Cycle Queue Clearance Time (g_c), s	8.3	49.1	49.1	1.5	12.0	2.4	8.1	9.0	10.1	31.9	28.5	7.9
Green Ratio (*g/C*)	0.09	0.41	0.41	0.45	0.38	0.67	0.09	0.09	0.09	0.29	0.29	0.37
Capacity (*c*), veh/h	157	1555	658	171	1987	1813	166	174	140	1011	547	579
Volume-to-Capacity Ratio (*X*)	0.815	1.059	1.072	0.234	0.364	0.083	0.754	0.835	0.926	0.945	0.869	0.252
Back of Queue (*Q*), ft/ln (50 th percentile)	98.3	763.2	717.9	16	124.4	16.1	109.4	139.4	147.9	394.9	376.6	71.9
Back of Queue (*Q*), veh/ln (50 th percentile)	3.9	30.5	28.7	0.6	5.0	0.6	4.4	5.6	5.9	15.8	15.1	2.9
Queue Storage Ratio (*RQ*) (50 th percentile)	0.56	0.00	0.00	0.08	0.00	0.04	0.71	0.00	0.00	1.84	0.00	0.33
Uniform Delay (d_1), s/veh	53.8	35.4	35.4	27.7	26.5	6.9	53.2	53.6	54.1	41.8	40.6	26.0
Incremental Delay (d_2), s/veh	3.9	40.3	56.1	0.3	0.5	0.1	15.9	26.8	53.4	16.1	13.2	0.1
Initial Queue Delay (d_3), 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
Control Delay (*d*), s/veh	57.7	75.8	91.6	28.0	27.0	7.0	69.0	80.4	107.5	57.9	53.8	26.0
Level of Service (LOS)	E	F	F	C	C	A	E	F	F	E	D	C
Approach Delay, s/veh / LOS	79.3	E		23.7	C		85.6	F		53.7	D	
Intersection Delay, s/veh / LOS	62.8						E					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.11	B	2.44	B	2.88	C	2.59	C
Bicycle LOS Score / LOS	1.85	B	0.99	A	0.82	A	3.09	C

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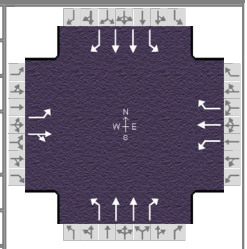
HCS7 Signalized Intersection Results Summary

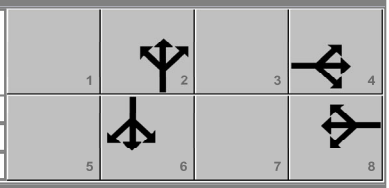
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	Jul 16, 2020	Area Type	Other
Jurisdiction	ladot	Time Period	am future with project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Magnolia Boulevard	File Name	7AM WITH 2024.xus		
Project Description	Future AM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	110	579	11	55	98	55	9	653	306	439	1377	169

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	72.0	40.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		6.0		5.0		5.0		5.0
Phase Duration, s		44.0		44.0		76.0		76.0
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (MAH), s		3.2		3.2		0.0		0.0
Queue Clearance Time (g_s), s		38.2		42.0				
Green Extension Time (g_e), s		0.5		0.0		0.0		0.0
Phase Call Probability		1.00		1.00				
Max Out Probability		1.00		1.00				

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (v), veh/h	110	590		55	98	55	9	653	306	439	1377	169
Adjusted Saturation Flow Rate (s), veh/h/ln	1296	1893		839	1900	1578	400	1809	1556	789	1809	1590
Queue Service Time (g_s), s	7.8	36.2		3.8	4.4	2.9	1.8	10.6	11.7	61.4	29.5	5.7
Cycle Queue Clearance Time (g_c), s	12.2	36.2		40.0	4.4	2.9	31.3	10.6	11.7	72.0	29.5	5.7
Green Ratio (g/C)	0.33	0.33		0.33	0.33	0.33	0.60	0.60	0.60	0.60	0.60	0.60
Capacity (c), veh/h	445	631		86	633	526	202	2171	934	464	2171	954
Volume-to-Capacity Ratio (X)	0.247	0.935		0.637	0.155	0.105	0.045	0.301	0.328	0.946	0.634	0.177
Back of Queue (Q), ft/ln (50 th percentile)	61.4	501.5		48.3	49.5	27.3	4.8	104.5	103.4	423.3	294.8	50.9
Back of Queue (Q), veh/ln (50 th percentile)	2.5	20.1		1.9	2.0	1.1	0.2	4.2	4.1	16.9	11.8	2.0
Queue Storage Ratio (RQ) (50 th percentile)	0.88	0.00		0.36	0.00	0.20	0.04	0.87	0.86	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	32.4	38.7		59.1	28.1	27.6	25.6	11.7	11.9	31.7	15.5	10.7
Incremental Delay (d_2), s/veh	0.1	21.0		11.3	0.0	0.0	0.4	0.4	0.9	30.3	1.4	0.4
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	32.5	59.8		70.4	28.2	27.7	26.0	12.1	12.9	62.1	16.9	11.1
Level of Service (LOS)	C	E		E	C	C	C	B	B	E	B	B
Approach Delay, s/veh / LOS	55.5	E		39.2	D		12.5	B		26.4	C	
Intersection Delay, s/veh / LOS	28.9						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.44	B	2.44	B	2.08	B	1.89	B
Bicycle LOS Score / LOS	1.64	B	0.83	A	1.29	A	2.13	B

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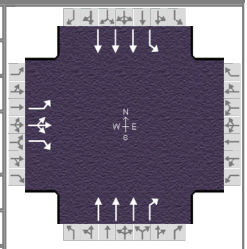
HCS7 Signalized Intersection Results Summary

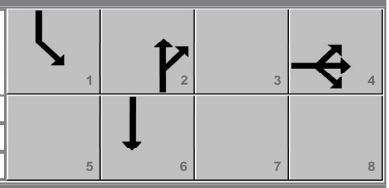
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	7/16/2020	Area Type	Other
Jurisdiction	ladot	Time Period	AM future with project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	101 Frwy EB off Ramp	File Name	8AM WITH 2024.xus		
Project Description	Future AM WITH Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	264	3	957					598	189	361	1707	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	17.0	17.0	65.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	3.0	3.0	3.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2	1	6
Case Number		9.0				7.3	2.0	4.0
Phase Duration, s		72.0				24.0	24.0	48.0
Change Period, ($Y+R_c$), s		7.0				7.0	7.0	7.0
Max Allow Headway (*MAH*), s		3.4				0.0	3.1	0.0
Queue Clearance Time (g_s), s		67.0					19.0	
Green Extension Time (g_e), s		0.0				0.0	0.0	0.0
Phase Call Probability		1.00					1.00	
Max Out Probability		1.00					1.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14					2	12	1	6	
Adjusted Flow Rate (*v*), veh/h	264	3	957					598	189	361	1707	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1801	1900	1586					1725	1604	1810	1723	
Queue Service Time (g_s), s	9.5	0.1	65.0					13.5	13.8	17.0	39.0	
Cycle Queue Clearance Time (g_c), s	9.5	0.1	65.0					13.5	13.8	17.0	39.0	
Green Ratio (*g/C*)	0.54	0.54	0.54					0.14	0.14	0.14	0.34	
Capacity (*c*), veh/h	975	1029	859					733	227	256	1766	
Volume-to-Capacity Ratio (*X*)	0.271	0.003	1.114					0.816	0.832	1.408	0.967	
Back of Queue (*Q*), ft/ln (50 th percentile)	94.4	0.9	969.3					160	181.4	555.9	460.6	
Back of Queue (*Q*), veh/ln (50 th percentile)	3.8	0.0	38.8					6.4	7.3	22.2	18.4	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.30	0.00	3.03					0.00	0.91	2.53	0.00	
Uniform Delay (d_1), s/veh	14.8	12.6	27.5					50.0	50.1	51.5	38.8	
Incremental Delay (d_2), s/veh	0.1	0.0	67.0					9.7	28.5	205.4	14.8	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	14.8	12.6	94.5					59.7	78.6	256.9	53.7	
Level of Service (LOS)	B	B	F					E	E	F	D	
Approach Delay, s/veh / LOS	77.1	E		0.0			64.2	E		89.1	F	
Intersection Delay, s/veh / LOS	80.7						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.62	C	2.62	C	1.43	A	1.93	B
Bicycle LOS Score / LOS	2.51	C			0.92	A	1.63	B

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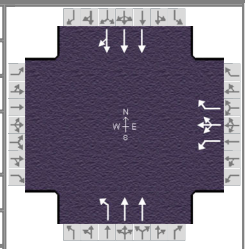
HCS7 Signalized Intersection Results Summary

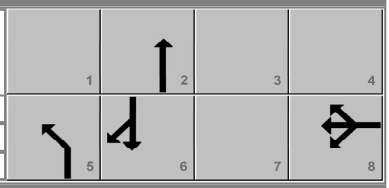
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	7/16/2020	Area Type	CBD
Jurisdiction	ladot	Time Period	AM future with project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	101 Frwy WB off Ramp	File Name	9AM WITH 2024.xus		
Project Description	Future AM WITH Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h				425	1	404	196	638			1665	356

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	16.5	51.5	37.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	3.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase				8	5	2		6
Case Number				9.0	2.0	4.0		8.3
Phase Duration, s				41.0	20.5	79.0		58.5
Change Period, ($Y+R_c$), s				4.0	4.0	7.0		7.0
Max Allow Headway (*MAH*), s				3.3	3.1	0.0		0.0
Queue Clearance Time (g_s), s				35.1	16.2			
Green Extension Time (g_e), s				1.9	0.4	0.0		0.0
Phase Call Probability				1.00	1.00			
Max Out Probability				0.00	0.00			

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement				3	8	18	5	2			6	16
Adjusted Flow Rate (*v*), veh/h				425	1	404	196	638			1384	637
Adjusted Saturation Flow Rate (*s*), veh/h/ln				1625	1710	1418	1629	1628			1710	1554
Queue Service Time (g_s), s				29.4	0.0	33.1	14.2	11.7			75.5	47.6
Cycle Queue Clearance Time (g_c), s				29.4	0.0	33.1	14.2	11.7			75.5	47.6
Green Ratio (*g/C*)				0.31	0.31	0.31	0.14	0.60			0.43	0.43
Capacity (*c*), veh/h				501	527	437	224	1954			1469	667
Volume-to-Capacity Ratio (*X*)				0.849	0.002	0.924	0.876	0.326			0.942	0.955
Back of Queue (*Q*), ft/ln (50 th percentile)				292.7	0.5	293	149.5	104.3			529.6	547.3
Back of Queue (*Q*), veh/ln (50 th percentile)				11.7	0.0	11.7	6.0	4.2			21.2	21.9
Queue Storage Ratio (*RQ*) (50 th percentile)				0.57	0.00	0.57	0.50	0.00			0.00	0.00
Uniform Delay (d_1), s/veh				38.9	28.7	40.2	50.8	11.9			32.8	33.1
Incremental Delay (d_2), s/veh				1.6	0.0	3.7	4.2	0.4			13.2	25.4
Initial Queue Delay (d_3), s/veh				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Control Delay (*d*), s/veh				40.5	28.7	43.8	55.0	12.4			46.0	58.5
Level of Service (LOS)				D	C	D	E	B			D	E
Approach Delay, s/veh / LOS	0.0			42.1		D	22.4		C	49.9		D
Intersection Delay, s/veh / LOS	41.9						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.48	B	2.32	B	1.89	B	1.40	A
Bicycle LOS Score / LOS			1.86	B	1.18	A	1.60	B

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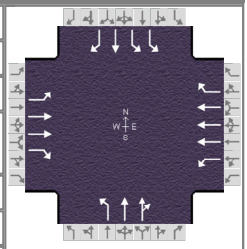
WITH PROJECT PM PEAK HOUR

HCS7 Signalized Intersection Results Summary

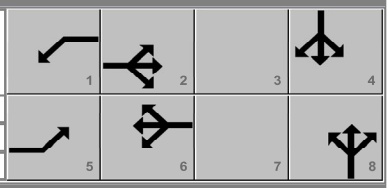
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm future with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	White Oak Avenue	File Name	1PM With 2024.xus		
Project Description	Future PM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	344	1422	78	114	1873	619	70	250	84	327	172	310

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.1	8.7	53.9	17.0	14.3	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	3.0	1.1	3.0		10.0		9.0
Phase Duration, s	22.8	70.6	10.1	57.9		18.3		21.0
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.2		3.3
Queue Clearance Time (g_s), s	18.1		6.0			13.6		19.0
Green Extension Time (g_e), s	0.7	0.0	0.2	0.0		0.8		0.0
Phase Call Probability	1.00		0.98			1.00		1.00
Max Out Probability	0.00		0.00			0.00		1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	344	1422	78	114	1873	529	70	175	159	327	172	207
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1809	1487	1810	1725	1523	1810	1900	1610	1757	1900	1364
Queue Service Time (g_s), s	16.1	34.6	3.0	4.0	37.5	35.2	4.3	10.7	11.6	10.6	10.3	17.0
Cycle Queue Clearance Time (g_c), s	16.1	34.6	3.0	4.0	37.5	35.2	4.3	10.7	11.6	10.6	10.3	17.0
Green Ratio (*g/C*)	0.62	0.55	0.55	0.50	0.45	0.45	0.12	0.12	0.12	0.14	0.14	0.14
Capacity (*c*), veh/h	377	2007	825	248	2325	684	216	227	192	498	269	193
Volume-to-Capacity Ratio (*X*)	0.913	0.708	0.095	0.460	0.806	0.773	0.324	0.774	0.826	0.657	0.639	1.071
Back of Queue (*Q*), ft/ln (50 th percentile)	256.8	358.6	25.5	41.9	389.5	348.4	48.3	130.2	120	119.2	127.8	257.4
Back of Queue (*Q*), veh/ln (50 th percentile)	10.3	14.3	1.0	1.7	15.6	13.9	1.9	5.2	4.8	4.8	5.1	10.3
Queue Storage Ratio (*RQ*) (50 th percentile)	1.83	0.00	0.00	0.23	0.00	0.94	0.88	0.00	0.00	0.60	0.00	0.74
Uniform Delay (d_1), s/veh	34.1	19.6	12.5	19.4	28.5	27.9	48.4	51.3	51.6	48.7	48.6	51.5
Incremental Delay (d_2), s/veh	3.7	2.1	0.2	0.5	3.1	8.3	0.3	2.1	3.4	2.5	3.9	84.9
Initial Queue Delay (d_3), 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
Control Delay (*d*), s/veh	37.8	21.7	12.8	19.9	31.6	36.2	48.7	53.4	55.0	51.3	52.5	136.4
Level of Service (LOS)	D	C	B	B	C	D	D	D	E	D	D	F
Approach Delay, s/veh / LOS	24.4	C		32.1	C		53.2	D		76.5	E	
Intersection Delay, s/veh / LOS	36.8						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.09	B	2.57	C	2.75	C	2.61	C
Bicycle LOS Score / LOS	2.01	B	1.87	B	0.82	A	1.65	B

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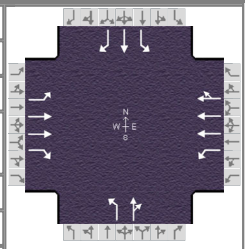
HCS7 Signalized Intersection Results Summary

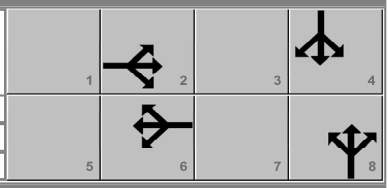
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	CBD
Jurisdiction	ladot	Time Period	pm future with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Louise Avenue	File Name	2PM With 2024.xus		
Project Description	Future PM With Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	96	1608	67	67	2120	159	310	205	81	112	70	108

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	82.0	30.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		5.0		6.0		6.0		5.0
Phase Duration, s		86.0		86.0		34.0		34.0
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (MAH), s		0.0		0.0		3.5		3.5
Queue Clearance Time (g_s), s						32.0		32.0
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability						1.00		1.00
Max Out Probability						1.00		1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	96	1608	67	67	1550	729	310	286		112	70	108
Adjusted Saturation Flow Rate (s), veh/h/ln	149	1628	1376	288	1710	1587	1178	1601		977	1710	1377
Queue Service Time (g_s), s	49.7	37.1	1.9	22.8	31.5	32.3	26.2	19.6		10.4	3.8	7.7
Cycle Queue Clearance Time (g_c), s	82.0	37.1	1.9	59.9	31.5	32.3	30.0	19.6		30.0	3.8	7.7
Green Ratio (g/C)	0.68	0.68	0.68	0.68	0.68	0.68	0.25	0.25		0.25	0.25	0.25
Capacity (c), veh/h	122	2225	940	168	2337	1084	317	400		145	428	344
Volume-to-Capacity Ratio (X)	0.788	0.723	0.071	0.400	0.663	0.673	0.979	0.715		0.773	0.164	0.314
Back of Queue (Q), ft/ln (50 th percentile)	105.4	311.4	14	46.8	275.8	276.4	331.7	204.8		105.2	40.1	64.6
Back of Queue (Q), veh/ln (50 th percentile)	4.2	12.5	0.6	1.9	11.0	11.1	13.3	8.2		4.2	1.6	2.6
Queue Storage Ratio (RQ) (50 th percentile)	0.84	0.00	0.00	0.47	0.00	0.00	3.32	0.00		0.75	0.00	0.00
Uniform Delay (d_1), s/veh	44.0	11.9	6.3	30.6	11.0	11.1	49.2	41.1		56.1	35.2	36.6
Incremental Delay (d_2), s/veh	38.9	2.1	0.1	7.0	1.5	3.3	44.4	5.1		20.5	0.1	0.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Control Delay (d), s/veh	82.9	14.0	6.5	37.6	12.5	14.5	93.6	46.2		76.6	35.3	36.8
Level of Service (LOS)	F	B	A	D	B	B	F	D		E	D	D
Approach Delay, s/veh / LOS	17.4	B		13.8	B		70.9	E		51.8	D	
Intersection Delay, s/veh / LOS	24.1						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.87	B	2.06	B	2.45	B	2.59	C
Bicycle LOS Score / LOS	1.95	B	1.78	B	1.47	A	0.97	A

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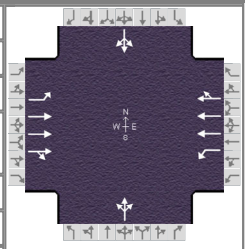
HCS7 Signalized Intersection Results Summary

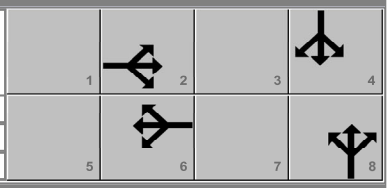
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm future with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Amestoy Avenue	File Name	3PM WITH 2024.xus		
Project Description	Future PM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	70	1802	0	0	2244	75	0	0	0	55	0	114

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	98.2	13.8	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		12.0		12.0
Phase Duration, s		102.2		102.2		0.0		17.8
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		0.0		3.3
Queue Clearance Time (g_s), s								13.6
Green Extension Time (g_e), s		0.0		0.0		0.0		0.2
Phase Call Probability								1.00
Max Out Probability								0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	70	1802	0	0	1567	752		0			169	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	160	1820	0	265	1900	1814		0			1710	
Queue Service Time (g_s), s	29.2	10.8	0.0	0.0	15.3	15.5		0.0			11.6	
Cycle Queue Clearance Time (g_c), s	44.7	10.8	0.0	0.0	15.3	15.5		0.0			11.6	
Green Ratio (*g/C*)	0.82	0.82		0.82	0.82	0.82					0.12	
Capacity (*c*), veh/h	170	4466		60	3109	1484					197	
Volume-to-Capacity Ratio (*X*)	0.412	0.404	0.000	0.000	0.504	0.507		0.000			0.858	
Back of Queue (*Q*), ft/ln (50 th percentile)	31.2	69.1	0	0	105.3	107.9		0			129.4	
Back of Queue (*Q*), veh/ln (50 th percentile)	1.2	2.8	0.0	0.0	4.2	4.3		0.0			5.2	
Queue Storage Ratio (*RQ*) (50 th percentile)	0.45	0.00	0.00	0.00	0.00	0.00		0.00			0.00	
Uniform Delay (d_1), s/veh	10.4	3.0		0.0	3.4	3.4					52.1	
Incremental Delay (d_2), s/veh	7.2	0.3	0.0	0.0	0.6	1.2		0.0			4.2	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Control Delay (*d*), s/veh	17.6	3.2		0.0	4.0	4.6					56.3	
Level of Service (LOS)	B	A			A	A					E	
Approach Delay, s/veh / LOS	3.8	A		4.2	A		0.0			56.3	E	
Intersection Delay, s/veh / LOS	6.0						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.60	B	1.60	B	2.62	C	2.62	C
Bicycle LOS Score / LOS	1.52	B	1.76	B	0.49	A	0.77	A

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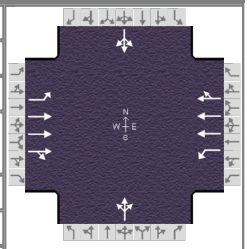
HCS7 Signalized Intersection Results Summary

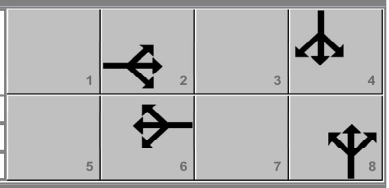
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm future with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Genesta Avenue	File Name	4PM WITH 2024.xus		
Project Description	Future PM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	83	1796	16	20	2172	54	32	8	17	25	9	79

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	92.5	10.2	5.3	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		6.0		6.0		12.0		12.0
Phase Duration, s		96.5		96.5		9.3		14.2
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (MAH), s		0.0		0.0		3.3		3.5
Queue Clearance Time (g_s), s						6.1		10.3
Green Extension Time (g_e), s		0.0		0.0		0.1		0.1
Phase Call Probability						0.85		0.98
Max Out Probability						0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	83	1222	590	20	1504	722		57			113	
Adjusted Saturation Flow Rate (s), veh/h/ln	175	1900	1836	263	1900	1816		1635			1612	
Queue Service Time (g_s), s	41.2	13.0	13.0	3.3	18.0	18.1		4.1			8.3	
Cycle Queue Clearance Time (g_c), s	59.3	13.0	13.0	16.4	18.0	18.1		4.1			8.3	
Green Ratio (g/C)	0.77	0.77	0.77	0.77	0.77	0.77		0.04			0.08	
Capacity (c), veh/h	168	2930	1416	234	2930	1401		72			137	
Volume-to-Capacity Ratio (X)	0.493	0.417	0.417	0.085	0.513	0.516		0.790			0.827	
Back of Queue (Q), ft/ln (50 th percentile)	49.4	106.3	107.3	5.6	147	148.6		46			87.8	
Back of Queue (Q), veh/ln (50 th percentile)	2.0	4.3	4.3	0.2	5.9	5.9		1.8			3.5	
Queue Storage Ratio (RQ) (50 th percentile)	0.41	0.00	0.00	0.07	0.00	0.00		0.00			0.00	
Uniform Delay (d_1), s/veh	16.5	4.6	4.6	7.4	5.2	5.2		56.8			54.1	
Incremental Delay (d_2), s/veh	9.9	0.4	0.9	0.7	0.6	1.4		7.0			4.8	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Control Delay (d), s/veh	26.4	5.1	5.5	8.1	5.8	6.6		63.8			58.8	
Level of Service (LOS)	C	A	A	A	A	A		E			E	
Approach Delay, s/veh / LOS	6.2	A		6.1	A		63.8	E		58.8	E	
Intersection Delay, s/veh / LOS	8.3						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.62	B	1.62	B	2.62	C	2.61	C
Bicycle LOS Score / LOS	1.53	B	1.72	B	0.58	A	0.67	A

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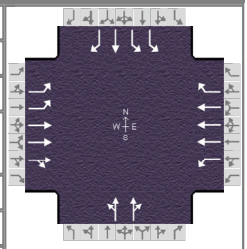
HCS7 Signalized Intersection Results Summary

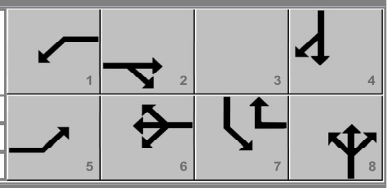
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm future with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Balboa Boulevard	File Name	5PM WITH 2024.xus		
Project Description	Future PM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	436	1276	26	73	1693	454	31	260	68	366	109	357

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	5.5	8.1	49.5	22.1	14.8	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	1.1	3.0		12.0		9.0
Phase Duration, s	21.6	65.6	9.5	53.5		18.8		26.1
Change Period, ($Y+R_c$), s	4.0	4.0	4.0	4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.2		3.2
Queue Clearance Time (g_s), s	16.5		4.7			14.2		20.5
Green Extension Time (g_e), s	1.1	0.0	0.1	0.0		0.7		1.6
Phase Call Probability	1.00		0.91			1.00		1.00
Max Out Probability	0.00		0.00			0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	436	881	421	73	1693	454	195		164	366	109	238
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1757	1900	1817	1810	1725	1539	1885		1656	1757	1900	1497
Queue Service Time (g_s), s	14.5	17.6	17.6	2.7	34.3	20.3	12.2		11.5	11.4	6.0	18.5
Cycle Queue Clearance Time (g_c), s	14.5	17.6	17.6	2.7	34.3	20.3	12.2		11.5	11.4	6.0	18.5
Green Ratio (*g/C*)	0.15	0.51	0.51	0.46	0.41	0.60	0.12		0.12	0.18	0.18	0.18
Capacity (*c*), veh/h	515	1950	933	293	2134	923	233		205	647	350	276
Volume-to-Capacity Ratio (*X*)	0.847	0.452	0.452	0.249	0.793	0.492	0.838		0.800	0.565	0.311	0.863
Back of Queue (*Q*), ft/ln (50 th percentile)	160.5	193.2	190.2	28.7	361.1	178.2	147.1		122.5	123.5	70	176.5
Back of Queue (*Q*), veh/ln (50 th percentile)	6.4	7.7	7.6	1.1	14.4	7.1	5.9		4.9	4.9	2.8	7.1
Queue Storage Ratio (*RQ*) (50 th percentile)	1.00	0.00	0.00	0.19	0.00	0.43	0.00		0.00	0.56	0.00	1.10
Uniform Delay (d_1), s/veh	49.9	18.5	18.5	18.7	30.8	13.9	51.4		51.1	44.6	42.4	47.5
Incremental Delay (d_2), s/veh	1.5	0.8	1.6	0.2	3.1	1.9	3.1		2.7	0.3	0.2	3.3
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	51.4	19.3	20.1	18.8	33.9	15.7	54.5		53.9	44.9	42.5	50.7
Level of Service (LOS)	D	B	C	B	C	B	D		D	D	D	D
Approach Delay, s/veh / LOS	27.5	C		29.7	C		54.2	D		46.5	D	
Intersection Delay, s/veh / LOS	33.1						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.90	B	2.60	C	2.75	C	2.74	C
Bicycle LOS Score / LOS	1.44	A	1.71	B	0.78	A	1.66	B

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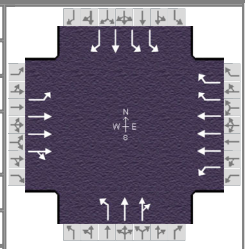
HCS7 Signalized Intersection Results Summary

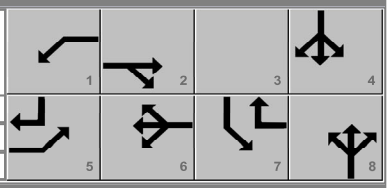
General Information				Intersection Information	
Agency	otc inc			Duration, h	0.25
Analyst	jto	Analysis Date	7/10/2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm future with project	PHF	1.00
Urban Street	Ventura Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Hayvenhurst Avenue	File Name	6PM WITH 2024.xus		
Project Description	Future PM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	196	1531	110	47	1725	719	224	415	108	259	174	288

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.9	3.2	41.4	21.6	24.0	0.0
Yellow	4.0	4.0	4.0	4.0	0.0	0.0
Red	0.0	0.0	3.0	3.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	4.0	1.1	3.0		10.0		9.0
Phase Duration, s	19.1	55.6	11.9	48.4		28.6		24.0
Change Period, ($Y+R_c$), s	4.0	7.0	4.0	7.0		7.0		0.0
Max Allow Headway (*MAH*), s	3.1	0.0	3.1	0.0		3.2		3.3
Queue Clearance Time (g_s), s	14.7		3.9			20.0		22.2
Green Extension Time (g_e), s	0.4	0.0	0.1	0.0		1.5		1.7
Phase Call Probability	1.00		0.79			1.00		1.00
Max Out Probability	0.00		0.00			0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	196	1157	484	47	1725	719	224	283	240	259	174	288
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1588	1810	1725	1226	1810	1900	1550	1757	1900	1440
Queue Service Time (g_s), s	12.7	31.3	31.3	1.9	39.3	22.7	13.9	17.2	18.0	7.6	9.7	20.2
Cycle Queue Clearance Time (g_c), s	12.7	31.3	31.3	1.9	39.3	22.7	13.9	17.2	18.0	7.6	9.7	20.2
Green Ratio (*g/C*)	0.13	0.40	0.40	0.41	0.35	0.54	0.18	0.18	0.18	0.20	0.20	0.33
Capacity (*c*), veh/h	227	1539	643	219	1787	1407	325	341	278	701	379	488
Volume-to-Capacity Ratio (*X*)	0.862	0.752	0.753	0.215	0.966	0.511	0.689	0.829	0.862	0.369	0.459	0.590
Back of Queue (*Q*), ft/ln (50 th percentile)	149	366.8	326.8	20.1	463.5	159.8	157.1	206.2	178	82.7	113.7	175.8
Back of Queue (*Q*), veh/ln (50 th percentile)	6.0	14.7	13.1	0.8	18.5	6.4	6.3	8.2	7.1	3.3	4.5	7.0
Queue Storage Ratio (*RQ*) (50 th percentile)	0.85	0.00	0.00	0.11	0.00	0.43	1.01	0.00	0.00	0.38	0.00	0.82
Uniform Delay (d_1), s/veh	51.4	30.6	30.6	24.7	38.6	17.6	46.1	47.5	47.8	41.5	42.3	34.1
Incremental Delay (d_2), s/veh	3.7	3.4	8.0	0.2	14.6	1.3	1.0	2.0	3.1	0.1	0.3	0.4
Initial Queue Delay (d_3), 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
Control Delay (*d*), s/veh	55.2	34.0	38.5	24.9	53.1	18.9	47.1	49.5	50.9	41.6	42.6	34.6
Level of Service (LOS)	E	C	D	C	D	B	D	D	D	D	D	C
Approach Delay, s/veh / LOS	37.4	D		42.7	D		49.2	D		39.0	D	
Intersection Delay, s/veh / LOS	41.4						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.11	B	2.44	B	2.88	C	2.60	C
Bicycle LOS Score / LOS	1.50	A	1.86	B	1.10	A	1.68	B

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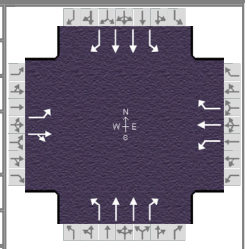
HCS7 Signalized Intersection Results Summary

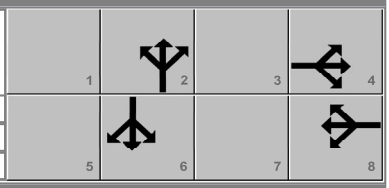
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	Jul 16, 2020	Area Type	Other
Jurisdiction	ladot	Time Period	pm future with project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	Magnolia Boulevard	File Name	7PM WITH 2024.xus		
Project Description	Future PM WITH Peak Hour				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	73	171	15	107	189	220	32	1021	177	151	656	60

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	86.7	25.3	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		6.0		5.0		5.0		5.0
Phase Duration, s		29.3		29.3		90.7		90.7
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (MAH), s		3.2		3.2		0.0		0.0
Queue Clearance Time (g_s), s		19.1		24.0				
Green Extension Time (g_e), s		1.5		1.3		0.0		0.0
Phase Call Probability		1.00		1.00				
Max Out Probability		0.01		0.06				

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (v), veh/h	73	186		107	189	220	32	1021	177	151	656	60
Adjusted Saturation Flow Rate (s), veh/h/ln	1205	1682		1212	1900	1592	788	1809	1598	561	1809	1559
Queue Service Time (g_s), s	6.8	11.8		10.3	10.5	15.2	1.7	13.1	4.2	17.2	7.4	1.3
Cycle Queue Clearance Time (g_c), s	17.1	11.8		22.0	10.5	15.2	9.2	13.1	4.2	30.4	7.4	1.3
Green Ratio (g/C)	0.21	0.21		0.21	0.21	0.21	0.72	0.72	0.72	0.72	0.72	0.72
Capacity (c), veh/h	210	355		198	401	336	580	2613	1154	403	2613	1126
Volume-to-Capacity Ratio (X)	0.347	0.524		0.541	0.471	0.655	0.055	0.391	0.153	0.375	0.251	0.053
Back of Queue (Q), ft/ln (50 th percentile)	51.2	122.3		78.8	122.6	149.8	7.6	113.5	32.9	58.2	63.8	10.3
Back of Queue (Q), veh/ln (50 th percentile)	2.0	4.9		3.2	4.9	6.0	0.3	4.5	1.3	2.3	2.6	0.4
Queue Storage Ratio (RQ) (50 th percentile)	0.73	0.00		0.58	0.00	1.11	0.06	0.95	0.27	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	48.9	42.0		51.7	41.5	43.3	7.2	6.4	5.2	12.4	5.7	4.8
Incremental Delay (d_2), s/veh	0.4	0.4		0.9	0.3	0.8	0.2	0.4	0.3	2.7	0.2	0.1
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	49.3	42.4		52.5	41.8	44.1	7.4	6.9	5.5	15.0	5.9	4.9
Level of Service (LOS)	D	D		D	D	D	A	A	A	B	A	A
Approach Delay, s/veh / LOS	44.4	D		45.0	D		6.7	A		7.4	A	
Intersection Delay, s/veh / LOS	17.2						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.46	B	2.46	B	2.05	B	1.86	B
Bicycle LOS Score / LOS	0.91	A	1.34	A	1.50	B	1.20	A

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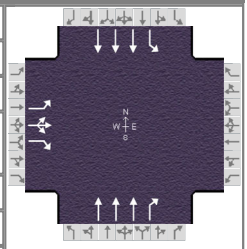
HCS7 Signalized Intersection Results Summary

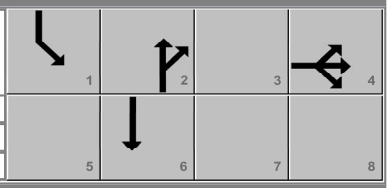
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	7/16/2020	Area Type	Other
Jurisdiction	ladot	Time Period	PM future with project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	101 Frwy EB off Ramp	File Name	8PM WITH 2024.xus		
Project Description	Future PM WITH Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	539	2	379					1418	321	248	848	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	18.6	41.7	38.7	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	3.0	3.0	3.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4				2	1	6
Case Number		9.0				7.3	2.0	4.0
Phase Duration, s		45.7				48.7	25.6	74.3
Change Period, ($Y+R_c$), s		7.0				7.0	7.0	7.0
Max Allow Headway (*MAH*), s		3.3				0.0	3.1	0.0
Queue Clearance Time (g_s), s		36.5					18.1	
Green Extension Time (g_e), s		2.2				0.0	0.5	0.0
Phase Call Probability		1.00					1.00	
Max Out Probability		0.00					0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14					2	12	1	6	
Adjusted Flow Rate (*v*), veh/h	539	2	379					1418	321	248	848	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1808	1900	1549					1725	1604	1810	1723	
Queue Service Time (g_s), s	34.5	0.1	26.3					29.5	19.6	16.1	10.3	
Cycle Queue Clearance Time (g_c), s	34.5	0.1	26.3					29.5	19.6	16.1	10.3	
Green Ratio (*g/C*)	0.32	0.32	0.32					0.35	0.35	0.15	0.56	
Capacity (*c*), veh/h	583	613	499					1800	558	280	2899	
Volume-to-Capacity Ratio (*X*)	0.925	0.003	0.759					0.788	0.575	0.886	0.293	
Back of Queue (*Q*), ft/ln (50 th percentile)	385.7	1	247.6					318.2	203.4	187.4	99.1	
Back of Queue (*Q*), veh/ln (50 th percentile)	15.4	0.0	9.9					12.7	8.1	7.5	4.0	
Queue Storage Ratio (*RQ*) (50 th percentile)	1.21	0.00	0.77					0.00	1.02	0.85	0.00	
Uniform Delay (d_1), s/veh	39.2	27.6	36.5					35.1	31.9	49.7	13.8	
Incremental Delay (d_2), s/veh	2.8	0.0	0.9					3.6	4.3	3.7	0.3	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	42.0	27.6	37.4					38.7	36.2	53.4	14.1	
Level of Service (LOS)	D	C	D					D	D	D	B	
Approach Delay, s/veh / LOS	40.1	D		0.0			38.3	D		23.0	C	
Intersection Delay, s/veh / LOS	34.3						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.62	C	2.62	C	1.41	A	1.90	B
Bicycle LOS Score / LOS	2.01	B			1.44	A	1.09	A

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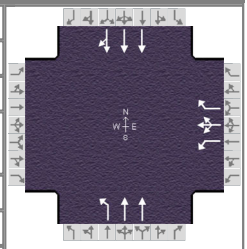
HCS7 Signalized Intersection Results Summary

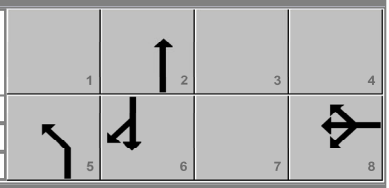
General Information				Intersection Information	
Agency	otc			Duration, h	0.25
Analyst	jto	Analysis Date	7/16/2020	Area Type	Other
Jurisdiction	ladot	Time Period	PM existing with project	PHF	1.00
Urban Street	Balboa Boulevard	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	101 Frwy WB off Ramp	File Name	9PM WO 2024.xus		
Project Description	Existing PM WITH Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h				200	2	289	483	1430			931	409

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	34.1	46.3	24.7	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0
Red	0.0	3.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase				8	5	2		6
Case Number				9.0	2.0	4.0		8.3
Phase Duration, s				28.7	38.1	91.3		53.3
Change Period, ($Y+R_c$), s				4.0	4.0	7.0		7.0
Max Allow Headway (*MAH*), s				3.3	3.1	0.0		0.0
Queue Clearance Time (g_s), s				23.6	33.4			
Green Extension Time (g_e), s				1.1	1.0	0.0		0.0
Phase Call Probability				1.00	1.00			
Max Out Probability				0.00	0.00			

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement				3	8	18	5	2			6	16
Adjusted Flow Rate (*v*), veh/h				200	2	289	483	1430			931	409
Adjusted Saturation Flow Rate (*s*), veh/h/ln				1802	1900	1566	1810	1809			1900	1610
Queue Service Time (g_s), s				11.9	0.1	21.6	31.4	23.3			32.2	25.0
Cycle Queue Clearance Time (g_c), s				11.9	0.1	21.6	31.4	23.3			32.2	25.0
Green Ratio (*g/C*)				0.21	0.21	0.21	0.28	0.70			0.39	0.39
Capacity (*c*), veh/h				370	390	322	510	2543			1474	625
Volume-to-Capacity Ratio (*X*)				0.540	0.005	0.898	0.948	0.562			0.632	0.655
Back of Queue (*Q*), ft/ln (50 th percentile)				132.7	1.2	215.3	358.8	209.1			277.3	260.1
Back of Queue (*Q*), veh/ln (50 th percentile)				5.3	0.0	8.6	14.4	8.4			11.1	10.4
Queue Storage Ratio (*RQ*) (50 th percentile)				0.26	0.00	0.42	1.20	0.00			0.00	0.00
Uniform Delay (d_1), s/veh				42.6	37.9	46.4	42.2	8.8			29.8	30.1
Incremental Delay (d_2), s/veh				0.5	0.0	3.7	4.3	0.9			2.1	5.3
Initial Queue Delay (d_3), s/veh				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Control Delay (*d*), s/veh				43.1	37.9	50.1	46.6	9.7			31.8	35.4
Level of Service (LOS)				D	D	D	D	A			C	D
Approach Delay, s/veh / LOS	0.0			47.2		D	19.0		B	32.9		C
Intersection Delay, s/veh / LOS	27.7						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.48	B	2.32	B	1.86	B	1.41	A
Bicycle LOS Score / LOS			1.30	A	2.07	B	1.22	A

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