

TRANSPORTATION ASSESSMENT

City of Los Angeles

**MAGNOLIA SCIENCE ACADEMY 2
16600 VANOWEN STREET
LOS ANGELES, CA 91406**

May 14, 2024

*Prepared For:
Magnolia Public Schools
250 E. 1st Street, Suite 1500
Los Angeles, CA 90012*

JC28157

Prepared by:



1100 Corporate Center Drive,
Suite 201
Monterey Park, CA 91754
(310) 473-6508

TABLE OF CONTENTS

1.	INTRODUCTION	1
2.	PROJECT DESCRIPTION	4
3.	ENVIRONMENTAL SETTING	6
3.1	EXISTING ROADWAY NETWORK	6
3.2	EXISTING PUBLIC TRANSIT	8
4.	CEQA ANALYSIS OF TRANSPORTATION IMPACTS	10
4.1	CONFLICTING WITH PLANS, PROGRAMS, ORDINANCES, OR POLICIES (THRESHOLD T-1)	10
4.2	CAUSING SUBSTANTIAL VEHICLE MILES TRAVELED (THRESHOLD T-2.1)	15
4.3	SUBSTANTIALLY INDUCING ADDITIONAL AUTOMOBILE TRAVEL (THRESHOLD T-2.2)	18
4.4	SUBSTANTIALLY INCREASING HAZARDS DUE TO GEOMETRIC DESIGN FEATURE OR INCOMPATIBLE USE (THRESHOLD T-3)	18
5.	NON-CEQA TRANSPORTATION ANALYSIS	20
5.1	PEDESTRIAN, BICYCLE, AND TRANSIT ASSESSMENT	20
5.2	PROJECT ACCESS, SAFETY, AND CIRCULATION EVALUATION	23
5.3	PROJECT CONSTRUCTION	52
5.4	RESIDENTIAL STREET CUT-THROUGH ANALYSIS	54
5.5	FREEWAY SAFETY ANALYSIS SCREENING	54
6.	MITIGATION MEASURES AND RECOMMENDED ACTIONS	56

FIGURES

FIGURE 1: PROJECT SITE VICINITY AND STUDY INTERSECTIONS	2
FIGURE 2: CONCEPTUAL PROJECT SITE PLAN	5
FIGURE 3: EXISTING PUBLIC TRANSIT SERVICE	9
FIGURE 4: EXISTING SCHOOL STUDENT HOME ZIP CODE DATA	17
FIGURE 5: PROJECT STUDY AREA PEDESTRIAN DESTINATION MAP	21
FIGURE 6(A): EXISTING (2023) TRAFFIC VOLUMES, WEEKDAY AM PEAK HOUR	27
FIGURE 6(B): EXISTING (2023) TRAFFIC VOLUMES, WEEKDAY PM PEAK HOUR	28
FIGURE 7: PROJECT TRIP DISTRIBUTION PERCENTAGES	30
FIGURE 8(A): PROJECT TRAFFIC VOLUMES, WEEKDAY AM PEAK HOUR	31
FIGURE 8(B): PROJECT TRAFFIC VOLUMES, WEEKDAY PM PEAK HOUR	32
FIGURE 9(A): EXISTING (2023) PLUS PROJECT TRAFFIC VOLUMES, WEEKDAY AM PEAK HOUR	34
FIGURE 9(B): EXISTING (2023) PLUS PROJECT TRAFFIC VOLUMES, WEEKDAY PM PEAK HOUR	35
FIGURE 10: RELATED PROJECT LOCATION MAP	40
FIGURE 11(A): TOTAL RELATED PROJECT TRAFFIC VOLUMES, WEEKDAY AM PEAK HOUR	42
FIGURE 11(B): TOTAL RELATED PROJECT TRAFFIC VOLUMES, WEEKDAY PM PEAK HOUR	43
FIGURE 12(A): FUTURE (2026) WITHOUT PROJECT TRAFFIC VOLUMES, WEEKDAY AM PEAK HOUR	45
FIGURE 12(B): FUTURE (2026) WITHOUT PROJECT TRAFFIC VOLUMES, WEEKDAY PM PEAK HOUR	46
FIGURE 13(A): FUTURE (2026) WITH PROJECT TRAFFIC VOLUMES, WEEKDAY AM PEAK HOUR	47
FIGURE 13(B): FUTURE (2026) WITH PROJECT TRAFFIC VOLUMES, WEEKDAY PM PEAK HOUR	48

TABLES

TABLE 1: TABLE 1: HCM LOS & DELAY FOR SIGNALIZED INTERSECTIONS	25
TABLE 2: HCM LOS & DELAY FOR TWO-WAY AND ALL-WAY STOP-CONTROLLED INTERSECTIONS	25
TABLE 3: PROJECT WEEKDAY TRIP GENERATION SUMMARY	29
TABLE 4: PROJECT DIRECTIONAL TRIP DISTRIBUTION PERCENTAGES	29
TABLE 5: EXISTING (2023) TRAFFIC CONDITIONS, INTERSECTION DELAY SUMMARY	36
TABLE 6: EXISTING (2023) TRAFFIC CONDITIONS, SIGNALIZED INTERSECTION QUEUING SUMMARY	37
TABLE 7: EXISTING (2023) TRAFFIC CONDITIONS, UNSIGNALIZED INTERSECTION QUEUING SUMMARY	38
TABLE 8: RELATED PROJECT LOCATIONS, DESCRIPTIONS, AND TRIP GENERATION ESTIMATES	41
TABLE 9: FUTURE (2026) TRAFFIC CONDITIONS, INTERSECTION DELAY SUMMARY	49
TABLE 10: FUTURE (2026) TRAFFIC CONDITIONS, SIGNALIZED INTERSECTION QUEUING SUMMARY	50
TABLE 11: FUTURE (2026) TRAFFIC CONDITIONS, UNSIGNALIZED INTERSECTION QUEUING SUMMARY	52

APPENDICES

APPENDIX A – TRANSPORTATION ASSESSMENT MEMORANDUM OF UNDERSTANDING (SIGNED SEPTEMBER 11, 2023)	
APPENDIX B – LADOT ATTACHMENT D: PLAN CONSISTENCY WORKSHEET	
APPENDIX C – TRAFFIC COUNT DATA SHEETS	
APPENDIX D – STUDY INTERSECTION GEOMETRICS AND TRAFFIC CONTROL CONDITIONS	
APPENDIX E – SYNCHRO DELAY AND QUEUE CALCULATION WORKSHEETS	

1. INTRODUCTION

KOA Corporation has prepared this Transportation Assessment (TA) to evaluate the potential transportation impacts of the Magnolia Science Academy 2 project (the “Project”), a proposed two-story charter school serving grades 6 through 12. The Project will accommodate 564 students and consist of 27 classrooms, office space, a field, and a gymnasium. The site is currently vacant and is located at 16600 Vanowen Street.

The Project site is located on the south side of Vanowen Street within the Lake Balboa neighborhood of the City of Los Angeles (the “City”). The Project is bounded by Vanowen Street to the north, De Celis Place to the east, Archwood Street to the south, and a tennis court facility to the west. The site is surrounded primarily by residential land uses, with limited institutional and commercial uses along Vanowen Street in the immediate vicinity. Bull Creek runs north-south under Vanowen Street, approximately 400 feet west of the Project site. The location of the Project site is shown in Figure 1, Project Site Vicinity and Study Intersections.

Within the Project vicinity, a variety of land uses line Vanowen Street, Balboa Boulevard, and Hayvenhurst Avenue. Single and multifamily residential buildings are north and south of the Project along the local roadways and Collector streets. East of the Project are commercial and manufacturing land uses. West of the Project are commercial and public school facilities. Project automobile parking will be provided on site via a surface parking lot situated along the west and south sides of the site. A total of 94 automobile parking spaces will be provided. A one-way inbound driveway on De Celis Place, in the southeast corner of the site, will provide ingress to a one-way drive aisle that wraps clockwise around the site to a one-way outbound driveway on Vanowen Street, in the northwest corner of the site. A student drop-off and pick-up zone would be provided on the west side of the school, adjacent to the pedestrian areas.

This analysis was prepared in accordance with the assumptions, methodologies, and procedures outlined in the City of Los Angeles Department of Transportation (LADOT) *Transportation Assessment Guidelines* (the “TAG”) adopted in August 2022. The detailed assumptions and scope of the analysis for the specific assessments contained in this report were presented to and approved by the LADOT in a Transportation Assessment (TA) Memorandum of Understanding (MOU), signed and approved on September 11, 2023. The approved MOU is included in Appendix A of this report.

The MOU outlined the preparation of a detailed analysis of potential Project transportation impacts based on California Environmental Quality Act (CEQA) guidelines, as well as an evaluation of potential non-CEQA related Project transportation effects. The Project study area for the operational analysis was determined as part of the MOU and is discussed later in this report. The study area contains the following seven intersections, which are also depicted in Figure 1:

Study Intersections

1. Vanowen Street & Louise Avenue
2. Vanowen Street & Balboa Boulevard
3. Vanowen Street & De Celis Place
4. Vanowen Street & Hayvenhurst Avenue
5. Archwood Street & De Celis Place

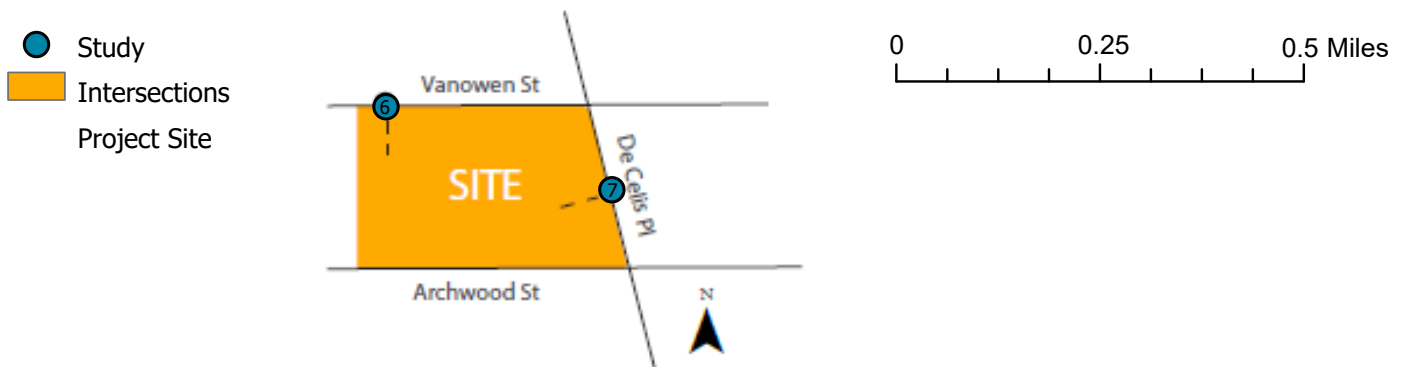
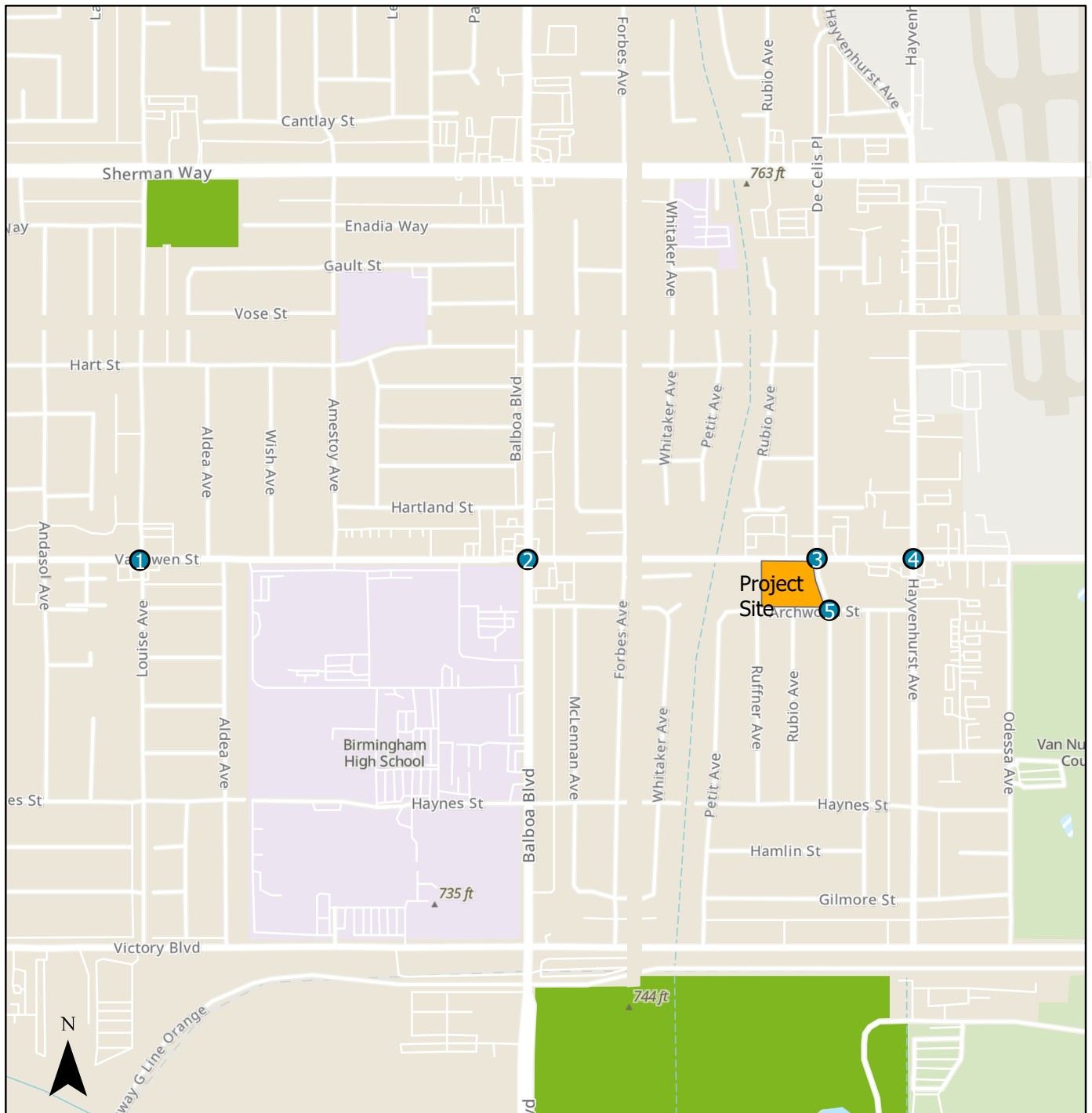


FIGURE 1

11/13/2023

6. Vanowen Street & Project Driveway
7. Project Driveway & De Celis Place

These locations include key intersections along the primary access routes to and from the site and are those locations expected to be most directly affected by Project traffic. This report presents the results and conclusions of the evaluation of the CEQA transportation impacts and non-CEQA transportation effects of the Project. The operational analysis includes the following traffic conditions:

- Existing (2023) traffic volumes
- Existing (2023) Plus Project traffic volumes
- Future (2026) Without Project traffic volumes
- Future (2026) With Project traffic volumes

2. PROJECT DESCRIPTION

Under consideration is the Magnolia Science Academy 2 project (the "Project"), to be located on an approximately 2.5-acre parcel along the south side of Vanowen Street, in the Lake Balboa neighborhood of the City. The site is bounded by Vanowen Street to the north, De Celis Place to the east, Archwood Street to the south, and a tennis court facility to the west. Within the Project vicinity, a variety of commercial and institutional land uses are located along Vanowen Street, Hayvenhurst Avenue to the east, and Balboa Boulevard to the west, with residential uses located along nearby local roadways and Collector streets. Commercial and manufacturing land uses are situated near the intersection of Vanowen Street & Hayvenhurst Avenue, while commercial land uses and public school facilities are located near the intersection of Vanowen Street & Balboa Boulevard.

The existing Project site is currently vacant. The Project proposes to construct a two-story, charter school development that will accommodate 564 students in grades 6-12. The school will have 27 classrooms, office space, a field, and a gymnasium. The Project involves the relocation and expansion of the existing Magnolia Science Academy 2 located at 17125 Victory Boulevard, about three-quarters of a mile southwest of the Project site.

Figure 2 illustrates the Conceptual Project Site Plan. Parking for the Project will be provided on site via a surface parking lot adjacent to the south and west sides of the site. Project vehicular ingress and egress to the parking lot will be provided via a pair of one-way driveways. An inbound-only driveway will be located at the southeast corner of the site along De Celis Place, and an outbound-only driveway will be provided at the northwest corner of the site on Vanowen Street. Clockwise vehicular circulation will be provided on site between these two driveways, with direct access to the automobile parking supply and to the student drop-off/pick-up zone proposed immediately west of the planned gymnasium. Left- and right-turns into the site will be allowed from De Celis Place, and left- and right-turns exiting the site will be allowed onto Vanowen Street. Vanowen Street contains a center two-way left-turn lane (TWLTL) at the proposed Project driveway location, allowing left-turning outbound motorists to take shelter in the TWLTL before merging with westbound Vanowen Street traffic.

As proposed, 94 automobile parking spaces will be provided for the Project with the surface parking lot. Parking will serve both students and the school employees. In addition, the Project will provide 108 short-term bicycle stalls and 3 long-term bicycle lockers, which is consistent with Los Angeles Municipal Code (LAMC) Section 12.21.A.16 outlining bicycle parking requirements. Short-term bicycle parking will be provided near the pedestrian entrance along Vanowen Street. Long-term bicycle parking will be provided at the southeast corner of the site, near the driveway on De Celis Place. Commercial loading will occur during off-school hours at the drop-off/pick-up zone. The driveway widths of 16 feet and drive aisle width of approximately 25 feet will provide sufficient room for student/employee vehicles to circulate, deliver vehicles to reach the drop-off/pick-up zone, and waste management trucks to access the trash enclosure at the southwest corner of the site.

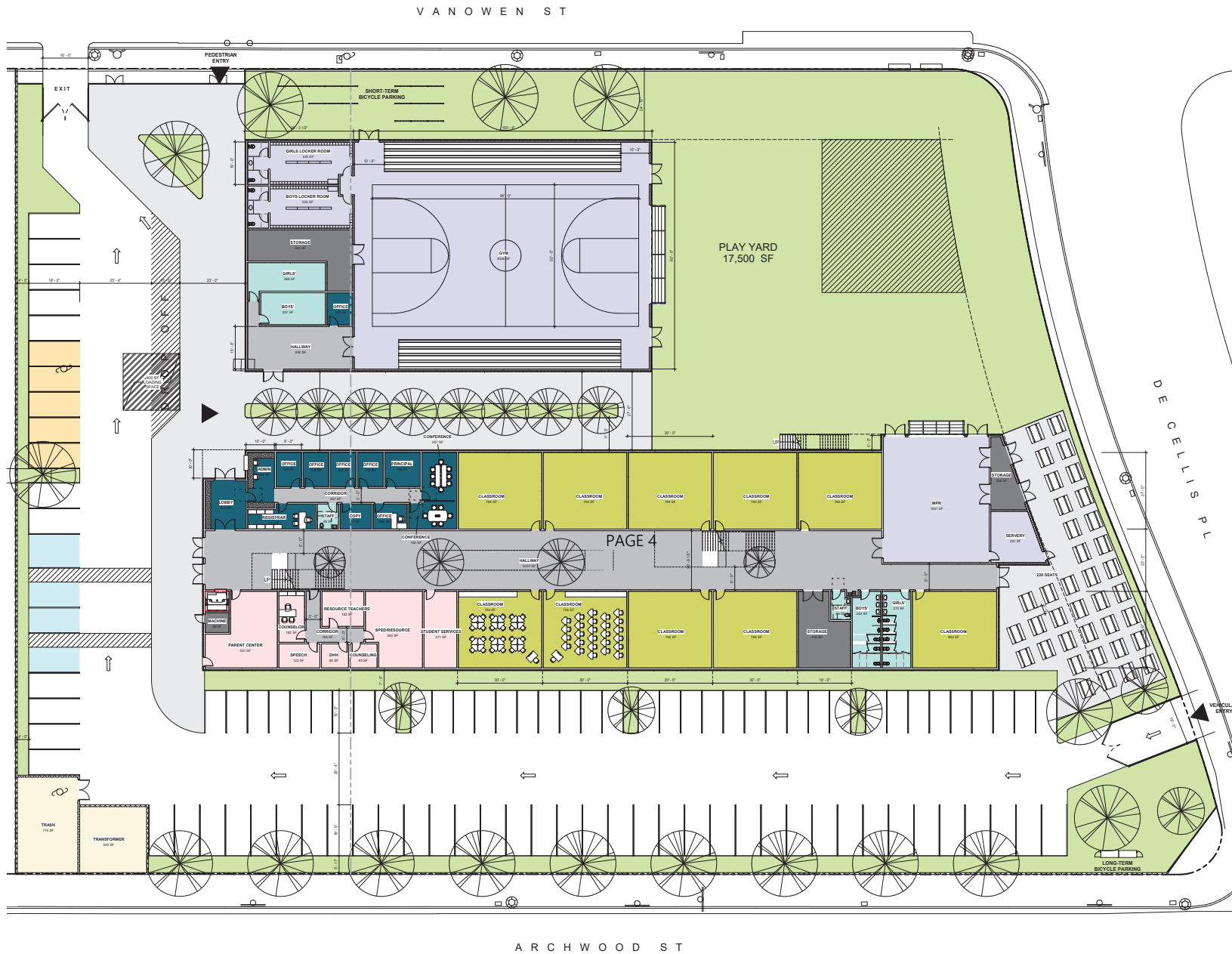


FIGURE 2

11/13/2023

3. ENVIRONMENTAL SETTING

The Project is located at 16600 Vanowen Street, along the south side of Vanowen Street and west of De Celis Place. Located within the Lake Balboa neighborhood of the City, the Project site is surrounded by a suburban area adjacent to industrial and open space land uses. Residential uses within the Project vicinity are located in all directions, with single-family homes along Local Streets and multifamily buildings concentrated along arterials.

The Project site is in proximity to the Van Nuys Airport and Van Nuys Golf Course, both located approximately one-quarter mile east of the Project site, as well as the Lake Balboa/Anthony C. Beilenson Park located approximately one-half mile to the south. Additional geographic features near the Project include Bull Creek which runs north-south approximately 400 feet west of the site, and the Los Angeles River approximately one mile to the south.

The Project site and surrounding uses in the Lake Balboa neighborhood are well served by the street network that includes Freeways, Boulevards, Avenues, Collectors and Local Streets. Freeways include the Ventura (U.S. Route 101 [US-101]) Freeway located approximately 1.75 miles south of the Project site and the San Diego (Interstate 405 [I-405]) Freeway located approximately 1.2 miles east of the Project site. The US-101 Freeway has interchanges at Balboa Boulevard, and the I-405 Freeway has interchanges at Sherman Way and Victory Boulevard, which provide convenient access to the larger, regional roadway network. Around the study area, the primary roadways and roadway classifications, according to the City of Los Angeles Mobility Plan 2035, include Sherman Way, Balboa Boulevard, and Victory Boulevard designated as Boulevard II roadways; Vanowen Street, Louise Avenue, and Hayvenhurst Avenue designated as Avenue II roadways; De Celis Place and Haynes Street classified as Collector roadways; and Archwood Street identified as a Local Street. The Project site is accessible via a network of sidewalks to public transportation with bus stops provided at the intersections of Vanowen Street & De Celis Place and Vanowen Street & Balboa Boulevard. The Project area transportation facilities are described below in more detail.

3.1 EXISTING ROADWAY NETWORK

Regional access to the Project vicinity is provided by an extensive network that includes freeways, arterials, collectors, and local streets. The Ventura (US-101) Freeway is located to the south of the Project site and the San Diego (I-405) Freeway is located to the east. These freeways provide convenient access to the larger, regional roadway network. Surface streets within the Project study area include Vanowen Street, Louise Avenue, Balboa Boulevard, Hayvenhurst Avenue, and De Celis Place. These facilities are described below.

3.1.1 EXISTING FREEWAYS

The Ventura Freeway (US-101) runs east-west near the Project study area. However, from its south end in the City of Los Angeles, to its north end in Tumwater, Washington, the US-101 Freeway extends north-south across the country as a major coastal link. The US-101 Freeway is located approximately 1.75 miles south of the Project site and generally provides five mainline travel lanes per direction, with auxiliary lanes provided between certain ramp locations. This freeway carries annual average daily traffic (AADT) volumes of approximately 285,000 vehicles per day south of its interchange with Balboa Boulevard. The nearest on- and off-ramp connections are provided on Balboa Boulevard.

The San Diego Freeway (I-405) extends north-south from Irvine to San Fernando. The I-405 Freeway is located approximately 1.2 miles east of the Project site. The freeway provides four general purpose travel

lanes and one high occupancy vehicle (HOV) travel lane in each direction. This freeway carries AADT volumes of approximately 207,000 vehicles per day between the interchanges at Victory Boulevard and Sherman Way. The nearest on- and off-ramp connections are provided on Sherman Way/Haskell Avenue and Victory Boulevard/Haskell Avenue.

3.1.2 EXISTING HIGHWAYS AND STREETS

Vanowen Street is an east-west roadway that extends from Burbank to the West Hills community, between Buena Vista Street and Valley Circle Boulevard. The roadway is designated as an Avenue II roadway along its entire extent through the City of Los Angeles. Vanowen Street bounds the Project site to the north. Within the study area, Vanowen Street has a posted speed limit of 35 miles per hour (MPH) and provides two travel lanes in each direction with a center TWLTL. On-street parking is generally permitted along both sides of Vanowen Street.

Louise Avenue is a north-south roadway designated as an Avenue II in the Mobility Plan. This roadway travels discontinuously from its northern terminus at Nugent Drive in Granada Hills to its southern terminus south of Luverne Place in Encino. Louise Avenue is located approximately three-quarters of a mile west of the Project site. This roadway provides two travel lanes in each direction in the vicinity of the Project, with on-street parking generally permitted along both sides of the roadway. Left-turn channelization is provided at some major intersections, and a center TWLTL is provided south of Vanowen Street. The speed limit along this roadway is 40 MPH near the Project site.

Balboa Boulevard is a major arterial traveling north-south through numerous jurisdictions, from its northern terminus south of Foothill Boulevard in Sylmar to its southern terminus south of Rancho Street in Encino. Within the Project vicinity, Balboa Boulevard is designated as a Boulevard II and is located approximately 0.3 miles west of the Project site. Balboa Boulevard generally provides three travel lanes in each direction, with left-turn channelization provided at major intersections. A center TWLTL is provided between major intersections along this roadway. Parking is not permitted along the west side of Balboa Boulevard, but it is generally allowed on the east side of the roadway. Peak commute period parking restrictions provide an additional travel lane capacity during peak periods. The posted speed limit along this roadway is 35 MPH near the Project site, with a 25 MPH limit for a nearby school zone.

Hayvenhurst Avenue is a north-south Avenue II roadway that extends from its northern terminus at Saticoy Street to its southern terminus at Victory Street. Hayvenhurst Avenue is located just east of the Project site. This roadway provides two travel lanes in each direction in the vicinity of the Project, with on-street parking generally permitted along both sides of the roadway. Left-turn channelization is provided at some major intersections, and a center TWLTL is provided between major intersections. The posted speed along Hayvenhurst Avenue is 35 MPH.

De Celis Place is classified as a Collector street and bounds the Project site to the east. This roadway runs north-south discontinuously from its northern terminus at Saticoy Street to its southern terminus at Haynes Street. In the Project vicinity, De Celis Place provides one travel lane in each direction, with on-street parking generally permitted along both sides of the roadway. The unposted prima facie speed limit is 25 MPH.

Archwood Street is classified as a Local Street and bounds the Project site to the south. This roadway runs east-west discontinuously from Mammoth Avenue to Balboa Boulevard. In the Project vicinity, Archwood Street provides one travel lane per direction, with on-street parking generally permitted along both sides. The unposted prima facie speed limit is 25 MPH.

3.2 EXISTING PUBLIC TRANSIT

The roadways adjacent to the Project site are served by bus and train lines managed by the Los Angeles County Metropolitan Transportation Authority ("Metro") and the LADOT. These lines provide a variety of services and, when transfer opportunities are considered, the bus services outlined below provide access to Metro rail services and numerous other bus routes served by Metro, the LADOT, and other municipal bus operators. The bus service within a reasonable/comfortable walking distance (approximately one-quarter mile) of the Project site are shown in Figure 3 and described below.

METRO

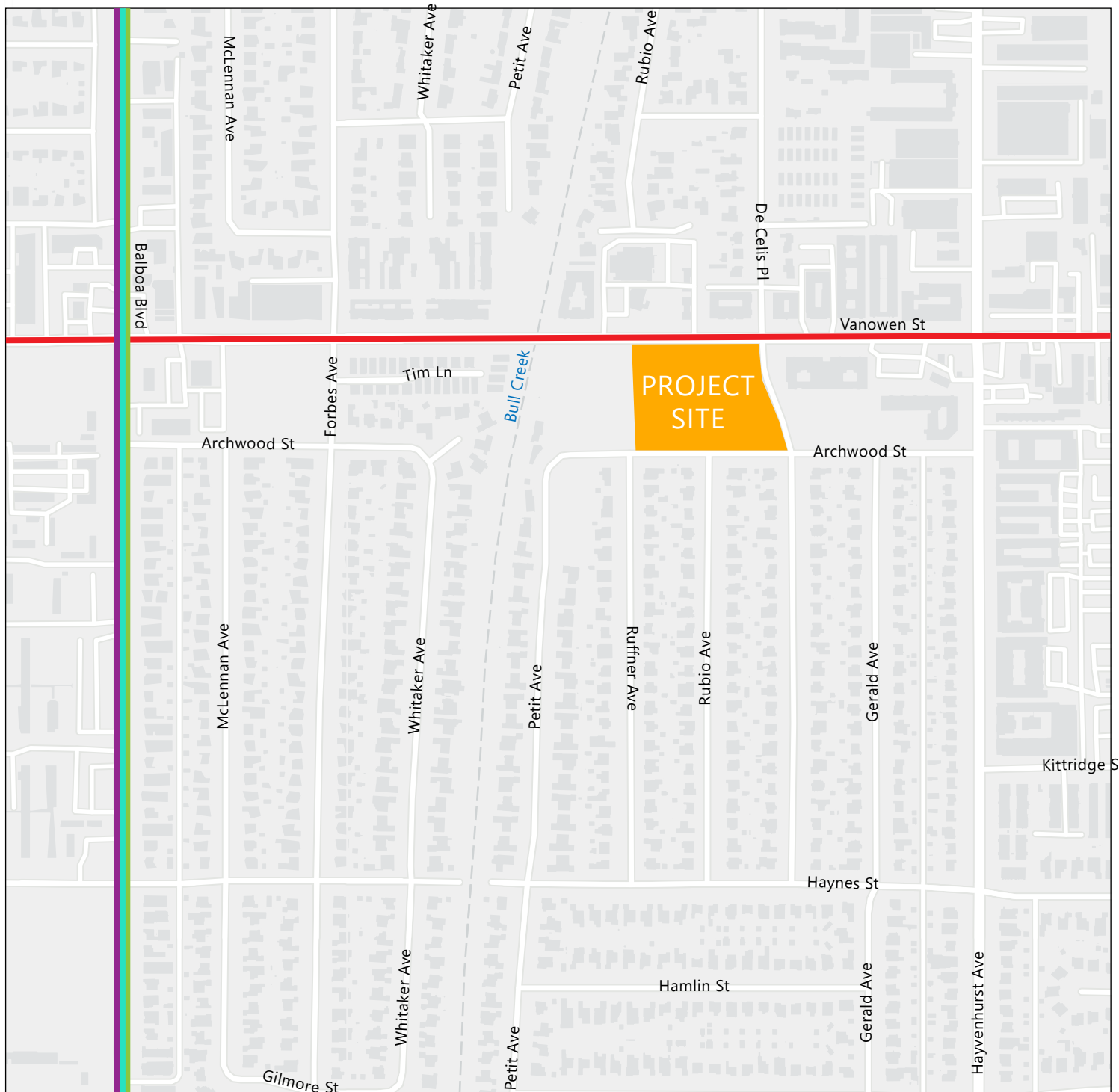
Line 165 provides east-west local bus service mainly along Vanowen Street between West Hills and Burbank. Along the route, buses travel through the West Hills, Canoga Park, Winnetka, Reseda, Lake Balboa, Van Nuys, Valley Glen, and North Hollywood neighborhoods of the City of Los Angeles and the City of Burbank. In the vicinity of the Project, bus stops are provided on Vanowen Street in both directions at the intersections with Balboa Avenue, Forbes Avenue, De Celis Place, and Hayvenhurst Avenue. Line 165 generally provides daily service from 5:00 AM to midnight, with headways of approximately 10 minutes during the weekday AM and PM peak periods and 30 minutes on weekends and holidays.

Line 235/236 provides north-south local bus service mainly along Balboa Boulevard and the Ronald Reagan Freeway between San Fernando and Encino. Along the route, buses travel through the City of San Fernando, the neighborhoods of Granada Hills, North Hills, North Ridge, Van Nuys, and Lake Balboa, and Encino. This route also provides access to the G Line at the Balboa G Line Station at the intersection of Balboa Boulevard & Victory Boulevard. In the vicinity of the Project, buses run north-south along Balboa Boulevard, with bus stops provided in both directions at the intersection with Vanowen Street. Line 235/236 generally provides daily service from 5:00 AM to 11:00 PM, with headways of approximately 30 minutes during the weekday AM and PM peak periods and one hour on weekends and holidays.

LADOT

Commuter Express 573 provides north-south commuter bus service mainly along Balboa Boulevard and the I-405 Freeway between Encino/Mission Hills and Westwood/Century City. In the vicinity of the Project site, bus stops are provided on Balboa Boulevard in both directions at the intersection with Vanowen Street. Commuter Express 573 generally provides service only on weekdays from 5:30 AM to 8:00 PM. AM service is primarily southbound with headways of approximately 10-15 minutes at peak times, while PM service is primarily northbound with headways of approximately 10-15 at peak times.

Commuter Express 574 provides north-south commuter bus service mainly along Balboa Boulevard, the I-405 Freeway, and Sepulveda Boulevard between Sylmar and Los Angeles International Airport (LAX)/El Segundo. In the vicinity of the Project site, bus stops are provided on Balboa Boulevard in both directions at the intersection with Vanowen Street. Commuter Express 574 generally provides service only on weekdays from 5:00 AM to 9:00 AM southbound with headways of approximately 25-30 minutes, and from 3:30 PM to 7:45 PM northbound with headways of approximately 25-30 minutes.



- Metro 165
- Metro 235/236
- LADOT CE573
- LADOT CE574

FIGURE 3

11/14/2023

4. CEQA ANALYSIS OF TRANSPORTATION IMPACTS

Following the passage of Senate Bill 743 (SB 743), the State of California's Governor's Office of Planning and Research (OPR) was tasked with developing new guidelines for evaluating transportation impacts under CEQA. These guidelines are intended to promote the reduction of greenhouse gas emissions and develop multimodal and diverse transportation networks by shifting the transportation performance metric from automobile delay and level of service (LOS) to vehicle miles traveled (VMT). As a result, OPR determined that under the proposed update to the CEQA guidelines, VMT would be established as the primary metric for evaluating environmental and transportation impacts.

In response to the updates to the CEQA guidelines, the LADOT updated the City's TAG in July 2020 and August 2022 to conform to the requirements of SB 743. The TAG replaced the *Transportation Impact Studies Guidelines* and shifted the performance metric for evaluating transportation impacts under the CEQA from LOS to VMT for studies completed within the City. The TAG establishes thresholds to identify development projects that would conflict with the updated CEQA guidelines.

As part of the TAG update, the LADOT identified three significance thresholds to determine if a development project would result in transportation impacts under the updated CEQA guidelines. The development project would have a significant impact should any of the following be true:

1. The development project would conflict with the City's plans, programs, ordinances, or policies.
2. The development project would cause substantial VMT.
3. The development project would substantially increase hazards due to a geometric design feature or incompatible use(s).

An evaluation of the Project's potential impacts under these three metrics follows the updated TAG and is presented in the following sections.

4.1 CONFLICTING WITH PLANS, PROGRAMS, ORDINANCES, OR POLICIES (THRESHOLD T-1)

In line with the City's efforts to achieve a transportation system that meets the needs of all roadway users, the City has adopted numerous transportation-related plans and policies that promote safety for motorists, pedestrians, bicyclists, and transit riders. For the goals of these policies to be fully realized, it is paramount that development projects align with these plans and policies. For this reason, the updated TAG establishes the following threshold to ensure that proposed development projects contribute to achieving an accessible and sustainable transportation network.

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

The TAG has also established three screening criteria for determining which development projects are required to assess compliance with the City's plans, programs, ordinances, and policies. If any of the criteria are met, a compliance assessment is required. The criteria are listed below:

1. The development project requires 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.
2. The development project is known to directly conflict with a transportation plan, policy, or program adopted to support multi-modal transportation options or public safety.
3. The development project is proposing to, or is required to, make modifications to the public right-of-way (e.g., street dedications and/or improvements in the right-of-way, reconfigurations of the curb line, etc.).

Based on the above screening criteria, the Project would meet the following screening questions:

- The Project requires a discretionary action.
- The Project is proposing to make modifications to the public right-of-way.

Therefore, the Project's compliance with the City's plans and policies will need to be assessed and is discussed in further detail below.

The review of the applicable plans and policies included the Mobility Plan 2035, Plan for a Healthy Los Angeles, Reseda-West Van Nuys Community Plan, Los Angeles Vision Zero Plan, Citywide Design Guidelines, LAMC, Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS), and City Planning Department's Walkability Checklist. These are discussed in further detail below. Additionally, Appendix B includes the LADOT Attachment D: Plan Consistency Worksheet (the "Plan Worksheet") that outlines general questions that assist in the determination of whether or not a development project conflicts with a plan, policy, or program.

Based on the reviews, the Project will support and not preclude the implementation of the City's transportation-related goals and policies, as explained below. Therefore, the Project will not have a significant impact regarding compliance with the City's plans, programs, ordinances, or policies. The Project is also not expected to contribute to a cumulative impact related to implementation of the City's transportation-related goals and policies, as there are no related development projects in the direct Project vicinity that could affect local policy compliance.

4.1.1 MOBILITY PLAN 2035

The Project would embrace the objectives of the Mobility Plan 2035, which also includes the goals and policies of the City of Los Angeles General Plan and Bicycle Plan. The Mobility Plan designates Vanowen Street, the roadway bordering the Project site to the north, as an Avenue II. This designation entails a 56-foot wide roadway within an 86-foot wide right-of-way. The segment of Vanowen Street adjacent to the Project site presently has a 66-foot wide roadway within an 83- to 86-foot wide right-of-way. Only a 3-foot dedication on the north side of the roadway is required to meet the roadway's ultimate dimensions. The Project, therefore, has already made the necessary dedication to achieve the roadway's ultimate half right-of-way. The Project will also add short-term bicycle parking on the site adjacent to Vanowen Street, furthering the City's active transportation goals.

The Mobility Plan designates De Celis Place, the roadway bordering the Project site to the east, as a Collector street. This designation entails a 20-foot wide half roadway within a 33-foot wide half right-of-way. The segment of De Celis Place adjacent to the Project site currently has a 20-foot wide half-roadway within a 32-foot right-of-way. The Project will make a 1-foot dedication to the public-right-of-way on De Celis Place.

Due to site design restrictions, the Project driveways cannot all be located along De Celis Place. One-way circulation will allow for safer and more efficient on-site circulation, especially for student drop-offs/pick-ups. As such, new driveway access is proposed along Vanowen Street, which is designated as an Avenue II roadway. While this conflicts with Mobility Plan policy regarding the location of driveways along non-arterial roadways, the design and operation of the proposed driveways have been adjusted in order to provide for safe and efficient operation that considers all roadway users. The two proposed driveways will provide one-way operation which will limit the flow of traffic to one direction at each access point. These driveways will be spaced appropriately from major intersections and will meet the minimum one-way driveway widths as outlined in the LADOT Driveway Design Guidelines. Sufficient sight distance will also be provided at both driveways in order to identify conflicting vehicles, bicycles, and pedestrians. Thus, while one of these driveways is proposed along an arterial roadway, the design and operation of the access points have been selected in order to provide safe operations for vehicles, pedestrians, and bicyclists, alike, while also minimizing potential conflicts with traffic along Vanowen Street. The presence of a center TWLTL along Vanowen Street at the proposed outbound driveway location will allow motorists turning left from the driveway to take shelter in the TWLTL before merging with westbound Vanowen Street traffic.

In summary, the Project is consistent with the Mobility Plan 2035 for public right-of-way classification standards and dedications; policy alignment with Project-initiated changes; and network access (Plan Worksheet, Sections II.A, II.B, and II.C, respectively).

4.1.2 PLAN FOR A HEALTHY LOS ANGELES

The Plan for a Healthy Los Angeles, as established in March 2015, is meant to prioritize health and social equity in the City's plans for future growth and development. The Plan is guided by principles of holistic health, the link between community design and health, and active transportation, among other principles. Chapter 2 of The Plan, A City Built for Health, promotes multi-modal corridors and accessible services as features of a safe and healthy city. The development of the Project will not preclude the Plan's goals of promoting active transportation and a healthy city. As a school project with short-term and long-term bicycle parking, the Project will be conducive to this active mode of travel for students, employees, and guests alike.

4.1.3 RESEDA-WEST VAN NUYS COMMUNITY PLAN

The Reseda-West Van Nuys Community Plan, as adopted in November 1999 and amended in September 2016, summarizes key issues and opportunities in the area through the development of goals, objectives, policies, and programs associated with multiple land uses that lie within its boundaries. Under the Land Use Plan Policies and Programs (Chapter 3), transportation section, several transportation goals and policies are noted for the area. As a school project adjacent to local bus service and approximately one-mile from the Metro G Line busway, the Project supports the objectives of encouraging the use of local and express bus service within the community plan area. Additionally, the Project will encourage and establish a system of safe and efficient bicycle and pedestrian facilities by installing bicycle racks, maintaining spacious sidewalks adjacent to the site, and providing separate and safe access to the site for pedestrians.

The Reseda-West Van Nuys Community Plan also encourages the establishment of a Transportation Demand Management (TDM) program to promote the more effective use of existing roadway facilities by reducing single-occupancy automobile travel and promoting alternative modes of transportation. The

implementation of TDM strategies will help promote increased active non-motorized mode of travel by Project students and employees, as well as provide carpooling and ridesharing opportunities. As discussed, the Project will conform to the requirements of the City's TDM Ordinance and will implement bicycle parking features and parking reductions that qualify as TDM strategies and will assist in meeting the TDM Community Plan objective. The Project will also fulfill this objective by locating the Project close to transit facilities, which will reduce vehicular trips and provide greater accessibility to local and regional destinations.

Thus, the Project will help realize several of the transportation programs noted within the area's Community Plan.

4.1.4 VISION ZERO

Vision Zero was launched by the Mayor of Los Angeles in August 2015 with the goal of eliminating all traffic fatalities citywide by 2025. Vision Zero specifically seeks to implement traffic safety treatments at intersections and along roadway segments to improve safety for pedestrians, bicyclists, and other vulnerable road users. The City of Los Angeles has developed a High Injury Network (HIN) that identifies roadways having a high number of traffic collisions causing serious injury and death. Development projects proposed on a roadway identified as part of the City's HIN should be designed to enhance safety for non-motorized users. Neither Vanowen Street, De Celis Place, nor Archwood Street are classified as a HIN roadway. Additionally, the Project is proposing to limit ingress and egress at the Project driveways with one-way facilities on De Celis Place (inbound) and Vanowen Street (outbound). This will limit the number of directions from which vehicles will cross the pedestrian path of travel, thus improving the visibility for pedestrians at these locations. Thus, by maintaining the existing sidewalks and infrastructure, the Project will not negatively affect the safety of pedestrians, bicycles, and other vulnerable roadway users.

4.1.5 CITYWIDE DESIGN GUIDELINES

The Los Angeles Department of City Planning established *Citywide Design Guidelines* meant to promote maintaining neighborhood character, quality design, and creative development solutions. Guidelines 1-3 provide best practices in the area of Pedestrian-First Design that are as follows:

- Guideline 1 is to promote a safe, comfortable, and accessible pedestrian experience for all.
- Guideline 2 is to carefully incorporate vehicular access such that it does not degrade the pedestrian experience.
- Guideline 3 is to design projects to actively engage with streets and public space and maintain human scale.

The Project's proposed pedestrian facilities provide sufficient pedestrian access at the main school entrance along Vanowen Street at the northwest corner of the site. In addition, the Project is proposing to provide a pedestrian plaza connecting to the existing sidewalk which will activate area as a pedestrian-friendly for students and employees. The proposed inbound vehicular driveway is located along De Celis Place at the far (southwest) corner of the site, which will limit the number of conflicting vehicles that will cross the pedestrian path of travel, reducing the potential for dangerous pedestrian-vehicle conflicts. The proposed outbound vehicular driveway is located along Vanowen Street. However, the design and operation of the proposed driveway has been adjusted in order to provide for safe and efficient operation that considers all roadway users. The two proposed driveways will provide one-way operation which will limit the flow of

traffic to one direction at each access point, and sufficient sight distance will be provided in order to identify conflicting vehicles, bicycles, and pedestrians. Thus, the design and operation of these access points have been selected in order to provide safe operations for vehicles, pedestrians, and bicyclists.

The Project is designed to present a street frontage along Vanowen Street that has a pedestrian plaza and bicycle parking for students, employees, and guests of the school. Therefore, the Project is compliant with the *Citywide Design Guidelines*.

4.1.6 LOS ANGELES MUNICIPAL CODE

The LAMC bicycle parking ordinance § 12.21 A.16 requires the provision of short-term bicycle parking spaces at a rate of 4 short-term bicycle parking spaces per classroom with a minimum of two spaces. The LAMC also requires the provision of long-term bicycle parking spaces at a rate of 1 long-term bicycle parking space per 10 classrooms with a minimum of two spaces. Based on these rates, the Project would meet the LAMC bicycle parking requirements by providing 108 short-term and 3 long-term bicycle stalls. The Project will provide 108 short-term and 3 long-term bicycle spaces. The short-term bicycle parking spaces will be located on site next to the pedestrian entry and plaza along Vanowen Street. The long-term bicycle parking spaces will be located on site near the vehicular entry driveway from De Celis Place, near the automobile parking. The Project will, therefore, provide convenient and adequate bicycle parking facilities.

The current TDM requirements (LAMC § 12.26J) outlines TDM measures that a development must implement and comply with which includes displaying mobility information, designating parking for carpool/vanpools, and providing bicycle parking. The Project will be in compliance with the Code. This includes reducing the parking supply and providing the required bicycle parking spaces.

In reviewing the abovementioned LAMC requirements, the Project does not conflict with the bicycle, vehicle, or TDM policies. The Project compliance with the LAMC requirements is also addressed in the Plan Worksheet Section II.D.

4.1.7 SCAG RTP/SCS

The SCAG RTP/SCS balances future mobility and housing needs with economic, environmental, and public health goals in a long-term plan that are laid out for the period from 2020-2045. The Plan Worksheet Section II.E addresses whether or not a development project is consistent with regional plans such as the SCAG RTP/SCS. The Project is consistent with the SCAG RTP/SCS because the Project would not result in a significant VMT impact as detailed further in Section 4.2.

4.1.8 WALKABILITY CHECKLIST

The Los Angeles Department of City Planning's Walkability Checklist provides design strategies and guidelines for walkable streets. This document promotes pedestrian-friendly features in the public right-of-way and on private property. The institutional nature of the property allows pedestrians to comfortably walk between the public sidewalk on Vanowen Street and into the Project. The sidewalk along the south side of Vanowen Street is wide enough to accommodate pedestrian flow and activity, yet is not wider than necessary. This will create a favorable walking setting for pedestrians.

4.2 CAUSING SUBSTANTIAL VEHICLE MILES TRAVELED (THRESHOLD T-2.1)

As outlined in the Mobility Plan 2035, the City has a goal of reaching a 20 percent reduction in VMT by 2035. In line with these goals, the City has updated the TAG to ensure compliance with Section 15064.3, subdivision (b)(1) of the CEQA Guidelines, which asks if a development project would result in a substantial increase in VMT. The TAG sets the following criterion for determining significant transportation impacts based on VMT:

For a land use project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)?

To assist in determining which development projects would conflict with CEQA Guidelines section 15064.3, subdivision (b)(1), the TAG establishes two screening criteria to evaluate whether further analysis is required of a land use project's VMT impact. Both of the following criteria must be met in order to require further analysis of a land use project's VMT contribution:

1. The land use project would generate a net increase of 250 or more daily vehicle trips.
2. The land use project would generate a net increase in daily VMT.

In addition, the TAG provides specific instructions for evaluating the VMT contributions of retail and restaurant uses. Should a land use project contain retail or restaurant components that are small-scale or local-serving in nature, the retail/restaurant portion of the land use project can be assumed not to result in a significant VMT impact. The retail/restaurant component of a land use project should be considered small-scale or local-serving if the total retail and restaurant square footage does not exceed 50,000 square feet. For a mixed-use development, if the retail/restaurant component does not exceed 50,000 square feet in floor area, that component can be considered to have a less-than-significant VMT impact; however, the remaining portions of the land use project are subject to further VMT analysis per the above screening criteria.

In regard to schools and religious land uses, the TAG describes that VMT impacts of such uses will be determined on a case-by-case basis while a more formal methodology is in development. School uses that are small in scale and are shown to serve primarily the immediate community can be considered local-serving uses and, therefore, can be screened out from further VMT analysis. For school uses that are large in scale and are expected to attract people from a broader area, impacts would need to be further evaluated using a market study. A school project would be shown to result in a significant VMT impact if the project is not screened out from analysis, and the project is expected to result in a net increase in daily VMT.

The Project will be a small in scale, as the maximum enrollment is planned to be 564 students across grades 6 through 12 (around 80 students per grade). Typical Los Angeles Unified School District (LAUSD) schools serving junior high schools and high schools can be much larger than the Project, with many schools maintaining enrollments in excess of 1,000 (and 2,000) students that serve only grades 6 through 8 or grades 9 through 12. Of the 18 LAUSD schools that serve grades 6 through 12, 5 schools have student enrollments exceeding 1,000 students and the average enrollment is approximately 666 students. Therefore, the Project would be considered smaller in scale relative to typical schools serving similar grades within the City.

In order to evaluate the local-serving nature of the Project, home zip code data were analyzed for the existing Magnolia Science Academy 2 student population. The existing school is located at 17125 Victory

Boulevard, approximately three-quarters of a mile southwest of the Project site. Given their proximity, the existing school and the proposed Project are expected to draw their student populations from very similar regions. The existing school has 510 students spread across grades 6 through 12. Of those 510 total students, it was found that 251 reside in zip code 91406, 67 reside in zip code 91335, 46 reside in zip code 91405, and 38 reside in zip code 91411. Both the existing school and the proposed Project are located in zip code 91406.

As shown in Figure 4, these four zip codes consist of the zip code containing the Project site (91406), the zip code directly to the west, and the two zip codes directly to the east. Therefore, of the 510 existing school students, almost 79 percent (402 students) reside in either the same zip code as the school or a contiguous zip code. A similar pattern emerges for the next most populated student home zip codes, which radiate outward from zip code 91406. Based on these zip code data, it is reasonable to conclude that the Project will be a local-serving use. Thus, per the TAG, as a small-scale and local-serving school, the Project can be screened from further VMT analysis and is presumed to have a less-than-significant impact. It should be noted that the Project will implement Transportation Demand Management (TDM) strategies, as part of its operational plan, that will further reduce the Project's VMT and daily vehicle trips...

It is worth highlighting all TDM measures that will help reduce VMT at this point in the report. These measures may include such as:

1. Reduced Automobile Parking Supply
2. Bicycle Parking Provision
3. Promotion of Alternative Mode Use (Public Transit, Bike, Walk)
4. Employee Transportation Coordinator
5. Student and Employee Carpooling Programs
6. Priority Parking for Employee Carpools
7. Bussing for Students
8. Discount Transit Passes for Employees and/or Students
9. Guaranteed Ride Home Program (for Alternative Commute Participants)
10. Bicycle Tool and Repair Stand
11. Free On-Site Shared Bicycles
12. Parking Cash Out for Employee Spaces

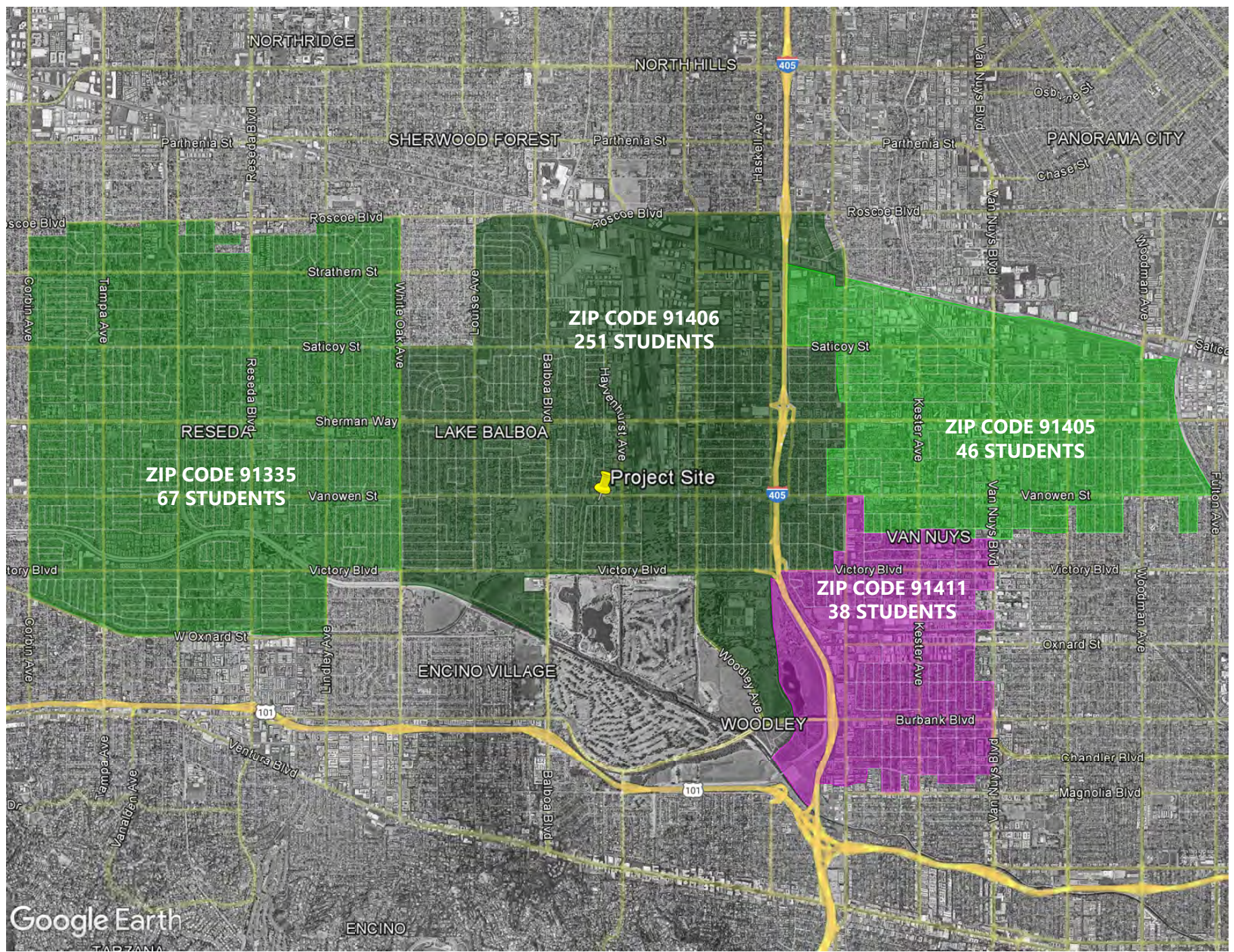


FIGURE 4

11/15/2023

4.3 SUBSTANTIALLY INDUCING ADDITIONAL AUTOMOBILE TRAVEL (THRESHOLD T-2.2)

Transportation projects that contribute to increased vehicular capacity may contribute to inducing vehicular travel. The City has updated the TAG to ensure compliance with Section 15064.3, subdivision (b)(2) of the CEQA Guidelines, which gives the discretion to agencies to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. The TAG sets the following criteria for determining significant transportation impacts based on VMT for transportation projects:

For a transportation project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(2)?

Since the Project is not a transportation project, threshold T-2.2 does not apply.

4.4 SUBSTANTIALLY INCREASING HAZARDS DUE TO GEOMETRIC DESIGN FEATURE OR INCOMPATIBLE USE (THRESHOLD T-3)

In line with Vision Zero policies, the TAG seeks to identify any potential impacts that could arise due to roadway modifications proposed as part of a development project. These impacts include potential conflicts between motorists, bicyclists, and pedestrians, as well as increases in operational delays and vehicle queuing at development project driveways. Potential impacts would be determined based on the location of proposed driveways and the ability for motorists entering and exiting the project site to identify conflicting vehicular, pedestrian, and bicycle traffic. Therefore, the TAG has established the following threshold to determine if a development project would result in a significant impact based on the creation of roadway hazards:

Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The TAG also establishes two screening criteria to assist in determining which development projects would potentially result in impacts due to geometric design hazards or incompatible uses. If either of the following conditions is present for a proposed development project, then further analysis of the potential hazards is required:

1. The land use project proposes new driveways, or introduces new vehicular access to the property from the public right-of-way.
2. The land use project proposes, or is required, to make modifications to the public right-of-way (i.e., street dedications, reconfigurations of curb line, etc.).

The Project proposes to install one new driveway on De Celis Place for vehicle ingress and one new driveway along Vanowen Street for vehicle egress. The new driveways on De Celis Place and Vanowen Street will intersect these roadways at right angles and will provide adequate sight distance in order to identify conflicting vehicular, pedestrian, and bicycle traffic. As circulation through the Project be one-way (clockwise), the potential for vehicle-pedestrian and vehicle-bicycle conflicts will be reduced. No modifications to the public right-of-way are proposed for Vanowen Street.

Based on this assessment, the Project is not anticipated to have a significant impact related to geometric design feature of incompatible use hazards. The Project is not expected to contribute to a significant cumulative hazard impact since the access to adjacent properties would not be altered by the construction of the Project or other developments.

5. NON-CEQA TRANSPORTATION ANALYSIS

In addition to the analysis required under the revised CEQA Guidelines, the LADOT has outlined four additional analysis areas that should be reviewed for proposed development projects. This section outlines the methodologies applied for and the results of these four analyses.

5.1 PEDESTRIAN, BICYCLE, AND TRANSIT ASSESSMENT

Per the updated TAG, a development project must evaluate the potential negative effects on the pedestrian, bicycle, and transit facilities that surround the site. These effects can include either the removal or degradation of existing facilities, or the increasing of demand on inadequate facilities. The TAG has established the following three screening criteria, all of which all must be met to require further analysis regarding a development project's effect on the pedestrian, bicycle, and transit networks:

1. The land use project involves a discretionary action that would be under review by the Department of City Planning.
2. The land use project would include the construction or addition of either of the following: (1) 50 or more dwelling units, guest rooms, or combination thereof; or (2) 50,000 or more square feet of non-residential space.
3. The land use project would generate a net increase of 1,000 or more daily vehicle trips; or the project has frontage along an Avenue, Boulevard, or Collector of 250 or more linear feet; or the project has frontage spanning an entire block along a roadway designated as an Avenue or Boulevard.

The Project involves discretionary action that would be under review by the Department of City Planning and the construction of more than 50,000 square feet of non-residential space. As described previously, the Project proposes a two-story, charter school development for 564 students (grades 6 through 12), with 27 classrooms, office space, a field, and a gymnasium on an approximately 2.5-acre parcel. The middle- and high-school land uses will generate, per the VMT Calculator, 703 net daily vehicle trips without consideration of the Project features that qualify as TDM measures. The Project does not generate a net increase of 1,000 or more daily vehicle trips. However, as shown in Figure 2, the Project has approximately 335 linear feet of frontage along Vanowen Street (an Avenue II). Therefore, the Project meets the three screening criteria requiring further analysis of pedestrian, bicycle, and transit facilities surrounding the site.

The Project vicinity features a variety of pedestrian, bicycle, and transit facilities. A survey was conducted of the pedestrian, bicycle, and transit infrastructure within an approximate one-quarter mile radius of the site. An overview of these study area facilities is geographically depicted in Figure 5. ADA compliant curb ramps are provided at most intersections in the Project vicinity, with numerous ramps featuring tactile warning strips. Marked crosswalks are provided at major intersections along Vanowen Street, Balboa Boulevard, Hayvenhurst Avenue, and Victory Boulevard. A majority of these crosswalks have continental markings to improve crosswalk visibility for motorists. Pedestrian push-buttons are provided at most signalized marked crosswalks. Limited bicycle facilities are currently provided in the Project vicinity. Balboa Boulevard is planned to have a bicycle lane per the City's Mobility Plan 2035 Bicycle Network. Transit facilities near the Project site include bus stops along major travel routes, located on Balboa Boulevard, Vanowen Street, and

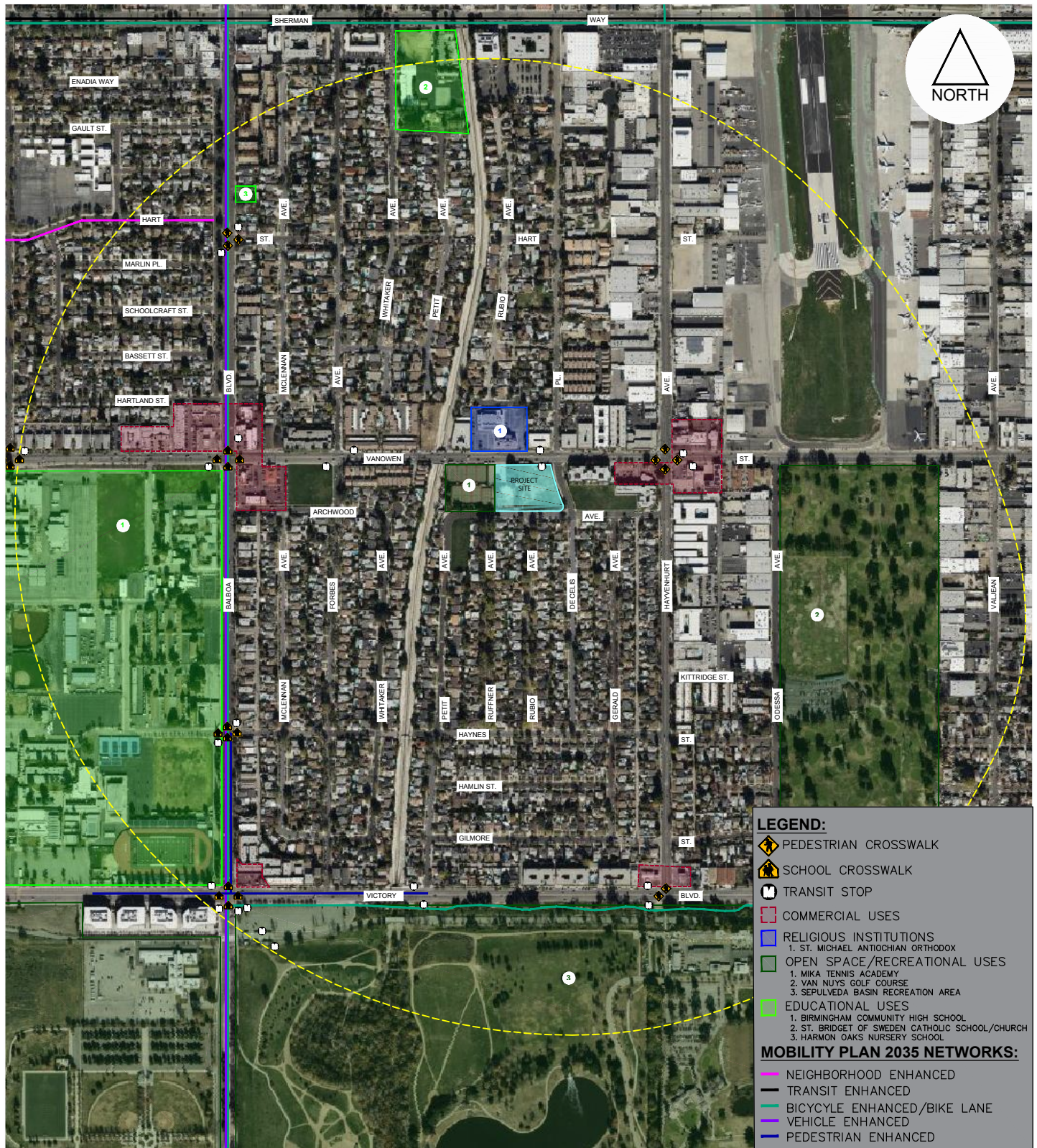


FIGURE 5

11/15/2023

Victory Boulevard. Within a one-quarter mile radius of the site, at the intersection of Balboa Boulevard & Victory Boulevard, is the Balboa G (Orange) Line Busway Station. Most bus stops in the vicinity of the Project provide benches, while some select stops also provide shade structures. The following sections evaluate the Project's effects on these various facilities.

REMOVAL OR DEGRADATION OF FACILITIES

The Project has frontage along Vanowen Street, De Celis Place, and Archwood Street. Aside from the addition of a driveway, the Project would not modify the sidewalk, bicycle, pedestrian, or transit facilities adjacent to the site along Vanowen Street. The adjacent Project sidewalk meets the dimensional requirements of the Mobility Plan 2035. The Project will maintain the existing facilities along all adjacent roadways. Therefore, development of the Project will maintain pedestrian/ADA mobility and not degrade existing facilities.

No on-street bicycle facilities are provided along Vanowen Street, De Celis Place, or Archwood Street adjacent to the Project. As such, the construction of the Project will not affect any bicycle facilities along these roadways. In fact, the Project proposes to provide short-term bicycle parking spaces on site. These bicycle facilities will improve bicycle parking options for students, employees, and guests of the Project within a surrounding area with currently limited bicycle parking options. Thus, the Project will supplement and upgrade the bicycle facilities within the Project area.

Metro Line 165 runs east-west along Vanowen Street adjacent to the Project site. The eastbound bus stop at De Celis Place along the south side of Vanowen Street is located adjacent to the Project site. However, the Project will not require changes to any bus stop locations or the rerouting of existing transit lines. Therefore, the existing transit facilities in the Project vicinity will not be degraded.

INTENSIFICATION OF USE

As the Project is located near the intersection of Balboa Boulevard & Vanowen Street with other nearby school land uses, convenient access to a variety of land uses, and additional transit, bicycle, and pedestrian facilities, some of the Project students, employees, and guests are likely to arrive at and depart from the site by walking, bicycling, transit, or a combination of these modes. Therefore, the Project will likely increase demand for the transit, bicycle, and pedestrian facilities in the Project vicinity.

While limited dedicated bicycle facilities are currently provided in the Project area, numerous local and collector streets feature lower vehicular volumes and travel speeds. Those streets will connect the Project site to residential neighborhoods between major arterials. Additionally, Balboa Boulevard is planned to have bicycle lanes per the City's Mobility Plan 2035 Bicycle Network. Project students, employees, and guests can use these shared roadways to travel more safely in the Project vicinity via bicycle. In conjunction with the Project bicycle parking, the connectivity these facilities provide to the larger regional bicycle network proposed within the Mobility Plan 2035 establishes the Project and surrounding area as supporting bicycle travel.

In addition, the Project will also increase transit demand in the Project study area. In the Project vicinity, the intersection of Vanowen Street & Balboa Boulevard provides bus stops for multiple lines, including lines with frequent peak-period service. As discussed, Metro Line 165, Metro Line 235/236, and LADOT Commuter Express Lines 573 and 574 provide stops at this intersection and link the Project area with the larger transit

network. The bus stops at this intersection provide benches and the westbound stop provides shade. The eastbound stop of Metro Line 165 at the intersection of Vanowen Street & De Celis Place is located adjacent to the Project site. A westbound stop of Metro Line 165 is located across the roadway, and there is another westbound stop at the nearby signalized intersection of Vanowen Street & Hayvenhurst Avenue. Due to the close proximity of these bus stops to the Project site, it is expected that the majority of transit demand for the Project will be drawn to and from these stops. The eastbound bus stop at the intersection of Vanowen Street & De Celis Place provides benches, while the westbound bus stops do not. Given that the westbound bus stop at Vanowen Street & Hayvenhurst Avenue provides a signalized pedestrian crossing of Vanowen Street that is less than a 900-foot long walk from the Project site, it is expected to be more popular for student/employee use than the bus stop at De Celis Place.

As detailed in the approved TA MOU included in Appendix A, the existing Magnolia Science Academy 2 on Victory Boulevard currently has fewer than 50 students (of 510 total) who walk or use a non-automobile mode to travel to/from school, and only one employee (of 46 total) who does the same. Assuming rather conservatively that 10 percent of the proposed Project population (564 total students and 60 total employees) may all use public transit as their non-automobile mode, approximately 62 Project persons would use transit on a daily basis. With Metro Line 165 operating eastbound and westbound with headways of 10 minutes during the weekday AM and PM peak periods, this bus route should provide ample capacity to handle the added Project demand. Thus, while the Project will increase pedestrian, bicycle, and transit demand on the facilities in the immediate Project vicinity, these facilities are ample and in good condition and can accommodate the added demands of the Project.

5.2 PROJECT ACCESS, SAFETY, AND CIRCULATION EVALUATION

The TAG requires development projects to evaluate potential operational and capacity constraints related to access to and egress from the project site. These constraints are typically affected by the configuration and placement of driveways, location of nearby bicycle and pedestrian facilities, and design of access points. The TAG has established the following two screening criteria, both of which must be met to require further analysis of potential operational and capacity constraints:

1. The land use project involves a discretionary action that would be under review by the Department of City Planning.
2. The land use project would generate a net increase of 500 or more daily vehicle trips.

The Project will meet both of the screening criteria as it will require a discretionary action under the Department of City Planning and it will generate a net increase of 500 or more daily vehicles trips (the Project will generate 703 net daily vehicle trips per the VMT Calculator screening results). Therefore, further analysis is required to be conducted of potential access and circulation constraints of the Project site. Per the TAG, operational and passenger loading evaluations have been conducted to determine the Project's effects on adjacent roadway travel. These evaluations are detailed in the sections below.

5.2.1 OPERATIONAL EVALUATION

To determine the effects of the Project on the operation of vehicular travel within the immediate Project vicinity, an evaluation was conducted to determine the Project's contribution to delay and queuing at intersections adjacent to the Project under existing and future conditions. A Project completion year of 2026

is anticipated and is assumed in the analysis. In consultation with the LADOT, the following site-adjacent and nearby study intersections were selected for the analysis of potentially negative Project traffic effects:

1. Vanowen Street & Louise Avenue (signalized)
2. Vanowen Street & Balboa Boulevard (signalized)
3. Vanowen Street & De Celis Place (unsignalized, TWSC)
4. Vanowen Street & Hayvenhurst Avenue (signalized)
5. Archwood Street & De Celis Place (unsignalized, AWSC)
6. Vanowen Street & Project Driveway (unsignalized, TWSC)
7. Project Driveway & De Celis Place (unsignalized, TWSC)

The study locations were shown previously in Figure 1.

5.2.2 ANALYSIS METHODOLOGY

This section outlines the results of the delay and queuing analysis for Existing (2023) and Future (2026) conditions during the weekday AM and PM peak hours. This analysis was conducted in accordance with the methodology outlined in the TAG. An analysis of existing and future weekday AM and PM peak-hour traffic conditions at the study intersections, listed above, was performed through the use of established traffic engineering techniques. Two methodologies were used to determine the traffic operations at the study intersections. The analyses for both methodologies were undertaken using Trafficware's Synchro Studio, which includes both Synchro and SimTraffic software, to model the traffic operations at the study intersections.

The first methodology used to analyze and evaluate traffic operations at the study intersections is based on procedures outlined in the *Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis* (HCM). The HCM methodology determines intersection LOS based on operational vehicle delay. For signalized intersections and unsignalized all-way stop-controlled (AWSC) intersections, the operational delay corresponds to the overall delay for all movements at the intersection. For unsignalized, two-way stop-controlled (TWSC) intersections, the operational delay corresponds to the delay for the stop-controlled movements. The term LOS describes the quality of traffic flow. LOS values of A through C indicate excellent-to-decent traffic flow conditions. LOS D corresponds with fair conditions that may experience substantial delay during portions of the peak hours, but without excessive backups. LOS E represents poor conditions, with volumes at or near the capacity of the intersection and long lines of vehicles that may have to wait through several signal cycles. LOS F is characteristic of failure (i.e., the intersection is overloaded, vehicular movements may be restricted or prevented, and delays and vehicle queues become increasingly longer). The LOS ranges for the HCM methodology are shown in Tables 1 and 2 for signalized and unsignalized intersections, respectively.

Table 1: HCM LOS & Delay for Signalized Intersections

<u>LOS</u>	<u>Delay (seconds/vehicle)</u>			
A	<=	10.0		
B	>	10.0	<=	20.0
C	>	20.0	<=	35.0
D	>	35.0	<=	55.0
E	>	55.0	<=	80.0
F	>	80.0		

Source: *Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis*, Exhibit 19-8 for signalized intersections.

Table 2: HCM LOS & Delay for Two-Way and All-Way Stop-Controlled Intersections

<u>LOS</u>	<u>Delay (seconds/vehicle)</u>			
A	<=	10.0		
B	>	10.0	<=	15.0
C	>	15.0	<=	25.0
D	>	25.0	<=	35.0
E	>	35.0	<=	50.0
F	>	50.0		

Source: *Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis*, Exhibit 20-2 for two-way STOP-controlled intersections and Exhibit 21-8 for all-way STOP-controlled intersections.

The second methodology consisted of a Synchro queuing analysis in order to evaluate potential issues associated with queued vehicles entering or exiting the Project site. A Synchro traffic model was constructed to model the seven study intersections. Queuing conditions at the study intersections were evaluated to identify potential queuing issues associated with “gridlock” congestion. Gridlock refers to the traffic condition where queues from a congested intersection impede traffic flow through upstream intersections. Additionally, the left-turn queues at the study intersections were analyzed specifically to determine whether vehicles would spillover from the left-turn pockets or center two-way left-turn lane into adjacent through traffic lanes.

Per the TAG, access constraints can be related to extensive queueing or operational delays. For this reason, results from the quantitative delay-based and queuing analyses were evaluated in combination to determine whether the Project would have an adverse effect on the operations of Project-adjacent vehicular facilities. Adverse impacts were determined when the results of these analyses demonstrated considerable increases in vehicular delay and queueing associated with the addition of Project traffic.

5.2.3 EXISTING (2023) TRAFFIC VOLUMES

Traffic volumes for existing conditions at the study intersections were obtained from manual traffic counts conducted on June 1, 2023, when local schools were in session. In accordance with updated TAG, the traffic counts conducted for this study cover the weekday morning and afternoon peak commute periods. Peak-hour volumes were determined individually for each intersection based on the combined four (4) highest consecutive 15-minute volumes for all vehicular movements at the intersection. Weekday AM and PM peak-

hour volumes at the study intersections are illustrated in Figures 6(a) and 6(b), respectively. The manual intersection traffic volume count data sheets are provided in Appendix C.

A number of traffic improvements have been implemented in the study area in recent years to make more efficient and effective use of the existing street system. The signalized intersections in the Project vicinity are operating under the City's Adaptive Traffic Control System (ATCS) and Automated Traffic Surveillance and Control (ATSAC) System. ATCS/ATSAC is a highly sophisticated computerized system that continually monitors traffic demand at signalized intersections within the system and modifies traffic signal timing in real time to maximize capacity and decrease overall delay. These intersection capacity improvements have been incorporated in the analysis of Existing (2023) and Future (2026) traffic conditions.

Information pertaining to intersection characteristics, such as geometrics, traffic signal operations, and on-street parking restrictions were obtained from field checks and City engineering plans. The existing lane configuration and traffic control conditions for seven study intersections are illustrated in Appendix D.

5.2.4 PROJECT TRAFFIC

The following section describes the methodology used to determine the Project vehicle trip generation, distribution, and assignment.

Trip Generation

Per the approved TA MOU signed by LADOT staff on September 11, 2023 and included as Appendix A to this report, the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021) was used to develop the traffic characteristics of the Project's proposed uses. The trip generation equations, rates, and directional distributions in the ITE manual are nationally recognized and are used as the basis for most transportation-related studies conducted in the City and the surrounding region. Information was obtained from the *Trip Generation Manual* for ITE Land Use Code (LUC) 522 – Middle School/Junior High School and LUC 525 – High School. Rates for both of these land use codes were utilized as the Project contains both middle/school junior high (288 students in Grades 6 through 8) and high school (276 students in Grades 9 through 12) components. Trip rates from this source were applied to develop the Project's trip generation estimates. Table 3 presents the trip generation rates used to generate the weekday peak-hour traffic volumes for the Project.

For this analysis, since the VMT Calculator does not calculate weekday AM or PM peak-hour trip generation estimates, the ITE *Trip Generation Manual* and LADOT survey-based trip generation rates provided in Table 3 were used to determine the weekday AM peak-hour and PM peak-hour vehicle trips anticipated for the Project. As these rates do not account for such trip-reducing factors as significant transit usage and/or walk-trip potential, the proposed project vehicle trip estimates reflect a conservative condition.

The trip generation rates were employed to derive Project vehicle trip projections. Table 3 also summarizes the trip generation estimates for the Project. As shown in Table 3, once completed and occupied, the Project is anticipated to generate a total of 337 vehicle trips during the AM peak hour (202 inbound, 135 outbound) and 82 vehicle trips during the PM peak hour (40 inbound, 42 outbound). These peak-hour trips were distributed to the study intersections for the Project impact analysis.

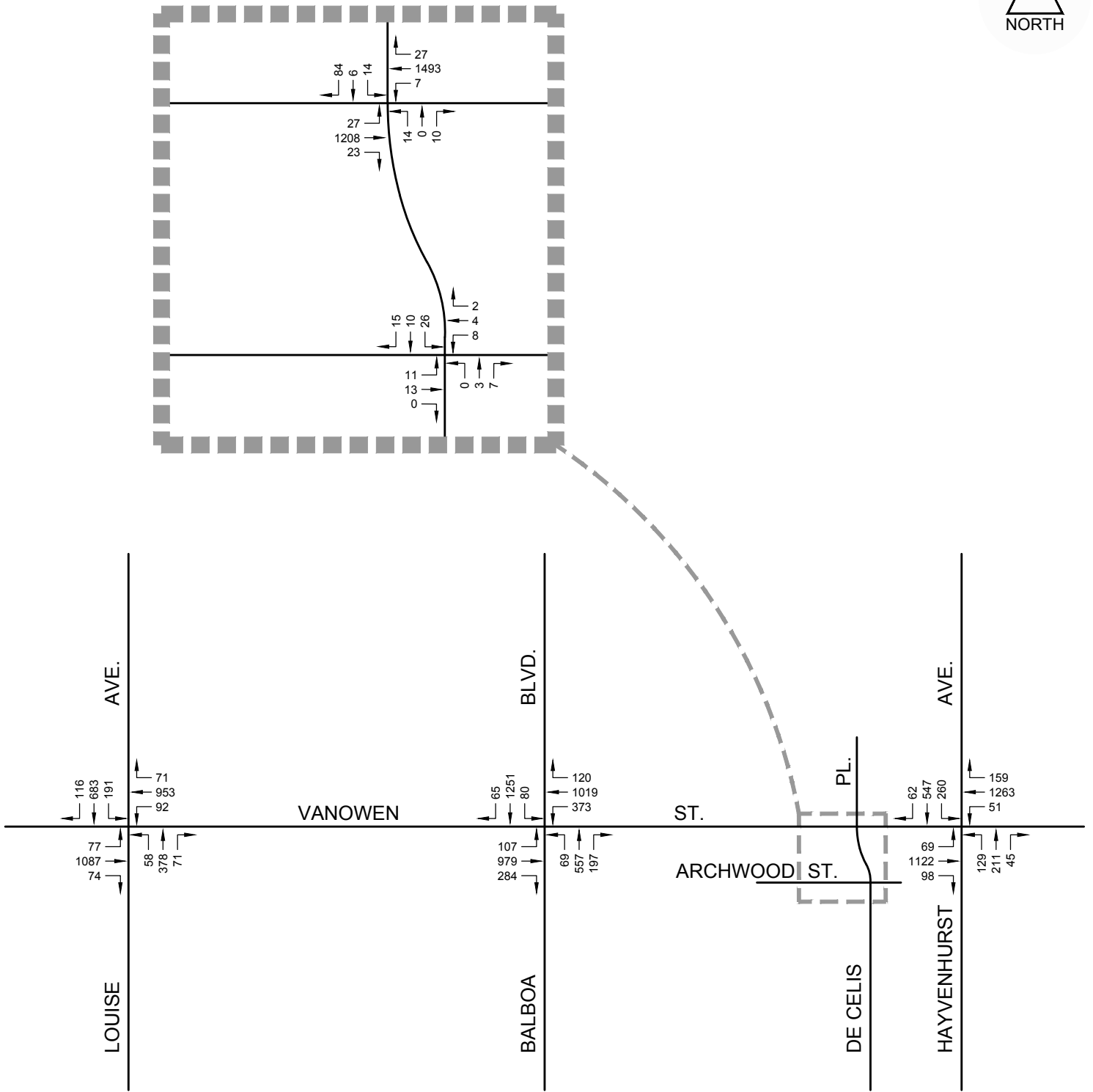


FIGURE 6(A)

11/16/2023

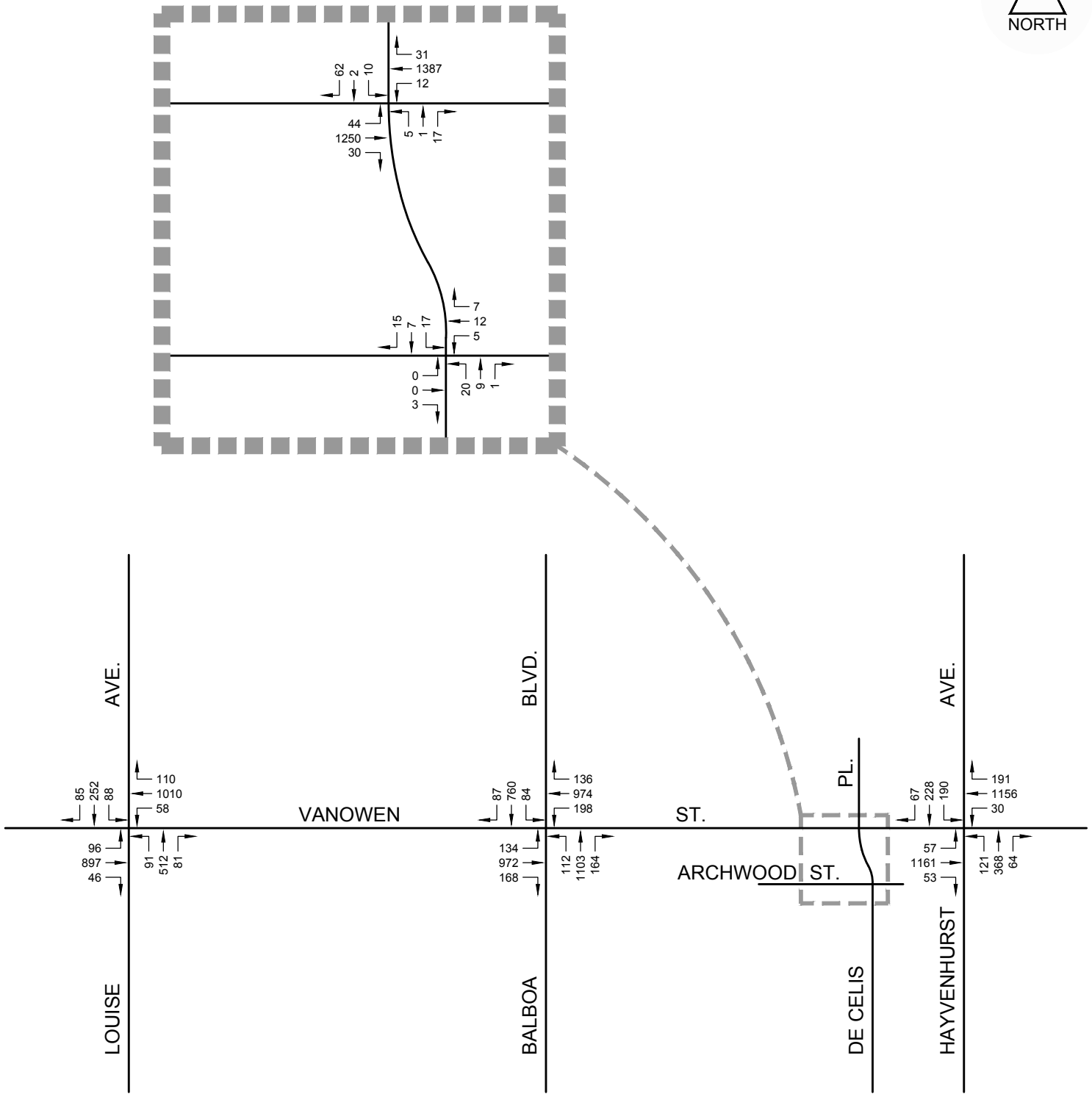


FIGURE 6(B)

11/16/2023

Table 3: Project Weekday Trip Generation Summary

Land Use	ITE Code	Intensity ²	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Trip Generation Rates								
Middle School/Junior High School	522	1 stu	54%	46%	0.67	48%	52%	0.15
High School	525	1 stu	68%	32%	0.52	48%	52%	0.14
Trip Generation Summary								
Description	Size	AM Peak Hour			PM Peak Hour			
		In	Out	Total	In	Out	Total	
Proposed Use								
Institutional								
Middle School/Junior High School ³	288 stu	104	89	193	21	22	43	
High School ⁴	276 stu	98	46	144	19	20	39	
Proposed Project Vehicle Trips			202	135	337	40	42	82

Notes:

¹ ITE *Trip Generation Manual* (11th Edition, 2021) trip generation rates and directional distributions were applied for Land Use Codes 522 (Middle School/Junior High School) and 525 (High School) to develop baseline vehicle trip estimates for the proposed land use. The General Urban/Suburban setting was selected as most appropriate for the project location.

² stu = Students.

³ Proposed school to include 96 6th grade students, 96 7th grade students, and 96 8th grade students.

⁴ Proposed school to include 72 9th grade students, 69 10th grade students, 69 11th grade students, and 66 12th grade students.

Trip Distribution and Assignment

Estimation of the directional distribution of Project trips was the next step in the analytical process. The primary factors affecting the trip distribution patterns are the nature of the Project uses, existing traffic patterns, characteristics of the surrounding roadway system, geographic location of the Project site and its proximity to major travel routes, and residential areas from which students and employees would likely be drawn. Home zip code data for the 510 students and 46 employees at the existing Magnolia Science Academy 2 were reviewed and utilized to develop the general trip distribution patterns for the proposed Project, as the new school is expected to draw from the same local region for. Based on these factors, the overall Project directional trip distribution percentages were determined and are summarized in Table 4.

Table 4: Project Directional Trip Distribution Percentages

Direction	Percentage
North	30%
South	11%
East	29%
West	30%

The general distribution percentages shown in Table 4 were then disaggregated and assigned to specific routes and intersections within the study area (and the Project driveways) that are expected to be used for Project access/egress. The Project's trip distribution percentages for the Project are presented in Figure 7.

Applying these inbound and outbound percentages to the Project trip generation estimates calculated in Table 3, the Project's traffic volumes at the study intersections were determined for the weekday AM and PM peak hours. The Project weekday AM and PM peak-hour traffic volumes are depicted in Figures 8(a) and 8(b), respectively.

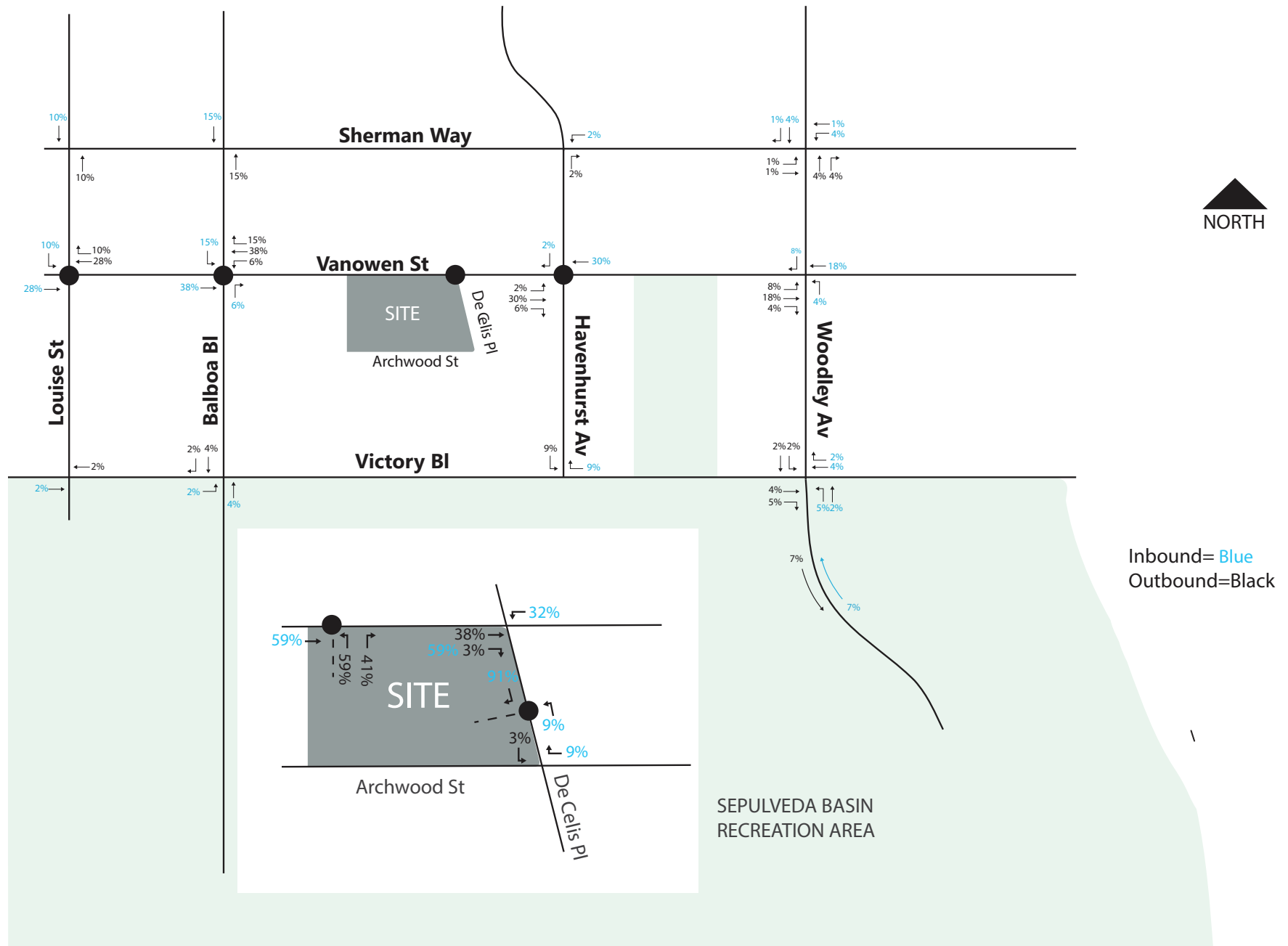


FIGURE 7

11/19/2023

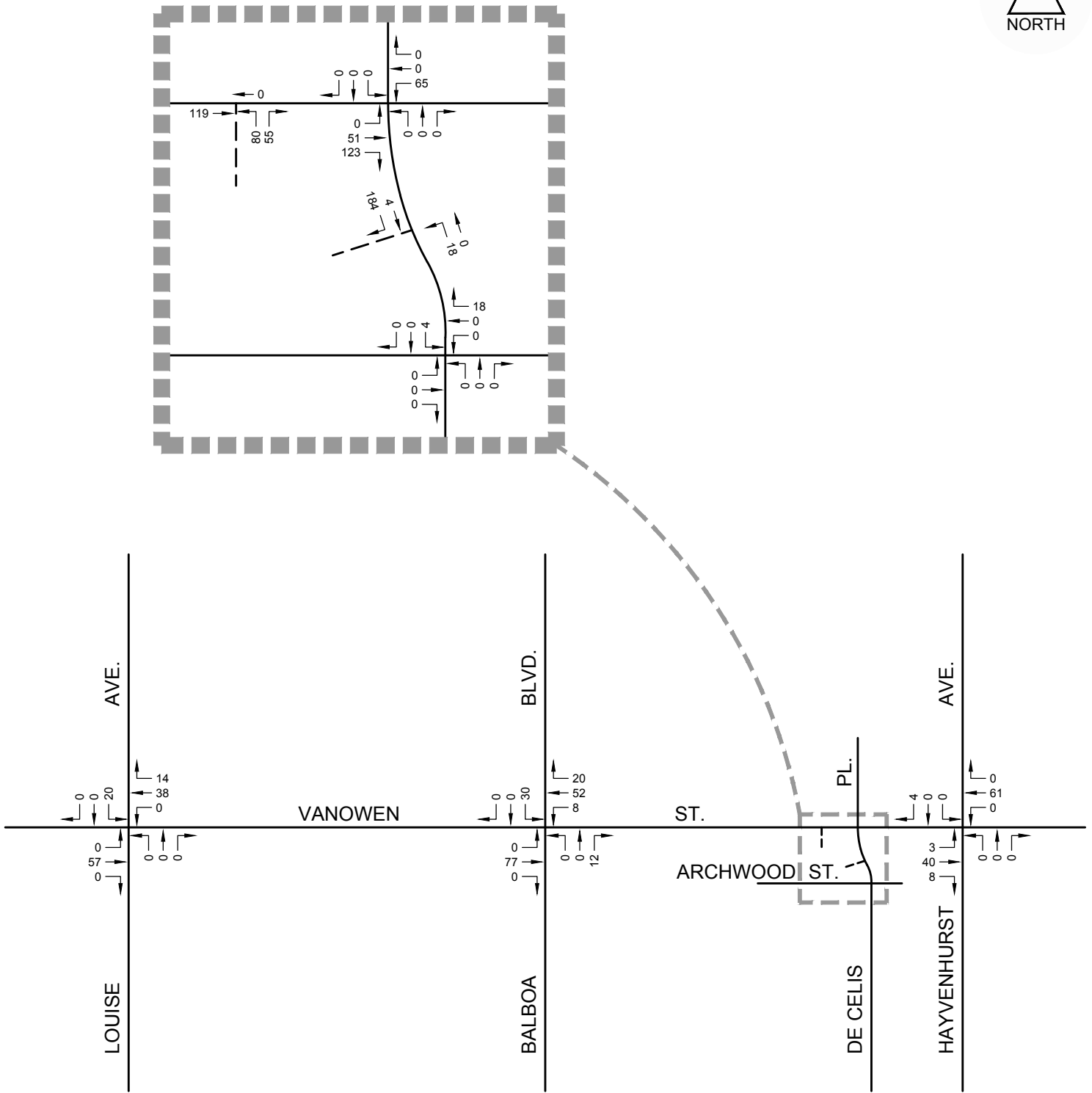


FIGURE 8(A)

11/19/2023

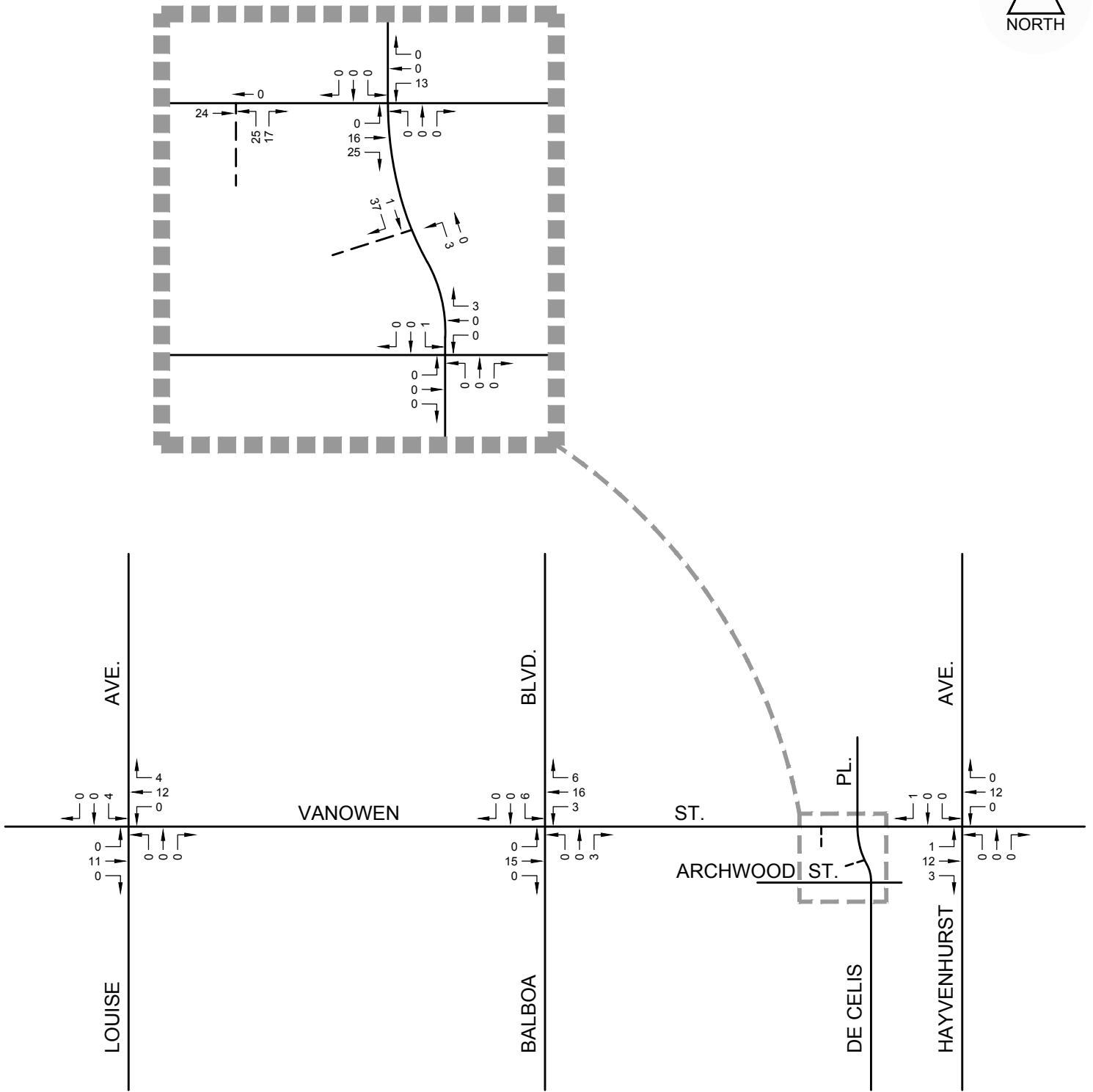


FIGURE 8(B)

11/19/2023

5.2.5 EXISTING (2023) AND EXISTING (2023) PLUS PROJECT CONDITIONS

The analysis of existing traffic conditions at the study intersections for existing year (2023) was performed using the two methodologies described previously. The Existing (2023) intersection traffic volumes for the weekday AM and PM peak hours were shown previously in Figures 6(a) and 6(b), respectively. These estimates are the "benchmark" volumes used in determining the Project effects on queuing and delay conditions for the surrounding roadway system.

The Existing (2023) Plus Project traffic volumes were determined by superimposing the Project traffic volumes onto the Existing (2023) traffic volumes. The Existing (2023) Plus Project traffic volumes at the study intersections are shown in Figures 9(a) and 9(b) for the weekday AM and PM peak hours, respectively. These volumes were used to create a Synchro traffic model for the "Existing Plus Project" scenario to determine changes to vehicle queuing and delay conditions directly attributable to the Project using the previously described methodologies. The Synchro delay and queue calculation worksheets are included in Appendix E.

Table 5 presents the results of the delay-based quantitative analysis of Existing (2023) and Existing (2023) Plus Project weekday traffic conditions. As shown, under Existing (2023) conditions, two of the signalized intersections and the AWSC intersection operate at LOS C or better during both peak hours. The signalized intersection at Vanowen Street & Balboa Boulevard currently operates at LOS E during the AM peak hour and LOS D during the PM peak hour. The stop-controlled approaches to the TWSC intersection of Vanowen Street & De Celis Place presently operate at LOS F during both peak hours. Following the addition of Project traffic, most intersections will operate at the same LOS, with similar levels of delay. Two of the signalized intersections and the AWSC intersection would continue to operate at LOS C or better during both peak hours. The signalized intersection of Vanowen Street & Balboa Boulevard continues to operate at LOS E during the AM peak hour and LOS D during the PM peak hour. The stop-controlled approaches to the TWSC intersection of Vanowen Street & De Celis Place would continue to operate at LOS F during both peak hours. The stop-controlled Project driveway approach to Vanowen Street would operate at LOS F during the AM peak hour and LOS D during the PM peak hour, while all turning movements would operate at LOS A during both peak hours at the Project driveway & De Celis Place. Overall Project-related vehicle delay increases at the study intersections would range from 0.0 to 9.0 seconds. Therefore, the Project is not expected to substantially increase delays at the study intersections.

Queuing conditions were analyzed at the signalized intersections. The queue lengths, measured in feet for the 95th percentile back-of-queue length, are shown in Table 6 for Existing (2023) and Existing (2023) Plus Project conditions. As shown in Table 6, the signalized intersections currently experience extended vehicle queuing for certain movements during the weekday peak hours. All intersections exhibit at least one approach with vehicle queues that extend past the existing left-turn pocket or upstream intersection during the AM or PM peak hour. At Vanowen Street & Louise Avenue, the movements for which the queues extend past the existing left-turn pocket or upstream intersection include the southbound left-turn, eastbound left-turn, westbound left-turn (AM only), and westbound through (PM only). Queuing at Vanowen Street & Balboa Boulevard exceeds capacity for the northbound left-turn, northbound through (PM only), southbound left-turn, southbound through (AM only), eastbound left-turn (PM only), and westbound left-turn. For Vanowen Street & Hayvenhurst Avenue, queues currently extend beyond capacity for the southbound left-turn and westbound left-turn (AM only) movements.

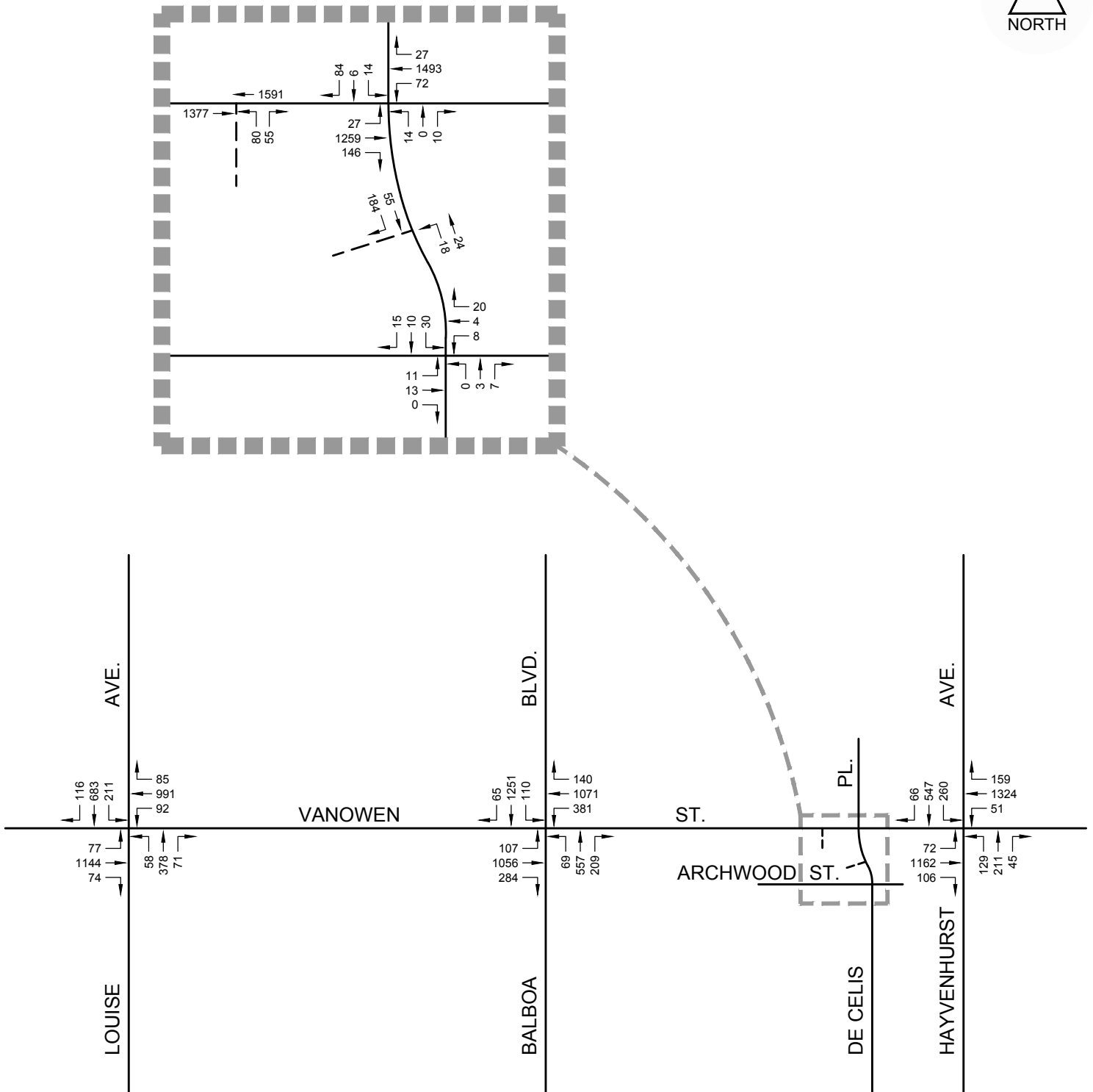


FIGURE 9(A)

11/26/2023

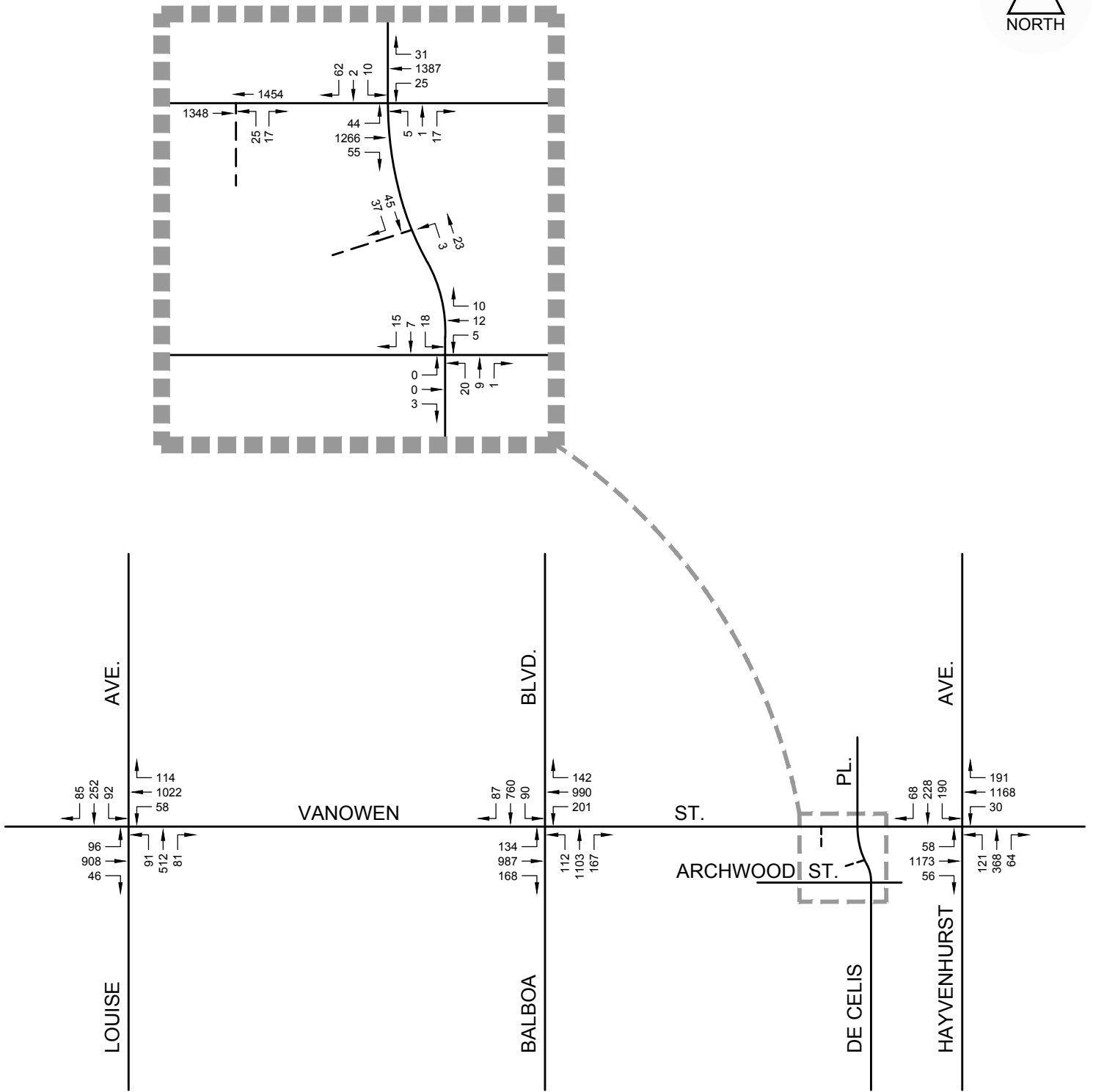


FIGURE 9(B)

11/26/2023

**Table 5: Existing (2023) Traffic Conditions
Intersection Delay Summary**

Study Intersections		Peak Hour	Existing (2023)		Existing (2023) plus Project		Change in Delay ³
			Delay ¹	LOS ²	Delay ¹	LOS ²	
1	Vanowen Street & Louise Avenue	AM	20.0	B	22.0	C	2.0
		PM	22.0	C	22.2	C	0.2
2	Vanowen Street & Balboa Boulevard	AM	65.3	E	74.3	E	9.0
		PM	40.0	D	41.8	D	1.8
3	Vanowen Street & De Celis Place ⁴	AM	>200	F	>200	F	-
		PM	>200	F	>200	F	-
4	Vanowen Street & Hayvenhurst Avenue	AM	20.4	C	21.9	C	1.5
		PM	22.5	C	22.7	C	0.2
5	Archwood Street & De Celis Place	AM	7.3	A	7.3	A	0.0
		PM	7.5	A	7.5	A	0.0
6	Vanowen Street & Project Driveway ⁴	AM	-	-	101.9	F	-
		PM	-	-	33.3	D	-
7	Project Driveway & De Celis Place ⁴	AM	-	-	7.8	A	-
		PM	-	-	7.4	A	-

¹ Delay in seconds; ² LOS = Level of Service; ³ Change in delay reported in seconds.
⁴ For TWSC unsignalized intersections, delay presented for the higher-delay stop-controlled minor street approach or for the major street left-turn movement (see Intersection 7).

With the addition of Project traffic, there would be nominal changes in vehicle queuing at the signalized study intersections, with changes in vehicle queue lengths ranging from a decrease of 19 feet (approximately 0.8 vehicle lengths) to an increase of 56 feet (approximately 2.2 vehicle lengths). The Synchro software assumes a vehicle length of 25 feet for queuing calculations. All of the same study intersection movements that exhibited vehicle queue lengths exceeding capacity under Existing conditions would do so under Existing Plus Project conditions, with one additional movement. The westbound through movement vehicle queue at Vanowen Street & Hayvenhurst Avenue would exceed capacity with the addition of Project traffic (AM peak hour), but the Project-related change in queue length would be less than 50 feet. Further, no through lane vehicle queue increases of 75 feet or more would be expected on any intersection approach, and only the eastbound through movement vehicle queue at Vanowen Street & Balboa Boulevard (AM peak hour) would see an increase greater than 50 feet (54 feet). It should be noted that, even with this 54-foot increase, the eastbound through lanes of Vanowen Street at Balboa Boulevard would have over 500 feet of available capacity. The left-turn movements exceeding their turn pocket capacities would generally experience minor changes in queue lengths due to Project traffic, with the longest increases for each intersection being 28 feet for the southbound left-turn movement at Vanowen Street & Louise Avenue (AM peak hour), 56 feet for the southbound left-turn movement at Vanowen Street & Balboa Boulevard (AM peak hour), and 6 feet for the westbound left-turn movement at Vanowen Street & Hayvenhurst Avenue (AM peak hour). As one of these Project-related left-turn vehicle queue increases exceeds 50 feet (2 vehicles) in length, the Project will implement TDM strategies in order to counteract this potentially adverse effect.

**Table 6: Existing (2023) Traffic Conditions
Signalized Intersection Queuing Summary**

Signalized Study Intersections		Peak Hour	Approach	Storage Capacity (ft)	Baseline	Plus Project	
					Queue Length ¹	Queue Length ¹	Change ²
1	Vanowen Street & Louise Avenue	AM	NBL	100	65	62	-3
			NBT	250	121	121	0
			SBL	100	221	249	28
			SBT	1240	231	231	0
			EBL	110	128	140	12
			EBT	575	421	464	43
			WBL	105	144	137	-7
			WBT	370	276	292	16
		PM	NBL	100	81	79	-2
			NBT	250	190	185	-5
			SBL	100	120	122	2
			SBT	1240	101	98	-3
			EBL	110	143	148	5
			EBT	575	262	273	11
			WBL	105	56	55	-1
			WBT	370	410	421	11
2	Vanowen Street & Balboa Boulevard	AM	NBL	115	133	133	0
			NBT	236	159	161	2
			SBL	90	120	176	56
			SBT	267	389	389	0
			EBL	200	111	102	-9
			EBT	1217	630	684	54
			WBL	115	410	410	0
			WBT	570	117	135	18
		PM	NBL	115	184	184	0
			NBT	236	312	313	1
			SBL	90	161	172	11
			SBT	267	202	202	0
			EBL	200	228	231	3
			EBT	1217	595	606	11
			WBL	115	145	149	4
			WBT	570	75	92	17
4	Vanowen Street & Hayvenhurst Avenue	AM	NBL	155	147	148	1
			NBT	270	69	70	1
			SBL	175	264	264	0
			SBT	1215	177	180	3
			EBL	145	54	55	1
			EBT	575	341	344	3
			WBL	80	90	96	6
			WBT	575	548	590	42
		PM	NBL	155	94	94	0
			NBT	270	121	121	0
			SBL	175	216	216	0
			SBT	1215	82	82	0
			EBL	145	39	39	0
			EBT	575	395	376	-19
			WBL	80	43	44	1
			WBT	575	470	484	14

Notes:

¹ 95th percentile vehicle queue length in number of feet (Synchro software assumes 25 feet per vehicle).

² Change in vehicle queue length reported in number of feet.

XX Bolded/italicized vehicle queue length indicates that the queue exceeds turn-pocket capacity or distance in through lane to upstream intersection.

NB = Northbound; SB = Southbound; WB = Westbound; EB = Eastbound; L = Left-turn; T = Through; R = Right-turn.

Queuing conditions were also analyzed at the unsignalized study intersections. The queue lengths, measured in feet for the 95th percentile back-of-queue length, are shown in Table 7 for Existing (2023) and Existing (2023) Plus Project conditions. As shown in Table 7, the AWSC intersection of Archwood Street & De Celis Place currently experiences minimal vehicle queuing and is expected to experience minimal queuing following Project construction. For the TWSC intersection of Vanowen Street & De Celis Place, the northbound and southbound approaches experience extended queuing; however, the queue lengths are well within the storage capacity of the approach movements, and the overall intersection operations are fair to good during both peak hours. While the queue lengths on these approaches will increase following the completion of the Project, it should be noted that the Project is not anticipated to add traffic volumes to either the northbound or southbound approach at this location. The Project, therefore, is not expected to significantly worsen queuing conditions at the unsignalized intersections and would not interfere with access to adjacent properties and/or intersections.

**Table 7: Existing (2023) Traffic Conditions
Unsignalized Intersection Queuing Summary**

Unsignalized Study Intersections		Peak Hour	Approach	Storage Capacity (feet)	Baseline	Plus Project	
					Queue Length ¹	Queue Length ¹	Change ²
3	Vanowen & De Celis Place	AM	NB	275	90	uncalculated	N/A
			NBR	275	3	3	0
			SB	630	288	350	62
			EBL	150	5	5	0
			EBT	1885	–	–	–
			WBL	150	0	18	18
			WBT	580	–	–	–
		PM	NB	275	33	35	2
			NBR	275	5	5	0
			SB	630	198	208	10
			EBL	150	10	10	0
			EBT	1885	–	–	–
			WBL	150	3	5	2
			WBT	580	–	–	–
5	Archwood Street & De Celis Place	AM	NB	1260	3	3	0
			SB	275	5	5	0
			EB	640	3	3	0
			WB	500	3	8	5
		PM	NB	1260	8	8	0
			SB	275	5	5	0
			EB	640	0	0	0
			WB	500	5	5	0
6	Vanowen Street & Project Driveway	AM	NB	205	–	163	–
			EBT	915	–	–	–
			WBT	320	–	–	–
		PM	NB	205	–	25	–
			EBT	915	–	–	–
			WBT	320	–	–	–
7	Project Driveway & De Celis Place	AM	NB	80	–	0	–
			SB	215	–	–	–
		PM	NB	80	–	0	–
			SB	215	–	–	–

Notes:

¹ 95th percentile vehicle queue length in number of feet (Synchro software assumes 25 feet per vehicle).

² Change in vehicle queue length reported in number of feet.

XX Bolded/italicized vehicle queue length indicates that the queue exceeds turn-pocket capacity or distance in through lane to upstream intersection.

NB = Northbound; SB = Southbound; WB = Westbound; EB = Eastbound; L = Left-turn; T = Through; R = Right-turn.

5.2.6 FUTURE (2026) WITHOUT AND WITH PROJECT CONDITIONS

There are several other projects either under construction or planned for development in the surrounding area that may contribute future traffic volumes to the study locations. For this reason, the analysis of future traffic conditions was expanded to include potential traffic volume increases expected to be generated by these other projects. In order to evaluate future traffic conditions in the Project area, an analysis of Existing (2023) traffic volumes was first conducted, as described previously. For the analysis of future conditions, an ambient traffic growth factor of 1.0 percent per year, compounded annually, was applied to these existing volumes at the study intersections to develop future year (2026) baseline traffic volumes.

The inclusion of the annual growth factor generally accounts for area-wide traffic volume increases. To ensure a conservative estimate of cumulative traffic conditions, the traffic volumes generated by “related projects” in the study area were also added to the future baseline traffic volumes. The total future volumes, including those due to related projects, formed the basis for the Future (2026) Without Project condition. Finally, the traffic expected to be generated by the Project was analyzed as an incremental addition to the Future (2026) Without Project condition, resulting in the Future (2026) With Project condition.

Ambient Traffic Growth

Based on an analysis of traffic growth projections in the Reseda-West Van Nuys Community Plan Area, the LADOT recommended the application of an ambient traffic growth factor of 1.0 percent per year for future traffic growth. This growth factor was used to account for increases in traffic volumes due to potential development projects not yet proposed or outside the study area. Compounded annually, the ambient traffic growth factor was applied to the Existing (2023) traffic volumes to develop the estimated baseline volumes for the future study year of 2026.

Related Projects

In addition to the use of the ambient growth rate, listings of potential projects located in the surrounding area (“related projects”) that might be developed within the study time frame were obtained from the LADOT and Department of City Planning. Recently published transportation impact studies and environmental reports for development projects in the area were also reviewed. Per the TAG, the related projects from these sources and within an approximate 0.5-mile radius of the Project site were included. Refinement of the information resulted in a total of three (3) related projects in the surrounding area that could add traffic to the study intersections.

The locations of the related projects are shown in Figure 10, Related Project Location Map. The related project locations, descriptions, and trip generation estimates are summarized in Table 8. The number of vehicle trips expected to be generated by the related projects were obtained from information provided by public agencies and environmental reports, to the extent available.

For the analysis of Future (2026) Without Project traffic conditions, each related project’s generated vehicle trips were distributed and assigned to the study area circulation system, using methodologies similar to those previously described for the Project trip distribution and assignment. Summing the individual related project traffic volume assignments, the total related project traffic volumes at the study intersections were calculated and are shown in Figures 11(a) and 11(b) for the weekday AM and PM peak hours, respectively.

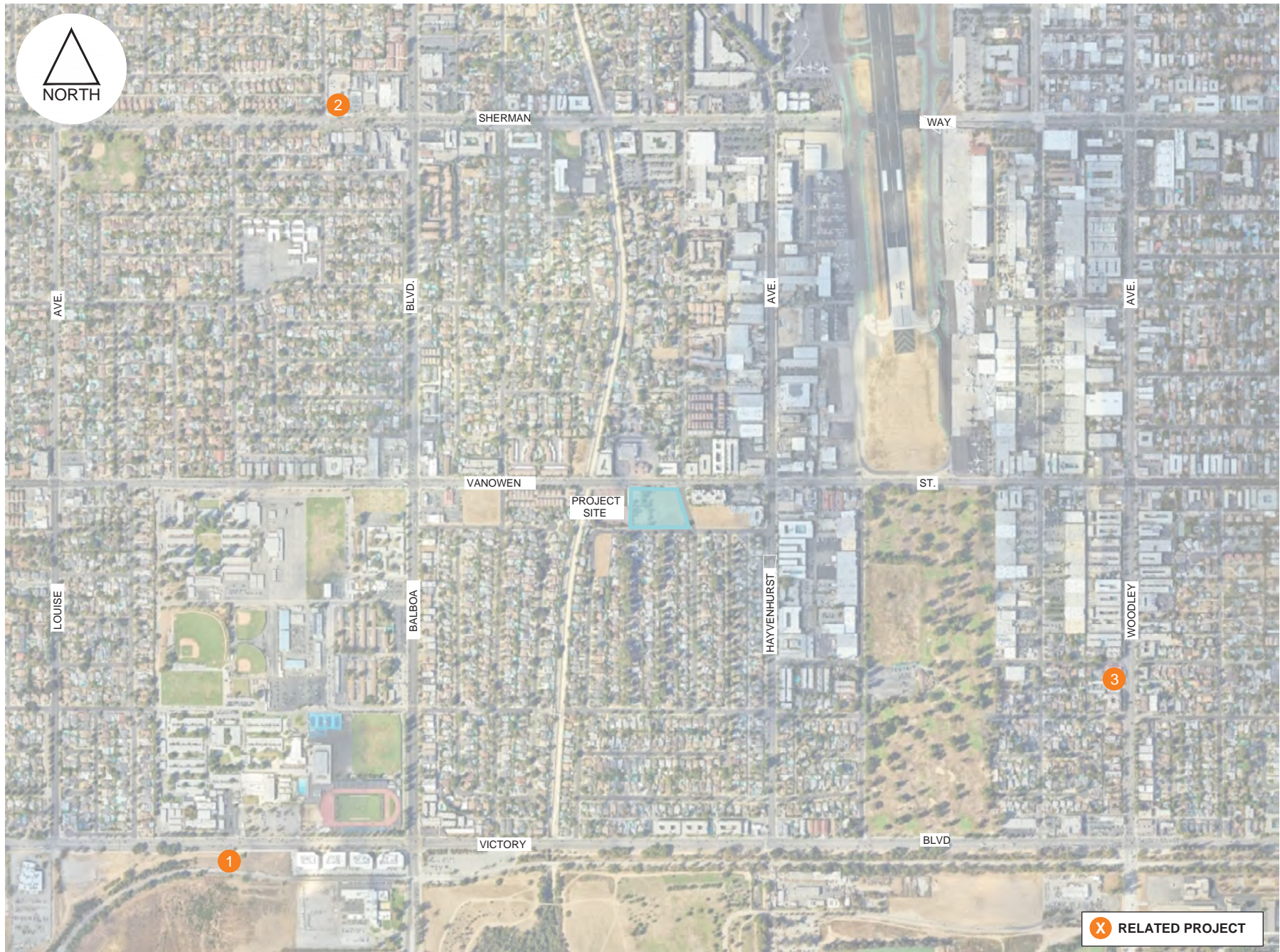


FIGURE 10

11/28/2023

Table 8: Related Project Locations, Descriptions, and Trip Generation Estimates

No.	Address/Location	Size	Project Description	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1.	17100 Victory Boulevard ¹	192 du 2 du	<u>Victory Boulevard Affordable Housing Project</u> Affordable Family Housing Residential - Multi-Family (Mid-Rise) [Manager Units]	1,057	16	65	81	64	35	99
2.	16949 Sherman Way ¹	92 du 19 du 4,500 sf	<u>Lion Signature Residential Mixed-Use Development</u> Residential - Multi-Family (Mid-Rise) Affordable Family Housing Commercial	563	10	33	43	30	19	49
3.	6545 Woodley Avenue ²	36 du 1 du	<u>Woodley Avenue Affordable Housing Project</u> Affordable Family Housing (Inside TPA Area) Residential - Multi-Family (Mid-Rise) [Manager Unit]	155	7	11	18	7	6	13
Notes: du = Dwelling Units; sf = Square Feet. ¹ Net trip generation and peak-hour directional distributions provided by the LADOT Case Logging and Tracking System (CLATS) related projects database (accessed August 30, 2023). ² Trip generation and peak-hour directional distribution of trips based on affordable housing project information provided in Table 3.3-2 of the LADOT <i>Transportation Assessment Guidelines</i> and data for Land Use Code 221 (Multifamily Housing [Mid-Rise]) contained in the Institute of Transportation Engineers (ITE) <i>Trip Generation Manual</i> (11th Edition, 2021).										

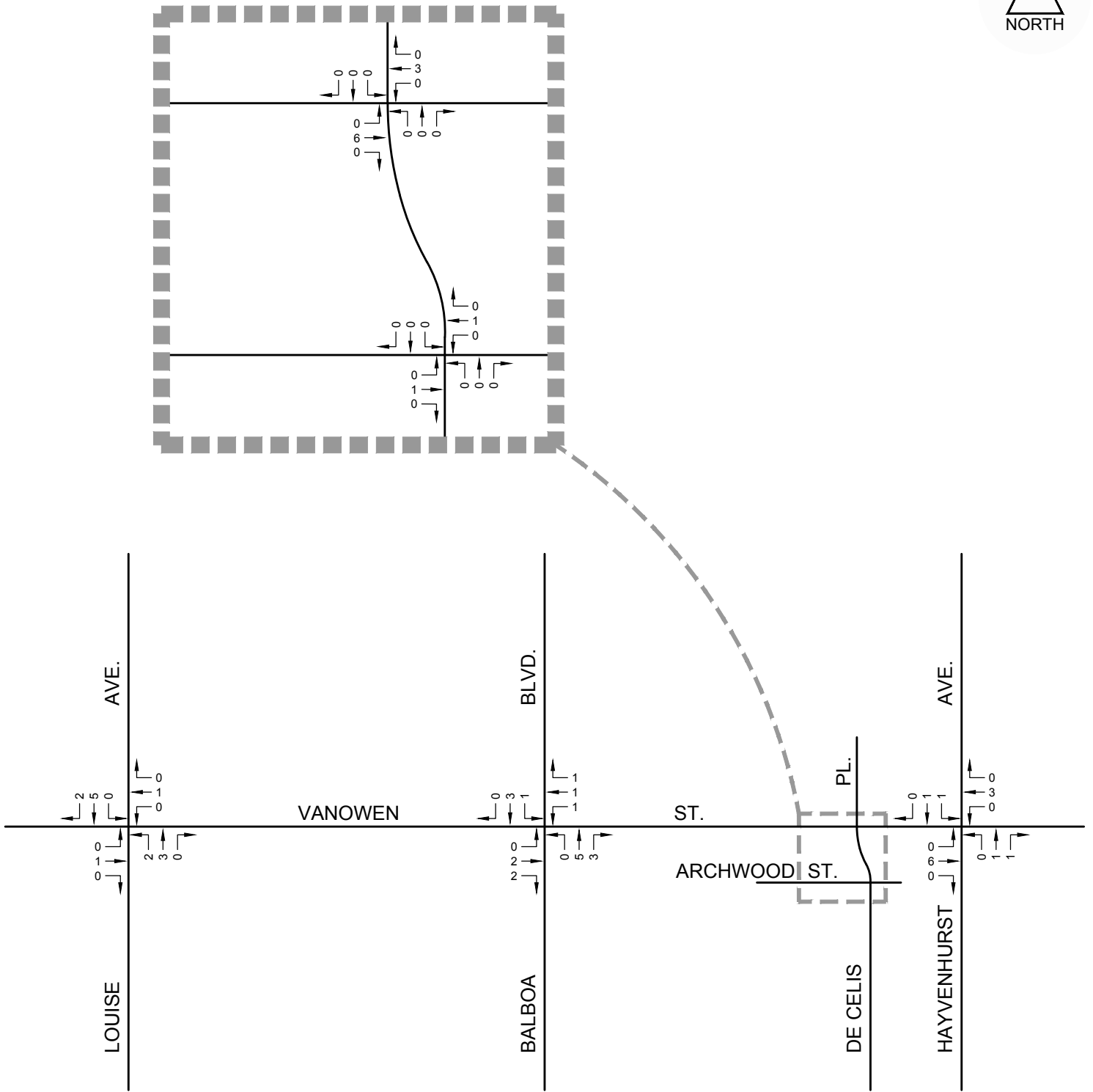


FIGURE 11(A)

11/27/2023

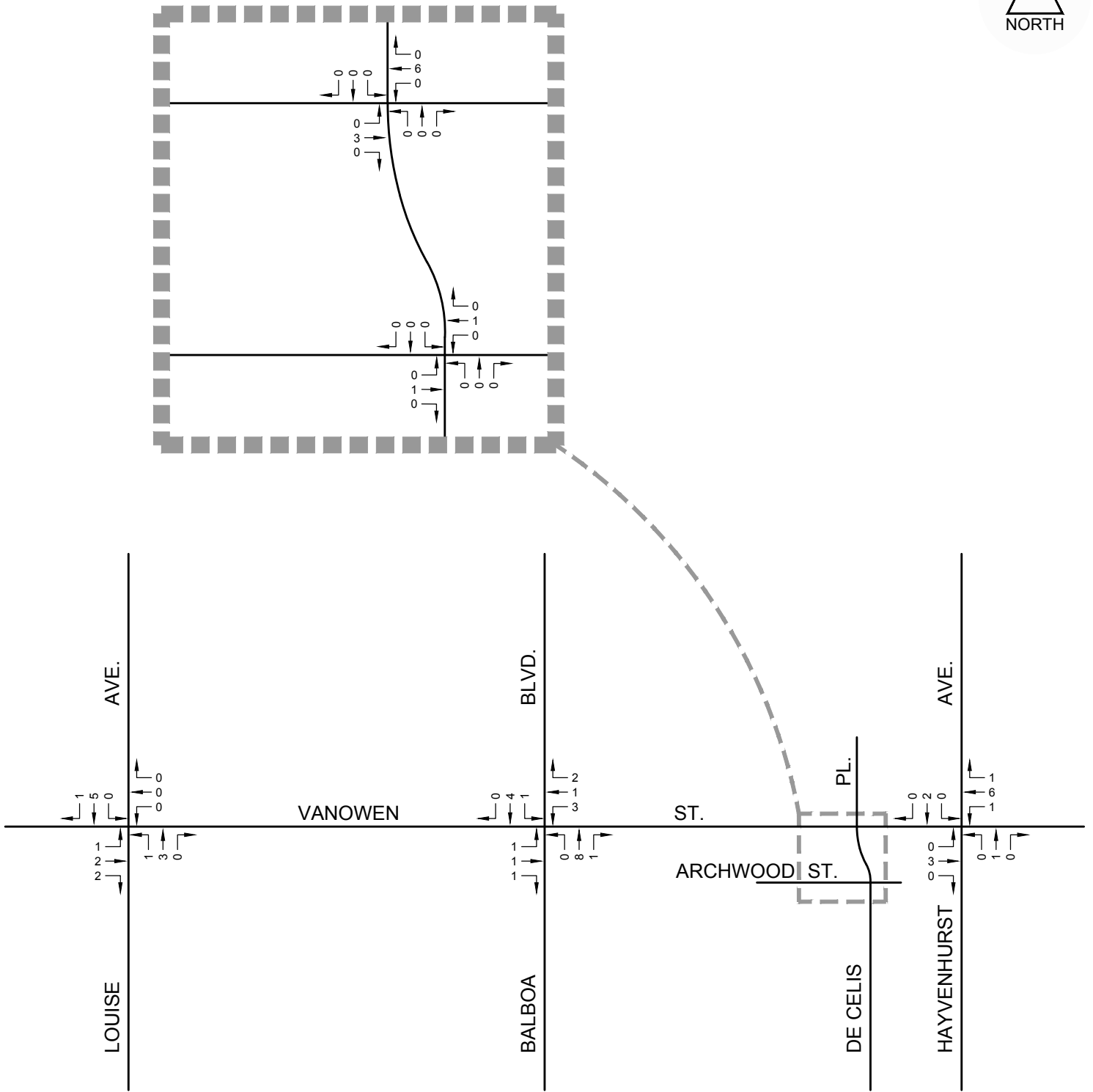


FIGURE 11(B)

11/27/2023

Highway System Improvements

In order to analyze properly future traffic conditions, an investigation was conducted regarding relevant future transportation improvements to the roadway system infrastructure in the Project study area. No traffic improvements were identified as scheduled for implementation that would affect use of the existing street system.

The goals and policies of the City's 2010 Bicycle Plan (City of Los Angeles Department of Planning, adopted March 1, 2011) have been folded into the Mobility Plan 2035. It is a Mobility Plan 2035 objective to complete the proposed bicycle paths, protected cycle tracks, bicycle lanes, routes, and priority Neighborhood Enhanced Network roadway segments by 2035. While some of these improvements have already been realized, the following improvements are scheduled for implementation within the Project study area:

- Balboa Boulevard will add Tier 2 bicycle lanes between Foothill Boulevard and Victory Boulevard. Vehicular lanes may have to be reconfigured to accommodate the bicycle facility upgrades.

Per information reviewed on the LADOT website, the abovementioned bicycle infrastructure improvements are not currently in the planning, design, or construction phases. Therefore, these improvements are unlikely to be installed between now and the Project buildout year of 2026. As such, no changes to the future (2026) study intersection geometrics and/or traffic control conditions due to bicycle facility improvements have been assumed in the operational analysis.

A review of the LADOT Capital Improvement Projects and Bureau of Engineering Street Improvement Master Schedule revealed no projects that would affect operations at any of the study locations. As no highway system improvements were identified, the existing and future intersection geometrics and traffic control conditions are assumed to be the same, as illustrated in Appendix D.

Analysis of Future (2026) Traffic Conditions, Without and With Project

The analysis of future traffic conditions at the study intersections was performed using the analysis procedures described previously in this report. Future (2026) baseline traffic volumes for the Without Project condition were determined by superimposing area-wide ambient traffic growth and the total related projects traffic volumes onto Existing (2023) traffic volumes. The Future (2026) Without Project traffic volumes are illustrated in Figures 12(a) and 12(b) for the weekday AM and PM peak hours, respectively.

Project traffic volumes [Figures 8(a) and 8(b)], as determined earlier, were then added to the Future (2026) Without Project traffic volumes to develop the Future (2026) With Project traffic volumes. The Future (2026) With Project weekday AM and PM peak-hour traffic volumes are shown in Figures 13(a) and 13(b), respectively. The Future (2026) With Project traffic volumes were incorporated into the Synchro model to determine the future delay and queuing conditions at the study intersections after Project completion and the results are included in Appendix E.

The results of the delay-based quantitative analysis of future traffic conditions at the study intersections are summarized in Table 9. Under Future (2026) Without Project conditions, traffic operations are expected to degrade slightly when compared with existing conditions. As shown, two of the signalized intersections and the AWSC intersection would continue to operate at LOS C or better during both peak hours. The signalized intersection of Vanowen Street & Balboa Boulevard would continue to operate at LOS E during the AM peak hour and LOS D during the PM peak hour. The stop-controlled approaches to the TWSC intersection of Vanowen Street & De Celis Place would operate at LOS F during both peak hours. Following

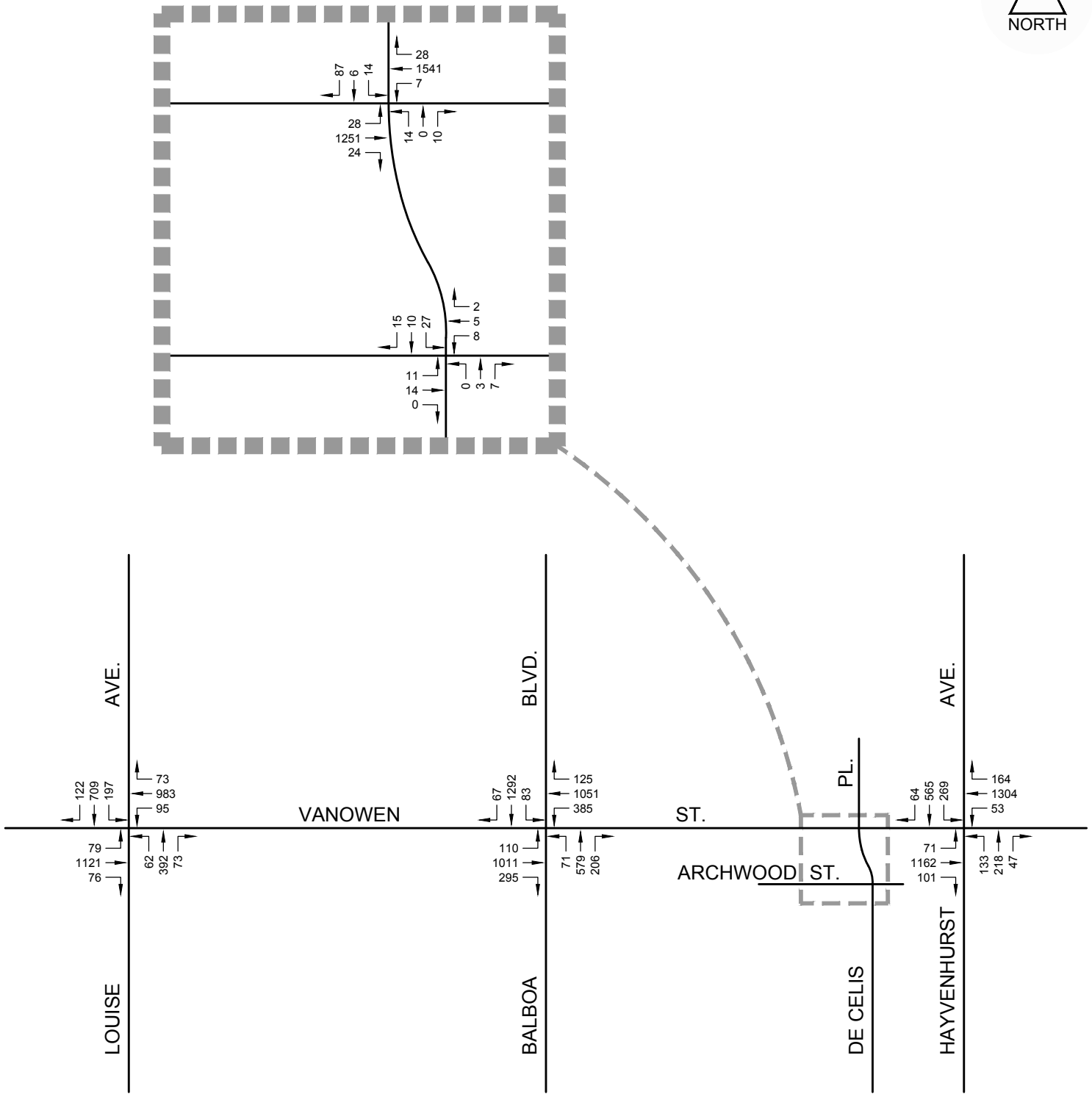


FIGURE 12(A)

11/27/2023

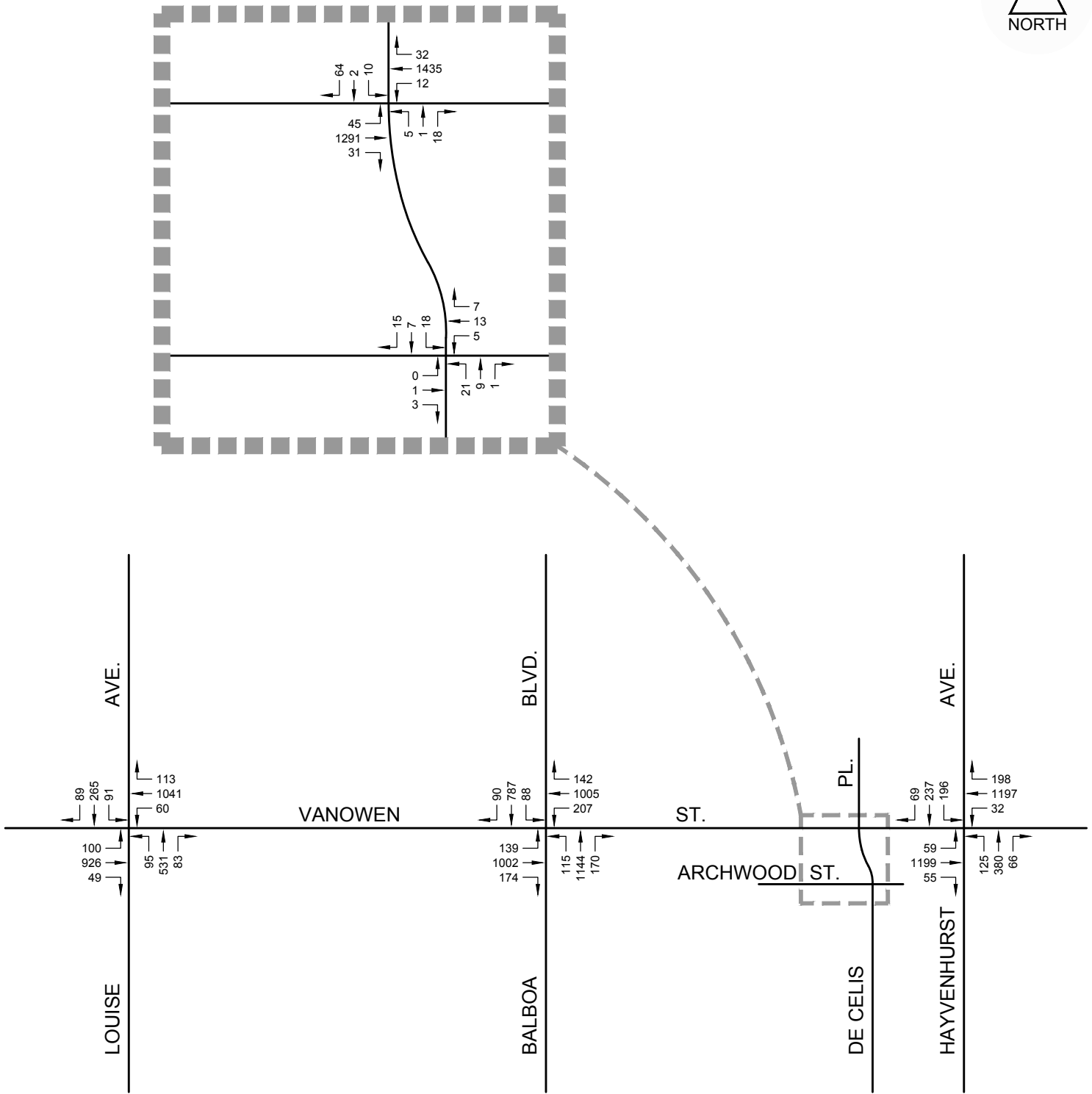


FIGURE 12(B)

11/27/2023

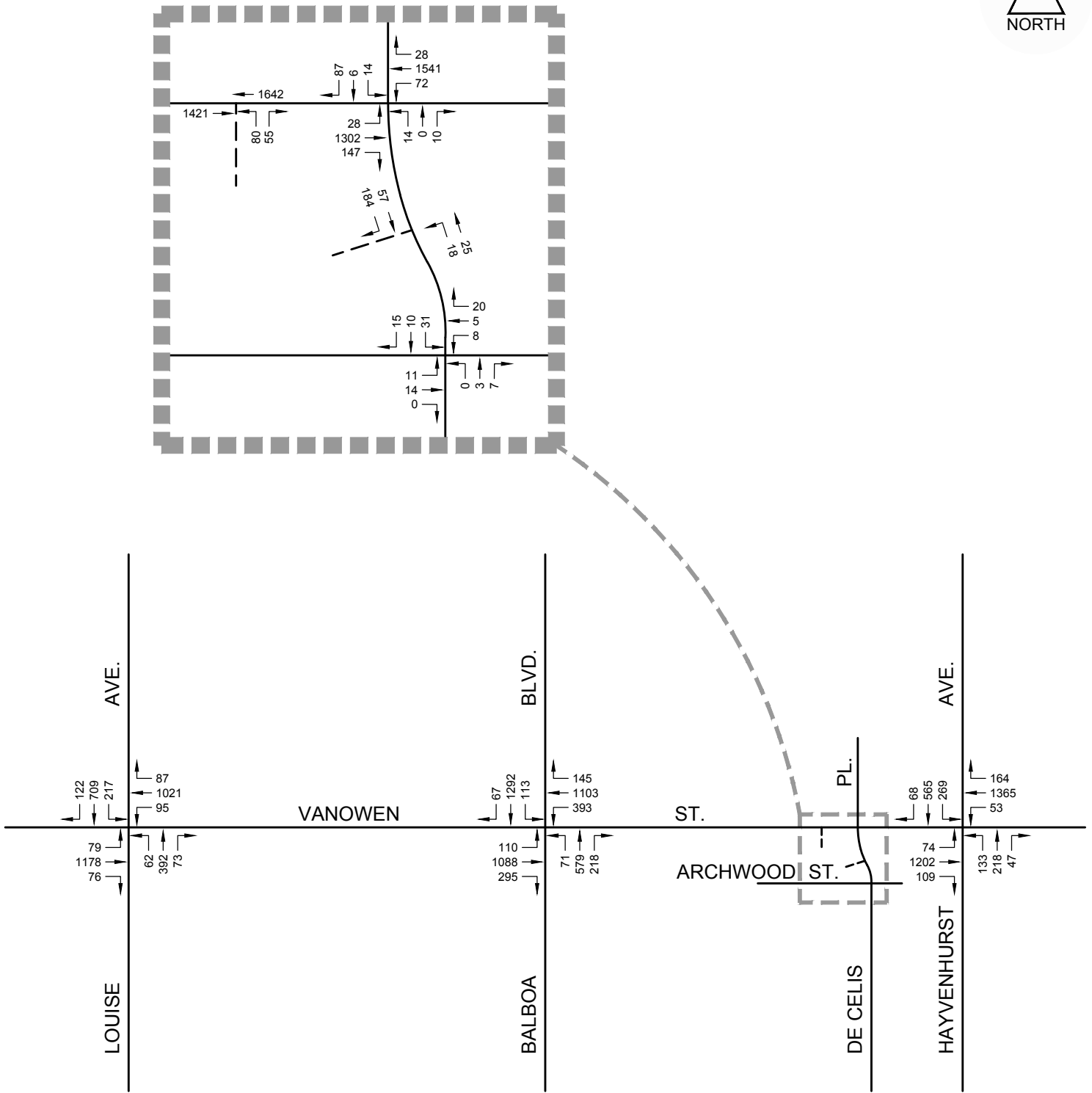


FIGURE 13(A)

11/27/2023

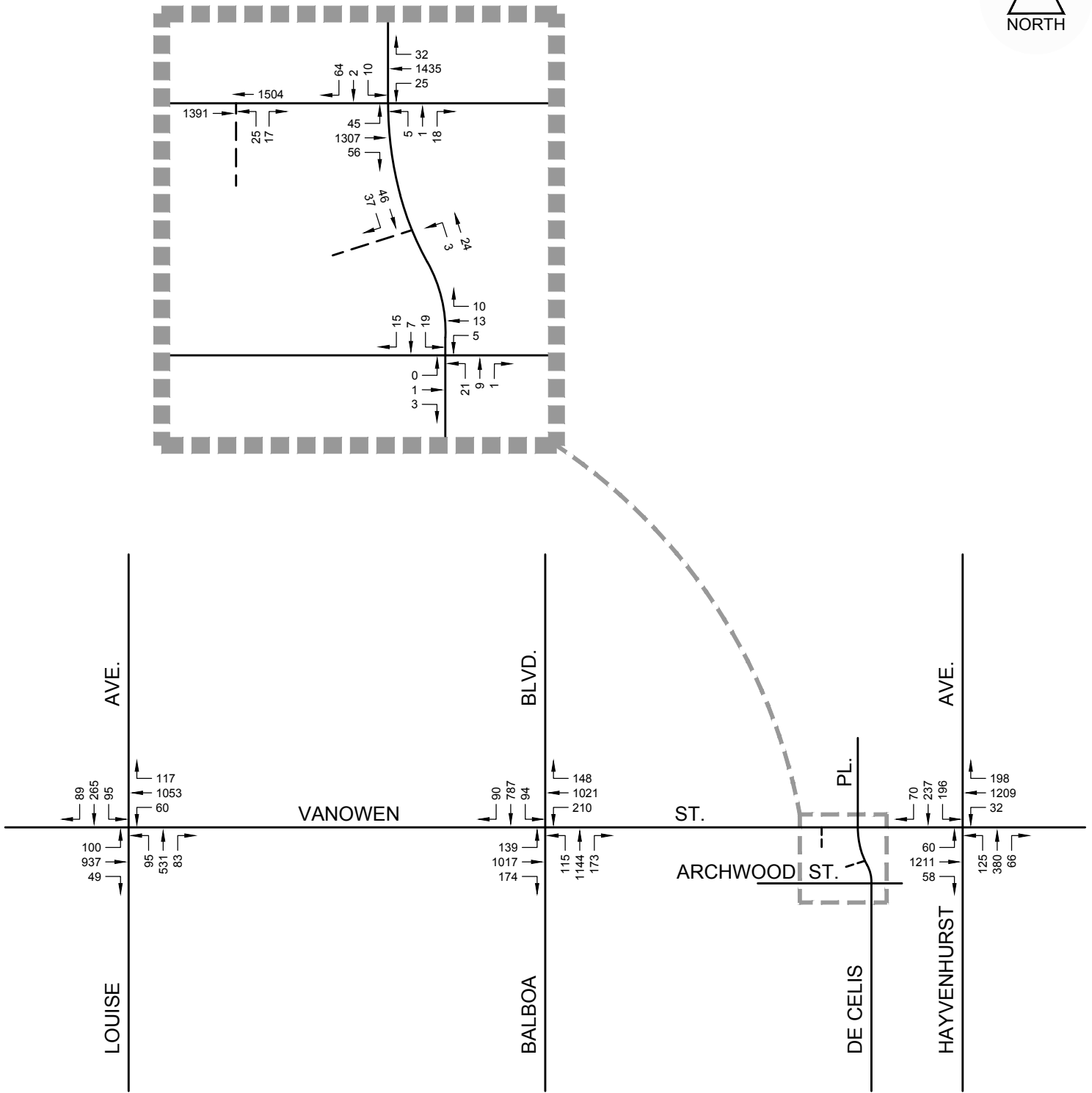


FIGURE 13(B)

11/27/2023

the addition of Project traffic, most intersections would operate at the same LOS, with similar levels of delay. Two of the signalized intersections and the AWSC intersection would continue to operate at LOS C or better during both peak hours. The signalized intersection of Vanowen Street & Balboa Boulevard would continue to operate at LOS E during the AM peak hour and LOS D during the PM peak hour. The stop-controlled approaches to the TWSC intersection of Vanowen Street & De Celis Place would continue to operate at LOS F during both peak hours. The stop-controlled Project driveway approach to Vanowen Street would operate at LOS F during the AM peak hour and LOS E during the PM peak hour, while all turning movements would operate at LOS A during both peak hours at the Project driveway & De Celis Place. Overall Project-related vehicle delay increases at the study intersections would range from 0.0 to 9.2 seconds. Therefore, the Project is not expected to substantially increase delays at the study intersections.

**Table 9: Future (2026) Traffic Conditions
Intersection Delay Summary**

Study Intersections		Peak Hour	Future (2026) Without Project		Future (2026) With Project		Change in Delay ³
			Delay ¹	LOS ²	Delay ¹	LOS ²	
1	Vanowen Street & Louise Avenue	AM	17.5	B	18.7	B	1.2
		PM	21.8	C	22.0	C	0.2
2	Vanowen Street & Balboa Boulevard	AM	69.0	E	78.2	E	9.2
		PM	38.7	D	40.1	D	1.4
3	Vanowen Street & De Celis Place ⁴	AM	>200	F	>200	F	-
		PM	>200	F	>200	F	-
4	Vanowen Street & Hayvenhurst Avenue	AM	19.8	B	21.0	C	1.2
		PM	17.5	B	17.7	B	0.2
5	Archwood Street & De Celis Place	AM	7.3	A	7.2	A	-0.1
		PM	7.2	A	7.2	A	0.0
6	Vanowen Street & Project Driveway ⁴	AM	-	-	118.4	F	-
		PM	-	-	35.2	E	-
7	Project Driveway & De Celis Place ⁴	AM	-	-	3.3	A	-
		PM	-	-	0.8	A	-

¹ Delay in seconds; ² LOS = Level of Service; ³ Change in delay reported in seconds.
⁴ For TWSC unsignalized intersections, delay presented for the higher-delay stop-controlled minor street approach or for the major street left-turn movement (see Intersection 7).

Queuing conditions were analyzed at the signalized intersections. The queue lengths are shown in Table 10 for Future (2026) Without Project and With Project conditions. As shown in Table 10, under Future (2026) Without Project conditions, the signalized intersections are expected to continue to experience extended vehicle queuing for certain movements during the weekday peak hours. All intersections will exhibit at least one approach with vehicle queues that extend past the existing left-turn pocket or upstream intersection during the AM or PM peak hour. At Vanowen Street & Louise Avenue, the movements for which the queues extend past the existing left-turn pocket or upstream intersection include the southbound left-turn, eastbound left-turn, westbound left-turn (AM only), and westbound through (PM only). Queuing at Vanowen Street & Balboa Boulevard exceeds capacity for the northbound left-turn, northbound through (PM only), southbound left-turn, southbound through (AM only), eastbound left-turn (PM only), and

**Table 10: Future (2026) Traffic Conditions
Signalized Intersection Queuing Summary**

Signalized Study Intersections		Peak Hour	Approach	Storage Capacity (ft)	Without Project	With Project	
					Queue Length ¹	Queue Length ¹	Change ²
1	Vanowen Street & Louise Avenue	AM	NBL	100	69	67	-2
			NBT	250	122	123	1
			SBL	100	186	225	39
			SBT	1240	229	229	0
			EBL	110	120	130	10
			EBT	575	413	443	30
			WBL	105	129	131	2
			WBT	370	279	285	6
		PM	NBL	100	83	81	-2
			NBT	250	192	188	-4
			SBL	100	120	124	4
			SBT	1240	102	101	-1
			EBL	110	144	148	4
			EBT	575	263	273	10
			WBL	105	53	52	-1
			WBT	370	408	414	6
2	Vanowen Street & Balboa Boulevard	AM	NBL	115	132	132	0
			NBT	236	157	158	1
			SBL	90	115	168	53
			SBT	267	382	382	0
			EBL	200	138	128	-10
			EBT	1217	643	696	53
			WBL	115	435	426	-9
			WBT	570	121	123	2
		PM	NBL	115	182	182	0
			NBT	236	319	320	1
			SBL	90	161	172	11
			SBT	267	198	198	0
			EBL	200	228	230	2
			EBT	1217	578	588	10
			WBL	115	157	165	8
			WBT	570	70	93	23
4	Vanowen Street & Hayvenhurst Avenue	AM	NBL	155	153	154	1
			NBT	270	70	71	1
			SBL	175	227	227	0
			SBT	1215	176	178	2
			EBL	145	57	67	10
			EBT	575	345	382	37
			WBL	80	98	103	5
			WBT	575	591	632	41
		PM	NBL	155	94	94	0
			NBT	270	120	120	0
			SBL	175	204	207	3
			SBT	1215	82	82	0
			EBL	145	42	46	4
			EBT	575	413	339	-74
			WBL	80	45	47	2
			WBT	575	541	550	9

Notes:

¹ 95th percentile vehicle queue length in number of feet (Synchro software assumes 25 feet per vehicle).

² Change in vehicle queue length reported in number of feet.

XX Bolded/italicized vehicle queue length indicates that the queue exceeds turn-pocket capacity or distance in through lane to upstream intersection.

NB = Northbound; SB = Southbound; WB = Westbound; EB = Eastbound; L = Left-turn; T = Through; R = Right-turn.

westbound left-turn. For Vanowen Street & Hayvenhurst Avenue, queues currently extend beyond capacity for the southbound left-turn, westbound left-turn (AM only), and westbound through (AM only) movements.

With the addition of Project traffic, there would be nominal changes in vehicle queuing at the signalized study intersections, with changes in vehicle queue lengths ranging from a decrease of 74 feet (approximately 3.0 vehicle lengths) to an increase of 53 feet (approximately 2.1 vehicle lengths). All of the same study intersection movements that exhibited vehicle queue lengths exceeding capacity under Future Without Project conditions would do so under Future With Project conditions. Further, no through lane vehicle queue increases of 75 feet or more would be expected on any intersection approach, and only the eastbound through movement vehicle queue at Vanowen Street & Balboa Boulevard (AM peak hour) would see an increase greater than 50 feet (53 feet). It should be noted that, even with this 53-foot increase, the eastbound through lanes of Vanowen Street at Balboa Boulevard would have over 500 feet of available capacity. The left-turn movements exceeding their turn pocket capacities would generally experience minor changes in queue lengths due to Project traffic, with the longest increases for each intersection being 39 feet for the southbound left-turn movement at Vanowen Street & Louise Avenue (AM peak hour), 53 feet for the southbound left-turn movement at Vanowen Street & Balboa Boulevard (AM peak hour), and 10 feet for the eastbound left-turn movement at Vanowen Street & Hayvenhurst Avenue (AM peak hour). As one of these Project-related left-turn vehicle queue increases exceeds 50 feet (2 vehicles) in length, the Project will implement TDM strategies in order to counteract this potentially adverse effect.

Queuing conditions were also analyzed at the unsignalized study intersections. The queue lengths are shown in Table 11 for Future (2026) Without Project and With Project conditions. As shown in Table 11, the AWSC intersection of Archwood Street & De Celis Place is expected to experience minimal vehicle queuing before and after Project construction. For the TWSC intersection of Vanowen Street & De Celis Place, the northbound and southbound approaches experience extended queuing; however, the queue lengths are well within the storage capacity of the approach movements, and the overall intersection operations are fair to good during both peak hours. While the queue lengths on these approaches will increase following the construction of the Project, it should be noted that the Project is not anticipated to add traffic volumes to either the northbound or southbound approach movements at this location. The Project, therefore, is not expected to significantly worsen queuing conditions at the unsignalized intersections and would not interfere with access to adjacent properties and/or intersections. Queuing at the Project driveway intersections would be manageable.

5.2.7 PASSENGER LOADING EVALUATION

Due to the increased prevalence of driver-for-hire transportation network companies (TNCs), the TAG requires an evaluation of passenger loading areas for development projects. The vast majority of passenger loading is expected to occur at the Project's student drop-off/pick-up zone. Passenger loading in these areas will allow passengers to unload in an area with few vehicular conflicts and slow-moving vehicles, allowing loading activities not to interfere with through traffic along Vanowen Street or De Celis Place. In addition, circulation on-site will be one-way with the loading zone closer to the egress driveway promoting queueing to occur on-site rather than on De Celis Place. Thus, the Project's passenger loading activities are not anticipated to adversely affect the operations of the adjacent roadways.

**Table 11: Future (2026) Traffic Conditions
Unsignalized Intersection Queuing Summary**

Unsignalized Study Intersections		Peak Hour	Approach	Storage Capacity (feet)	Without Project	With Project	
					Queue Length ¹	Queue Length ¹	Change ²
3	Vanowen & De Celis Place	AM	NB	275	68	uncalculated	N/A
			NBR	275	3	3	0
			SB	630	253	308	55
			EBL	150	8	8	0
			EBT	1885	–	–	–
			WBL	150	3	20	18
			WBT	580	–	–	–
		PM	NB	275	30	30	0
			NBR	275	5	5	0
			SB	630	158	170	13
			EBL	150	10	10	0
			EBT	1885	–	–	–
			WBL	150	3	5	3
			WBT	580	–	–	–
5	Archwood Street & De Celis Place	AM	NB	1260	0	0	0
			SB	275	5	5	0
			EB	640	3	3	0
			WB	500	3	3	0
		PM	NB	1260	3	3	0
			SB	275	3	3	0
			EB	640	0	0	0
			WB	500	3	3	0
6	Vanowen Street & Project Driveway	AM	NB	205	–	175	–
			EBT	915	–	–	–
			WBT	320	–	–	–
		PM	NB	205	–	28	–
			EBT	915	–	–	–
			WBT	320	–	–	–
7	Project Driveway & De Celis Place	AM	NB	80	–	0	–
			SB	215	–	–	–
		PM	NB	80	–	0	–
			SB	215	–	–	–

Notes:

¹ 95th percentile vehicle queue length in number of feet (Synchro software assumes 25 feet per vehicle).

² Change in vehicle queue length reported in number of feet.

XX Bolded/italicized vehicle queue length indicates that the queue exceeds turn-pocket capacity or distance in through lane to upstream intersection.

NB = Northbound; SB = Southbound; WB = Westbound; EB = Eastbound; L = Left-turn; T = Through; R = Right-turn.

5.3 PROJECT CONSTRUCTION

The TAG requires an evaluation of potential effects to pedestrian, bicycle, transit, and vehicle circulation resulting from the construction activities of development projects. In order to assist in determining whether further analysis of these construction-related effects is required, the TAG establishes seven screening criteria to identify development projects that may reduce the functionality of nearby transportation facilities. Further analysis of construction activities is required if any of the following screening criteria are met:

1. The development project requires construction activities to take place within the right-of-way of a Boulevard or Avenue, which would necessitate temporary, lane, alley, or street closures for more than one day (including day and evening hours, and overnight closures if on a residential street).
2. The development project requires construction activities to take place within the right-of-way of a Collector or Local Street, which would necessitate temporary lane, alley, or street closures for more than seven days (including day and evening hours, and overnight closures if on a residential street).
3. In-street construction activities would result in the loss of regular vehicle, bicycle, or pedestrian access, including loss of bicycle parking to an existing land use for more than one day (including day and evening hours and overnight closures if access is lost to residential uses).
4. In-street construction activities would result in the loss of regular ADA pedestrian access to an existing transit station, stop, or facility (e.g., layover zone) during revenue hours.
5. In-street construction activities would result in the temporary loss, for more than one day, of an existing bus stop or the rerouting of a bus route that serves the development project site.
6. Construction activities would result in the temporary removal and/or loss of on-street metered parking for more than 30 days.
7. The development project would involve a discretionary action to construct new buildings or additions of more than 1,000 square feet that require access for hauling construction materials and equipment from streets of less than 24 feet wide in a hillside area.

Most construction activities for the Project are anticipated to be contained within the Project site. Concrete pours may require the temporary closure of a portion of the roadway width along Vanowen Street or De Celis Place, adjacent to the site. The duration of these closures is expected to be short-term. Pedestrian circulation around the site will remain accessible during most phases of construction. The Project will install a driveway on Vanowen Street and install a driveway on De Celis Place. This will involve the short-term closure of the sidewalk adjacent to the Project site. Although the short-term sidewalk closure technically blocks an ADA pedestrian access route, the presence of a sidewalk on the other sides of Vanowen Street and De Celis Place will continue to ensure appropriate ADA access to transit facilities is provided along these roadways. Construction staging may occupy the parking lane adjacent to the Project site. This may require the displacement of some on-street parking. All construction activity is temporary; therefore, any disruptions would be relatively short-term in nature.

In addition, the Project will prepare a Construction Staging and Traffic Management Plan, to be approved by the LADOT. This plan will detail the measures enacted to mitigate negative effects on traffic during construction related to designated haul routes and staging areas, traffic control procedures, emergency access provisions, and construction crew parking. The Project shall obtain prior LADOT approval for any lane closures, detours, on-street staging areas, or other temporary changes in traffic control due to construction activities and will enact appropriate temporary traffic control procedures. Haul routes for Project construction will be coordinated with the City of Los Angeles Department of Building and Safety (LADBS) to minimize the effects of construction traffic to congested roadways and residential streets. With the implementation of these measures, the Project construction would not adversely affect the pedestrian, bicycle, transit, and vehicular circulation around the Project site and no further analysis is required.

5.4 RESIDENTIAL STREET CUT-THROUGH ANALYSIS

The TAG seeks to identify whether cut-through traffic resulting from a development project would considerably increase average daily traffic (ADT) volumes along residential Local Streets near the development site. Cut-through trips result from the traffic diverting from congested arterial streets to roadways with residential use frontage that are designated as Local Streets. The TAG establishes preliminary screening criteria to identify development projects that may contribute a significant amount of cut-through traffic to nearby residential streets. Further analysis may be required if both of the following screening criteria are met:

1. The development project would generate a net increase of 250 or more daily vehicle trips.
2. The development project includes a discretionary action that would be under review by the Department of City Planning.

As described previously, the Project proposes 27 classrooms, office space, a field, and a gymnasium for 564 students in grades 6 through 12. Per the VMT Calculator screening summary, these uses would generate 703 net daily vehicle trips without consideration of the Project's proposed TDM features. The Project also requires review by the Department of City Planning. Therefore, an assessment of the roadways in the vicinity of the Project area must be conducted to determine whether Project traffic is likely to be shifted from the arterial roadways to residential Local Streets. The following three conditions must be present when selecting residential street segments for analysis:

- The development project is located along a currently congested Boulevard or Avenue and adds trips that may lead to trip diversion to parallel routes along residential Local Streets.
- The development project is projected to add a substantial amount of traffic to the congested Boulevard(s), Avenue(s), or Collector(s) that could potentially cause a shift to alternative route(s).
- Nearby local residential street(s) provide motorists with a viable alternative route.

The Project is located on the south side of Vanowen Street, which is classified as an Avenue II per the Mobility Plan 2035. Vehicular ingress is proposed via De Celis Place, which is classified as a Collector Street, at the southeast corner of the Project site. Per the TAG, it is City policy to locate new development project driveways on lower-volume side streets and not arterials. Therefore, trips to and from new development projects with driveways located on neighborhood streets are not considered "cut-through" traffic. Project trips utilizing Archwood Street (a Local Street) are expected to be minimal, especially given how well the signalized intersection of Vanowen Street & Hayvenhurst Avenue operates during the peak hours. Thus, the Project is not expected to contribute to residential Local Street traffic intrusion.

5.5 FREEWAY SAFETY ANALYSIS SCREENING

The *Interim Guidance for Freeway Safety Analysis* was developed by the LADOT to address State of California Department of Transportation ("Caltrans") comments regarding freeway off-ramp safety considerations, especially as they pertain to freeway off-ramp queuing and speed differentials. The analysis guidance presented in the memorandum is used to evaluate whether conditions along Caltrans off-ramp facilities resulting from a project represent a potential safety impact under CEQA. The freeway safety analysis screening for determining if a development project is required to conduct a freeway ramp analysis is one criterion:

Will the development project add 25 or more vehicle trips to any freeway off-ramp in either the morning or afternoon peak hour?

The Project's weekday peak-hour trip generation estimates (presented in the Project Access, Safety, and Circulation Evaluation section of this report) indicate that the Project will generate at most 202 inbound vehicle trips during the AM peak hour and only 40 inbound vehicle trips during the PM peak hour. As described above, the Project is a small-scale and local-serving school with the vast majority of students residing in the school's zip code or contiguous zip codes. As such, it is not expected that many students will travel between home and school via the State freeway system, and no individual freeway off-ramp will experience 25 vehicle trips during either peak hour. Since the Project will not add 25 or more trips to any freeway off-ramp in either the AM or PM peak period, the Project does not require a freeway ramp analysis.

6. MITIGATION MEASURES AND RECOMMENDED ACTIONS

Project transportation impacts were analyzed for CEQA and non-CEQA related issues in this transportation assessment report. As indicated in the preceding analyses, the Project is not expected to conflict with City plans, programs, ordinances, or policies; cause substantial VMT; or substantially increase hazards. Thus, no CEQA transportation-related mitigation measures are required for the Project.

Additionally, the Project is not anticipated to adversely affect pedestrian, bicycle, and transit access; generate substantial construction interference to pedestrian, bicycle, transit, and vehicle circulation; result in residential street cut-through burdens; or cause freeway off-ramp safety concerns. For these non-CEQA analysis areas, no recommended actions were deemed necessary to address deficiencies in the local transportation system surrounding the Project site.

However, the Project was shown to have the potential to cause access or circulation constraints related to vehicle queuing, most notably for the southbound left-turn movement at the intersection of Vanowen Street & Balboa Boulevard. In order to address this potential adverse effect, the Project proposes to implement several TDM measures as part of a TDM Plan. These measures were discussed previously in the Causing Substantial Vehicle Miles Traveled section of this report and are listed again below:

1. Reduced Automobile Parking Supply
2. Bicycle Parking Provision
3. Promotion of Alternative Mode Use (Public Transit, Bike, Walk)
4. Employee Transportation Coordinator
5. Student and Employee Carpooling Programs
6. Priority Parking for Employee Carpools
7. Bussing for Students
8. Discount Transit Passes for Employees and/or Students
9. Guaranteed Ride Home Program (for Alternative Commute Participants)
10. Bicycle Tool and Repair Stand
11. Free On-Site Shared Bicycles
12. Parking Cash Out for Employee Spaces

The implementation of the above TDM measure will result in fewer single-employee and single-student vehicle trips to and from the Project site and, therefore, address potential vehicle queuing issues associated with Project traffic.

APPENDIX A

TRANSPORTATION ASSESSMENT MEMORANDUM OF UNDERSTANDING (SIGNED SEPTEMBER 11, 2023)

Transportation Assessment Memorandum of Understanding (MOU)

This MOU acknowledges that the Transportation Assessment for the following Project will be prepared in accordance with the latest version of LADOT's Transportation Assessment Guidelines:

I. PROJECT INFORMATION

Project Name: _____

Project Address: _____

Project Description: _____

LADOT Project Case Number: _____ Project Site Plan attached? *(Required)* ☐ Yes ☐ No

(See Attachment 1)

II. TRANSPORTATION DEMAND MANAGEMENT (TDM) MEASURES

Select any of the following TDM measures, which may be eligible as a Project Design Feature¹, that are being considered for this project:

<input type="checkbox"/>	Reduced Parking Supply ²	<input type="checkbox"/>	Bicycle Parking and Amenities	<input type="checkbox"/>	Parking Cash Out
--------------------------	-------------------------------------	--------------------------	-------------------------------	--------------------------	------------------

List any other TDM measures (e.g. bike share kiosks, unbundled parking, microtransit service, etc) below that are also being considered and would require LADOT staff's determination of its eligibility as a TDM measure. LADOT staff will make the final determination of the TDM measure's eligibility for this project.

- | | |
|---------|---------|
| 1 _____ | 3 _____ |
| 2 _____ | 4 _____ |

III. TRIP GENERATION

Trip Generation Rate(s) Source: ITE 10th Edition / Other _____

Trip Generation Adjustment <i>(Exact amount of credit subject to approval by LADOT)</i>	Yes	No
Transit Usage	<input type="checkbox"/>	<input type="checkbox"/>
Existing Active or Previous Land Use	<input type="checkbox"/>	<input type="checkbox"/>
Internal Trip	<input type="checkbox"/>	<input type="checkbox"/>
Pass-By Trip	<input type="checkbox"/>	<input type="checkbox"/>
Transportation Demand Management (See above)	<input type="checkbox"/>	<input type="checkbox"/>

Trip generation table including a description of the existing and proposed land uses, rates, estimated morning and afternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc. attached? *(Required)* ☐ Yes ☐ No (See Attachment 2)

	<u>IN</u>	<u>OUT</u>	<u>TOTAL</u>
AM Trips	_____	_____	_____
PM Trips	_____	_____	_____

<p>NET Daily Vehicle Trips (DVT)</p> <p>_____ DVT (ITE ____ ed.)</p> <p>_____ DVT (VMT Calculator ver. ____)</p> <p>(See Attachment 3)</p>

¹ At this time Project Design Features are only those measures that are also shown to be needed to comply with a local ordinance, affordable housing incentive program, or State law.

² Select if reduced parking supply is pursued as a result of a parking incentive as permitted by the City's Bicycle Parking Ordinance, State Density Bonus Law, or the City's Transit Oriented Community Guidelines.



IV. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: _____ Ambient Growth Rate: _____ % Per Yr.

Related Projects List, researched by the consultant and approved by LADOT, attached? *(Required)* ☐ Yes ☐ No

(See Attachment 4)

STUDY INTERSECTIONS and/or STREET SEGMENTS:

(May be subject to LADOT revision after access, safety, and circulation evaluation.)

1 _____	4 _____
2 _____	5 _____
3 _____	6 _____

Provide a separate list if more than six study intersections and/or street segments. (See Attachment 5)

Is this Project located on a street within the High Injury Network? ☐ Yes ☐ No

If a study intersection is located within a ¼-mile of an adjacent municipality's jurisdiction, signature approval from said municipality is required prior to MOU approval.

V. ACCESS ASSESSMENT

- Does the project exceed 1,000 net DVT? ☐ Yes ☐ No
- Is the project's frontage 250 linear feet or more along an Avenue or Boulevard as classified by the City's General Plan? ☐ Yes ☐ No
- Is the project's building frontage encompassing an entire block along an Avenue or Boulevard as classified by the City's General Plan? ☐ Yes ☐ No

VI. ACCESS ASSESSMENT CRITERIA

If Yes to any of the above questions a., b., or c., the Transportation Assessment must assess the project's potential effect on pedestrian, bicycle, and transit facilities in the vicinity of the proposed project. Complete **Attachment C.1: Access Assessment Criteria** and attach to the draft Transportation Assessment to support the analysis. For the full scope of analysis, see Section 3.2 of the Transportation Assessment Guidelines.

VII. SITE PLAN AND MAP OF STUDY AREA

Please note that the site plan should be submitted to the Department of City Planning for cursory review.

Does the attached site plan and/or map of study area show	Yes	No	Not Applicable
Each study intersection and/or street segment (See Attachment 6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Project Vehicle Peak Hour trips at each study intersection (See Att. 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Project Vehicle Peak Hour trips at each project access point (See Att. 7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Project trip distribution percentages at each study intersection (See Att. 8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Project driveways designed per LADOT MPP 321 (show widths and directions or lane assignment)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pedestrian access points and any pedestrian paths	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pedestrian loading zones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Delivery loading zone or area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bicycle parking onsite	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bicycle parking offsite (in public right-of-way)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*For mixed-use projects, also show the project trips and project trip distribution by land use category.

**VIII. FREEWAY SAFETY ANALYSIS SCREENING**

Will the project add 25 or more trips to any freeway off-ramp in either the AM or PM peak hour? ☐ Yes ☐ No

Provide a brief explanation or graphic identifying the number of project trips expected to be added to the nearby freeway off-ramps serving the project site. If Yes to the question above, a freeway ramp analysis is required.

* The Project will serve a local student population, with the vast majority of travel to/from the site via surface streets.

IX. CONTACT INFORMATIONCONSULTANTDEVELOPER

Name: _____

Address: _____

Phone Number: _____

E-Mail: _____

Approved by:	x			x			
		Consultant's Representative			Date		
Adjacent Municipality:							

**MOUs are generally valid for two years after signing. If after two years a transportation assessment has not been submitted to LADOT, the developer's representative shall check with the appropriate LADOT office to determine if the terms of this MOU are still valid or if a new MOU is needed.

Attachment C.1: Access Assessment Worksheet



Access Assessment Worksheet

This Worksheet supports the analysis needed to assess the project's potential effect on pedestrian, bicycle, and transit facilities in the vicinity of the proposed project. If the project exceeds the screening criteria in Section V of the MOU, complete and attach to the draft Transportation Assessment to support the analysis. For the full scope of analysis, see Section 3.2 of the Transportation Assessment Guidelines.:

I. PROJECT INFORMATION

Project Name: Magnolia Science Academy 2 Project

Project Address: 16600 Vanowen Street, Van Nuys, CA 91406

Project Description: Construction of a new 564-student charter school (grades 6-12) on a presently vacant site. The school will provide two driveways, an exit-only driveway on Vanowen Street and an entrance-only driveway on De Celis Place. Student drop-off and pick-up will occur on the west side of the school, south of the Vanowen Street exit. Parking will include 94 automobile parking spaces.

LADOT Project Case Number: _____

II. PEDESTRIAN/ PERSON TRIP GENERATION

Source of Pedestrian/Person Trip Generation Rate(s)? ☐ ITE 10th Edition ☒ Other: ITE Trip Generation Manual, 11th Edition

	Land Use	Size/Unit	Daily Person Trips
Proposed	High School	276 stu	54
	Middle School/Junior High School	288 stu	58
	Employees	60 staff	12
	Total new trips:		~124*

* School reported that 1 of the 46 existing employees currently walks and fewer than 50 of the existing 510 students walk. Thus, 10 percent of the total population was conservative assumed to use the walk mode. This equates to about 56 students and 6 employees, or 62 total persons, based on the proposed 564-student and 60-employee population. One inbound trip and one outbound trip are assumed for each person walking, which would equal 124 pedestrian trips per day.

Pedestrian/Person trip generation table including description of the proposed land uses, trip credits, person trip assumptions, comparison studies used for reference attached? ☐ Yes ☒ No

III. PEDESTRIAN ATTRACTORS INVENTORY

Attach Pedestrian Map for the area (1,320 foot radius from edge of the project site) depicting:

- site pedestrian entrance(s) See Attachment 9: Pedestrian Attractor Map
- Existing or proposed passenger loading zones
- pedestrian generation/distribution values
 - Geographic Distribution: N 5 % S 0 % E 75 % W 20 %
- transit boarding and alighting of transit stops (should include Metro rail stations; Metro, DASH, and other municipal bus stops)



City of Los Angeles Transportation Assessment MOU

- Key pedestrian destinations with hours of operation:
 - schools (school times)
 - government offices with a public counter or meeting room
 - senior citizen centers
 - recreation centers or playgrounds
 - public libraries
 - medical centers or clinics
 - child care facilities
 - post offices
 - places of worship
 - grocery stores
 - other facilities that attract pedestrian trips
- pedestrian walking routes to key destinations from project site

Note: Pedestrian Count Summary, Bicycle Count Summary, Manual Traffic Count Summary will need to be attached to the Transportation Assessment

IV. FACILITIES INVENTORY

Is a High Injury Network street located within 1,320 foot radius from the edge of the project site? ☐ Yes ☒ No

If yes, list streets and include distance from the project:

_____	at _____ (feet)
_____	at _____ (feet)
_____	at _____ (feet)
_____	at _____ (feet)

Attach Radius Map for the area (1,320 foot radius from edge of the project site) depicting the following existing and proposed facilities:

- transit stops
- bike facilities
- traffic control devices for controlled crossings
- uncontrolled crosswalks
- location of any missing, damaged or substandard sidewalks

For a reference of planned facilities, see the [Transportation Assessment Support Map](#)

Crossing Distances



City of Los Angeles Transportation Assessment MOU

Does the project property have frontage along an arterial street (designated as either an Avenue or Boulevard?)

☒ Yes ☐ No

If yes, provide the distance between the crossing control devices (e.g. signalized crosswalk, or controlled mid-block crossing) along any arterial within 1,320 feet of the property.

2,537 (feet) at Vanowen Street, Balboa Bl to Hayvenhurst Ave	(feet) at _____
_____ (feet) at _____	_____ (feet) at _____
_____ (feet) at _____	_____ (feet) at _____
_____ (feet) at _____	_____ (feet) at _____
_____ (feet) at _____	_____ (feet) at _____
_____ (feet) at _____	_____ (feet) at _____

**For each street along the property frontage, provide:
the roadway configuration:**

Vanowen Street: 5-lane Avenue II with striped median (TWLTL)
Crossing Distance: 65 feet curb-to curb (~28 feet to striped median with 9.5-foot wide TWLTL median)

De Celis Place: 2-lane Collector undivided	•	2-Lane	•	5-Lane w/ striped median
Crossing Distance: 36 feet curb-to curb	•	3-Lane w/ striped median	•	5-Lane w/ raised median
Archwood Street: 2-lane Local Street undivided	•	3-Lane w/ raised median	•	6-Lane
Crossing Distance: 36 feet curb-to curb	•	4-Lane	•	Other: _____

and crossing distance: _____ ft total _____ ft to median _____ ft to median

V. Project Construction

Will the project require any construction activity within the city right-of-way? ☒ Yes ☐ No

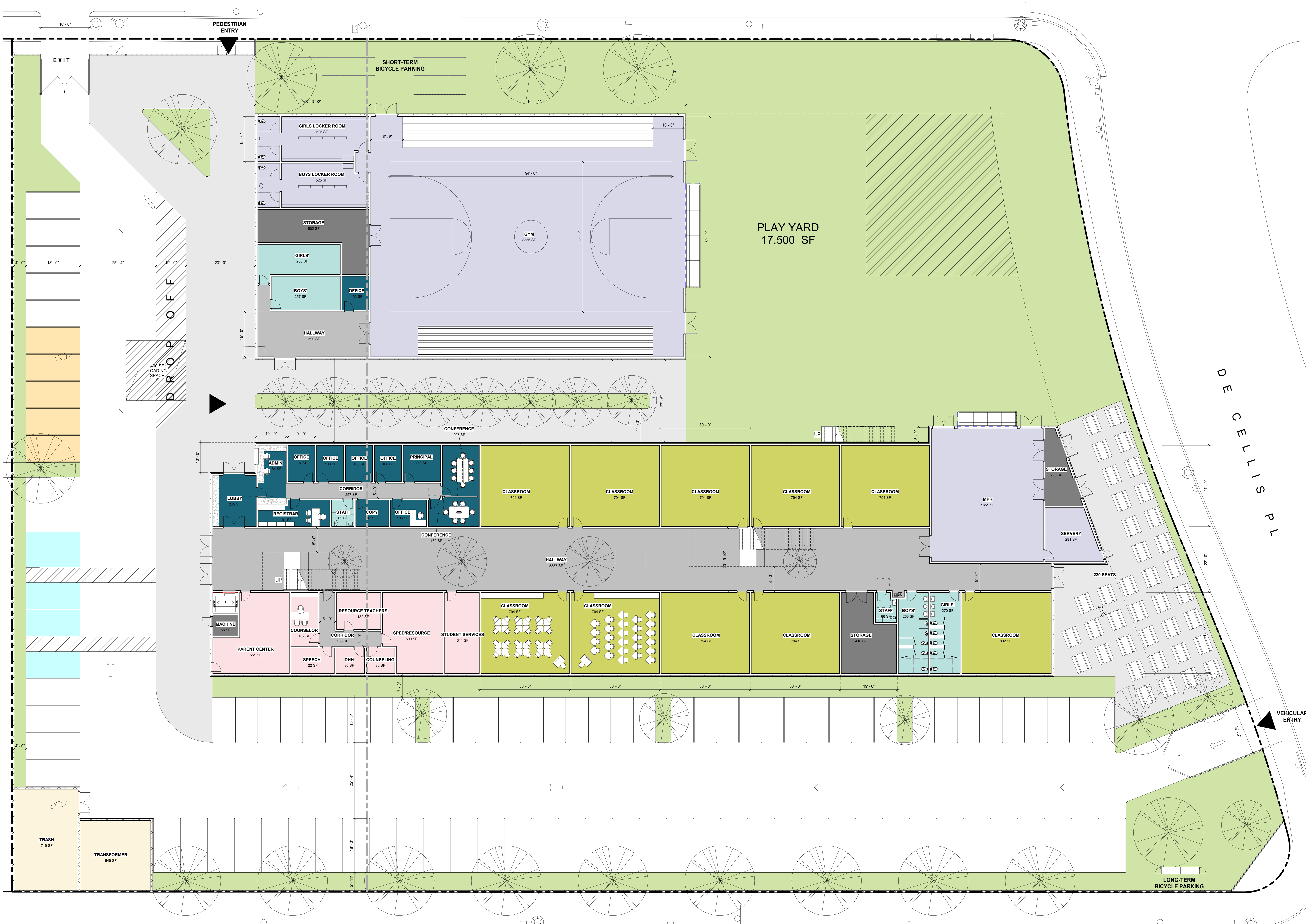
If yes, will the project require temporary closure of any of the following city facilities?

- sidewalk YES
- bike lane
- parking lane YES
- travel lane
- bus stop
- bicycle parking (racks or corrals)
- bike share or other micro-mobility station
- car share station
- parklet
- other: _____

ATTACHMENT 1

PROJECT SITE PLAN

V A N O W E N S T



A R C H W O O D S T

ATTACHMENT 2

PROJECT WEEKDAY TRIP GENERATION SUMMARY

Attachment 2: Magnolia Science Academy 2 Project - Weekday Peak-Hour Trip Generation Summary¹

Land Use	ITE Code	Intensity ²	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Trip Generation Rates									
Middle School/Junior High School	522	1 stu	54%	46%	0.67	48%	52%	0.15	
High School	525	1 stu	68%	32%	0.52	48%	52%	0.14	
Trip Generation Summary									
Description	Size	AM Peak Hour			PM Peak Hour				
		In	Out	Total	In	Out	Total		
Proposed Use									
Institutional									
Middle School/Junior High School ³		288 stu	104	89	193	21	22	43	
High School ⁴		276 stu	98	46	144	19	20	39	
Proposed Project Vehicle Trips			202	135	337	40	42	82	
Notes: 1 ITE <i>Trip Generation Manual</i> (11th Edition, 2021) trip generation rates and directional distributions were applied for Land Use Codes 522 (Middle School/Junior High School) and 525 (High School) to develop baseline vehicle trip estimates for the proposed land use. The General Urban/Suburban setting was selected as most appropriate for the project location. 2 stu = Students. 3 Proposed school to include 96 6th grade students, 96 7th grade students, and 96 8th grade students. 4 Proposed school to include 72 9th grade students, 69 10th grade students, 69 11th grade students, and 66 12th grade students.									

ATTACHMENT 3

VMT CALCULATOR SCREENING OUTPUT REPORT

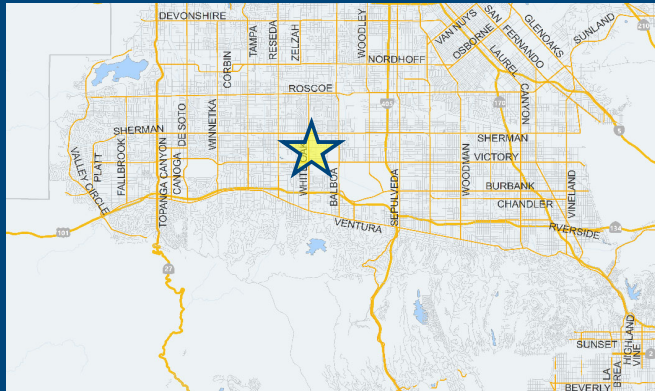
CITY OF LOS ANGELES VMT CALCULATOR Version 1.4



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

Project Information

Project: Magnolia Science Academy 2
 Scenario: With Project
 Address: 16600 W VANOWEN ST, 91406



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
Housing Single Family		DU

[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
School High School		Students
School Middle School	288	Students
School High School	276	Students

[Click here to add a single custom land use type \(will be included in the above list\)](#)

Project Screening Summary

Existing Land Use	Proposed Project
0 Daily Vehicle Trips	703 Daily Vehicle Trips
0 Daily VMT	5,721 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. <input type="checkbox"/>	
Tier 2 Screening Criteria	
The net increase in daily trips < 250 trips	703 Net Daily Trips
The net increase in daily VMT ≤ 0	5,721 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.	

ATTACHMENT 4

RELATED PROJECTS LIST

The LADOT related projects including development projects within a 1.05-mile radius of the project site will be requested, as the farthest outlying study intersection is approximately 0.80 miles from the project site. City Planning projects within the Reseda-West Van Nuys, Van Nuys-North Sherman Oaks, and Encino-Tarzana Community Plan Areas will also be reviewed to supplement the LADOT list.

ATTACHMENT 5

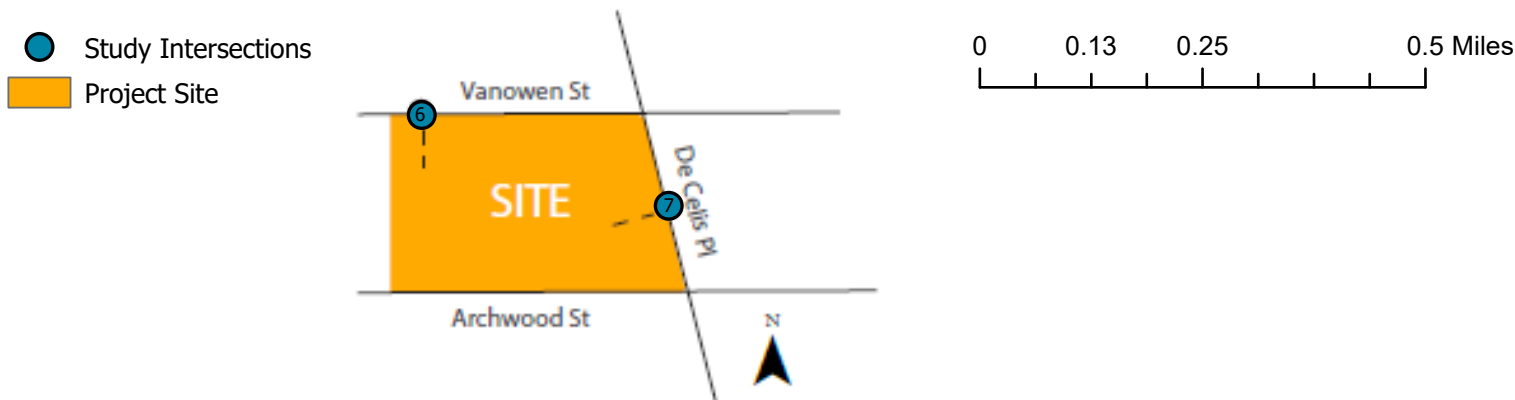
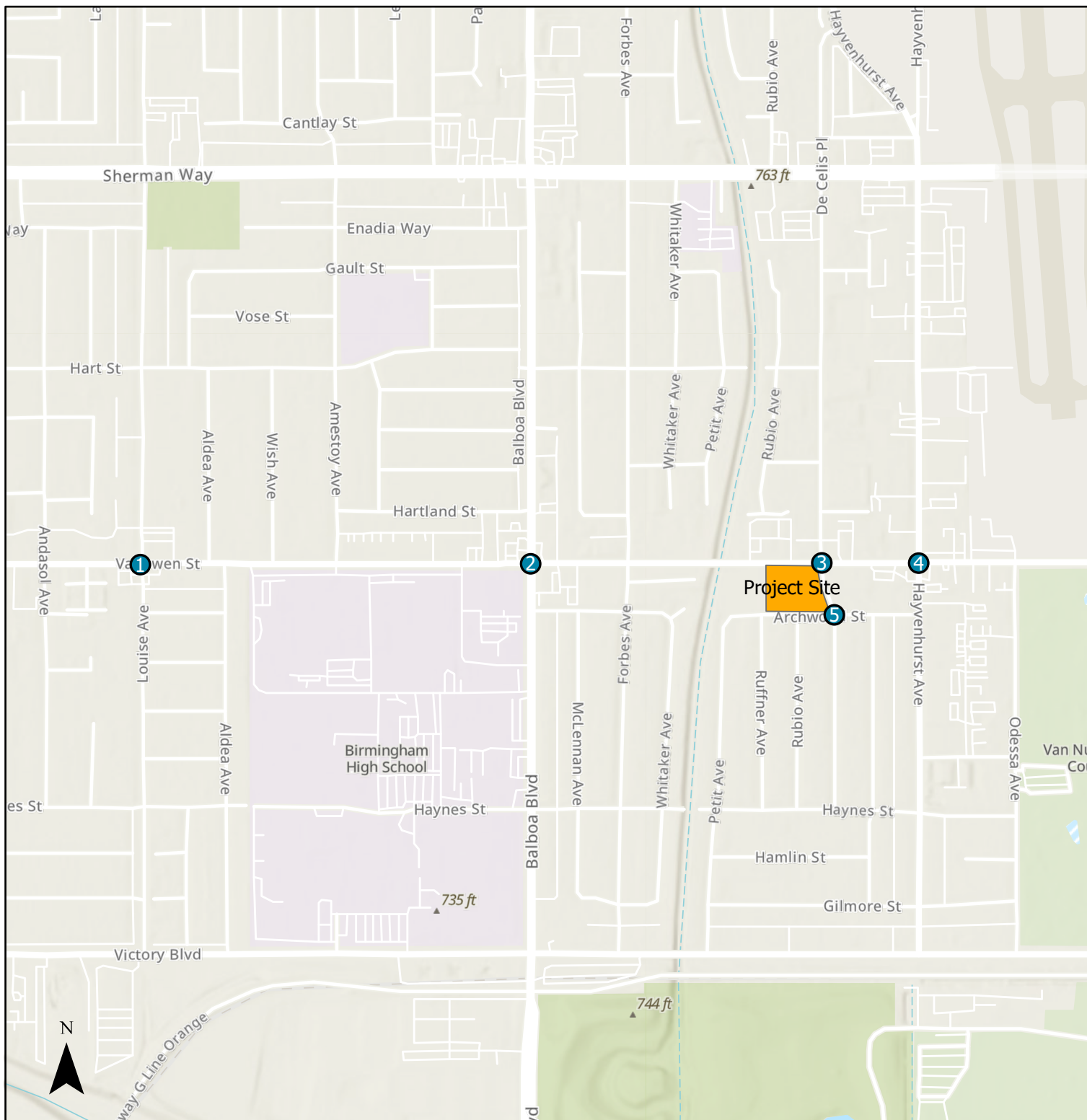
PROPOSED STUDY INTERSECTIONS

1. Vanowen Street & Louis Avenue
2. Vanowen Street & Balboa Boulevard
3. Vanowen Street & De Celis Place
4. Vanowen Street & Hayvenhurst Avenue
5. Archwood Street & De Celis Place
6. Vanowen Street & Project Driveway
7. Project Driveway & De Celis Place

ATTACHMENT 6

PROPOSED STUDY INTERSECTION MAP

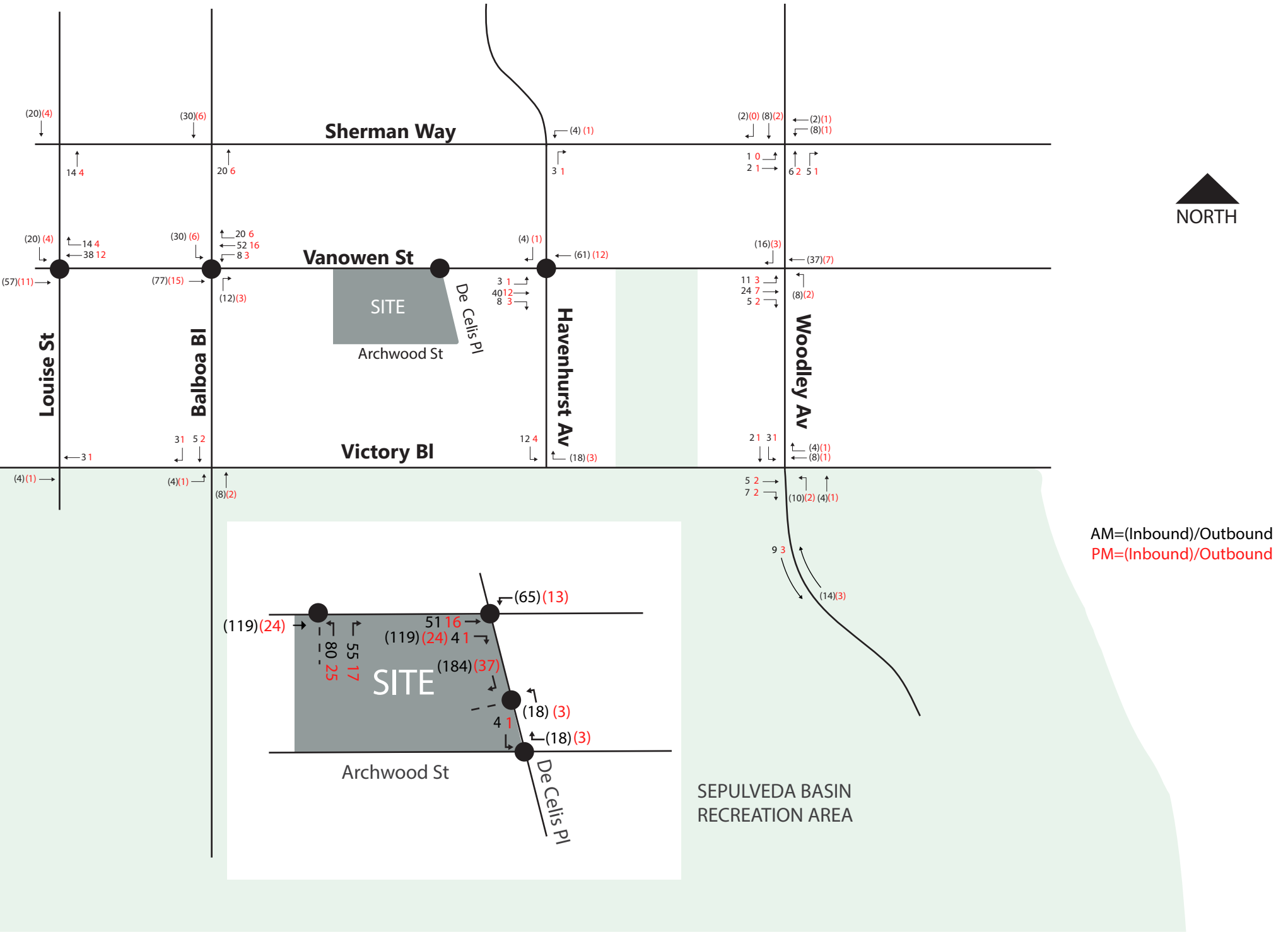
Attachment 6: Proposed Study Intersection Map



ATTACHMENT 7

PROPOSED PROJECT PEAK-HOUR VEHICLE TRIPS

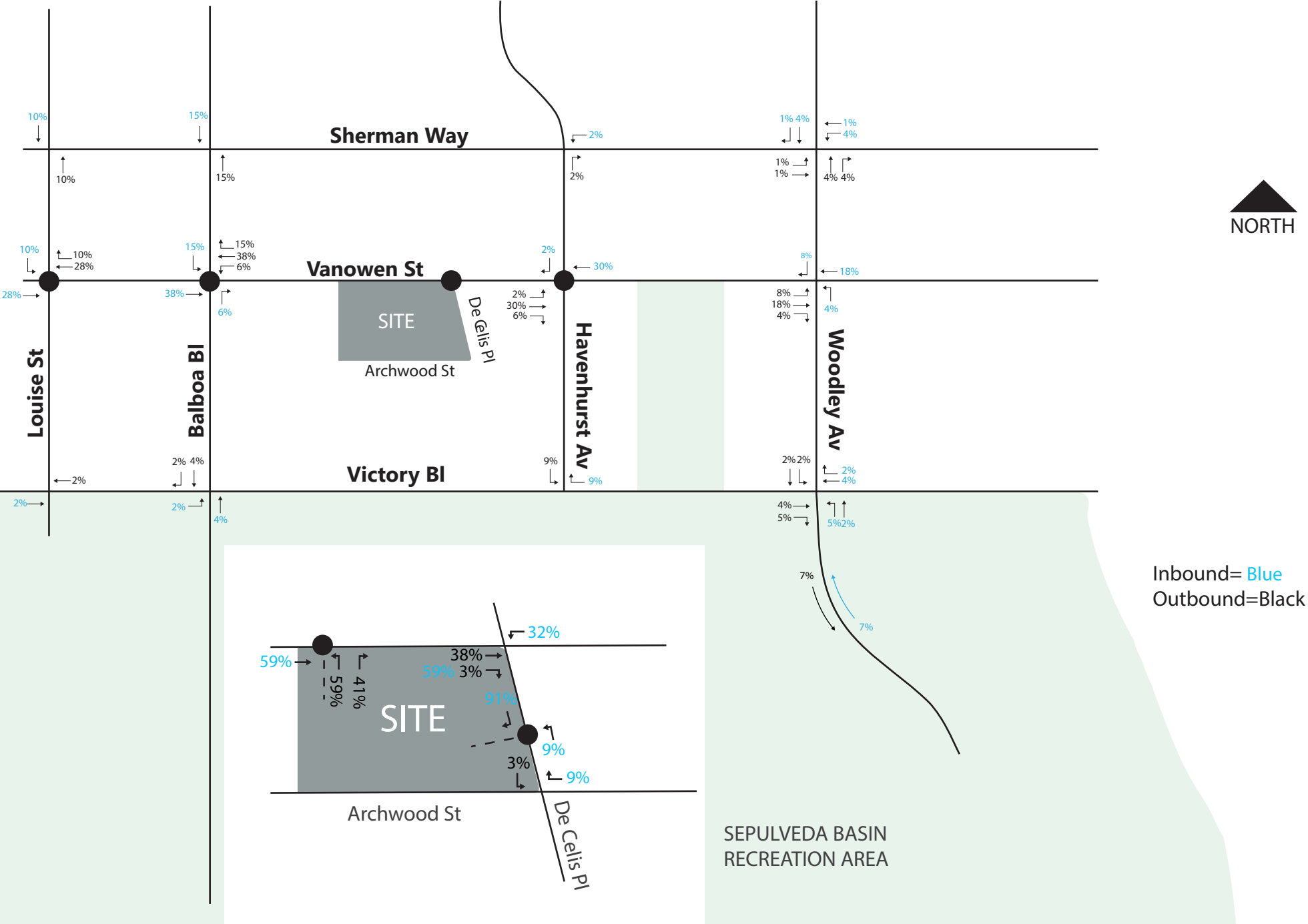
Attachment 7: Proposed Project Peak-Hour Vehicle Trips



ATTACHMENT 8

PROPOSED PROJECT TRIP DISTRIBUTION PERCENTAGES

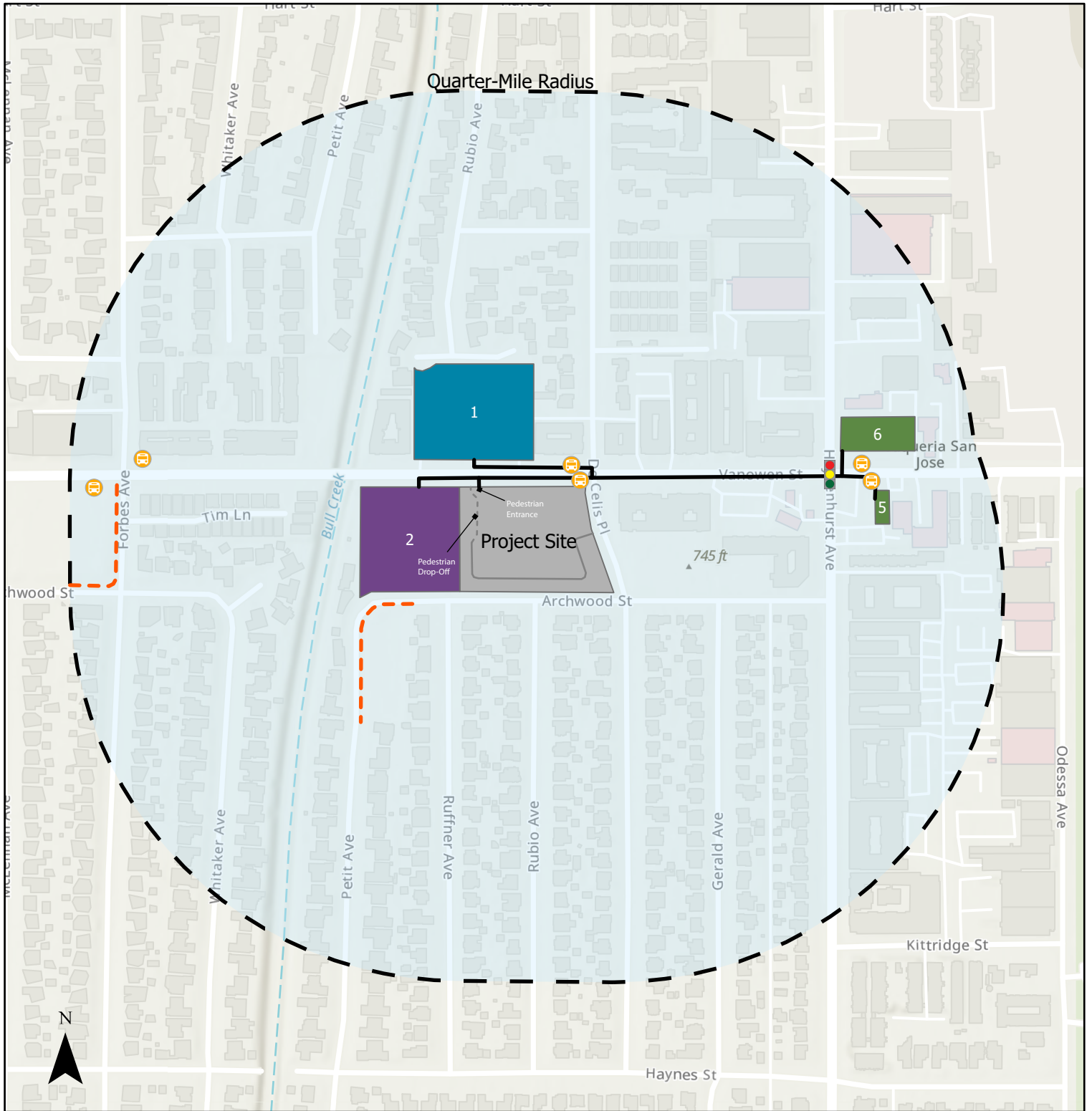
Attachment 8: Proposed Project Trip Distribution Percentages



ATTACHMENT 9

PEDESTRIAN ATTRACTOR MAP

Attachment 9: Pedestrian Attractor Map



Project Site
 Quarter-Mile Radius

Pedestrian Destinations

Grocery/Convenience
 Places of Worship
 Recreational/Playground
 Transit Stop: Metro Bus Line 165

Signalized Crossing
 Missing/Poor Sidewalks
 Walking Routes to Destinations

Driveway
 Drop-Off
 Drive Way

0 0.05 0.1 0.2 Miles

APPENDIX B

LADOT ATTACHMENT D: PLAN CONSISTENCY WORKSHEET



Attachment D: Plan, Policy, and Program Consistency Worksheet

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?

This worksheet does not include an exhaustive list of City policies, and does not include community plans, specific plans, or any area-specific regulatory overlays. The Department of City Planning project planner will need to be consulted to determine if the project would obstruct the City from carrying out a policy or program in a community plan, specific plan, streetscape plan, or regulatory overlay that was adopted to support multimodal transportation options or public safety. LADOT staff should be consulted if a project would lead to a conflict with a mobility investment in the Public Right of Way (PROW) that is currently undergoing planning, design, or delivery. This worksheet must be completed for all projects that meet the Section I. Screening Criteria. For description of the relevant planning documents, **see Attachment D.1.**

For any response to the following questions that checks the box in **bold text** ((i.e. ☐ **Yes** or ☐ **No**), further analysis is needed to demonstrate that the project does not conflict with a plan, policy, or program.

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** ☐ No

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

☐ Yes ☒ **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** ☐ No

II. PLAN CONSISTENCY ANALYSIS

A. Mobility Plan 2035 PROW Classification Standards for Dedications and Improvements

These questions address potential conflict with:



Plan, Policy, and Program Consistency Worksheet

Mobility Plan 2035 Policy 2.1 – Adaptive Reuse of Streets. Design, plan, and operate streets to serve multiple purposes and provide flexibility in design to adapt to future demands.

Mobility Plan 2035 Policy 2.3 – Pedestrian Infrastructure. Recognize walking as a component of every trip, and ensure high quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.

Mobility Plan 2035 Policy 3.2 – People with Disabilities. Accommodate the needs of people with disabilities when modifying or installing infrastructure in the public right-of-way.

Mobility Plan 2035 Street Designations and Standard Roadway Dimensions

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? ☐ Yes ☒ No

A.2 If **A.1 is yes**, is the project required to make additional dedications or improvements to the Public Right of Way as demonstrated by the street designation. ☐ Yes ☐ No ☒ N/A

A.3 If **A.2 is yes**, 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)?

☐ Yes ☐ No ☒ N/A

If the answer is to **A.1 or A.2 is NO, or to A.1, A.2 and A.3. is YES**, then the project does not conflict with the dedication and improvement requirements that are needed to comply with the Mobility Plan 2035 Street Designations and Standard Roadway Dimensions.

A.4 If the answer to **A.3. is NO**, is the project applicant asking to waive from the dedication standards?

☐ Yes ☐ No ☒ 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.

De Celis Pl.
(half-roadway)

Frontage 1 Existing PROW'/Curb' : Existing 32'/20' Required 33'/20' Proposed 33'/20'

Frontage 2 Existing PROW'/Curb' : Existing _____ Required _____ Proposed _____

Frontage 3 Existing PROW'/Curb' : Existing _____ Required _____ Proposed _____

Frontage 4 Existing PROW'/Curb' : Existing _____ Required _____ Proposed _____

If the answer to **A.4 is NO**, the project is inconsistent with Mobility Plan 2035 street designations and must file for a waiver of street dedication and improvement.

If the answer to **A.4 is YES**, additional analysis is necessary to determine if the dedication and/or improvements are necessary to meet the City's mobility needs for the next 20 years. The following factors may contribute to determine if the dedication or improvement is necessary:

Is the project site along any of the following networks identified in the City's Mobility Plan?



Plan, Policy, and Program Consistency Worksheet

- Transit Enhanced Network
- Bicycle Enhanced Network
- Bicycle Lane Network
- Pedestrian Enhanced District
- Neighborhood Enhanced Network

To see the location of the above networks, see **Transportation Assessment Support Map**.¹

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

If the project dedications and improvements asking to be waived are necessary to meet the City's mobility needs, the project may be found to conflict with a plan that is adopted to protect the environment.

B. Mobility Plan 2035 PROW Policy Alignment with Project-Initiated Changes

B.1 Project-Initiated Changes to the PROW Dimensions

These questions address potential conflict with:

Mobility Plan 2035 Policy 2.1 – Adaptive Reuse of Streets. Design, plan, and operate streets to serve multiple purposes and provide flexibility in design to adapt to future demands.

Mobility Plan 2035 Policy 2.3 – Pedestrian Infrastructure. Recognize walking as a component of every trip, and ensure high quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.

Mobility Plan 2035 Policy 3.2 – People with Disabilities. Accommodate the needs of people with disabilities when modifying or installing infrastructure in the public right-of-way.

Mobility Plan 2035 Policy 2.10 – Loading Areas. Facilitate the provision of adequate on and off-site street loading areas.

Mobility Plan 2035 Street Designations and Standard Roadway Dimensions

B.1 Does the project propose, above and beyond any PROW changes needed to comply with Section 12.37 of the LAMC as discussed in Section II.A, physically modify the curb placement or turning radius and/or physically alter the sidewalk and parkways space that changes how people access a property?

Examples of developer-initiated 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

¹ LADOT Transportation Assessment Support Map <https://arcg.is/fubbbD>



Plan, Policy, and Program Consistency Worksheet

- modifying existing bus stop, transit shelter, or other street furniture
- paving, narrowing, shifting or removing an existing parkway or tree well

☐ Yes ☒ No

B.2 Driveway Access

These questions address potential conflict with:

Mobility Plan 2035 Policy 2.10 – Loading Areas. Facilitate the provision of adequate on and off-site street loading areas.

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

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

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.

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 feet² 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

² for a project frontage that exceeds 400 feet along an Avenue or Boulevard, the incremental additional driveway above 2 is more than 1 driveway for every 400 additional feet.



Plan, Policy, and Program Consistency Worksheet

- locating new driveways near mid-block crosswalks, requiring relocation of the mid-block crosswalk

☐ Yes ☒ No

If the answer to **B.1 and B.2 are both NO**, then the project would not conflict with a plan or policies that govern the PROW as a result of the project-initiated changes to the PROW.

Impact Analysis

If the answer to either **B.1 or B.2 are YES**, City plans and policies should be reviewed in light of the proposed physical changes to determine if the City would be obstructed from carrying out the plans and policies. The analysis should pay special consideration to substantial changes to the Public Right of Way that may either degrade existing facilities for people walking and bicycling (e.g., removing a bicycle lane), or preclude the City from completing complete street infrastructure as identified in the Mobility Plan 2035, especially if the physical changes are along streets that are on the High Injury Network (HIN). The analysis should also consider if the project is in a Transit Oriented Community (TOC) area, and would degrade or inhibit trips made by biking, walking and/ or transit ridership. The streets that need special consideration are those that are included on the following networks identified in the Mobility Plan 2035, or the HIN:

- Transit Enhanced Network
- Bicycle Enhanced Network
- Bicycle Lane Network
- Pedestrian Enhanced District
- Neighborhood Enhanced Network
- High Injury Network

To see the location of the above networks, see **Transportation Assessment Support Map**.³

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?

☐ Yes ☐ No ☒ N/A

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?

☐ Yes ☐ No ☒ N/A

If either of the answers to either **B.2.1 or B.2.2 are YES**, the project may conflict with the Mobility Plan 2035, and therefore conflict with a plan that is adopted to protect the

³ LADOT Transportation Assessment Support Map <https://arcg.is/fubbbD>



Plan, Policy, and Program Consistency Worksheet

environment. If either of the answers to both **B.2.1. or B.2.2. are NO**, then the project would not be shown to conflict with plans or policies that govern the Public Right-of-Way.

C. Network Access

C. 1 Alley, Street and Stairway Access

These questions address potential conflict with:

Mobility Plan Policy 3.9 Increased Network Access: Discourage the vacation of public rights-of-way.

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

☐ Yes ☒ No

C.1.2 If the answer to C.1.1 is Yes, will the project provide or maintain public access to people walking and biking on the street, alley or stairway?

☐ Yes ☒ No ☐ N/A

C.2 New Cul-de-sacs

These questions address potential conflict with:

Mobility Plan 2035 Policy 3.10 Cul-de-sacs: Discourage the use of cul-de-sacs that do not provide access for active transportation options.

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

☐ Yes ☒ 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?

☐ Yes ☒ No ☐ N/A

If the answers to either C.1.2 or C.2.2 are YES, then the project would not conflict with a plan or policies that ensures access for all modes of travel. If the answer to either **C.1.2 or C.2.2 are NO**, the project may conflict with a plan or policies that governs multimodal access to a property. Further analysis must assess to the degree that pedestrians and bicyclists have sufficient public access to the transportation network.

D. Parking Supply and Transportation Demand Management

These questions address potential conflict with:

Mobility Plan 2035 Policy 3.8 – Bicycle Parking, Provide bicyclists with convenient, secure and well maintained bicycle parking facilities.

Mobility Plan 2035 Policy 4.8 – Transportation Demand Management Strategies. Encourage greater utilization of Transportation Demand Management Strategies to reduce dependence on single-occupancy vehicles.



Plan, Policy, and Program Consistency Worksheet

Mobility Plan 2035 Policy 4.13 – Parking and Land Use Management: Balance on-street and off-street parking supply with other transportation and land use objectives.

D.1 Would the project propose a supply of onsite parking that exceeds the baseline amount⁴ as required in the Los Angeles Municipal Code or a Specific plan, whichever requirement prevails?

☐ Yes ☒ No

D.2 If the answer to D.1. is YES, 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?

☐ Yes ☒ No ☒ N/A

If the answer to **D.2. is NO** the project may conflict with parking management policies. Further analysis is needed to demonstrate how the supply of parking above city requirements will not result in additional (induced) drive-alone trips as compared to an alternative that provided no more parking than the baseline required by the LAMC or Specific Plan. If there is potential for the supply of parking to result in induced demand for drive-alone trips, the project should further explore transportation demand management (TDM) measures to further off-set the induced demands of driving and vehicle miles travelled (VMT) that may result from higher amounts of on-site parking. The TDM measures should specifically focus on strategies that encourage dynamic and context-sensitive pricing solutions and ensure the parking is efficiently allocated, such as providing real time information. Research has demonstrated that charging a user cost for parking or providing a 'cash-out' option in return for not using it is the most effective strategy to reduce the instances of drive-alone trips and increase non-auto mode share to further reduce VMT. To ensure the parking is efficiently managed and reduce the need to build parking for future uses, further strategies should include sharing parking with other properties and/or the general public.

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 ☐ No

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

☒ Yes ☐ No

D.5 If the answer to D.4. is YES, does the project comply with the City's TDM Ordinance in Section 12.26 J of the LAMC?

☒ Yes ☐ No ☐ N/A

If the answer to **D.3. or D.5. is NO** the project conflicts with LAMC code requirements of bicycle parking and TDM measures. If the project includes uses that require bicycle parking (Section 12.21 A.16) or TDM (Section 12.26 J), and the project does not comply with those Sections of the LAMC, further analysis is required to ensure that the project supports the intent of the two LAMC sections. To meet the intent of

⁴ The baseline parking is defined here as the default parking requirements in section 12.21 A.4 of the Los Angeles Municipal Code or any applicable Specific Plan, whichever prevails, for each applicable use not taking into consideration other parking incentives to reduce the amount of required parking.



Plan, Policy, and Program Consistency Worksheet

bicycle parking requirements, the analysis should identify how the project commits to providing safe access to those traveling by bicycle and accommodates storing their bicycle in locations that demonstrates priority over vehicle access.

Similarly, to meet the intent of the TDM requirements of Section 12.26 J of the LAMC, the analysis should identify how the project commits to providing effective strategies in either physical facilities or programs that encourage non-drive alone trips to and from the project site and changes in work schedule that move trips out of the peak period or eliminate them altogether (as in the case in telecommuting or compressed work weeks).

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 or Plan 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 ☒ No

E.2 If the Answer to **E.1 is YES**, does the Project or Plan result in a significant VMT impact?

☐ Yes ☐ No ☒ N/A

E.3 If the Answer to **E.1 is NO**, does the Project result in a net increase in VMT?

☒ Yes ☐ No ☐ N/A

If the Answer to **E.2 or E.3 is NO**, then the Project or Plan is shown to align with the long-term VMT and GHG reduction goals of SCAG's RTP/SCS.

E.4 If the Answer to **E.2 or E.3 is YES**, then further evaluation would be necessary to determine whether such a project or land use plan would be shown to be consistent with VMT and GHG reduction goals of the SCAG RTP/SCS. For the purpose of making a finding that a project is consistent with the GHG reduction targets forecasted in the SCAG RTP/SCS, the project analyst should consult **Section 2.2.4** of the Transportation Assessment Guidelines (TAG). **Section 2.2.4** provides the methodology for evaluating a land use project's cumulative impacts to VMT, and the appropriate reliance on SCAG's most recently adopted RTP/SCS in reaching that conclusion.

The analysis methods therein can further support findings that the project is consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy for which the State Air Resources Board, pursuant to Section 65080(b)(2)(H) of the Government Code, has accepted a metropolitan planning organization's determination that the sustainable communities strategy or the alternative planning strategy would, if implemented, achieve the greenhouse gas emission reduction targets.

Per Section 2.2.4 of the TAG, the Project's proposed school use has been evaluated for potential VMT impacts based on its size and community served. As described within the body of this TA report, the Project will be small in scale and primarily serve the immediate community. Therefore, the school should be considered a local-serving use and can be screened out from further VMT analysis. The Project is not expected to have cumulative impacts related to VMT.



Plan, Policy, and Program Consistency Worksheet

References

BOE [Street Standard Dimensions S-470-1](#)

http://eng2.lacity.org/techdocs/stdplans/s-400/S-470-1_20151021_150849.pdf

LADCP [Citywide Design Guidelines](#).

https://planning.lacity.org/odocument/f6608be7-d5fe-4187-bea6-20618eec5049/Citywide_Design_Guidelines.pdf

LADOT Transportation Assessment Support Map <https://arcg.is/fubbbD>

Mobility Plan 2035

https://planning.lacity.org/odocument/523f2a95-9d72-41d7-aba5-1972f84c1d36/Mobility_Plan_2035.pdf

SCAG. Connect SoCal, 2020-2045 RTP/SCS, <https://www.connectsocal.org/Pages/default.aspx>

ATTACHMENT D.1: CITY PLAN, POLICIES AND GUIDELINES

The Transportation Element of the City's General Plan, Mobility Plan 2035, established the "Complete Streets Design Guide" as the City's document to guide the operations and design of streets and other public rights-of-way. It lays out a vision for designing safer, more vibrant streets that are accessible to people, no matter what their mode choice. As a living document, it is intended to be frequently updated as City departments identify and implement street standards and experiment with different configurations to promote complete streets. The guide is meant to be a toolkit that provides numerous examples of what is possible in the public right-of-way and that provides guidance on context-sensitive design.

The Plan for A Healthy Los Angeles (March 2015) includes policies directing several City departments to develop plans that promote active transportation and safety.

The City of Los Angeles Community Plans, which make up the Land Use Element of the City's General Plan, guide the physical development of neighborhoods by establishing the goals and policies for land use. The 35 Community Plans provide specific, neighborhood-level detail for land uses and the transportation network, relevant policies, and implementation strategies necessary to achieve General Plan and community-specific objectives.

The stated goal of Vision Zero is to eliminate traffic-related deaths in Los Angeles by 2025 through a number of strategies, including modifying the design of streets to increase the safety of vulnerable road users. Extensive crash data analysis is conducted on an ongoing basis to prioritize intersections and corridors for implementation of projects that will have the greatest effect on overall fatality reduction. The City designs and deploys Vision Zero Corridor Plans as part of the implementation of Vision Zero. If a project is proposed whose site lies on the High Injury Network (HIN), the applicant should consult with LADOT to inform the project's site plan and to determine appropriate improvements, whether by funding their implementation in full or by making a contribution toward their implementation.

The Citywide Design Guidelines (October 24, 2019) includes sections relevant to development projects where improvements are proposed within the public realm. Specifically, Guidelines one through three provide building design strategies that support the pedestrian experience. The Guidelines provide best practices in designing that apply in three spatial categories of site planning, building design and public right of way. The Guidelines should be followed to ensure that the project design supports pedestrian safety, access and comfort as they access to and from the building and the immediate public right of way.

The City's Transportation Demand Management (TDM) Ordinance (LA Municipal Code 12.26.J) requires certain projects to incorporate strategies that reduce drive-alone vehicle trips and improve access to destinations and services. The ordinance is revised and updated periodically and should be reviewed for application to specific projects as they are reviewed.

The City's LAMC Section 12.37 (Waivers of Dedication and Improvement) requires certain projects to dedicate and/or implement improvements within the public right-of-way to meet the street designation standards of the Mobility Plan 2035.

The Bureau of Engineering (BOE) Street Standard Dimensions S-470-1 provides the specific street widths and public right of way dimensions associated with the City's street standards.

APPENDIX C

TRAFFIC COUNT DATA SHEETS

City of Los Angeles
N/S: Louise Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 01_LAC_Lou_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

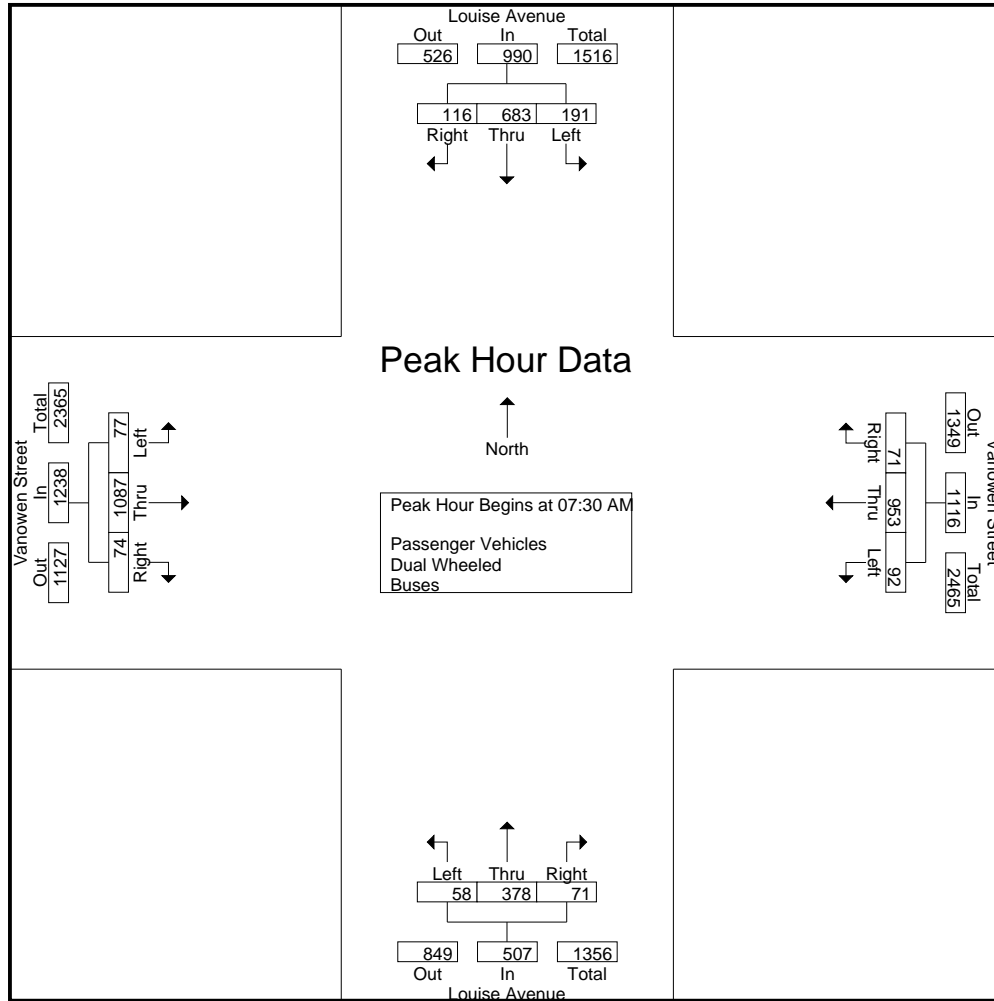
Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

	Louise Avenue Southbound				Vanowen Street Westbound				Louise Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	26	65	10	101	3	168	4	175	3	16	7	26	6	181	5	192	494
07:15 AM	50	102	21	173	14	177	5	196	4	26	14	44	13	251	4	268	681
07:30 AM	45	130	33	208	23	244	9	276	7	68	19	94	12	259	10	281	859
07:45 AM	55	176	25	256	27	250	19	296	19	89	15	123	23	275	13	311	986
Total	176	473	89	738	67	839	37	943	33	199	55	287	54	966	32	1052	3020
08:00 AM	61	198	32	291	20	233	21	274	16	89	21	126	22	289	28	339	1030
08:15 AM	30	179	26	235	22	226	22	270	16	132	16	164	20	264	23	307	976
08:30 AM	27	110	25	162	19	233	15	267	8	100	19	127	21	216	15	252	808
08:45 AM	22	103	21	146	12	220	6	238	9	77	14	100	18	172	13	203	687
Total	140	590	104	834	73	912	64	1049	49	398	70	517	81	941	79	1101	3501
09:00 AM	15	71	10	96	9	180	11	200	7	58	12	77	12	183	6	201	574
09:15 AM	21	65	13	99	15	170	12	197	7	31	10	48	13	219	4	236	580
09:30 AM	14	49	18	81	12	157	16	185	6	39	6	51	6	205	4	215	532
09:45 AM	21	52	18	91	7	194	8	209	7	35	12	54	11	169	8	188	542
Total	71	237	59	367	43	701	47	791	27	163	40	230	42	776	22	840	2228
Grand Total	387	1300	252	1939	183	2452	148	2783	109	760	165	1034	177	2683	133	2993	8749
Apprch %	20	67	13		6.6	88.1	5.3		10.5	73.5	16		5.9	89.6	4.4		
Total %	4.4	14.9	2.9	22.2	2.1	28	1.7	31.8	1.2	8.7	1.9	11.8	2	30.7	1.5	34.2	
Passenger Vehicles	384	1282	244	1910	179	2372	147	2698	107	748	160	1015	170	2610	129	2909	8532
% Passenger Vehicles	99.2	98.6	96.8	98.5	97.8	96.7	99.3	96.9	98.2	98.4	97	98.2	96	97.3	97	97.2	97.5
Dual Wheeled	1	17	7	25	2	54	1	57	2	11	3	16	4	48	3	55	153
% Dual Wheeled	0.3	1.3	2.8	1.3	1.1	2.2	0.7	2	1.8	1.4	1.8	1.5	2.3	1.8	2.3	1.8	1.7
Buses	2	1	1	4	2	26	0	28	0	1	2	3	3	25	1	29	64
% Buses	0.5	0.1	0.4	0.2	1.1	1.1	0	1	0	0.1	1.2	0.3	1.7	0.9	0.8	1	0.7

	Louise Avenue Southbound				Vanowen Street Westbound				Louise Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	45	130	33	208	23	244	9	276	7	68	19	94	12	259	10	281	859
07:45 AM	55	176	25	256	27	250	19	296	19	89	15	123	23	275	13	311	986
08:00 AM	61	198	32	291	20	233	21	274	16	89	21	126	22	289	28	339	1030
08:15 AM	30	179	26	235	22	226	22	270	16	132	16	164	20	264	23	307	976
Total Volume	191	683	116	990	92	953	71	1116	58	378	71	507	77	1087	74	1238	3851
% App. Total	19.3	69	11.7		8.2	85.4	6.4		11.4	74.6	14		6.2	87.8	6		
PHF	.783	.862	.879	.851	.852	.953	.807	.943	.763	.716	.845	.773	.837	.940	.661	.913	.935

City of Los Angeles
N/S: Louise Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 01_LAC_Lou_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:45 AM				07:30 AM			
+0 mins.	45	130	33	208	23	244	9	276	19	89	15	123	12	259	10	281
+15 mins.	55	176	25	256	27	250	19	296	16	89	21	126	23	275	13	311
+30 mins.	61	198	32	291	20	233	21	274	16	132	16	164	22	289	28	339
+45 mins.	30	179	26	235	22	226	22	270	8	100	19	127	20	264	23	307
Total Volume	191	683	116	990	92	953	71	1116	59	410	71	540	77	1087	74	1238
% App. Total	19.3	69	11.7		8.2	85.4	6.4		10.9	75.9	13.1		6.2	87.8	6	
PHF	.783	.862	.879	.851	.852	.953	.807	.943	.776	.777	.845	.823	.837	.940	.661	.913

City of Los Angeles
N/S: Louise Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 01_LAC_Lou_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

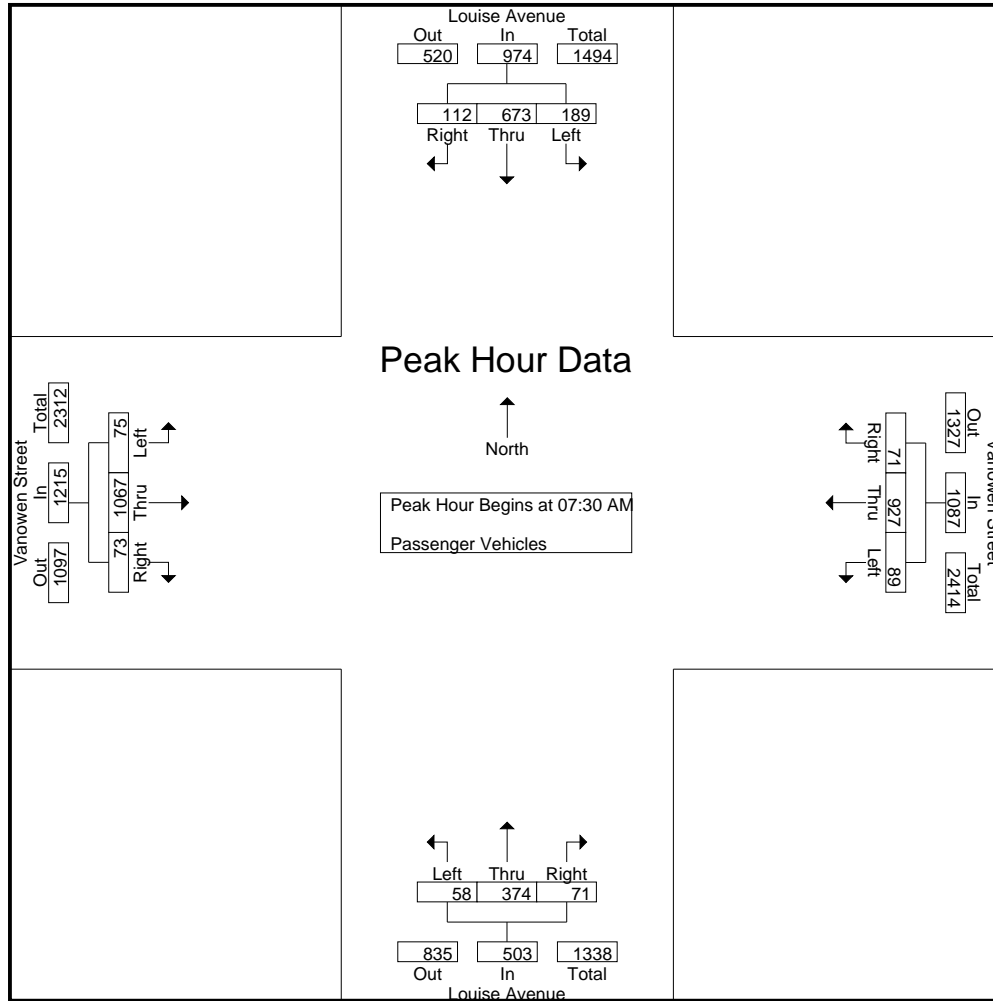
Groups Printed- Passenger Vehicles

	Louise Avenue Southbound				Vanowen Street Westbound				Louise Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	26	64	10	100	3	165	4	172	3	16	6	25	6	177	5	188	485
07:15 AM	49	102	21	172	14	170	5	189	4	25	13	42	12	241	4	257	660
07:30 AM	43	126	31	200	22	234	9	265	7	66	19	92	11	251	10	272	829
07:45 AM	55	174	25	254	25	243	19	287	19	89	15	123	23	272	13	308	972
Total	173	466	87	726	64	812	37	913	33	196	53	282	52	941	32	1025	2946
08:00 AM	61	196	32	289	20	228	21	269	16	88	21	125	22	285	28	335	1018
08:15 AM	30	177	24	231	22	222	22	266	16	131	16	163	19	259	22	300	960
08:30 AM	27	109	25	161	19	227	14	260	8	100	19	127	21	206	15	242	790
08:45 AM	22	102	21	145	12	213	6	231	9	76	14	99	17	167	12	196	671
Total	140	584	102	826	73	890	63	1026	49	395	70	514	79	917	77	1073	3439
09:00 AM	15	69	8	92	9	176	11	196	7	57	11	75	11	176	6	193	556
09:15 AM	21	64	12	97	15	162	12	189	5	31	10	46	12	210	3	225	557
09:30 AM	14	48	17	79	12	147	16	175	6	34	5	45	6	200	4	210	509
09:45 AM	21	51	18	90	6	185	8	199	7	35	11	53	10	166	7	183	525
Total	71	232	55	358	42	670	47	759	25	157	37	219	39	752	20	811	2147
Grand Total	384	1282	244	1910	179	2372	147	2698	107	748	160	1015	170	2610	129	2909	8532
Apprch %	20.1	67.1	12.8		6.6	87.9	5.4		10.5	73.7	15.8		5.8	89.7	4.4		
Total %	4.5	15	2.9	22.4	2.1	27.8	1.7	31.6	1.3	8.8	1.9	11.9	2	30.6	1.5	34.1	

	Louise Avenue Southbound				Vanowen Street Westbound				Louise Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	43	126	31	200	22	234	9	265	7	66	19	92	11	251	10	272	829
07:45 AM	55	174	25	254	25	243	19	287	19	89	15	123	23	272	13	308	972
08:00 AM	61	196	32	289	20	228	21	269	16	88	21	125	22	285	28	335	1018
08:15 AM	30	177	24	231	22	222	22	266	16	131	16	163	19	259	22	300	960
Total Volume	189	673	112	974	89	927	71	1087	58	374	71	503	75	1067	73	1215	3779
% App. Total	19.4	69.1	11.5		8.2	85.3	6.5		11.5	74.4	14.1		6.2	87.8	6		
PHF	.775	.858	.875	.843	.890	.954	.807	.947	.763	.714	.845	.771	.815	.936	.652	.907	.928

City of Los Angeles
N/S: Louise Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 01_LAC_Lou_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	43	126	31	200	22	234	9	265	7	66	19	92	11	251	10	272
+15 mins.	55	174	25	254	25	243	19	287	19	89	15	123	23	272	13	308
+30 mins.	61	196	32	289	20	228	21	269	16	88	21	125	22	285	28	335
+45 mins.	30	177	24	231	22	222	22	266	16	131	16	163	19	259	22	300
Total Volume	189	673	112	974	89	927	71	1087	58	374	71	503	75	1067	73	1215
% App. Total	19.4	69.1	11.5		8.2	85.3	6.5		11.5	74.4	14.1		6.2	87.8	6	
PHF	.775	.858	.875	.843	.890	.954	.807	.947	.763	.714	.845	.771	.815	.936	.652	.907

City of Los Angeles
N/S: Louise Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 01_LAC_Lou_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

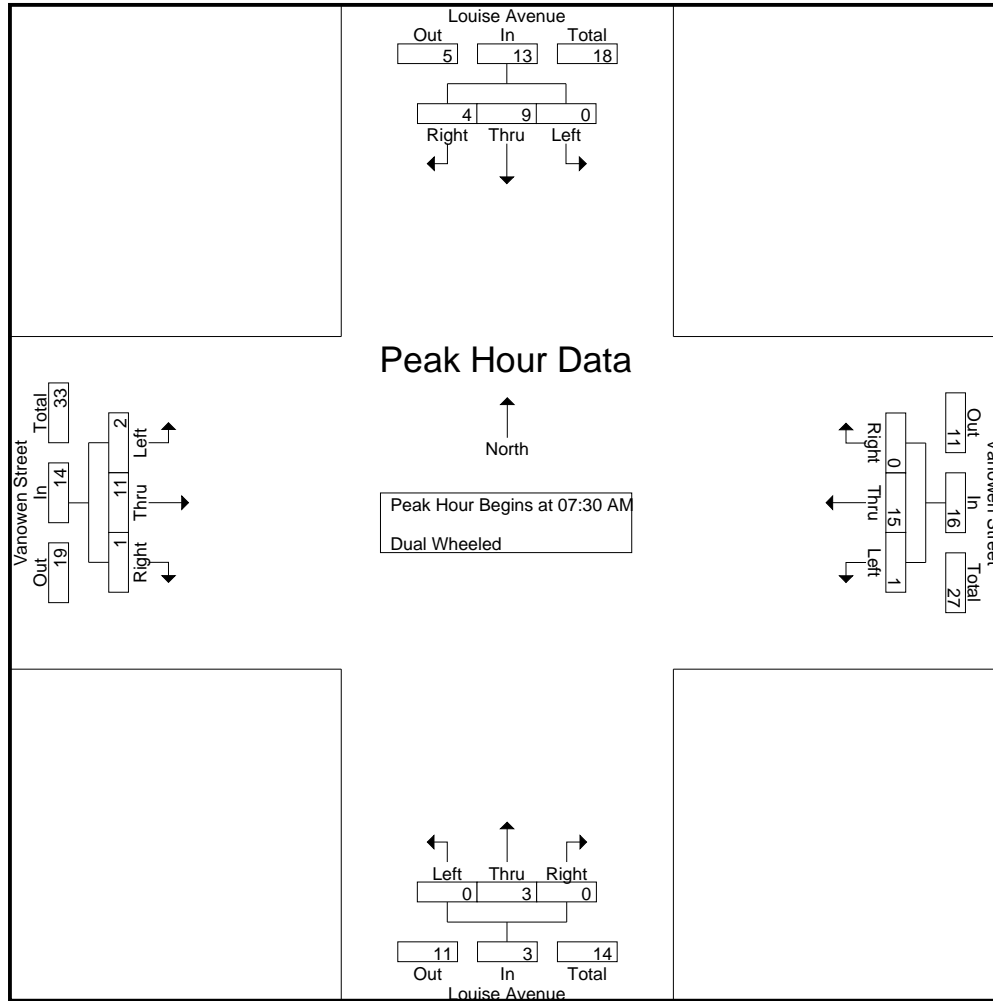
Groups Printed- Dual Wheeled

	Louise Avenue Southbound				Vanowen Street Westbound				Louise Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	1	0	1	0	0	0	0	0	3	0	3	5
07:15 AM	1	0	0	1	0	5	0	5	0	1	0	1	0	8	0	8	15
07:30 AM	0	4	2	6	0	7	0	7	0	2	0	2	1	5	0	6	21
07:45 AM	0	2	0	2	1	3	0	4	0	0	0	0	0	2	0	2	8
Total	1	7	2	10	1	16	0	17	0	3	0	3	1	18	0	19	49
08:00 AM	0	2	0	2	0	3	0	3	0	1	0	1	0	2	0	2	8
08:15 AM	0	1	2	3	0	2	0	2	0	0	0	0	1	2	1	4	9
08:30 AM	0	1	0	1	0	4	1	5	0	0	0	0	0	6	0	6	12
08:45 AM	0	1	0	1	0	5	0	5	0	1	0	1	0	4	0	4	11
Total	0	5	2	7	0	14	1	15	0	2	0	2	1	14	1	16	40
09:00 AM	0	2	1	3	0	1	0	1	0	1	1	2	0	4	0	4	10
09:15 AM	0	1	1	2	0	6	0	6	2	0	0	2	1	7	1	9	19
09:30 AM	0	1	1	2	0	9	0	9	0	5	1	6	0	3	0	3	20
09:45 AM	0	1	0	1	1	8	0	9	0	0	1	1	1	2	1	4	15
Total	0	5	3	8	1	24	0	25	2	6	3	11	2	16	2	20	64
Grand Total	1	17	7	25	2	54	1	57	2	11	3	16	4	48	3	55	153
Apprch %	4	68	28		3.5	94.7	1.8		12.5	68.8	18.8		7.3	87.3	5.5		
Total %	0.7	11.1	4.6	16.3	1.3	35.3	0.7	37.3	1.3	7.2	2	10.5	2.6	31.4	2	35.9	

	Louise Avenue Southbound				Vanowen Street Westbound				Louise Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	4	2	6	0	7	0	7	0	2	0	2	1	5	0	6	21
07:45 AM	0	2	0	2	1	3	0	4	0	0	0	0	0	2	0	2	8
08:00 AM	0	2	0	2	0	3	0	3	0	1	0	1	0	2	0	2	8
08:15 AM	0	1	2	3	0	2	0	2	0	0	0	0	1	2	1	4	9
Total Volume	0	9	4	13	1	15	0	16	0	3	0	3	2	11	1	14	46
% App. Total	0	69.2	30.8		6.2	93.8	0		0	100	0		14.3	78.6	7.1		
PHF	.000	.563	.500	.542	.250	.536	.000	.571	.000	.375	.000	.375	.500	.550	.250	.583	.548

City of Los Angeles
N/S: Louise Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 01_LAC_Lou_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	4	2	6	0	7	0	7	0	2	0	2	1	5	0	6
+15 mins.	0	2	0	2	1	3	0	4	0	0	0	0	0	2	0	2
+30 mins.	0	2	0	2	0	3	0	3	0	1	0	1	0	2	0	2
+45 mins.	0	1	2	3	0	2	0	2	0	0	0	0	1	2	1	4
Total Volume	0	9	4	13	1	15	0	16	0	3	0	3	2	11	1	14
% App. Total	0	69.2	30.8		6.2	93.8	0		0	100	0		14.3	78.6	7.1	
PHF	.000	.563	.500	.542	.250	.536	.000	.571	.000	.375	.000	.375	.500	.550	.250	.583

City of Los Angeles
N/S: Louise Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 01_LAC_Lou_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

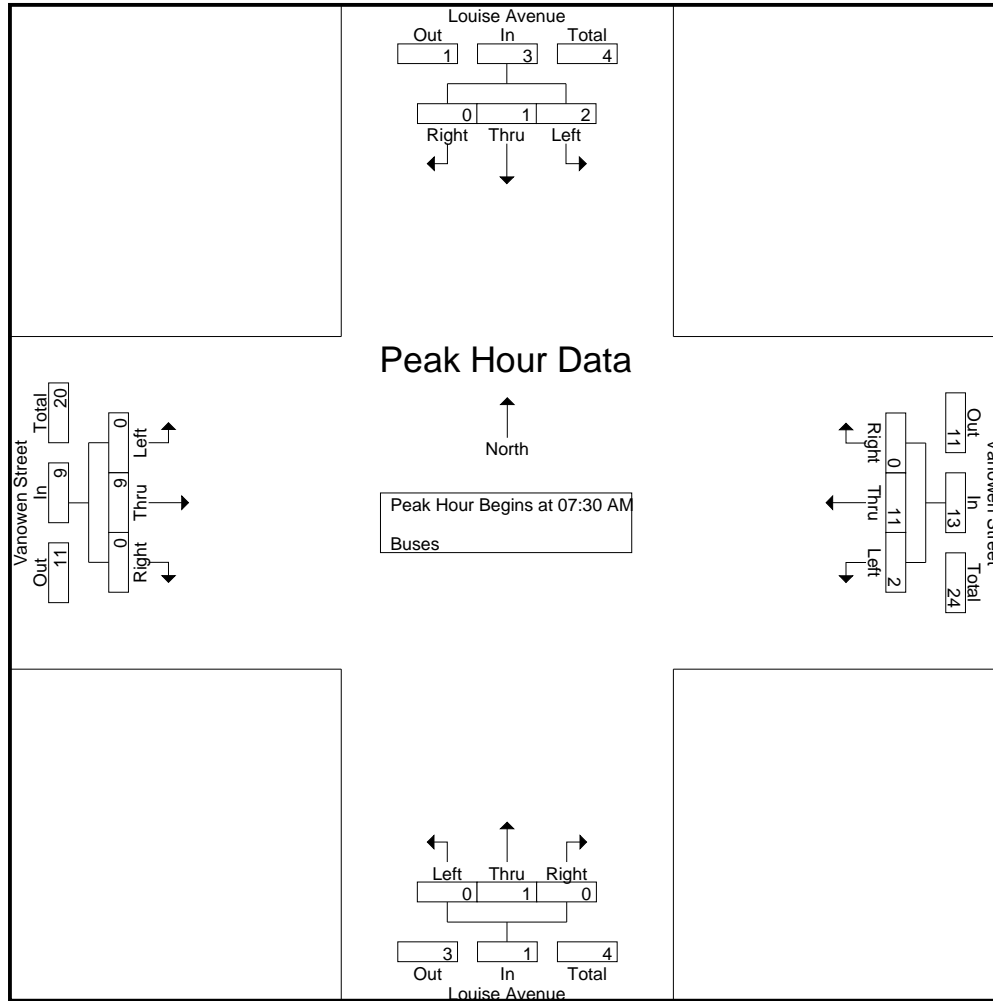
Groups Printed- Buses

	Louise Avenue Southbound				Vanowen Street Westbound				Louise Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	2	0	2	0	0	1	1	0	1	0	1	4
07:15 AM	0	0	0	0	0	2	0	2	0	0	1	1	1	2	0	3	6
07:30 AM	2	0	0	2	1	3	0	4	0	0	0	0	0	3	0	3	9
07:45 AM	0	0	0	0	1	4	0	5	0	0	0	0	0	1	0	1	6
Total	2	0	0	2	2	11	0	13	0	0	2	2	1	7	0	8	25
08:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
08:15 AM	0	1	0	1	0	2	0	2	0	1	0	1	0	3	0	3	7
08:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	4	0	4	6
08:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	1	1	1	3	5
Total	0	1	0	1	0	8	0	8	0	1	0	1	1	10	1	12	22
09:00 AM	0	0	1	1	0	3	0	3	0	0	0	0	1	3	0	4	8
09:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
09:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
09:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Total	0	0	1	1	0	7	0	7	0	0	0	0	1	8	0	9	17
Grand Total	2	1	1	4	2	26	0	28	0	1	2	3	3	25	1	29	64
Apprch %	50	25	25		7.1	92.9	0		0	33.3	66.7		10.3	86.2	3.4		
Total %	3.1	1.6	1.6	6.2	3.1	40.6	0	43.8	0	1.6	3.1	4.7	4.7	39.1	1.6	45.3	

	Louise Avenue Southbound				Vanowen Street Westbound				Louise Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	2	0	0	2	1	3	0	4	0	0	0	0	0	3	0	3	9
07:45 AM	0	0	0	0	1	4	0	5	0	0	0	0	0	1	0	1	6
08:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
08:15 AM	0	1	0	1	0	2	0	2	0	1	0	1	0	3	0	3	7
Total Volume	2	1	0	3	2	11	0	13	0	1	0	1	0	9	0	9	26
% App. Total	66.7	33.3	0		15.4	84.6	0		0	100	0		0	100	0		
PHF	.250	.250	.000	.375	.500	.688	.000	.650	.000	.250	.000	.250	.000	.750	.000	.750	.722

City of Los Angeles
N/S: Louise Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 01_LAC_Lou_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	2	0	0	2	1	3	0	4	0	0	0	0	0	3	0	3
+15 mins.	0	0	0	0	1	4	0	5	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2
+45 mins.	0	1	0	1	0	2	0	2	0	1	0	1	0	3	0	3
Total Volume	2	1	0	3	2	11	0	13	0	1	0	1	0	9	0	9
% App. Total	66.7	33.3	0		15.4	84.6	0		0	100	0		0	100	0	
PHF	.250	.250	.000	.375	.500	.688	.000	.650	.000	.250	.000	.250	.000	.750	.000	.750

City of Los Angeles
N/S: Louise Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 01_LAC_Lou_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

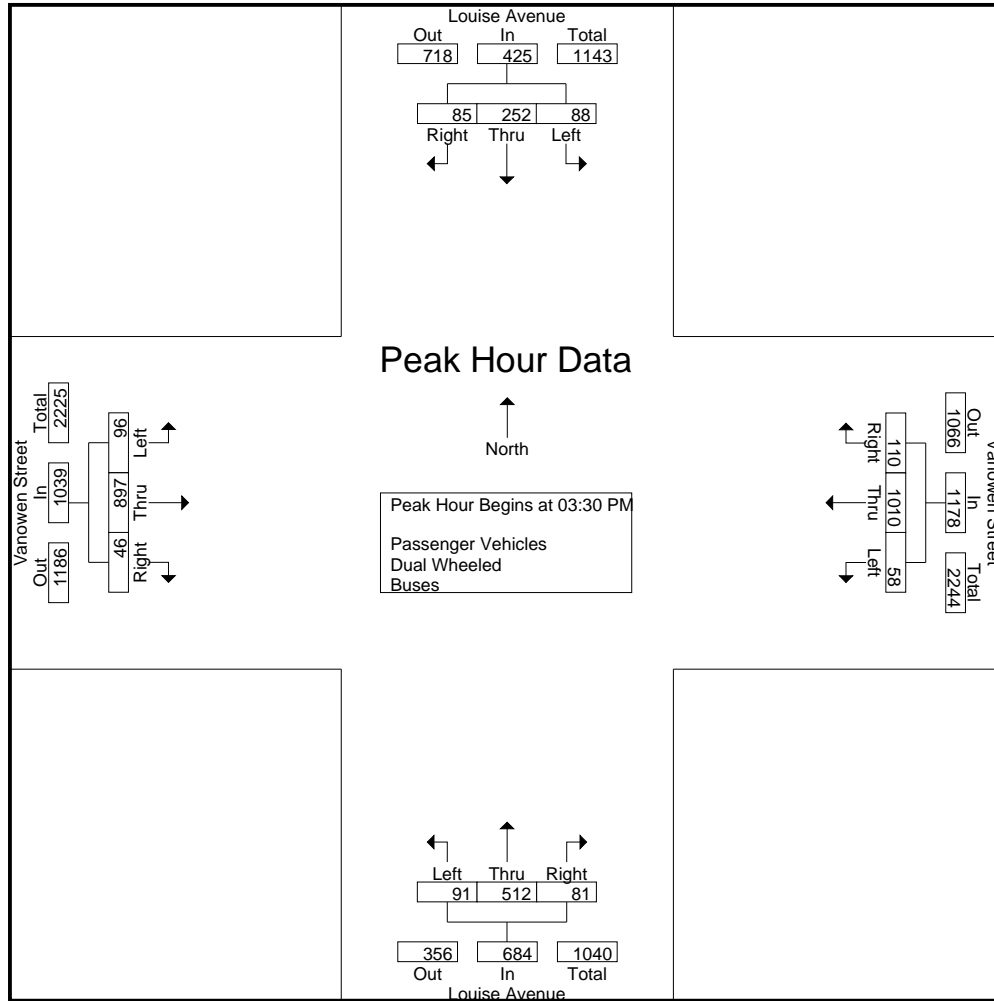
Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

	Louise Avenue Southbound				Vanowen Street Westbound				Louise Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	24	44	24	92	8	200	23	231	9	59	7	75	23	229	10	262	660
03:15 PM	18	60	24	102	16	274	32	322	13	72	12	97	14	222	15	251	772
03:30 PM	24	65	16	105	16	233	33	282	26	131	19	176	18	205	13	236	799
03:45 PM	21	72	27	120	21	273	30	324	20	100	15	135	31	233	13	277	856
Total	87	241	91	419	61	980	118	1159	68	362	53	483	86	889	51	1026	3087
04:00 PM	25	66	21	112	11	255	20	286	24	135	30	189	26	238	12	276	863
04:15 PM	18	49	21	88	10	249	27	286	21	146	17	184	21	221	8	250	808
04:30 PM	18	51	20	89	9	269	24	302	14	82	9	105	20	205	3	228	724
04:45 PM	17	43	21	81	12	239	18	269	12	83	11	106	23	227	8	258	714
Total	78	209	83	370	42	1012	89	1143	71	446	67	584	90	891	31	1012	3109
05:00 PM	21	50	22	93	11	249	23	283	10	84	10	104	23	264	8	295	775
05:15 PM	16	48	20	84	7	250	19	276	17	69	14	100	28	228	6	262	722
05:30 PM	27	35	24	86	14	248	20	282	10	64	9	83	31	264	3	298	749
05:45 PM	22	49	18	89	8	268	28	304	6	84	7	97	19	227	6	252	742
Total	86	182	84	352	40	1015	90	1145	43	301	40	384	101	983	23	1107	2988
Grand Total	251	632	258	1141	143	3007	297	3447	182	1109	160	1451	277	2763	105	3145	9184
Apprch %	22	55.4	22.6		4.1	87.2	8.6		12.5	76.4	11		8.8	87.9	3.3		
Total %	2.7	6.9	2.8	12.4	1.6	32.7	3.2	37.5	2	12.1	1.7	15.8	3	30.1	1.1	34.2	
Passenger Vehicles	248	630	257	1135	142	2968	294	3404	178	1104	154	1436	274	2717	103	3094	9069
% Passenger Vehicles	98.8	99.7	99.6	99.5	99.3	98.7	99	98.8	97.8	99.5	96.2	99	98.9	98.3	98.1	98.4	98.7
Dual Wheeled	2	2	0	4	0	19	3	22	1	4	0	5	2	24	2	28	59
% Dual Wheeled	0.8	0.3	0	0.4	0	0.6	1	0.6	0.5	0.4	0	0.3	0.7	0.9	1.9	0.9	0.6
Buses	1	0	1	2	1	20	0	21	3	1	6	10	1	22	0	23	56
% Buses	0.4	0	0.4	0.2	0.7	0.7	0	0.6	1.6	0.1	3.8	0.7	0.4	0.8	0	0.7	0.6

	Louise Avenue Southbound				Vanowen Street Westbound				Louise Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:30 PM																	
03:30 PM	24	65	16	105	16	233	33	282	26	131	19	176	18	205	13	236	799
03:45 PM	21	72	27	120	21	273	30	324	20	100	15	135	31	233	13	277	856
04:00 PM	25	66	21	112	11	255	20	286	24	135	30	189	26	238	12	276	863
04:15 PM	18	49	21	88	10	249	27	286	21	146	17	184	21	221	8	250	808
Total Volume	88	252	85	425	58	1010	110	1178	91	512	81	684	96	897	46	1039	3326
% App. Total	20.7	59.3	20		4.9	85.7	9.3		13.3	74.9	11.8		9.2	86.3	4.4		
PHF	.880	.875	.787	.885	.690	.925	.833	.909	.875	.877	.675	.905	.774	.942	.885	.938	.963

City of Los Angeles
N/S: Louise Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 01_LAC_Lou_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:15 PM				03:15 PM				03:30 PM				04:45 PM			
+0 mins.	18	60	24	102	16	274	32	322	26	131	19	176	23	227	8	258
+15 mins.	24	65	16	105	16	233	33	282	20	100	15	135	23	264	8	295
+30 mins.	21	72	27	120	21	273	30	324	24	135	30	189	28	228	6	262
+45 mins.	25	66	21	112	11	255	20	286	21	146	17	184	31	264	3	298
Total Volume	88	263	88	439	64	1035	115	1214	91	512	81	684	105	983	25	1113
% App. Total	20	59.9	20		5.3	85.3	9.5		13.3	74.9	11.8		9.4	88.3	2.2	
PHF	.880	.913	.815	.915	.762	.944	.871	.937	.875	.877	.675	.905	.847	.931	.781	.934

City of Los Angeles
N/S: Louise Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 01_LAC_Lou_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

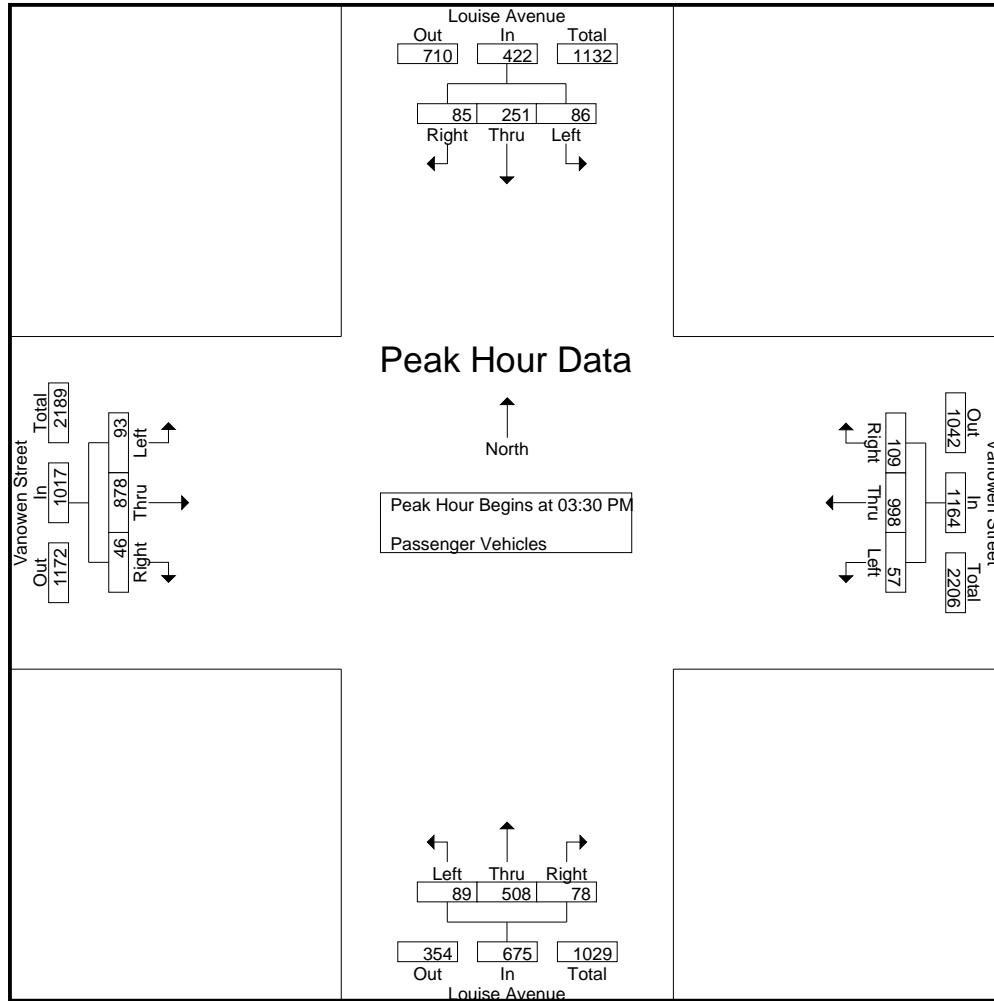
Groups Printed- Passenger Vehicles

	Louise Avenue Southbound				Vanowen Street Westbound				Louise Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	24	43	23	90	8	194	23	225	9	58	7	74	23	226	10	259	648
03:15 PM	18	60	24	102	16	268	31	315	13	72	11	96	14	218	14	246	759
03:30 PM	23	65	16	104	15	231	33	279	26	130	19	175	17	199	13	229	787
03:45 PM	20	71	27	118	21	272	29	322	20	98	15	133	30	229	13	272	845
Total	85	239	90	414	60	965	116	1141	68	358	52	478	84	872	50	1006	3039
04:00 PM	25	66	21	112	11	250	20	281	23	134	29	186	26	235	12	273	852
04:15 PM	18	49	21	88	10	245	27	282	20	146	15	181	20	215	8	243	794
04:30 PM	18	51	20	89	9	266	24	299	14	82	8	104	20	201	3	224	716
04:45 PM	16	43	21	80	12	237	18	267	12	83	11	106	23	225	8	256	709
Total	77	209	83	369	42	998	89	1129	69	445	63	577	89	876	31	996	3071
05:00 PM	21	50	22	93	11	245	22	278	9	84	9	102	23	258	7	288	761
05:15 PM	16	48	20	84	7	249	19	275	16	69	14	99	28	224	6	258	716
05:30 PM	27	35	24	86	14	246	20	280	10	64	9	83	31	261	3	295	744
05:45 PM	22	49	18	89	8	265	28	301	6	84	7	97	19	226	6	251	738
Total	86	182	84	352	40	1005	89	1134	41	301	39	381	101	969	22	1092	2959
Grand Total	248	630	257	1135	142	2968	294	3404	178	1104	154	1436	274	2717	103	3094	9069
Apprch %	21.9	55.5	22.6		4.2	87.2	8.6		12.4	76.9	10.7		8.9	87.8	3.3		
Total %	2.7	6.9	2.8	12.5	1.6	32.7	3.2	37.5	2	12.2	1.7	15.8	3	30	1.1	34.1	

	Louise Avenue Southbound				Vanowen Street Westbound				Louise Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:30 PM to 04:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:30 PM																	
03:30 PM	23	65	16	104	15	231	33	279	26	130	19	175	17	199	13	229	787
03:45 PM	20	71	27	118	21	272	29	322	20	98	15	133	30	229	13	272	845
04:00 PM	25	66	21	112	11	250	20	281	23	134	29	186	26	235	12	273	852
04:15 PM	18	49	21	88	10	245	27	282	20	146	15	181	20	215	8	243	794
Total Volume	86	251	85	422	57	998	109	1164	89	508	78	675	93	878	46	1017	3278
% App. Total	20.4	59.5	20.1		4.9	85.7	9.4		13.2	75.3	11.6		9.1	86.3	4.5		
PHF	.860	.884	.787	.894	.679	.917	.826	.904	.856	.870	.672	.907	.775	.934	.885	.931	.962

City of Los Angeles
N/S: Louise Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 01_LAC_Lou_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 03:30 PM to 04:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:30 PM				03:30 PM				03:30 PM				03:30 PM			
+0 mins.	23	65	16	104	15	231	33	279	26	130	19	175	17	199	13	229
+15 mins.	20	71	27	118	21	272	29	322	20	98	15	133	30	229	13	272
+30 mins.	25	66	21	112	11	250	20	281	23	134	29	186	26	235	12	273
+45 mins.	18	49	21	88	10	245	27	282	20	146	15	181	20	215	8	243
Total Volume	86	251	85	422	57	998	109	1164	89	508	78	675	93	878	46	1017
% App. Total	20.4	59.5	20.1		4.9	85.7	9.4		13.2	75.3	11.6		9.1	86.3	4.5	
PHF	.860	.884	.787	.894	.679	.917	.826	.904	.856	.870	.672	.907	.775	.934	.885	.931

City of Los Angeles
N/S: Louise Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 01_LAC_Lou_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

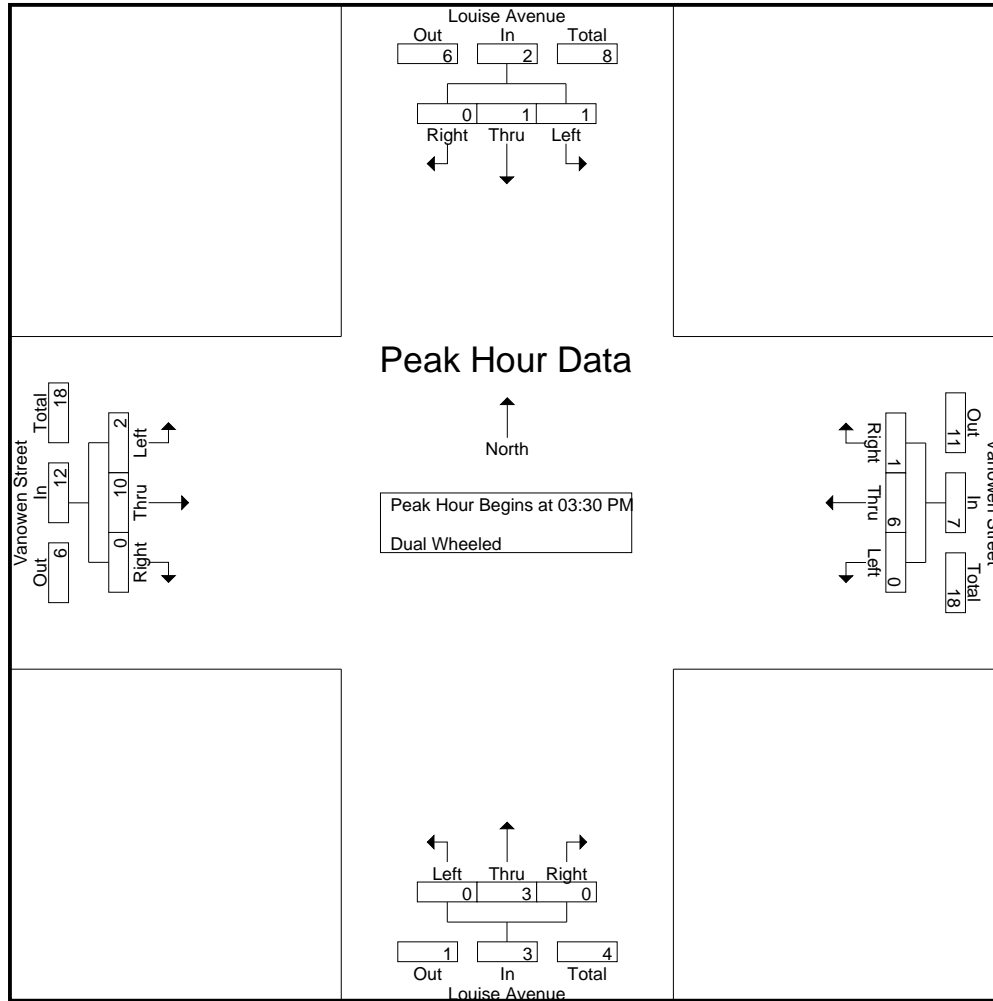
Groups Printed- Dual Wheeled

	Louise Avenue Southbound				Vanowen Street Westbound				Louise Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	0	1	0	1	0	2	0	2	0	1	0	1	0	2	0	2	6
03:15 PM	0	0	0	0	0	3	1	4	0	0	0	0	0	2	1	3	7
03:30 PM	1	0	0	1	0	1	0	1	0	1	0	1	0	4	0	4	7
03:45 PM	0	1	0	1	0	0	1	1	0	1	0	1	1	1	0	2	5
Total	1	2	0	3	0	6	2	8	0	3	0	3	1	9	1	11	25
04:00 PM	0	0	0	0	0	2	0	2	0	1	0	1	0	1	0	1	4
04:15 PM	0	0	0	0	0	3	0	3	0	0	0	0	1	4	0	5	8
04:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
04:45 PM	1	0	0	1	0	1	0	1	0	0	0	0	0	1	0	1	3
Total	1	0	0	1	0	8	0	8	0	1	0	1	1	8	0	9	19
05:00 PM	0	0	0	0	0	2	1	3	1	0	0	1	0	2	1	3	7
05:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3	4
05:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	5	1	6	1	0	0	1	0	7	1	8	15
Grand Total	2	2	0	4	0	19	3	22	1	4	0	5	2	24	2	28	59
Apprch %	50	50	0		0	86.4	13.6		20	80	0		7.1	85.7	7.1		
Total %	3.4	3.4	0	6.8	0	32.2	5.1	37.3	1.7	6.8	0	8.5	3.4	40.7	3.4	47.5	

	Louise Avenue Southbound				Vanowen Street Westbound				Louise Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:30 PM to 04:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:30 PM																	
03:30 PM	1	0	0	1	0	1	0	1	0	1	0	1	0	4	0	4	7
03:45 PM	0	1	0	1	0	0	1	1	0	1	0	1	1	1	0	2	5
04:00 PM	0	0	0	0	0	2	0	2	0	1	0	1	0	1	0	1	4
04:15 PM	0	0	0	0	0	3	0	3	0	0	0	0	1	4	0	5	8
Total Volume	1	1	0	2	0	6	1	7	0	3	0	3	2	10	0	12	24
% App. Total	50	50	0		0	85.7	14.3		0	100	0		16.7	83.3	0		
PHF	.250	.250	.000	.500	.000	.500	.250	.583	.000	.750	.000	.750	.500	.625	.000	.600	.750

City of Los Angeles
N/S: Louise Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 01_LAC_Lou_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 03:30 PM to 04:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:30 PM				03:30 PM				03:30 PM				03:30 PM			
+0 mins.	1	0	0	1	0	1	0	1	0	1	0	1	0	4	0	4
+15 mins.	0	1	0	1	0	0	1	1	0	1	0	1	1	1	0	2
+30 mins.	0	0	0	0	0	2	0	2	0	1	0	1	0	1	0	1
+45 mins.	0	0	0	0	0	3	0	3	0	0	0	0	1	4	0	5
Total Volume	1	1	0	2	0	6	1	7	0	3	0	3	2	10	0	12
% App. Total	50	50	0		0	85.7	14.3		0	100	0		16.7	83.3	0	
PHF	.250	.250	.000	.500	.000	.500	.250	.583	.000	.750	.000	.750	.500	.625	.000	.600

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Los Angeles
N/S: Louise Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 01_LAC_Lou_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

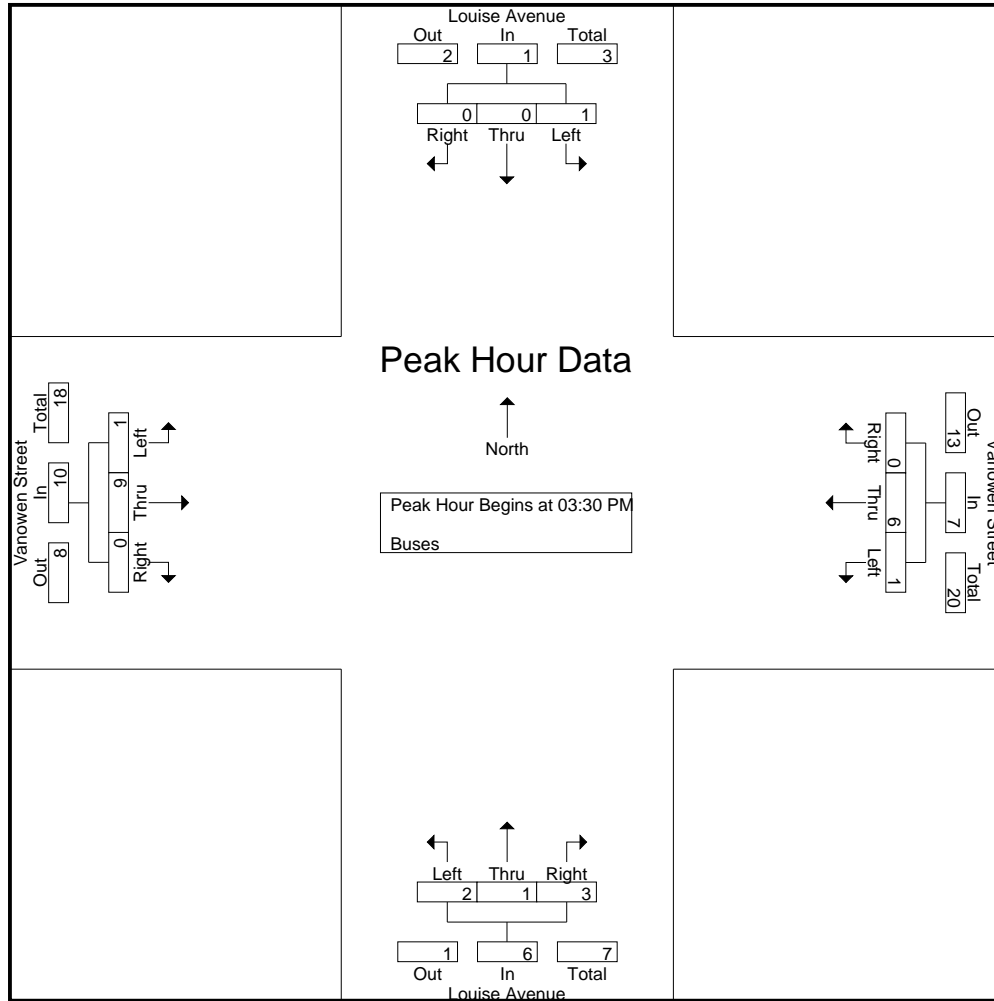
Groups Printed- Buses

	Louise Avenue Southbound				Vanowen Street Westbound				Louise Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	0	0	1	1	0	4	0	4	0	0	0	0	0	1	0	1	6
03:15 PM	0	0	0	0	0	3	0	3	0	0	1	1	0	2	0	2	6
03:30 PM	0	0	0	0	1	1	0	2	0	0	0	0	1	2	0	3	5
03:45 PM	1	0	0	1	0	1	0	1	0	1	0	1	0	3	0	3	6
Total	1	0	1	2	1	9	0	10	0	1	1	2	1	8	0	9	23
04:00 PM	0	0	0	0	0	3	0	3	1	0	1	2	0	2	0	2	7
04:15 PM	0	0	0	0	0	1	0	1	1	0	2	3	0	2	0	2	6
04:30 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	2	0	2	4
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Total	0	0	0	0	0	6	0	6	2	0	4	6	0	7	0	7	19
05:00 PM	0	0	0	0	0	2	0	2	0	0	1	1	0	4	0	4	7
05:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	4
Total	0	0	0	0	0	5	0	5	1	0	1	2	0	7	0	7	14
Grand Total	1	0	1	2	1	20	0	21	3	1	6	10	1	22	0	23	56
Apprch %	50	0	50		4.8	95.2	0		30	10	60		4.3	95.7	0		
Total %	1.8	0	1.8	3.6	1.8	35.7	0	37.5	5.4	1.8	10.7	17.9	1.8	39.3	0	41.1	

	Louise Avenue Southbound				Vanowen Street Westbound				Louise Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:30 PM to 04:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:30 PM																	
03:30 PM	0	0	0	0	1	1	0	2	0	0	0	0	1	2	0	3	5
03:45 PM	1	0	0	1	0	1	0	1	0	1	0	1	0	3	0	3	6
04:00 PM	0	0	0	0	0	3	0	3	1	0	1	2	0	2	0	2	7
04:15 PM	0	0	0	0	0	1	0	1	1	0	2	3	0	2	0	2	6
Total Volume	1	0	0	1	1	6	0	7	2	1	3	6	1	9	0	10	24
% App. Total	100	0	0		14.3	85.7	0		33.3	16.7	50		10	90	0		
PHF	.250	.000	.000	.250	.250	.500	.000	.583	.500	.250	.375	.500	.250	.750	.000	.833	.857

City of Los Angeles
N/S: Louise Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 01_LAC_Lou_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 03:30 PM to 04:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:30 PM				03:30 PM				03:30 PM				03:30 PM			
+0 mins.	0	0	0	0	1	1	0	2	0	0	0	0	1	2	0	3
+15 mins.	1	0	0	1	0	1	0	1	0	1	0	1	0	3	0	3
+30 mins.	0	0	0	0	0	3	0	3	1	0	1	2	0	2	0	2
+45 mins.	0	0	0	0	0	1	0	1	1	0	2	3	0	2	0	2
Total Volume	1	0	0	1	1	6	0	7	2	1	3	6	1	9	0	10
% App. Total	100	0	0		14.3	85.7	0		33.3	16.7	50		10	90	0	
PHF	.250	.000	.000	.250	.250	.500	.000	.583	.500	.250	.375	.500	.250	.750	.000	.833



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Louise Avenue

East/West Vanowen Street

Day: Thursday Date: June 1, 2023 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: East Valley I/S CODE 39652

	<u>N/B</u>	<u>S/B</u>	<u>E/B</u>	<u>W/B</u>
DUAL-WHEELED	21	29	83	79
BIKES	4	14	11	9
BUSES	13	6	52	49

	<u>N/B TIME</u>	<u>S/B TIME</u>	<u>E/B TIME</u>	<u>W/B TIME</u>
AM PK 15 MIN	164 8.15	291 8.00	339 8.00	296 7.45
PM PK 15 MIN	189 4.00	120 3.45	298 5.30	324 3.45
AM PK HOUR	540 7.45	990 7.30	1238 7.30	1116 7.30
PM PK HOUR	684 3.30	439 3.15	1113 4.45	1214 3.15

NORTHBOUND Approach

Hours	<u>Lt</u>	<u>Th</u>	<u>Rt</u>	<u>Total</u>
7-8	33	199	55	287
8-9	49	398	70	517
9-10	27	163	40	230
3-4	68	362	53	483
4-5	71	446	67	584
5-6	43	301	40	384
TOTAL	291	1869	325	2485

SOUTHBOUND Approach

Hours	<u>Lt</u>	<u>Th</u>	<u>Rt</u>	<u>Total</u>
7-8	176	473	89	738
8-9	140	590	104	834
9-10	71	237	59	367
3-4	87	241	91	419
4-5	78	209	83	370
5-6	86	182	84	352
TOTAL	638	1932	510	3080

TOTAL

<u>N-S</u>
1025
1351
597
902
954
736
5565

XING S/L

<u>Ped</u>	<u>Sch</u>
17	5
5	3
4	0
23	58
4	27
15	0
68	93

XING N/L

<u>Ped</u>	<u>Sch</u>
5	6
3	3
3	0
15	5
1	4
9	0
36	18

EASTBOUND Approach

Hours	<u>Lt</u>	<u>Th</u>	<u>Rt</u>	<u>Total</u>
7-8	54	966	32	1052
8-9	81	941	79	1101
9-10	42	776	22	840
3-4	86	889	51	1026
4-5	90	891	31	1012
5-6	101	983	23	1107
TOTAL	454	5446	238	6138

WESTBOUND Approach

Hours	<u>Lt</u>	<u>Th</u>	<u>Rt</u>	<u>Total</u>
7-8	67	839	37	943
8-9	73	912	64	1049
9-10	43	701	47	791
3-4	61	980	118	1159
4-5	42	1012	89	1143
5-6	40	1015	90	1145
TOTAL	326	5459	445	6230

TOTAL

<u>E-W</u>
1995
2150
1631
2185
2155
2252
12368

XING W/L

<u>Ped</u>	<u>Sch</u>
5	4
1	1
2	0
10	10
4	3
13	1
35	19

XING E/L

<u>Ped</u>	<u>Sch</u>
11	9
8	13
5	3
7	5
2	13
10	2
43	45

BICYCLE COUNT SUMMARY

STREET:

North/South: Louise Avenue

East/West: Vanowen Street

Day: Thursday

Date: 6/1/2023

Weather: CLEAR

School Day: Yes

District: East Valley

I/S Code: 39652

Hours: 7-10 AM, 3-6 PM

Staff: CUI

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	1	0	1
3-4	0	0	0	0
4-5	0	2	0	2
5-6	0	1	0	1
TOTAL	0	4	0	4

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total	N-S
7-8	0	0	0	0	0
8-9	0	4	0	4	4
9-10	1	3	0	4	5
3-4	0	3	0	3	3
4-5	0	1	0	1	3
5-6	0	2	0	2	3
TOTAL	1	13	0	14	18

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	2	0	2
8-9	0	2	1	3
9-10	0	3	1	4
3-4	0	1	0	1
4-5	0	1	0	1
5-6	0	0	0	0
TOTAL	0	9	2	11

WESTBOUND Approach

Hours	Lt	Th	Rt	Total	E-W
7-8	0	0	0	0	2
8-9	0	1	0	1	4
9-10	0	1	0	1	5
3-4	0	1	0	1	2
4-5	0	4	0	4	5
5-6	0	2	0	2	2
TOTAL	0	9	0	9	20

REMARKS (6 hour total):

- Female Riders
- No helmet riders
- Sidewalk Riding
- Wrong way riding

NB	SB	EB	WB	TOTAL
0	0	0	0	0
3	9	12	8	32
0	4	9	6	19
0	1	4	5	10

NB: Northbound, SB: Southbound, EB: Eastbound, WB: Westbound, I/S: Intersection

Source: CUI

LADOT 2015 CMP

PEDESTRIAN COUNT SUMMARY

STREET:

North/South:

Louise Avenue

East/West:

Vanowen Street

Day:

Thursday

Date:

6/1/2023

Weather:

CLEAR

School Day:

YES

District:

East Valley

I/S Code:

39652

Hours:

7-10 AM, 3-6 PM

Staff:

CUI

AM PEAK PERIOD

15 Min. Interval

	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
7:00-7:15	2	0	1	1	4
7:15-7:30	3	2	5	0	10
7:30-7:45	2	3	5	3	13
7:45-8:00	4	17	9	5	35
8:00-8:15	1	5	2	2	10
8:15-8:30	4	2	9	0	15
8:30-8:45	1	0	7	0	8
8:45-9:00	0	1	3	0	4
9:00-9:15	0	1	0	0	1
9:15-9:30	0	0	1	0	1
9:30-9:45	3	2	5	0	10
9:45-10:00	0	1	2	2	5

Hours

7 - 8	11	22	20	9	62
8 - 9	6	8	21	2	37
9 - 10	3	4	8	2	17
TOTAL	20	34	49	13	116

PM PEAK PERIOD

15 Min. Interval

	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
3:00-3:15	5	7	3	7	22
3:15-3:30	9	7	6	2	24
3:30-3:45	2	39	3	4	48
3:45-4:00	4	28	0	7	39
4:00-4:15	1	2	2	1	6
4:15-4:30	2	14	9	2	27
4:30-4:45	1	9	3	3	16
4:45-5:00	1	6	1	1	9
5:00-5:15	0	2	3	3	8
5:15-5:30	0	5	1	4	10
5:30-5:45	2	1	1	3	7
5:45-6:00	7	7	7	4	25

Hours

3 - 4	20	81	12	20	133
4 - 5	5	31	15	7	58
5 - 6	9	15	12	14	50
TOTAL	34	127	39	41	241

REMARKS (6 hour total):

- Wheelchair/special needs assistance
- Skateboard/scooter

N-LEG S-LEG E-LEG W-LEG TOTAL

0	0	0	0	0
0	2	0	1	3

N: North, S: South, E: East, W: West, I/S: Intersection

Source:

LADOT 2015 CMP

Location: Los Angeles
 N/S: Louise Avenue
 E/W: Vanowen Street



Date: 6/1/2023
 Day: Thursday

ADULT PEDESTRIANS

		North Leg Louise Avenue Pedestrians	East Leg Vanowen Street Pedestrians	South Leg Louise Avenue Pedestrians	West Leg Vanowen Street Pedestrians	
	7:00 AM	2	1	0	1	4
	7:15 AM	0	2	2	0	4
	7:30 AM	1	3	3	0	7
	7:45 AM	2	5	12	4	23
	8:00 AM	1	1	4	1	7
	8:15 AM	1	2	0	0	3
	8:30 AM	1	2	0	0	3
	8:45 AM	0	3	1	0	4
	9:00 AM	0	0	1	0	1
	9:15 AM	0	1	0	0	1
	9:30 AM	3	4	2	0	9
	9:45 AM	0	0	1	2	3
	TOTAL VOLUMES:	11	24	26	8	69

		North Leg Louise Avenue Pedestrians	East Leg Vanowen Street Pedestrians	South Leg Louise Avenue Pedestrians	West Leg Vanowen Street Pedestrians	
	3:00 PM	5	3	4	6	18
	3:15 PM	6	4	1	0	11
	3:30 PM	1	0	12	2	15
	3:45 PM	3	0	6	2	11
	4:00 PM	0	0	0	0	0
	4:15 PM	1	1	0	1	3
	4:30 PM	0	1	2	2	5
	4:45 PM	0	0	2	1	3
	5:00 PM	0	3	2	3	8
	5:15 PM	0	1	5	4	10
	5:30 PM	2	0	1	3	6
	5:45 PM	7	6	7	3	23
	TOTAL VOLUMES:	25	19	42	27	113

Location: Los Angeles
 N/S: Louise Avenue
 E/W: Vanowen Street



Date: 6/1/2023
 Day: Thursday

SCHOOL AGE PEDESTRIANS

		North Leg Louise Avenue Pedestrians	East Leg Vanowen Street Pedestrians	South Leg Louise Avenue Pedestrians	West Leg Vanowen Street Pedestrians	
	7:00 AM	0	0	0	0	0
	7:15 AM	3	3	0	0	6
	7:30 AM	1	2	0	3	6
	7:45 AM	2	4	5	1	12
	8:00 AM	0	1	1	1	3
	8:15 AM	3	7	2	0	12
	8:30 AM	0	5	0	0	5
	8:45 AM	0	0	0	0	0
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	1	0	0	1
	9:45 AM	0	2	0	0	2
	TOTAL VOLUMES:	9	25	8	5	47

		North Leg Louise Avenue Pedestrians	East Leg Vanowen Street Pedestrians	South Leg Louise Avenue Pedestrians	West Leg Vanowen Street Pedestrians	
	3:00 PM	0	0	3	1	4
	3:15 PM	3	2	6	2	13
	3:30 PM	1	3	27	2	33
	3:45 PM	1	0	22	5	28
	4:00 PM	1	2	2	1	6
	4:15 PM	1	8	14	1	24
	4:30 PM	1	2	7	1	11
	4:45 PM	1	1	4	0	6
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	1	0	0	1
	5:45 PM	0	1	0	1	2
	TOTAL VOLUMES:	9	20	85	14	128

Location: Los Angeles
 N/S: Louise Avenue
 E/W: Vanowen Street



Date: 6/1/2023
 Day: Thursday

BICYCLES

	Southbound Louise Avenue			Westbound Vanowen Street			Northbound Louise Avenue			Eastbound Vanowen Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	1	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:30 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
8:45 AM	0	3	0	0	0	0	0	0	0	0	0	0	3
9:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
9:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
9:30 AM	0	2	0	0	0	0	0	1	0	0	0	1	4
9:45 AM	1	0	0	0	1	0	0	0	0	0	1	0	3
TOTAL VOLUMES:	1	7	0	0	2	0	0	1	0	0	7	2	20

	Southbound Louise Avenue			Westbound Vanowen Street			Northbound Louise Avenue			Eastbound Vanowen Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
3:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
3:45 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
4:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
4:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
4:30 PM	0	1	0	0	2	0	0	0	0	0	1	0	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
TOTAL VOLUMES:	0	6	0	0	7	0	0	3	0	0	2	0	18

City of Los Angeles
N/S: Balboa Boulevard
E/W: Vanowen Street
Weather: Clear

File Name : 02_LAC_Bal_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

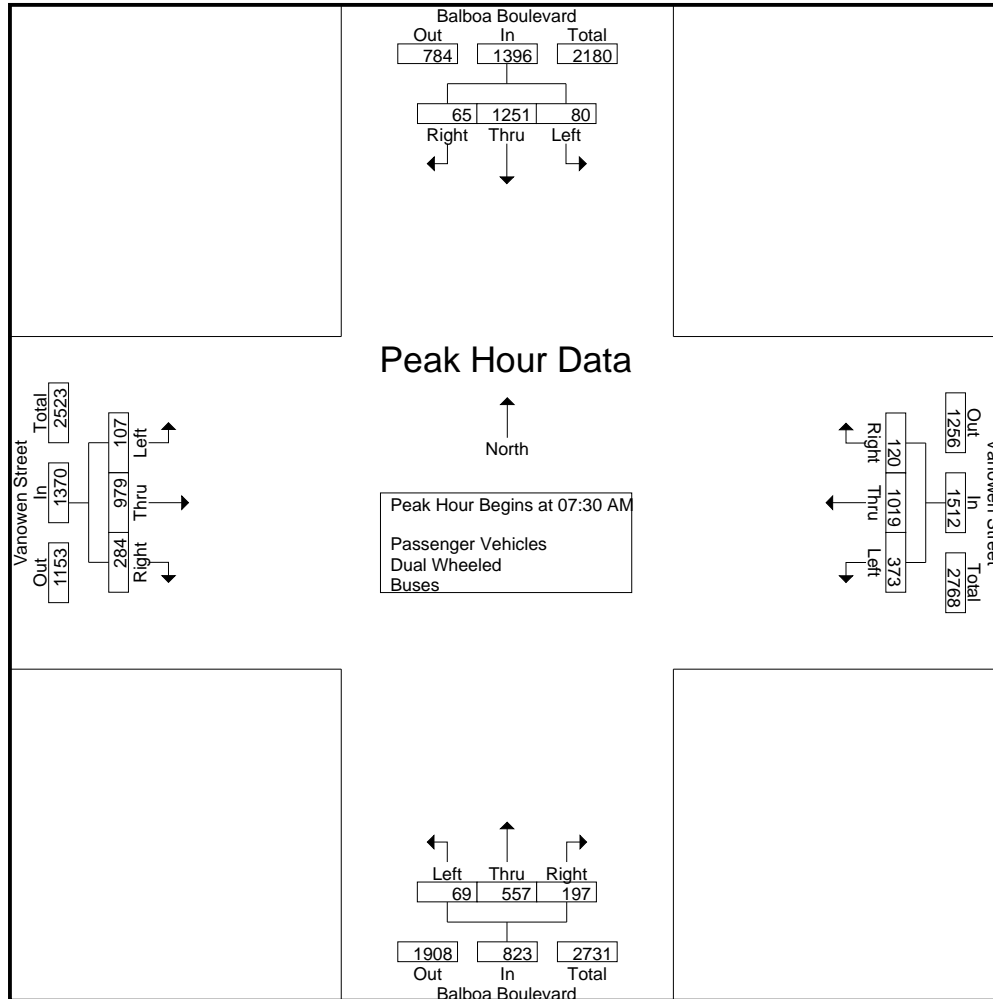
Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

	Balboa Boulevard Southbound				Vanowen Street Westbound				Balboa Boulevard Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	29	415	16	460	56	167	21	244	12	85	11	108	9	159	38	206	1018
07:15 AM	17	365	15	397	65	211	30	306	15	93	24	132	16	178	69	263	1098
07:30 AM	20	345	18	383	65	298	25	388	17	111	30	158	20	263	63	346	1275
07:45 AM	19	305	14	338	65	273	44	382	19	140	41	200	34	264	72	370	1290
Total	85	1430	63	1578	251	949	120	1320	63	429	106	598	79	864	242	1185	4681
08:00 AM	20	304	16	340	111	229	28	368	17	157	56	230	35	218	64	317	1255
08:15 AM	21	297	17	335	132	219	23	374	16	149	70	235	18	234	85	337	1281
08:30 AM	21	302	21	344	68	224	30	322	21	165	41	227	38	262	55	355	1248
08:45 AM	22	232	24	278	73	208	28	309	21	110	14	145	31	190	29	250	982
Total	84	1135	78	1297	384	880	109	1373	75	581	181	837	122	904	233	1259	4766
09:00 AM	18	245	19	282	53	176	18	247	10	110	18	138	17	176	36	229	896
09:15 AM	27	279	18	324	65	171	26	262	14	112	27	153	19	197	38	254	993
09:30 AM	26	260	22	308	47	166	26	239	14	121	16	151	17	171	47	235	933
09:45 AM	23	229	20	272	64	170	29	263	14	132	14	160	19	139	33	191	886
Total	94	1013	79	1186	229	683	99	1011	52	475	75	602	72	683	154	909	3708
Grand Total	263	3578	220	4061	864	2512	328	3704	190	1485	362	2037	273	2451	629	3353	13155
Apprch %	6.5	88.1	5.4		23.3	67.8	8.9		9.3	72.9	17.8		8.1	73.1	18.8		
Total %	2	27.2	1.7	30.9	6.6	19.1	2.5	28.2	1.4	11.3	2.8	15.5	2.1	18.6	4.8	25.5	
Passenger Vehicles	251	3459	216	3926	851	2442	318	3611	181	1443	360	1984	261	2374	609	3244	12765
% Passenger Vehicles	95.4	96.7	98.2	96.7	98.5	97.2	97	97.5	95.3	97.2	99.4	97.4	95.6	96.9	96.8	96.7	97
Dual Wheeled	10	101	4	115	12	49	9	70	7	34	2	43	8	45	12	65	293
% Dual Wheeled	3.8	2.8	1.8	2.8	1.4	2	2.7	1.9	3.7	2.3	0.6	2.1	2.9	1.8	1.9	1.9	2.2
Buses	2	18	0	20	1	21	1	23	2	8	0	10	4	32	8	44	97
% Buses	0.8	0.5	0	0.5	0.1	0.8	0.3	0.6	1.1	0.5	0	0.5	1.5	1.3	1.3	1.3	0.7

	Balboa Boulevard Southbound				Vanowen Street Westbound				Balboa Boulevard Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	20	345	18	383	65	298	25	388	17	111	30	158	20	263	63	346	1275
07:45 AM	19	305	14	338	65	273	44	382	19	140	41	200	34	264	72	370	1290
08:00 AM	20	304	16	340	111	229	28	368	17	157	56	230	35	218	64	317	1255
08:15 AM	21	297	17	335	132	219	23	374	16	149	70	235	18	234	85	337	1281
Total Volume	80	1251	65	1396	373	1019	120	1512	69	557	197	823	107	979	284	1370	5101
% App. Total	5.7	89.6	4.7		24.7	67.4	7.9		8.4	67.7	23.9		7.8	71.5	20.7		
PHF	.952	.907	.903	.911	.706	.855	.682	.974	.908	.887	.704	.876	.764	.927	.835	.926	.989

City of Los Angeles
N/S: Balboa Boulevard
E/W: Vanowen Street
Weather: Clear

File Name : 02_LAC_Bal_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:30 AM				07:45 AM				07:45 AM			
+0 mins.	29	415	16	460	65	298	25	388	19	140	41	200	34	264	72	370
+15 mins.	17	365	15	397	65	273	44	382	17	157	56	230	35	218	64	317
+30 mins.	20	345	18	383	111	229	28	368	16	149	70	235	18	234	85	337
+45 mins.	19	305	14	338	132	219	23	374	21	165	41	227	38	262	55	355
Total Volume	85	1430	63	1578	373	1019	120	1512	73	611	208	892	125	978	276	1379
% App. Total	5.4	90.6	4		24.7	67.4	7.9		8.2	68.5	23.3		9.1	70.9	20	
PHF	.733	.861	.875	.858	.706	.855	.682	.974	.869	.926	.743	.949	.822	.926	.812	.932

City of Los Angeles
N/S: Balboa Boulevard
E/W: Vanowen Street
Weather: Clear

File Name : 02_LAC_Bal_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

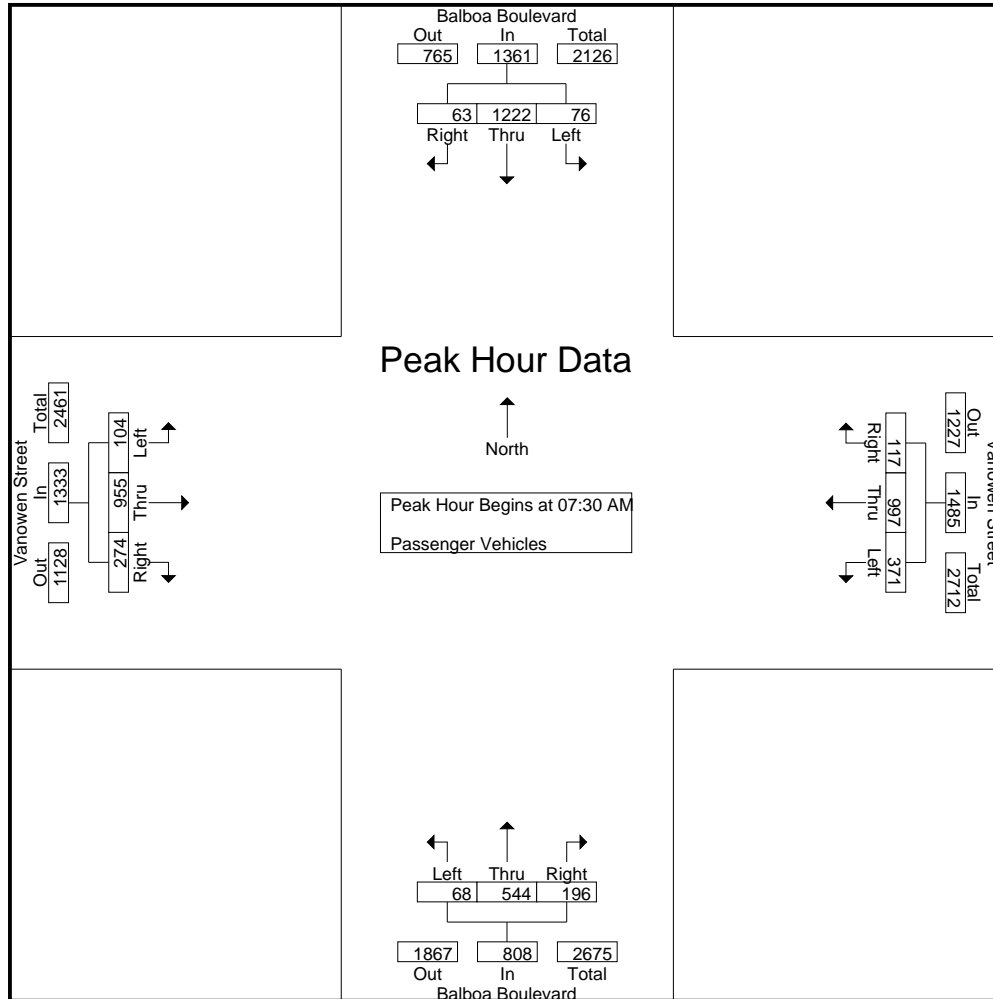
Groups Printed- Passenger Vehicles

	Balboa Boulevard Southbound				Vanowen Street Westbound				Balboa Boulevard Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	29	401	16	446	55	165	20	240	12	84	11	107	9	154	37	200	993
07:15 AM	16	357	15	388	64	201	30	295	13	89	24	126	15	170	66	251	1060
07:30 AM	19	333	17	369	65	290	24	379	17	108	30	155	20	252	62	334	1237
07:45 AM	18	295	13	326	64	270	44	378	19	136	41	196	33	262	66	361	1261
Total	82	1386	61	1529	248	926	118	1292	61	417	106	584	77	838	231	1146	4551
08:00 AM	20	302	16	338	111	224	26	361	16	156	56	228	34	210	62	306	1233
08:15 AM	19	292	17	328	131	213	23	367	16	144	69	229	17	231	84	332	1256
08:30 AM	19	282	21	322	68	220	30	318	19	159	41	219	37	252	51	340	1199
08:45 AM	22	228	24	274	70	205	25	300	18	101	14	133	29	184	29	242	949
Total	80	1104	78	1262	380	862	104	1346	69	560	180	809	117	877	226	1220	4637
09:00 AM	18	239	19	276	52	172	18	242	9	107	18	134	15	168	35	218	870
09:15 AM	26	265	17	308	64	162	26	252	14	111	27	152	18	189	38	245	957
09:30 AM	23	242	21	286	44	160	24	228	14	117	15	146	15	167	46	228	888
09:45 AM	22	223	20	265	63	160	28	251	14	131	14	159	19	135	33	187	862
Total	89	969	77	1135	223	654	96	973	51	466	74	591	67	659	152	878	3577
Grand Total	251	3459	216	3926	851	2442	318	3611	181	1443	360	1984	261	2374	609	3244	12765
Apprch %	6.4	88.1	5.5		23.6	67.6	8.8		9.1	72.7	18.1		8	73.2	18.8		
Total %	2	27.1	1.7	30.8	6.7	19.1	2.5	28.3	1.4	11.3	2.8	15.5	2	18.6	4.8	25.4	

	Balboa Boulevard Southbound				Vanowen Street Westbound				Balboa Boulevard Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	19	333	17	369	65	290	24	379	17	108	30	155	20	252	62	334	1237
07:45 AM	18	295	13	326	64	270	44	378	19	136	41	196	33	262	66	361	1261
08:00 AM	20	302	16	338	111	224	26	361	16	156	56	228	34	210	62	306	1233
08:15 AM	19	292	17	328	131	213	23	367	16	144	69	229	17	231	84	332	1256
Total Volume	76	1222	63	1361	371	997	117	1485	68	544	196	808	104	955	274	1333	4987
% App. Total	5.6	89.8	4.6		25	67.1	7.9		8.4	67.3	24.3		7.8	71.6	20.6		
PHF	.950	.917	.926	.922	.708	.859	.665	.980	.895	.872	.710	.882	.765	.911	.815	.923	.989

City of Los Angeles
N/S: Balboa Boulevard
E/W: Vanowen Street
Weather: Clear

File Name : 02_LAC_Bal_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	19	333	17	369	65	290	24	379	17	108	30	155	20	252	62	334
+15 mins.	18	295	13	326	64	270	44	378	19	136	41	196	33	262	66	361
+30 mins.	20	302	16	338	111	224	26	361	16	156	56	228	34	210	62	306
+45 mins.	19	292	17	328	131	213	23	367	16	144	69	229	17	231	84	332
Total Volume	76	1222	63	1361	371	997	117	1485	68	544	196	808	104	955	274	1333
% App. Total	5.6	89.8	4.6		25	67.1	7.9		8.4	67.3	24.3		7.8	71.6	20.6	
PHF	.950	.917	.926	.922	.708	.859	.665	.980	.895	.872	.710	.882	.765	.911	.815	.923

City of Los Angeles
N/S: Balboa Boulevard
E/W: Vanowen Street
Weather: Clear

File Name : 02_LAC_Bal_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

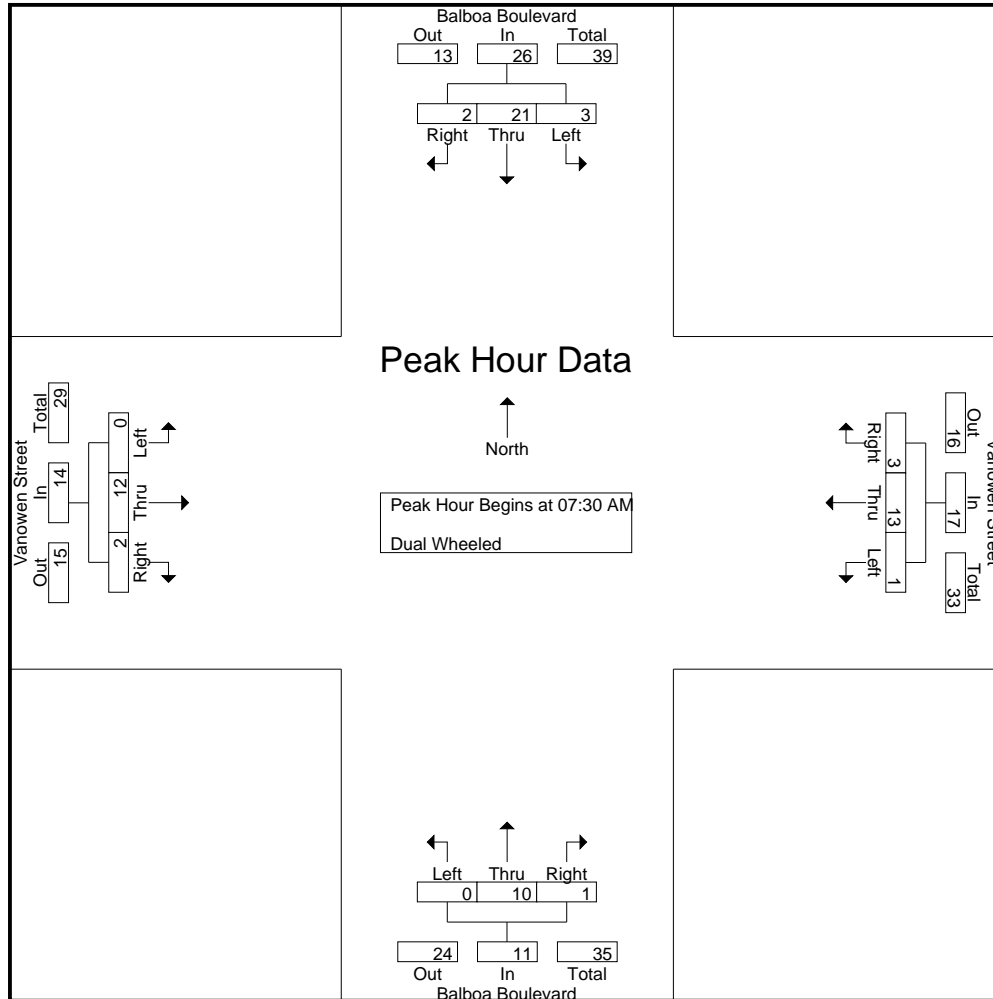
Groups Printed- Dual Wheeled

	Balboa Boulevard Southbound				Vanowen Street Westbound				Balboa Boulevard Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	12	0	12	1	1	1	3	0	1	0	1	0	3	1	4	20
07:15 AM	1	8	0	9	1	6	0	7	2	3	0	5	0	7	3	10	31
07:30 AM	1	10	1	12	0	6	1	7	0	3	0	3	0	6	1	7	29
07:45 AM	0	5	1	6	0	1	0	1	0	2	0	2	0	1	0	1	10
Total	2	35	2	39	2	14	2	18	2	9	0	11	0	17	5	22	90
08:00 AM	0	1	0	1	0	2	2	4	0	1	0	1	0	3	0	3	9
08:15 AM	2	5	0	7	1	4	0	5	0	4	1	5	0	2	1	3	20
08:30 AM	1	16	0	17	0	3	0	3	2	6	0	8	1	4	4	9	37
08:45 AM	0	3	0	3	3	2	3	8	2	7	0	9	2	3	0	5	25
Total	3	25	0	28	4	11	5	20	4	18	1	23	3	12	5	20	91
09:00 AM	0	5	0	5	1	3	0	4	1	2	0	3	2	5	1	8	20
09:15 AM	1	13	1	15	1	7	0	8	0	1	0	1	1	6	0	7	31
09:30 AM	3	18	1	22	3	5	2	10	0	4	1	5	2	2	1	5	42
09:45 AM	1	5	0	6	1	9	0	10	0	0	0	0	0	3	0	3	19
Total	5	41	2	48	6	24	2	32	1	7	1	9	5	16	2	23	112
Grand Total	10	101	4	115	12	49	9	70	7	34	2	43	8	45	12	65	293
Apprch %	8.7	87.8	3.5		17.1	70	12.9		16.3	79.1	4.7		12.3	69.2	18.5		
Total %	3.4	34.5	1.4	39.2	4.1	16.7	3.1	23.9	2.4	11.6	0.7	14.7	2.7	15.4	4.1	22.2	

	Balboa Boulevard Southbound				Vanowen Street Westbound				Balboa Boulevard Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	1	10	1	12	0	6	1	7	0	3	0	3	0	6	1	7	29
07:45 AM	0	5	1	6	0	1	0	1	0	2	0	2	0	1	0	1	10
08:00 AM	0	1	0	1	0	2	2	4	0	1	0	1	0	3	0	3	9
08:15 AM	2	5	0	7	1	4	0	5	0	4	1	5	0	2	1	3	20
Total Volume	3	21	2	26	1	13	3	17	0	10	1	11	0	12	2	14	68
% App. Total	11.5	80.8	7.7		5.9	76.5	17.6		0	90.9	9.1		0	85.7	14.3		
PHF	.375	.525	.500	.542	.250	.542	.375	.607	.000	.625	.250	.550	.000	.500	.500	.500	.586

City of Los Angeles
N/S: Balboa Boulevard
E/W: Vanowen Street
Weather: Clear

File Name : 02_LAC_Bal_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	1	10	1	12	0	6	1	7	0	3	0	3	0	6	1	7
+15 mins.	0	5	1	6	0	1	0	1	0	2	0	2	0	1	0	1
+30 mins.	0	1	0	1	0	2	2	4	0	1	0	1	0	3	0	3
+45 mins.	2	5	0	7	1	4	0	5	0	4	1	5	0	2	1	3
Total Volume	3	21	2	26	1	13	3	17	0	10	1	11	0	12	2	14
% App. Total	11.5	80.8	7.7		5.9	76.5	17.6		0	90.9	9.1		0	85.7	14.3	
PHF	.375	.525	.500	.542	.250	.542	.375	.607	.000	.625	.250	.550	.000	.500	.500	.500

City of Los Angeles
N/S: Balboa Boulevard
E/W: Vanowen Street
Weather: Clear

File Name : 02_LAC_Bal_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

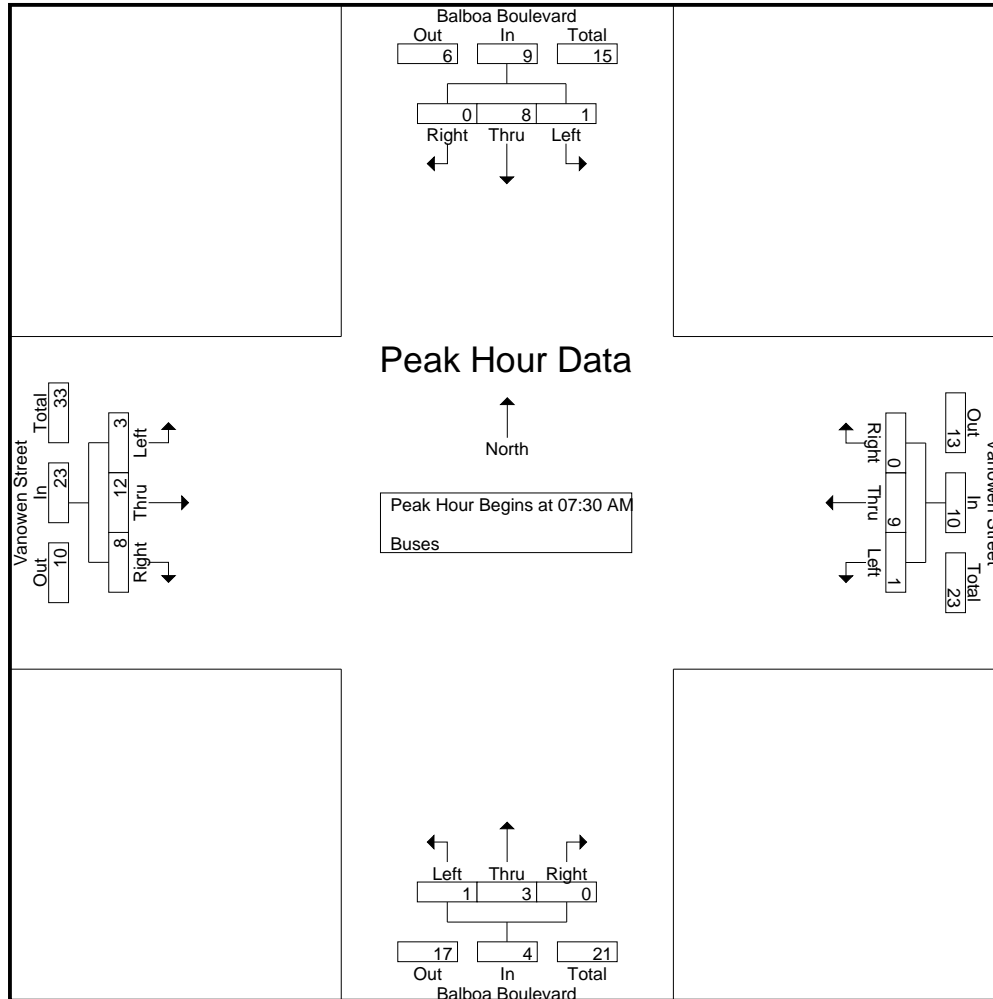
Groups Printed- Buses

	Balboa Boulevard Southbound				Vanowen Street Westbound				Balboa Boulevard Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	2	0	2	0	1	0	1	0	0	0	0	0	2	0	2	5
07:15 AM	0	0	0	0	0	4	0	4	0	1	0	1	1	1	0	2	7
07:30 AM	0	2	0	2	0	2	0	2	0	0	0	0	0	5	0	5	9
07:45 AM	1	5	0	6	1	2	0	3	0	2	0	2	1	1	6	8	19
Total	1	9	0	10	1	9	0	10	0	3	0	3	2	9	6	17	40
08:00 AM	0	1	0	1	0	3	0	3	1	0	0	1	1	5	2	8	13
08:15 AM	0	0	0	0	0	2	0	2	0	1	0	1	1	1	0	2	5
08:30 AM	1	4	0	5	0	1	0	1	0	0	0	0	0	6	0	6	12
08:45 AM	0	1	0	1	0	1	0	1	1	2	0	3	0	3	0	3	8
Total	1	6	0	7	0	7	0	7	2	3	0	5	2	15	2	19	38
09:00 AM	0	1	0	1	0	1	0	1	0	1	0	1	0	3	0	3	6
09:15 AM	0	1	0	1	0	2	0	2	0	0	0	0	0	2	0	2	5
09:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
09:45 AM	0	1	0	1	0	1	1	2	0	1	0	1	0	1	0	1	5
Total	0	3	0	3	0	5	1	6	0	2	0	2	0	8	0	8	19
Grand Total	2	18	0	20	1	21	1	23	2	8	0	10	4	32	8	44	97
Apprch %	10	90	0		4.3	91.3	4.3		20	80	0		9.1	72.7	18.2		
Total %	2.1	18.6	0	20.6	1	21.6	1	23.7	2.1	8.2	0	10.3	4.1	33	8.2	45.4	

	Balboa Boulevard Southbound				Vanowen Street Westbound				Balboa Boulevard Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	2	0	2	0	2	0	2	0	0	0	0	0	5	0	5	9
07:45 AM	1	5	0	6	1	2	0	3	0	2	0	2	1	1	6	8	19
08:00 AM	0	1	0	1	0	3	0	3	1	0	0	1	1	5	2	8	13
08:15 AM	0	0	0	0	0	2	0	2	0	1	0	1	1	1	0	2	5
Total Volume	1	8	0	9	1	9	0	10	1	3	0	4	3	12	8	23	46
% App. Total	11.1	88.9	0		10	90	0		25	75	0		13	52.2	34.8		
PHF	.250	.400	.000	.375	.250	.750	.000	.833	.250	.375	.000	.500	.750	.600	.333	.719	.605

City of Los Angeles
N/S: Balboa Boulevard
E/W: Vanowen Street
Weather: Clear

File Name : 02_LAC_Bal_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	2	0	2	0	2	0	2	0	0	0	0	0	5	0	5
+15 mins.	1	5	0	6	1	2	0	3	0	2	0	2	1	1	6	8
+30 mins.	0	1	0	1	0	3	0	3	1	0	0	1	1	5	2	8
+45 mins.	0	0	0	0	0	2	0	2	0	1	0	1	1	1	0	2
Total Volume	1	8	0	9	1	9	0	10	1	3	0	4	3	12	8	23
% App. Total	11.1	88.9	0		10	90	0		25	75	0		13	52.2	34.8	
PHF	.250	.400	.000	.375	.250	.750	.000	.833	.250	.375	.000	.500	.750	.600	.333	.719

City of Los Angeles
N/S: Balboa Boulevard
E/W: Vanowen Street
Weather: Clear

File Name : 02_LAC_Bal_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

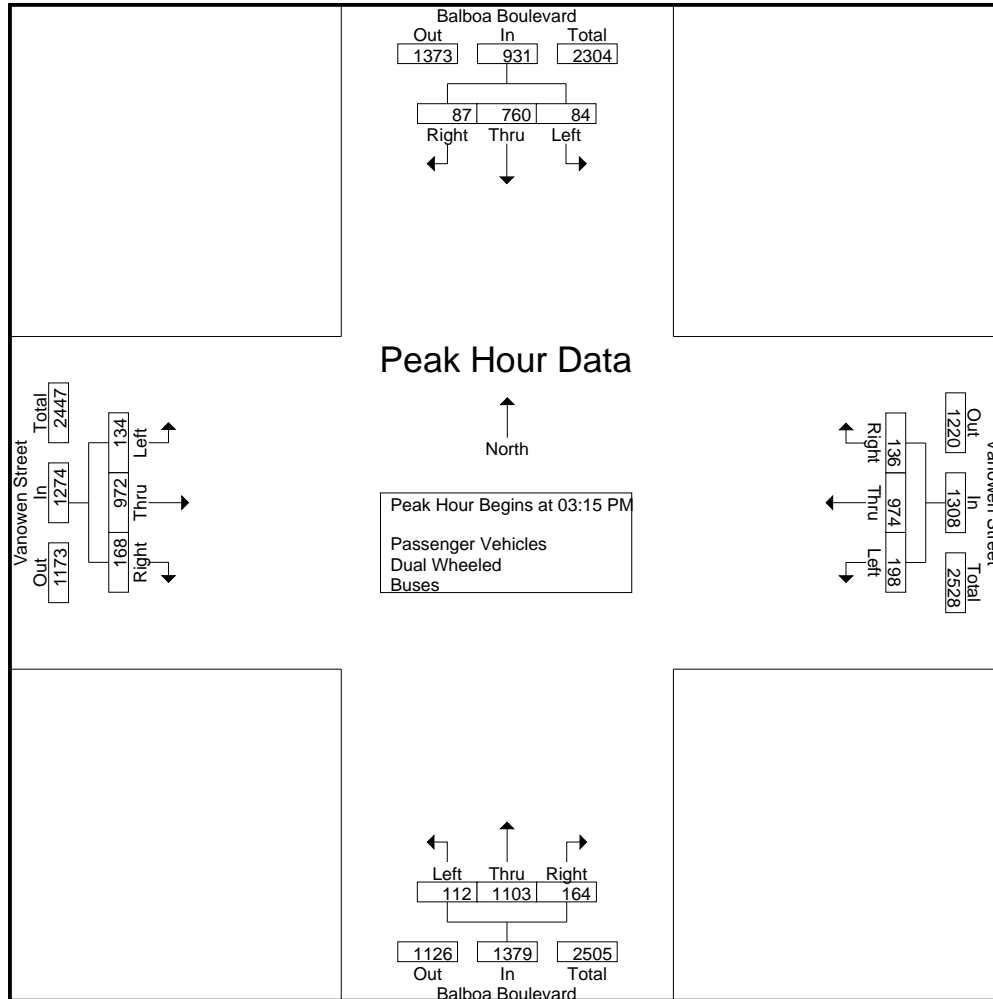
Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

	Balboa Boulevard Southbound				Vanowen Street Westbound				Balboa Boulevard Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	17	157	30	204	44	236	41	321	27	215	25	267	28	155	36	219	1011
03:15 PM	20	190	25	235	68	246	31	345	26	225	31	282	39	253	67	359	1221
03:30 PM	20	223	18	261	40	238	39	317	26	290	46	362	28	223	38	289	1229
03:45 PM	22	170	18	210	43	232	43	318	29	291	50	370	39	258	31	328	1226
Total	79	740	91	910	195	952	154	1301	108	1021	152	1281	134	889	172	1195	4687
04:00 PM	22	177	26	225	47	258	23	328	31	297	37	365	28	238	32	298	1216
04:15 PM	22	152	26	200	33	232	22	287	38	316	31	385	42	258	28	328	1200
04:30 PM	22	152	22	196	40	264	32	336	30	294	32	356	31	196	24	251	1139
04:45 PM	24	159	19	202	30	242	43	315	25	250	36	311	27	193	22	242	1070
Total	90	640	93	823	150	996	120	1266	124	1157	136	1417	128	885	106	1119	4625
05:00 PM	18	142	21	181	35	242	31	308	27	250	26	303	38	229	22	289	1081
05:15 PM	23	175	30	228	25	245	34	304	29	272	30	331	32	217	24	273	1136
05:30 PM	24	159	26	209	34	244	28	306	28	288	23	339	33	226	28	287	1141
05:45 PM	20	150	27	197	42	258	25	325	29	317	28	374	34	175	41	250	1146
Total	85	626	104	815	136	989	118	1243	113	1127	107	1347	137	847	115	1099	4504
Grand Total	254	2006	288	2548	481	2937	392	3810	345	3305	395	4045	399	2621	393	3413	13816
Apprch %	10	78.7	11.3		12.6	77.1	10.3		8.5	81.7	9.8		11.7	76.8	11.5		
Total %	1.8	14.5	2.1	18.4	3.5	21.3	2.8	27.6	2.5	23.9	2.9	29.3	2.9	19	2.8	24.7	
Passenger Vehicles	251	1982	285	2518	478	2898	386	3762	343	3246	385	3974	397	2572	380	3349	13603
% Passenger Vehicles	98.8	98.8	99	98.8	99.4	98.7	98.5	98.7	99.4	98.2	97.5	98.2	99.5	98.1	96.7	98.1	98.5
Dual Wheeled	3	14	2	19	3	25	5	33	2	44	10	56	0	23	5	28	136
% Dual Wheeled	1.2	0.7	0.7	0.7	0.6	0.9	1.3	0.9	0.6	1.3	2.5	1.4	0	0.9	1.3	0.8	1
Buses	0	10	1	11	0	14	1	15	0	15	0	15	2	26	8	36	77
% Buses	0	0.5	0.3	0.4	0	0.5	0.3	0.4	0	0.5	0	0.4	0.5	1	2	1.1	0.6

	Balboa Boulevard Southbound				Vanowen Street Westbound				Balboa Boulevard Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	20	190	25	235	68	246	31	345	26	225	31	282	39	253	67	359	1221
03:30 PM	20	223	18	261	40	238	39	317	26	290	46	362	28	223	38	289	1229
03:45 PM	22	170	18	210	43	232	43	318	29	291	50	370	39	258	31	328	1226
04:00 PM	22	177	26	225	47	258	23	328	31	297	37	365	28	238	32	298	1216
Total Volume	84	760	87	931	198	974	136	1308	112	1103	164	1379	134	972	168	1274	4892
% App. Total	9	81.6	9.3		15.1	74.5	10.4		8.1	80	11.9		10.5	76.3	13.2		
PHF	.955	.852	.837	.892	.728	.944	.791	.948	.903	.928	.820	.932	.859	.942	.627	.887	.995

City of Los Angeles
N/S: Balboa Boulevard
E/W: Vanowen Street
Weather: Clear

File Name : 02_LAC_Bal_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:15 PM				03:15 PM				03:30 PM				03:15 PM			
+0 mins.	20	190	25	235	68	246	31	345	26	290	46	362	39	253	67	359
+15 mins.	20	223	18	261	40	238	39	317	29	291	50	370	28	223	38	289
+30 mins.	22	170	18	210	43	232	43	318	31	297	37	365	39	258	31	328
+45 mins.	22	177	26	225	47	258	23	328	38	316	31	385	28	238	32	298
Total Volume	84	760	87	931	198	974	136	1308	124	1194	164	1482	134	972	168	1274
% App. Total	9	81.6	9.3		15.1	74.5	10.4		8.4	80.6	11.1		10.5	76.3	13.2	
PHF	.955	.852	.837	.892	.728	.944	.791	.948	.816	.945	.820	.962	.859	.942	.627	.887

City of Los Angeles
N/S: Balboa Boulevard
E/W: Vanowen Street
Weather: Clear

File Name : 02_LAC_Bal_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

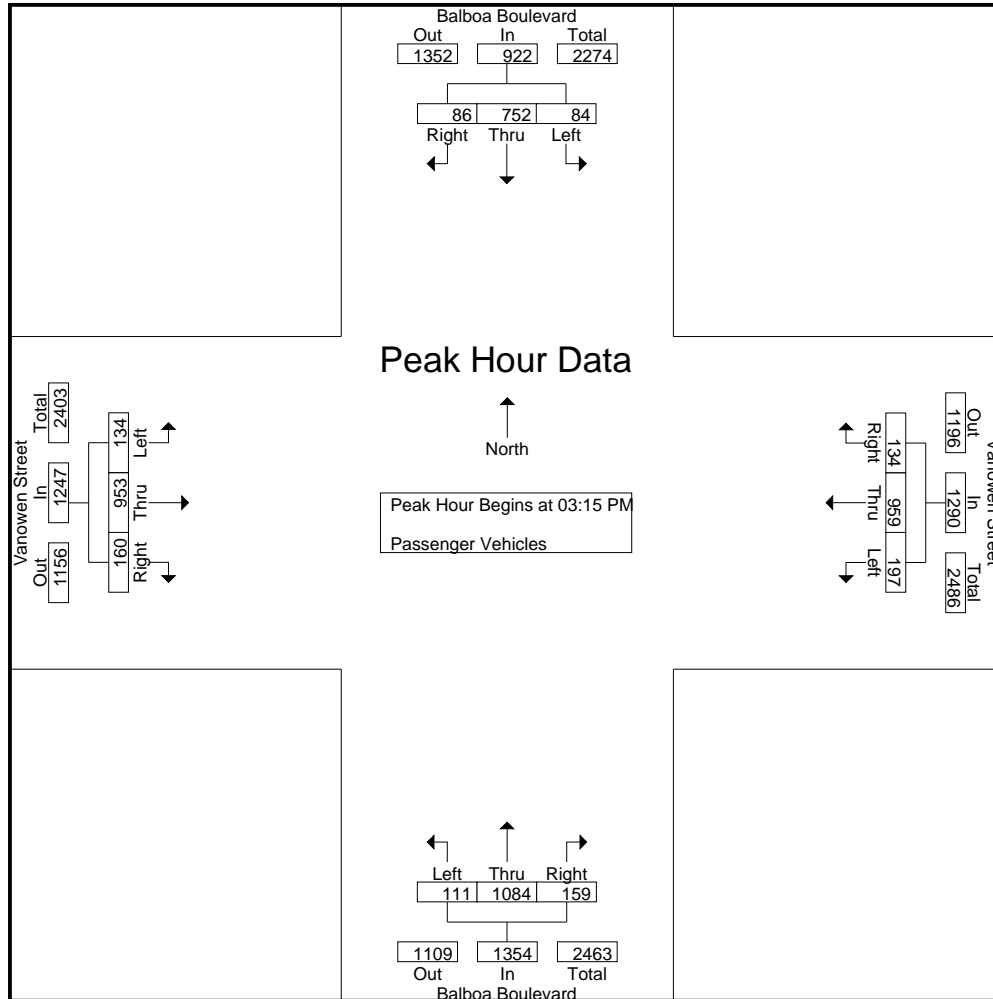
Groups Printed- Passenger Vehicles

	Balboa Boulevard Southbound				Vanowen Street Westbound				Balboa Boulevard Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	16	155	28	199	43	230	40	313	27	208	24	259	28	153	36	217	988
03:15 PM	20	188	24	232	68	240	31	339	25	217	30	272	39	248	65	352	1195
03:30 PM	20	223	18	261	40	235	38	313	26	286	45	357	28	217	35	280	1211
03:45 PM	22	166	18	206	43	231	42	316	29	288	48	365	39	254	28	321	1208
Total	78	732	88	898	194	936	151	1281	107	999	147	1253	134	872	164	1170	4602
04:00 PM	22	175	26	223	46	253	23	322	31	293	36	360	28	234	32	294	1199
04:15 PM	21	151	26	198	33	227	21	281	38	312	30	380	42	252	28	322	1181
04:30 PM	22	148	22	192	40	260	32	332	30	285	32	347	31	191	23	245	1116
04:45 PM	23	155	19	197	30	239	43	312	25	244	36	305	27	189	20	236	1050
Total	88	629	93	810	149	979	119	1247	124	1134	134	1392	128	866	103	1097	4546
05:00 PM	18	141	21	180	34	239	31	304	26	247	26	299	36	226	21	283	1066
05:15 PM	23	173	30	226	25	245	33	303	29	269	29	327	32	211	24	267	1123
05:30 PM	24	158	26	208	34	242	28	304	28	283	21	332	33	223	27	283	1127
05:45 PM	20	149	27	196	42	257	24	323	29	314	28	371	34	174	41	249	1139
Total	85	621	104	810	135	983	116	1234	112	1113	104	1329	135	834	113	1082	4455
Grand Total	251	1982	285	2518	478	2898	386	3762	343	3246	385	3974	397	2572	380	3349	13603
Apprch %	10	78.7	11.3		12.7	77	10.3		8.6	81.7	9.7		11.9	76.8	11.3		
Total %	1.8	14.6	2.1	18.5	3.5	21.3	2.8	27.7	2.5	23.9	2.8	29.2	2.9	18.9	2.8	24.6	

	Balboa Boulevard Southbound				Vanowen Street Westbound				Balboa Boulevard Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:15 PM to 04:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	20	188	24	232	68	240	31	339	25	217	30	272	39	248	65	352	1195
03:30 PM	20	223	18	261	40	235	38	313	26	286	45	357	28	217	35	280	1211
03:45 PM	22	166	18	206	43	231	42	316	29	288	48	365	39	254	28	321	1208
04:00 PM	22	175	26	223	46	253	23	322	31	293	36	360	28	234	32	294	1199
Total Volume	84	752	86	922	197	959	134	1290	111	1084	159	1354	134	953	160	1247	4813
% App. Total	9.1	81.6	9.3		15.3	74.3	10.4		8.2	80.1	11.7		10.7	76.4	12.8		
PHF	.955	.843	.827	.883	.724	.948	.798	.951	.895	.925	.828	.927	.859	.938	.615	.886	.994

City of Los Angeles
N/S: Balboa Boulevard
E/W: Vanowen Street
Weather: Clear

File Name : 02_LAC_Bal_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 03:15 PM to 04:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:15 PM				03:15 PM				03:15 PM				03:15 PM			
+0 mins.	20	188	24	232	68	240	31	339	25	217	30	272	39	248	65	352
+15 mins.	20	223	18	261	40	235	38	313	26	286	45	357	28	217	35	280
+30 mins.	22	166	18	206	43	231	42	316	29	288	48	365	39	254	28	321
+45 mins.	22	175	26	223	46	253	23	322	31	293	36	360	28	234	32	294
Total Volume	84	752	86	922	197	959	134	1290	111	1084	159	1354	134	953	160	1247
% App. Total	9.1	81.6	9.3		15.3	74.3	10.4		8.2	80.1	11.7		10.7	76.4	12.8	
PHF	.955	.843	.827	.883	.724	.948	.798	.951	.895	.925	.828	.927	.859	.938	.615	.886

City of Los Angeles
N/S: Balboa Boulevard
E/W: Vanowen Street
Weather: Clear

File Name : 02_LAC_Bal_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

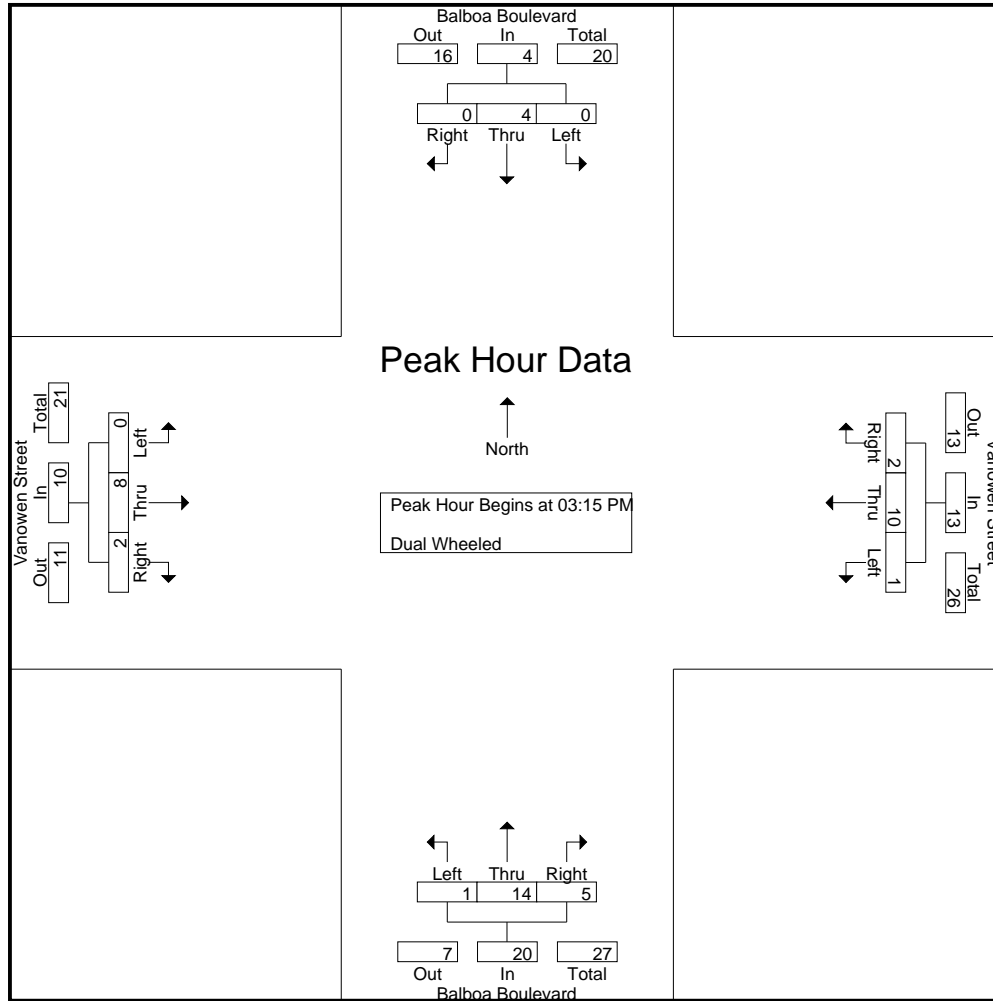
Groups Printed- Dual Wheeled

	Balboa Boulevard Southbound				Vanowen Street Westbound				Balboa Boulevard Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	1	1	2	4	1	3	0	4	0	6	1	7	0	1	0	1	16
03:15 PM	0	1	0	1	0	4	0	4	1	6	1	8	0	2	1	3	16
03:30 PM	0	0	0	0	0	2	1	3	0	3	1	4	0	4	1	5	12
03:45 PM	0	2	0	2	0	1	1	2	0	2	2	4	0	1	0	1	9
Total	1	4	2	7	1	10	2	13	1	17	5	23	0	8	2	10	53
04:00 PM	0	1	0	1	1	3	0	4	0	3	1	4	0	1	0	1	10
04:15 PM	1	1	0	2	0	4	1	5	0	3	1	4	0	4	0	4	15
04:30 PM	0	3	0	3	0	3	0	3	0	5	0	5	0	1	0	1	12
04:45 PM	1	3	0	4	0	2	0	2	0	6	0	6	0	2	1	3	15
Total	2	8	0	10	1	12	1	14	0	17	2	19	0	8	1	9	52
05:00 PM	0	1	0	1	1	2	0	3	1	3	0	4	0	2	1	3	11
05:15 PM	0	1	0	1	0	0	1	1	0	2	1	3	0	3	0	3	8
05:30 PM	0	0	0	0	0	1	0	1	0	3	2	5	0	2	1	3	9
05:45 PM	0	0	0	0	0	0	1	1	0	2	0	2	0	0	0	0	3
Total	0	2	0	2	1	3	2	6	1	10	3	14	0	7	2	9	31
Grand Total	3	14	2	19	3	25	5	33	2	44	10	56	0	23	5	28	136
Apprch %	15.8	73.7	10.5		9.1	75.8	15.2		3.6	78.6	17.9		0	82.1	17.9		
Total %	2.2	10.3	1.5	14	2.2	18.4	3.7	24.3	1.5	32.4	7.4	41.2	0	16.9	3.7	20.6	

	Balboa Boulevard Southbound				Vanowen Street Westbound				Balboa Boulevard Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:15 PM to 04:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	0	1	0	1	0	4	0	4	1	6	1	8	0	2	1	3	16
03:30 PM	0	0	0	0	0	2	1	3	0	3	1	4	0	4	1	5	12
03:45 PM	0	2	0	2	0	1	1	2	0	2	2	4	0	1	0	1	9
04:00 PM	0	1	0	1	1	3	0	4	0	3	1	4	0	1	0	1	10
Total Volume	0	4	0	4	1	10	2	13	1	14	5	20	0	8	2	10	47
% App. Total	0	100	0		7.7	76.9	15.4		5	70	25		0	80	20		
PHF	.000	.500	.000	.500	.250	.625	.500	.813	.250	.583	.625	.625	.000	.500	.500	.500	.734

City of Los Angeles
N/S: Balboa Boulevard
E/W: Vanowen Street
Weather: Clear

File Name : 02_LAC_Bal_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 03:15 PM to 04:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:15 PM				03:15 PM				03:15 PM				03:15 PM			
+0 mins.	0	1	0	1	0	4	0	4	1	6	1	8	0	2	1	3
+15 mins.	0	0	0	0	0	2	1	3	0	3	1	4	0	4	1	5
+30 mins.	0	2	0	2	0	1	1	2	0	2	2	4	0	1	0	1
+45 mins.	0	1	0	1	1	3	0	4	0	3	1	4	0	1	0	1
Total Volume	0	4	0	4	1	10	2	13	1	14	5	20	0	8	2	10
% App. Total	0	100	0		7.7	76.9	15.4		5	70	25		0	80	20	
PHF	.000	.500	.000	.500	.250	.625	.500	.813	.250	.583	.625	.625	.000	.500	.500	.500

City of Los Angeles
N/S: Balboa Boulevard
E/W: Vanowen Street
Weather: Clear

File Name : 02_LAC_Bal_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

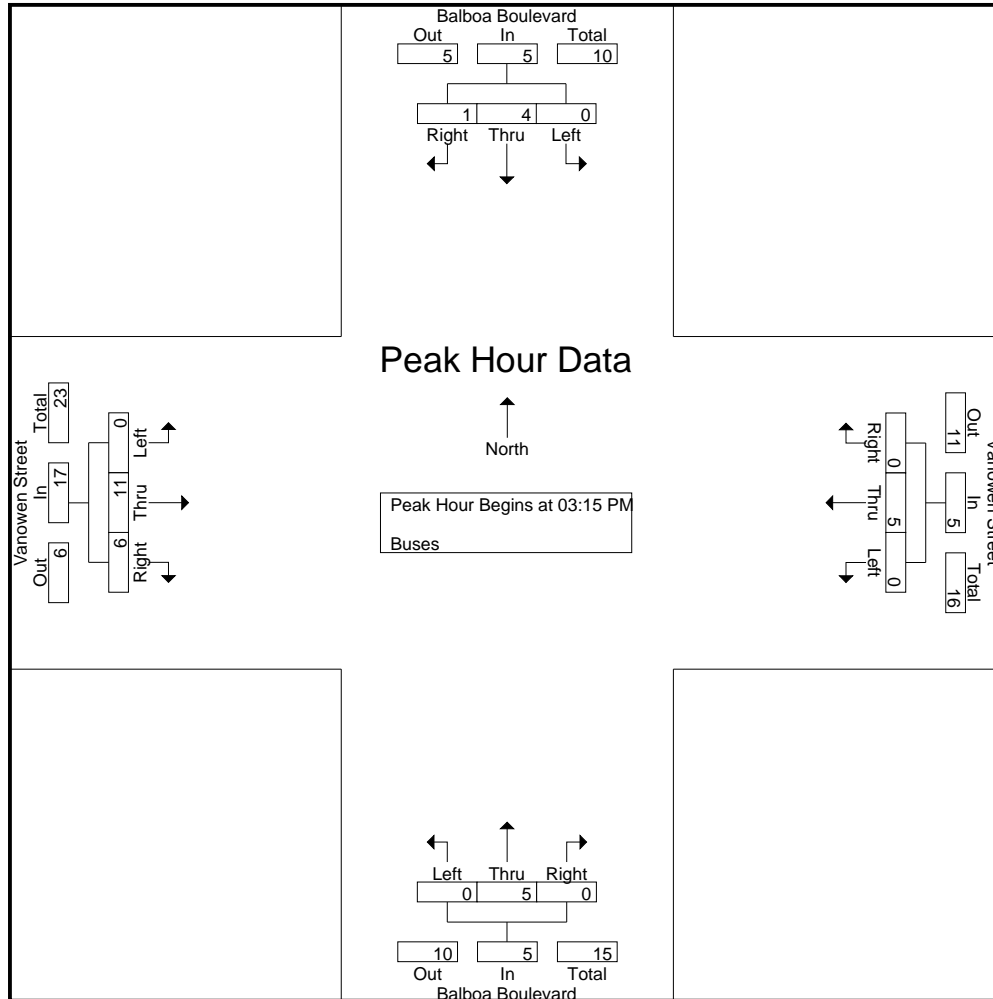
Groups Printed- Buses

	Balboa Boulevard Southbound				Vanowen Street Westbound				Balboa Boulevard Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	0	1	0	1	0	3	1	4	0	1	0	1	0	1	0	1	7
03:15 PM	0	1	1	2	0	2	0	2	0	2	0	2	0	3	1	4	10
03:30 PM	0	0	0	0	0	1	0	1	0	1	0	1	0	2	2	4	6
03:45 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	3	3	6	9
Total	0	4	1	5	0	6	1	7	0	5	0	5	0	9	6	15	32
04:00 PM	0	1	0	1	0	2	0	2	0	1	0	1	0	3	0	3	7
04:15 PM	0	0	0	0	0	1	0	1	0	1	0	1	0	2	0	2	4
04:30 PM	0	1	0	1	0	1	0	1	0	4	0	4	0	4	1	5	11
04:45 PM	0	1	0	1	0	1	0	1	0	0	0	0	0	2	1	3	5
Total	0	3	0	3	0	5	0	5	0	6	0	6	0	11	2	13	27
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	2	1	0	3	4
05:15 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	3	0	3	5
05:30 PM	0	1	0	1	0	1	0	1	0	2	0	2	0	1	0	1	5
05:45 PM	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	4
Total	0	3	0	3	0	3	0	3	0	4	0	4	2	6	0	8	18
Grand Total	0	10	1	11	0	14	1	15	0	15	0	15	2	26	8	36	77
Apprch %	0	90.9	9.1		0	93.3	6.7		0	100	0		5.6	72.2	22.2		
Total %	0	13	1.3	14.3	0	18.2	1.3	19.5	0	19.5	0	19.5	2.6	33.8	10.4	46.8	

	Balboa Boulevard Southbound				Vanowen Street Westbound				Balboa Boulevard Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:15 PM to 04:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	0	1	1	2	0	2	0	2	0	2	0	2	0	3	1	4	10
03:30 PM	0	0	0	0	0	1	0	1	0	1	0	1	0	2	2	4	6
03:45 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	3	3	6	9
04:00 PM	0	1	0	1	0	2	0	2	0	1	0	1	0	3	0	3	7
Total Volume	0	4	1	5	0	5	0	5	0	5	0	5	0	11	6	17	32
% App. Total	0	80	20		0	100	0		0	100	0		0	64.7	35.3		
PHF	.000	.500	.250	.625	.000	.625	.000	.625	.000	.625	.000	.625	.000	.917	.500	.708	.800

City of Los Angeles
N/S: Balboa Boulevard
E/W: Vanowen Street
Weather: Clear

File Name : 02_LAC_Bal_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 03:15 PM to 04:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:15 PM				03:15 PM				03:15 PM				03:15 PM			
+0 mins.	0	1	1	2	0	2	0	2	0	2	0	2	0	3	1	4
+15 mins.	0	0	0	0	0	1	0	1	0	1	0	1	0	2	2	4
+30 mins.	0	2	0	2	0	0	0	0	0	1	0	1	0	3	3	6
+45 mins.	0	1	0	1	0	2	0	2	0	1	0	1	0	3	0	3
Total Volume	0	4	1	5	0	5	0	5	0	5	0	5	0	11	6	17
% App. Total	0	80	20		0	100	0		0	100	0		0	64.7	35.3	
PHF	.000	.500	.250	.625	.000	.625	.000	.625	.000	.625	.000	.625	.000	.917	.500	.708



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Balboa Boulevard

East/West Vanowen Street

Day: Thursday Date: June 1, 2023 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: East Valley I/S CODE 39656

	<u>N/B</u>	<u>S/B</u>	<u>E/B</u>	<u>W/B</u>
DUAL-WHEELED	99	134	93	103
BIKES	11	18	11	16
BUSES	25	31	80	38

	<u>N/B TIME</u>	<u>S/B TIME</u>	<u>E/B TIME</u>	<u>W/B TIME</u>
AM PK 15 MIN	235 8.15	460 7.00	370 7.45	388 7.30
PM PK 15 MIN	385 4.15	261 3.30	359 3.15	345 3.15
AM PK HOUR	892 7.45	1578 7.00	1379 7.45	1512 7.30
PM PK HOUR	1482 3.30	931 3.15	1274 3.15	1308 3.15

NORTHBOUND Approach

Hours	<u>Lt</u>	<u>Th</u>	<u>Rt</u>	<u>Total</u>
7-8	63	429	106	598
8-9	75	581	181	837
9-10	52	475	75	602
3-4	108	1021	152	1281
4-5	124	1157	136	1417
5-6	113	1127	107	1347
TOTAL	535	4790	757	6082

SOUTHBOUND Approach

Hours	<u>Lt</u>	<u>Th</u>	<u>Rt</u>	<u>Total</u>
7-8	85	1430	63	1578
8-9	84	1135	78	1297
9-10	94	1013	79	1186
3-4	79	740	91	910
4-5	90	640	93	823
5-6	85	626	104	815
TOTAL	517	5584	508	6609

TOTAL

<u>N-S</u>
2176
2134
1788
2191
2240
2162
12691

XING S/L

<u>Ped</u>	<u>Sch</u>
33	1
43	0
12	0
175	15
48	0
19	0
330	16

XING N/L

<u>Ped</u>	<u>Sch</u>
43	5
46	4
28	1
94	8
49	1
26	2
286	21

EASTBOUND Approach

Hours	<u>Lt</u>	<u>Th</u>	<u>Rt</u>	<u>Total</u>
7-8	79	864	242	1185
8-9	122	904	233	1259
9-10	72	683	154	909
3-4	134	889	172	1195
4-5	128	885	106	1119
5-6	137	847	115	1099
TOTAL	672	5072	1022	6766

WESTBOUND Approach

Hours	<u>Lt</u>	<u>Th</u>	<u>Rt</u>	<u>Total</u>
7-8	251	949	120	1320
8-9	384	880	109	1373
9-10	229	683	99	1011
3-4	195	952	154	1301
4-5	150	996	120	1266
5-6	136	989	118	1243
TOTAL	1345	5449	720	7514

TOTAL

<u>E-W</u>
2505
2632
1920
2496
2385
2342
14280

XING W/L

<u>Ped</u>	<u>Sch</u>
51	7
95	31
30	1
122	5
63	0
15	0
376	44

XING E/L

<u>Ped</u>	<u>Sch</u>
27	6
42	3
21	1
128	7
49	0
36	0
303	17

BICYCLE COUNT SUMMARY

STREET:

North/South: Balboa Boulevard

East/West: Vanowen Street

Day: Thursday

Date: 6/1/2023

Weather: CLEAR

School Day: Yes

District: East Valley

I/S Code: 39656

Hours: 7-10 AM, 3-6 PM

Staff: CUI

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	1	0	1
9-10	0	2	1	3
3-4	1	2	1	4
4-5	0	0	0	0
5-6	0	3	0	3
TOTAL	1	8	2	11

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total	N-S
7-8	1	2	1	4	4
8-9	0	5	0	5	6
9-10	0	1	0	1	4
3-4	0	2	0	2	6
4-5	2	2	0	4	4
5-6	0	2	0	2	5
TOTAL	3	14	1	18	29

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	2	1	3
8-9	1	1	0	2
9-10	1	1	0	2
3-4	0	2	0	2
4-5	1	1	0	2
5-6	0	0	0	0
TOTAL	3	7	1	11

WESTBOUND Approach

Hours	Lt	Th	Rt	Total	E-W
7-8	0	2	0	2	5
8-9	0	1	0	1	3
9-10	0	3	0	3	5
3-4	0	1	1	2	4
4-5	0	5	0	5	7
5-6	0	3	0	3	3
TOTAL	0	15	1	16	27

REMARKS (6 hour total):

- Female Riders
- No helmet riders
- Sidewalk Riding
- Wrong way riding

NB	SB	EB	WB	TOTAL
0	0	0	0	0
6	8	6	13	33
8	12	6	14	40
2	7	3	4	16

NB: Northbound, SB: Southbound, EB: Eastbound, WB: Westbound, I/S: Intersection

Source: CUI

LADOT 2015 CMP

PEDESTRIAN COUNT SUMMARY

STREET:

North/South: Balboa Boulevard

East/West: Vanowen Street

Day: Thursday

Date: 6/1/2023

Weather: CLEAR

School Day: YES

District: East Valley

I/S Code: 39656

Hours: 7-10 AM, 3-6 PM

Staff: CUI

AM PEAK PERIOD

15 Min. Interval	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
7:00-7:15	5	2	3	3	13
7:15-7:30	10	4	3	10	27
7:30-7:45	15	17	13	13	58
7:45-8:00	18	11	14	32	75
8:00-8:15	22	14	15	67	118
8:15-8:30	16	15	18	50	99
8:30-8:45	7	12	6	4	29
8:45-9:00	5	2	6	5	18
9:00-9:15	8	5	9	4	26
9:15-9:30	8	2	2	5	17
9:30-9:45	7	3	2	14	26
9:45-10:00	6	2	9	8	25

Hours

7 - 8	48	34	33	58	173
8 - 9	50	43	45	126	264
9 - 10	29	12	22	31	94
TOTAL	127	89	100	215	531

PM PEAK PERIOD

15 Min. Interval	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
3:00-3:15	6	9	3	5	23
3:15-3:30	33	44	41	15	133
3:30-3:45	32	106	55	76	269
3:45-4:00	31	31	36	31	129
4:00-4:15	8	9	14	12	43
4:15-4:30	21	17	16	14	68
4:30-4:45	14	19	17	25	75
4:45-5:00	7	3	2	12	24
5:00-5:15	10	3	15	2	30
5:15-5:30	11	7	12	5	35
5:30-5:45	3	5	6	5	19
5:45-6:00	4	4	3	3	14

Hours

3 - 4	102	190	135	127	554
4 - 5	50	48	49	63	210
5 - 6	28	19	36	15	98
TOTAL	180	257	220	205	862

REMARKS (6 hour total):

- Wheelchair/special needs assistance
- Skateboard/scooter

N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
2	1	1	1	5
15	4	14	10	43

N: North, S: South, E: East, W: West, I/S: Intersection

Source:

LADOT 2015 CMP

Location: Los Angeles
 N/S: Balboa Boulevard
 E/W: Vanowen Street



Date: 6/1/2023
 Day: Thursday

ADULT PEDESTRIANS

		North Leg Balboa Boulevard Pedestrians	East Leg Vanowen Street Pedestrians	South Leg Balboa Boulevard Pedestrians	West Leg Vanowen Street Pedestrians	
	7:00 AM	4	3	2	3	12
	7:15 AM	9	3	4	10	26
	7:30 AM	14	9	16	13	52
	7:45 AM	16	12	11	25	64
	8:00 AM	21	12	14	51	98
	8:15 AM	13	18	15	35	81
	8:30 AM	7	6	12	4	29
	8:45 AM	5	6	2	5	18
	9:00 AM	8	9	5	4	26
	9:15 AM	8	2	2	5	17
	9:30 AM	6	2	3	13	24
	9:45 AM	6	8	2	8	24
	TOTAL VOLUMES:	117	90	88	176	471

		North Leg Balboa Boulevard Pedestrians	East Leg Vanowen Street Pedestrians	South Leg Balboa Boulevard Pedestrians	West Leg Vanowen Street Pedestrians	
	3:00 PM	6	3	9	5	23
	3:15 PM	31	35	33	15	114
	3:30 PM	30	55	102	74	261
	3:45 PM	27	35	31	28	121
	4:00 PM	8	14	9	12	43
	4:15 PM	21	16	17	14	68
	4:30 PM	13	17	19	25	74
	4:45 PM	7	2	3	12	24
	5:00 PM	10	15	3	2	30
	5:15 PM	9	12	7	5	33
	5:30 PM	3	6	5	5	19
	5:45 PM	4	3	4	3	14
	TOTAL VOLUMES:	169	213	242	200	824

Location: Los Angeles
 N/S: Balboa Boulevard
 E/W: Vanowen Street



Date: 6/1/2023
 Day: Thursday

SCHOOL AGE PEDESTRIANS

		North Leg Balboa Boulevard Pedestrians	East Leg Vanowen Street Pedestrians	South Leg Balboa Boulevard Pedestrians	West Leg Vanowen Street Pedestrians	
	7:00 AM	1	0	0	0	1
	7:15 AM	1	0	0	0	1
	7:30 AM	1	4	1	0	6
	7:45 AM	2	2	0	7	11
	8:00 AM	1	3	0	16	20
	8:15 AM	3	0	0	15	18
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	1	0	0	1	2
	9:45 AM	0	1	0	0	1
	TOTAL VOLUMES:	10	10	1	39	60

		North Leg Balboa Boulevard Pedestrians	East Leg Vanowen Street Pedestrians	South Leg Balboa Boulevard Pedestrians	West Leg Vanowen Street Pedestrians	
	3:00 PM	0	0	0	0	0
	3:15 PM	2	6	11	0	19
	3:30 PM	2	0	4	2	8
	3:45 PM	4	1	0	3	8
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	1	0	0	0	1
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	2	0	0	0	2
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL VOLUMES:	11	7	15	5	38

Location: Los Angeles
 N/S: Balboa Boulevard
 E/W: Vanowen Street



Date: 6/1/2023
 Day: Thursday

BICYCLES

	Southbound Balboa Boulevard			Westbound Vanowen Street			Northbound Balboa Boulevard			Eastbound Vanowen Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	1	2
7:30 AM	1	0	0	0	1	0	0	0	0	0	2	0	4
7:45 AM	0	1	1	0	1	0	0	0	0	0	0	0	3
8:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	1	0	0	1	0	3
8:45 AM	0	3	0	0	1	0	0	0	0	0	0	0	4
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
9:15 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
9:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
9:45 AM	0	1	0	0	2	0	0	2	0	0	0	0	5
TOTAL VOLUMES:	1	8	1	0	6	0	0	3	1	2	4	1	27

	Southbound Balboa Boulevard			Westbound Vanowen Street			Northbound Balboa Boulevard			Eastbound Vanowen Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3:00 PM	0	0	0	0	0	1	1	0	0	0	1	0	3
3:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
3:30 PM	0	0	0	0	1	0	0	1	1	0	0	0	3
3:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
4:00 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
4:15 PM	0	0	0	0	2	0	0	0	0	1	0	0	3
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
4:45 PM	2	1	0	0	0	0	0	0	0	0	1	0	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
5:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
5:45 PM	0	1	0	0	2	0	0	1	0	0	0	0	4
TOTAL VOLUMES:	2	6	0	0	9	1	1	5	1	1	3	0	29

City of Los Angeles
N/S: De Celis Place
E/W: Vanowen Street
Weather: Clear

File Name : 03_LAC_De C_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

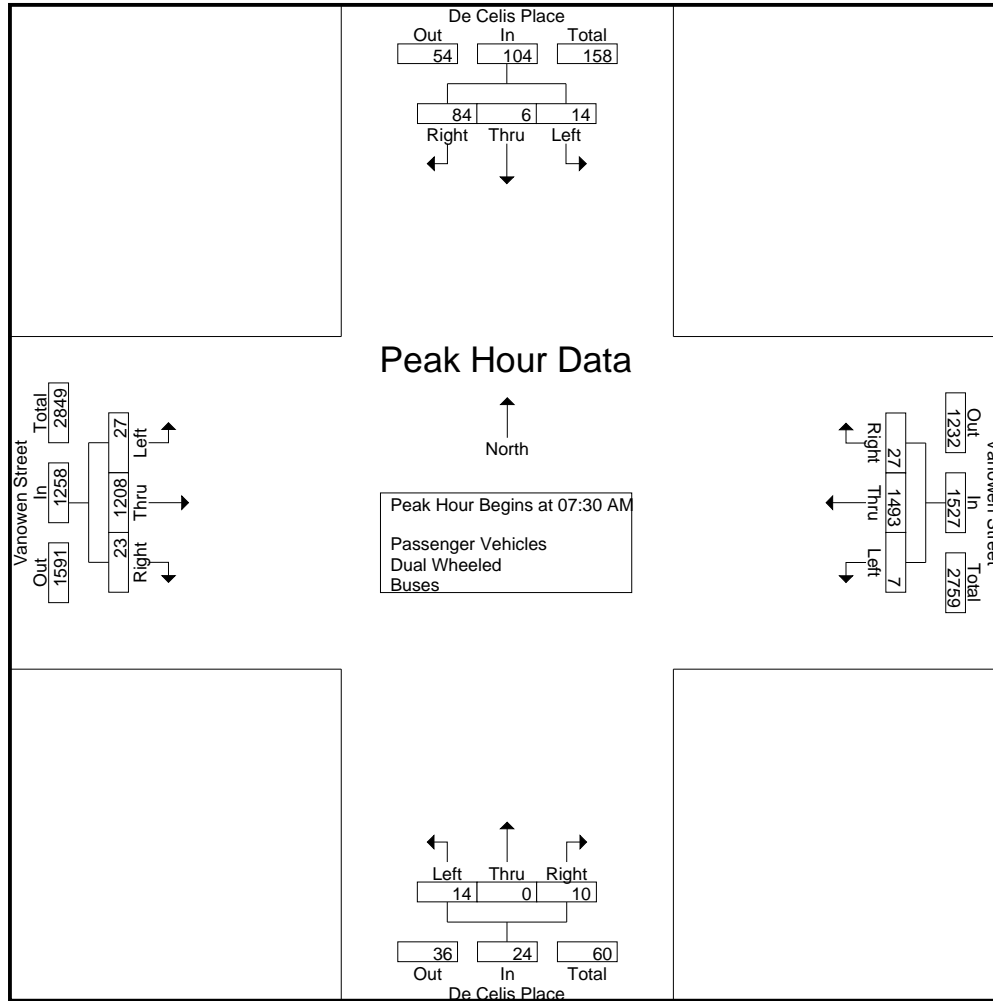
Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

	De Celis Place Southbound				Vanowen Street Westbound				De Celis Place Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	4	0	9	13	3	247	1	251	2	0	3	5	7	214	2	223	492
07:15 AM	3	0	7	10	1	281	3	285	2	0	5	7	2	199	4	205	507
07:30 AM	4	2	17	23	1	367	3	371	4	0	3	7	6	290	1	297	698
07:45 AM	3	1	21	25	2	380	9	391	5	0	4	9	6	323	9	338	763
Total	14	3	54	71	7	1275	16	1298	13	0	15	28	21	1026	16	1063	2460
08:00 AM	6	1	26	33	3	364	7	374	4	0	2	6	11	284	8	303	716
08:15 AM	1	2	20	23	1	382	8	391	1	0	1	2	4	311	5	320	736
08:30 AM	5	2	18	25	2	299	7	308	1	1	1	3	9	331	8	348	684
08:45 AM	8	0	12	20	3	317	12	332	1	1	4	6	2	220	6	228	586
Total	20	5	76	101	9	1362	34	1405	7	2	8	17	26	1146	27	1199	2722
09:00 AM	5	0	7	12	4	257	6	267	2	0	3	5	8	202	2	212	496
09:15 AM	4	0	7	11	1	251	5	257	0	0	3	3	6	240	3	249	520
09:30 AM	6	0	10	16	0	240	7	247	0	0	1	1	5	225	2	232	496
09:45 AM	4	2	13	19	1	227	9	237	4	0	3	7	5	174	4	183	446
Total	19	2	37	58	6	975	27	1008	6	0	10	16	24	841	11	876	1958
Grand Total	53	10	167	230	22	3612	77	3711	26	2	33	61	71	3013	54	3138	7140
Apprch %	23	4.3	72.6		0.6	97.3	2.1		42.6	3.3	54.1		2.3	96	1.7		
Total %	0.7	0.1	2.3	3.2	0.3	50.6	1.1	52	0.4	0	0.5	0.9	1	42.2	0.8	43.9	
Passenger Vehicles	51	10	164	225	21	3511	73	3605	26	2	31	59	68	2921	52	3041	6930
% Passenger Vehicles	96.2	100	98.2	97.8	95.5	97.2	94.8	97.1	100	100	93.9	96.7	95.8	96.9	96.3	96.9	97.1
Dual Wheeled	2	0	3	5	0	76	4	80	0	0	2	2	3	59	2	64	151
% Dual Wheeled	3.8	0	1.8	2.2	0	2.1	5.2	2.2	0	0	6.1	3.3	4.2	2	3.7	2	2.1
Buses	0	0	0	0	1	25	0	26	0	0	0	0	0	33	0	33	59
% Buses	0	0	0	0	4.5	0.7	0	0.7	0	0	0	0	0	1.1	0	1.1	0.8

	De Celis Place Southbound				Vanowen Street Westbound				De Celis Place Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	4	2	17	23	1	367	3	371	4	0	3	7	6	290	1	297	698
07:45 AM	3	1	21	25	2	380	9	391	5	0	4	9	6	323	9	338	763
08:00 AM	6	1	26	33	3	364	7	374	4	0	2	6	11	284	8	303	716
08:15 AM	1	2	20	23	1	382	8	391	1	0	1	2	4	311	5	320	736
Total Volume	14	6	84	104	7	1493	27	1527	14	0	10	24	27	1208	23	1258	2913
% App. Total	13.5	5.8	80.8		0.5	97.8	1.8		58.3	0	41.7		2.1	96	1.8		
PHF	.583	.750	.808	.788	.583	.977	.750	.976	.700	.000	.625	.667	.614	.935	.639	.930	.954

City of Los Angeles
N/S: De Celis Place
E/W: Vanowen Street
Weather: Clear

File Name : 03_LAC_De C_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:30 AM				07:15 AM				07:45 AM			
+0 mins.	3	1	21	25	1	367	3	371	2	0	5	7	6	323	9	338
+15 mins.	6	1	26	33	2	380	9	391	4	0	3	7	11	284	8	303
+30 mins.	1	2	20	23	3	364	7	374	5	0	4	9	4	311	5	320
+45 mins.	5	2	18	25	1	382	8	391	4	0	2	6	9	331	8	348
Total Volume	15	6	85	106	7	1493	27	1527	15	0	14	29	30	1249	30	1309
% App. Total	14.2	5.7	80.2		0.5	97.8	1.8		51.7	0	48.3		2.3	95.4	2.3	
PHF	.625	.750	.817	.803	.583	.977	.750	.976	.750	.000	.700	.806	.682	.943	.833	.940

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Los Angeles
N/S: De Celis Place
E/W: Vanowen Street
Weather: Clear

File Name : 03_LAC_De C_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

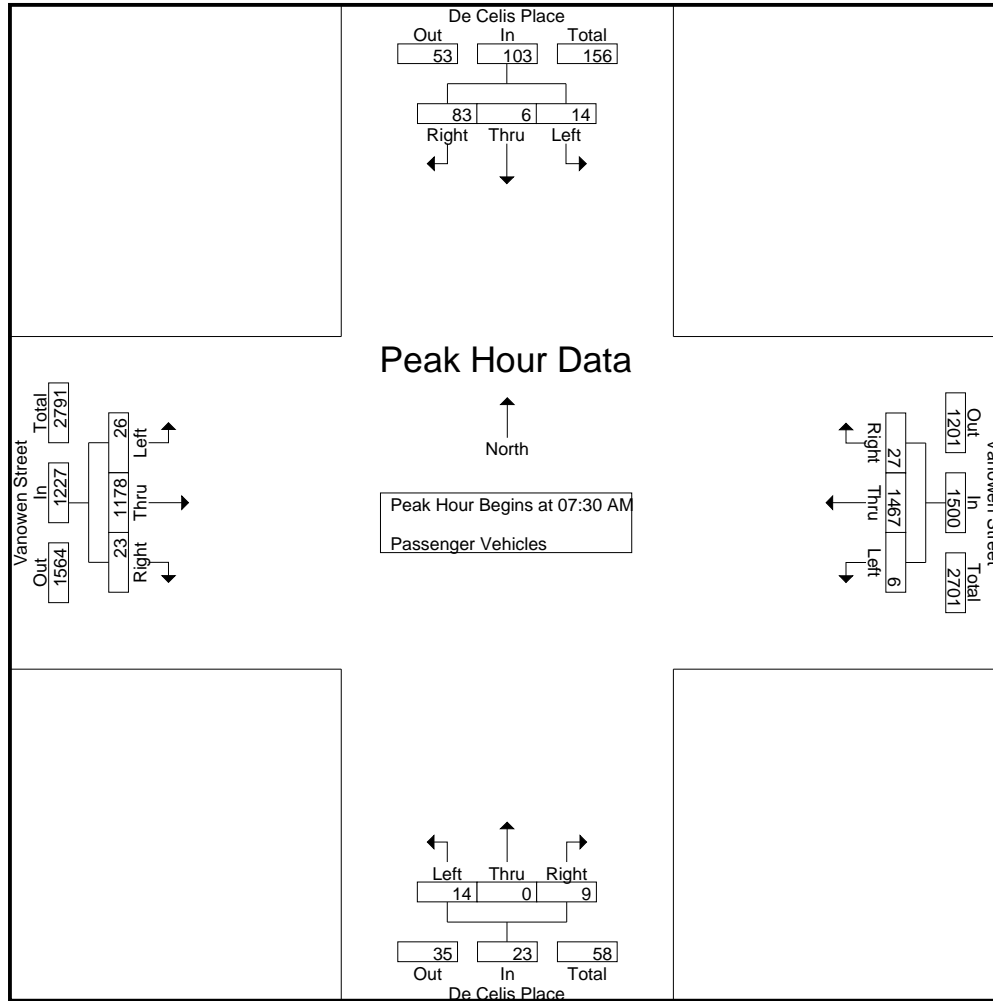
Groups Printed- Passenger Vehicles

	De Celis Place Southbound				Vanowen Street Westbound				De Celis Place Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	0	9	12	3	238	1	242	2	0	3	5	7	207	2	216	475
07:15 AM	3	0	6	9	1	270	3	274	2	0	5	7	2	190	2	194	484
07:30 AM	4	2	17	23	1	357	3	361	4	0	3	7	5	280	1	286	677
07:45 AM	3	1	21	25	2	375	9	386	5	0	4	9	6	320	9	335	755
Total	13	3	53	69	7	1240	16	1263	13	0	15	28	20	997	14	1031	2391
08:00 AM	6	1	26	33	2	358	7	367	4	0	2	6	11	274	8	293	699
08:15 AM	1	2	19	22	1	377	8	386	1	0	0	1	4	304	5	313	722
08:30 AM	5	2	18	25	2	295	7	304	1	1	1	3	9	321	8	338	670
08:45 AM	8	0	12	20	3	306	9	318	1	1	4	6	2	214	6	222	566
Total	20	5	75	100	8	1336	31	1375	7	2	7	16	26	1113	27	1166	2657
09:00 AM	4	0	7	11	4	249	6	259	2	0	3	5	8	195	2	205	480
09:15 AM	4	0	7	11	1	241	5	247	0	0	3	3	4	228	3	235	496
09:30 AM	6	0	9	15	0	231	7	238	0	0	0	0	5	219	2	226	479
09:45 AM	4	2	13	19	1	214	8	223	4	0	3	7	5	169	4	178	427
Total	18	2	36	56	6	935	26	967	6	0	9	15	22	811	11	844	1882
Grand Total	51	10	164	225	21	3511	73	3605	26	2	31	59	68	2921	52	3041	6930
Apprch %	22.7	4.4	72.9		0.6	97.4	2		44.1	3.4	52.5		2.2	96.1	1.7		
Total %	0.7	0.1	2.4	3.2	0.3	50.7	1.1	52	0.4	0	0.4	0.9	1	42.2	0.8	43.9	

	De Celis Place Southbound				Vanowen Street Westbound				De Celis Place Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	4	2	17	23	1	357	3	361	4	0	3	7	5	280	1	286	677
07:45 AM	3	1	21	25	2	375	9	386	5	0	4	9	6	320	9	335	755
08:00 AM	6	1	26	33	2	358	7	367	4	0	2	6	11	274	8	293	699
08:15 AM	1	2	19	22	1	377	8	386	1	0	0	1	4	304	5	313	722
Total Volume	14	6	83	103	6	1467	27	1500	14	0	9	23	26	1178	23	1227	2853
% App. Total	13.6	5.8	80.6		0.4	97.8	1.8		60.9	0	39.1		2.1	96	1.9		
PHF	.583	.750	.798	.780	.750	.973	.750	.972	.700	.000	.563	.639	.591	.920	.639	.916	.945

City of Los Angeles
N/S: De Celis Place
E/W: Vanowen Street
Weather: Clear

File Name : 03_LAC_De C_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	4	2	17	23	1	357	3	361	4	0	3	7	5	280	1	286
+15 mins.	3	1	21	25	2	375	9	386	5	0	4	9	6	320	9	335
+30 mins.	6	1	26	33	2	358	7	367	4	0	2	6	11	274	8	293
+45 mins.	1	2	19	22	1	377	8	386	1	0	0	1	4	304	5	313
Total Volume	14	6	83	103	6	1467	27	1500	14	0	9	23	26	1178	23	1227
% App. Total	13.6	5.8	80.6		0.4	97.8	1.8		60.9	0	39.1		2.1	96	1.9	
PHF	.583	.750	.798	.780	.750	.973	.750	.972	.700	.000	.563	.639	.591	.920	.639	.916

City of Los Angeles
N/S: De Celis Place
E/W: Vanowen Street
Weather: Clear

File Name : 03_LAC_De C_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

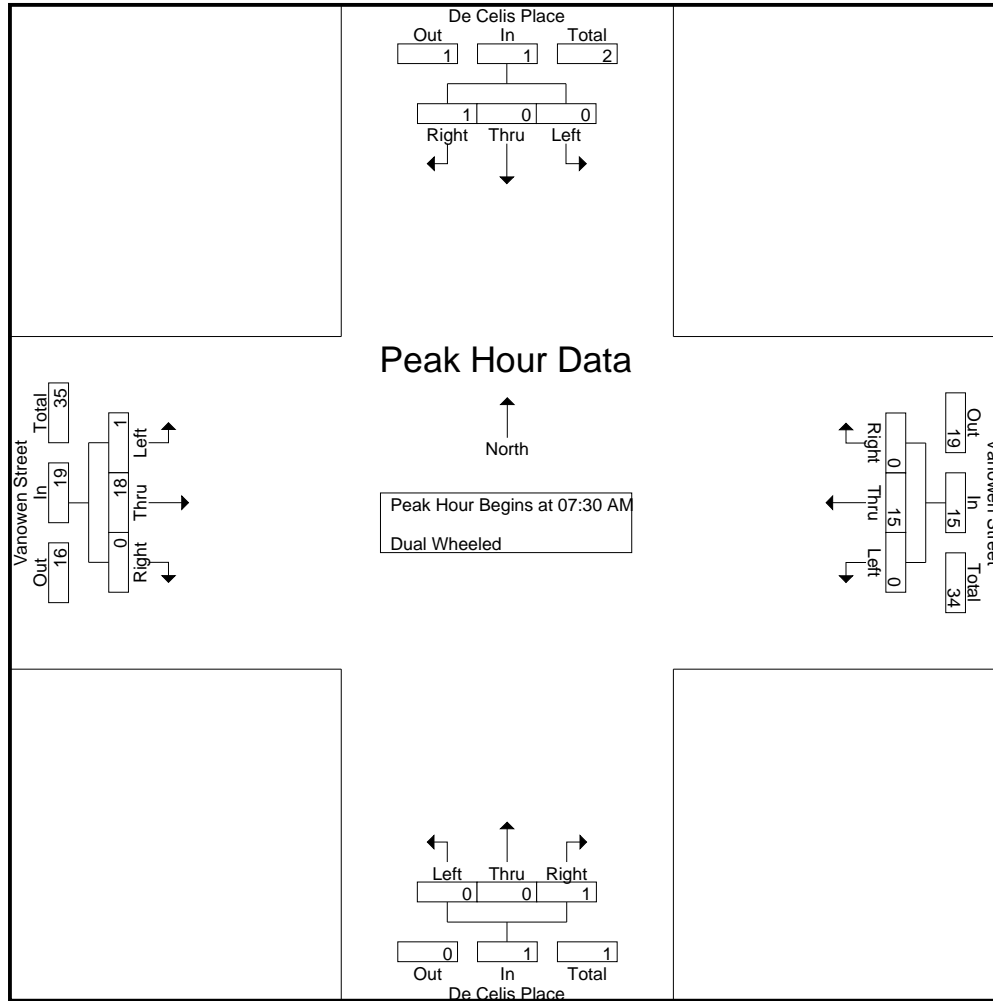
Groups Printed- Dual Wheeled

	De Celis Place Southbound				Vanowen Street Westbound				De Celis Place Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	0	0	1	0	7	0	7	0	0	0	0	0	5	0	5	13
07:15 AM	0	0	1	1	0	8	0	8	0	0	0	0	0	8	2	10	19
07:30 AM	0	0	0	0	0	7	0	7	0	0	0	0	1	6	0	7	14
07:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
Total	1	0	1	2	0	24	0	24	0	0	0	0	1	20	2	23	49
08:00 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	5	0	5	8
08:15 AM	0	0	1	1	0	3	0	3	0	0	1	1	0	6	0	6	11
08:30 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	4	0	4	7
08:45 AM	0	0	0	0	0	10	3	13	0	0	0	0	0	3	0	3	16
Total	0	0	1	1	0	19	3	22	0	0	1	1	0	18	0	18	42
09:00 AM	1	0	0	1	0	5	0	5	0	0	0	0	0	4	0	4	10
09:15 AM	0	0	0	0	0	8	0	8	0	0	0	0	2	9	0	11	19
09:30 AM	0	0	1	1	0	9	0	9	0	0	1	1	0	4	0	4	15
09:45 AM	0	0	0	0	0	11	1	12	0	0	0	0	0	4	0	4	16
Total	1	0	1	2	0	33	1	34	0	0	1	1	2	21	0	23	60
Grand Total	2	0	3	5	0	76	4	80	0	0	2	2	3	59	2	64	151
Apprch %	40	0	60		0	95	5		0	0	100		4.7	92.2	3.1		
Total %	1.3	0	2	3.3	0	50.3	2.6	53	0	0	1.3	1.3	2	39.1	1.3	42.4	

	De Celis Place Southbound				Vanowen Street Westbound				De Celis Place Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	7	0	7	0	0	0	0	1	6	0	7	14
07:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
08:00 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	5	0	5	8
08:15 AM	0	0	1	1	0	3	0	3	0	0	1	1	0	6	0	6	11
Total Volume	0	0	1	1	0	15	0	15	0	0	1	1	1	18	0	19	36
% App. Total	0	0	100		0	100	0		0	0	100		5.3	94.7	0		
PHF	.000	.000	.250	.250	.000	.536	.000	.536	.000	.000	.250	.250	.250	.750	.000	.679	.643

City of Los Angeles
N/S: De Celis Place
E/W: Vanowen Street
Weather: Clear

File Name : 03_LAC_De C_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	7	0	7	0	0	0	0	1	6	0	7
+15 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	5	0	5
+45 mins.	0	0	1	1	0	3	0	3	0	0	1	1	0	6	0	6
Total Volume	0	0	1	1	0	15	0	15	0	0	1	1	1	18	0	19
% App. Total	0	0	100		0	100	0		0	0	100		5.3	94.7	0	
PHF	.000	.000	.250	.250	.000	.536	.000	.536	.000	.000	.250	.250	.250	.750	.000	.679

City of Los Angeles
N/S: De Celis Place
E/W: Vanowen Street
Weather: Clear

File Name : 03_LAC_De C_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

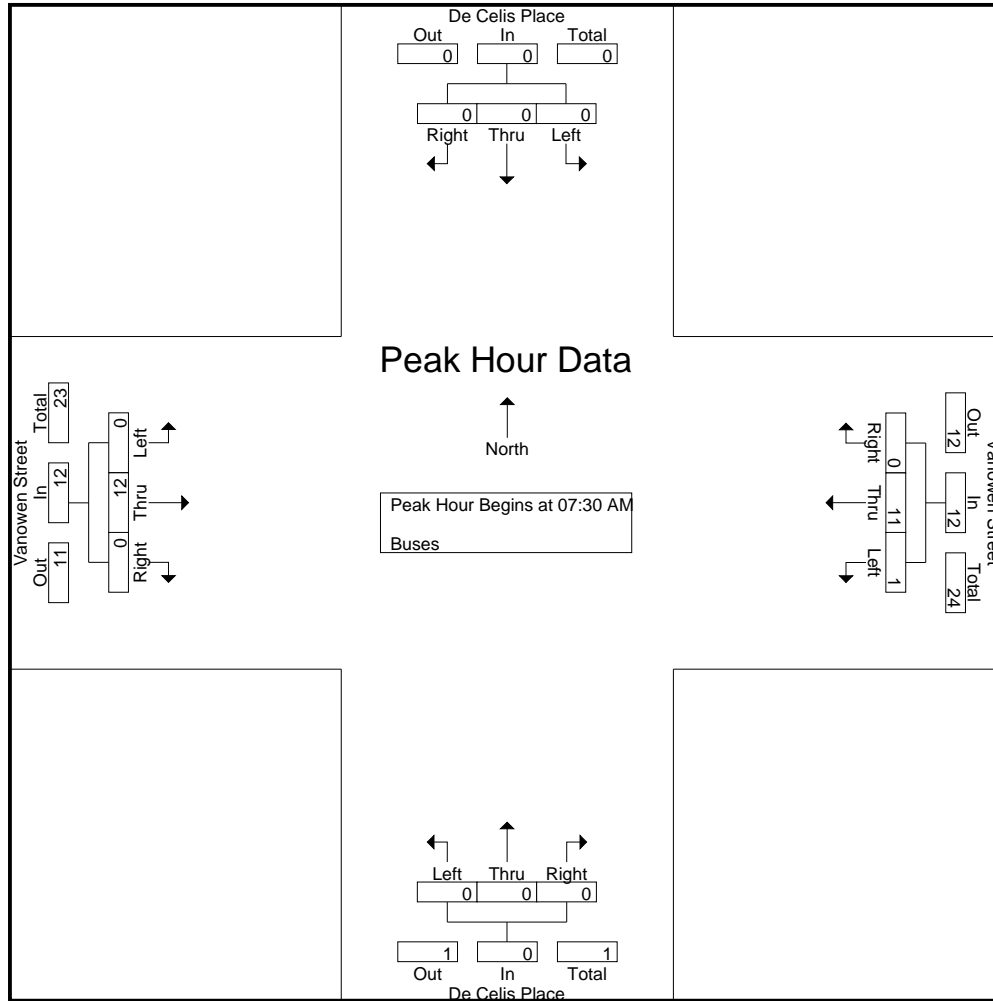
Groups Printed- Buses

	De Celis Place Southbound				Vanowen Street Westbound				De Celis Place Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
07:15 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	4
07:30 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	4	0	4	7
07:45 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
Total	0	0	0	0	0	11	0	11	0	0	0	0	0	9	0	9	20
08:00 AM	0	0	0	0	1	3	0	4	0	0	0	0	0	5	0	5	9
08:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
08:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	6	0	6	7
08:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3	4
Total	0	0	0	0	1	7	0	8	0	0	0	0	0	15	0	15	23
09:00 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
09:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	5
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
09:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
Total	0	0	0	0	0	7	0	7	0	0	0	0	0	9	0	9	16
Grand Total	0	0	0	0	1	25	0	26	0	0	0	0	0	33	0	33	59
Apprch %	0	0	0		3.8	96.2	0		0	0	0		0	100	0		
Total %	0	0	0		1.7	42.4	0	44.1	0	0	0		0	55.9	0	55.9	

	De Celis Place Southbound				Vanowen Street Westbound				De Celis Place Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	4	0	4	7
07:45 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
08:00 AM	0	0	0	0	1	3	0	4	0	0	0	0	0	5	0	5	9
08:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
Total Volume	0	0	0	0	1	11	0	12	0	0	0	0	0	12	0	12	24
% App. Total	0	0	0		8.3	91.7	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.250	.917	.000	.750	.000	.000	.000	.000	.000	.600	.000	.600	.667

City of Los Angeles
N/S: De Celis Place
E/W: Vanowen Street
Weather: Clear

File Name : 03_LAC_De C_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	4	0	4
+15 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2
+30 mins.	0	0	0	0	1	3	0	4	0	0	0	0	0	5	0	5
+45 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	1	11	0	12	0	0	0	0	0	12	0	12
% App. Total	0	0	0	0	8.3	91.7	0		0	0	0	0	0	100	0	
PHF	.000	.000	.000	.000	.250	.917	.000	.750	.000	.000	.000	.000	.000	.600	.000	.600

City of Los Angeles
N/S: De Celis Place
E/W: Vanowen Street
Weather: Clear

File Name : 03_LAC_De C_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

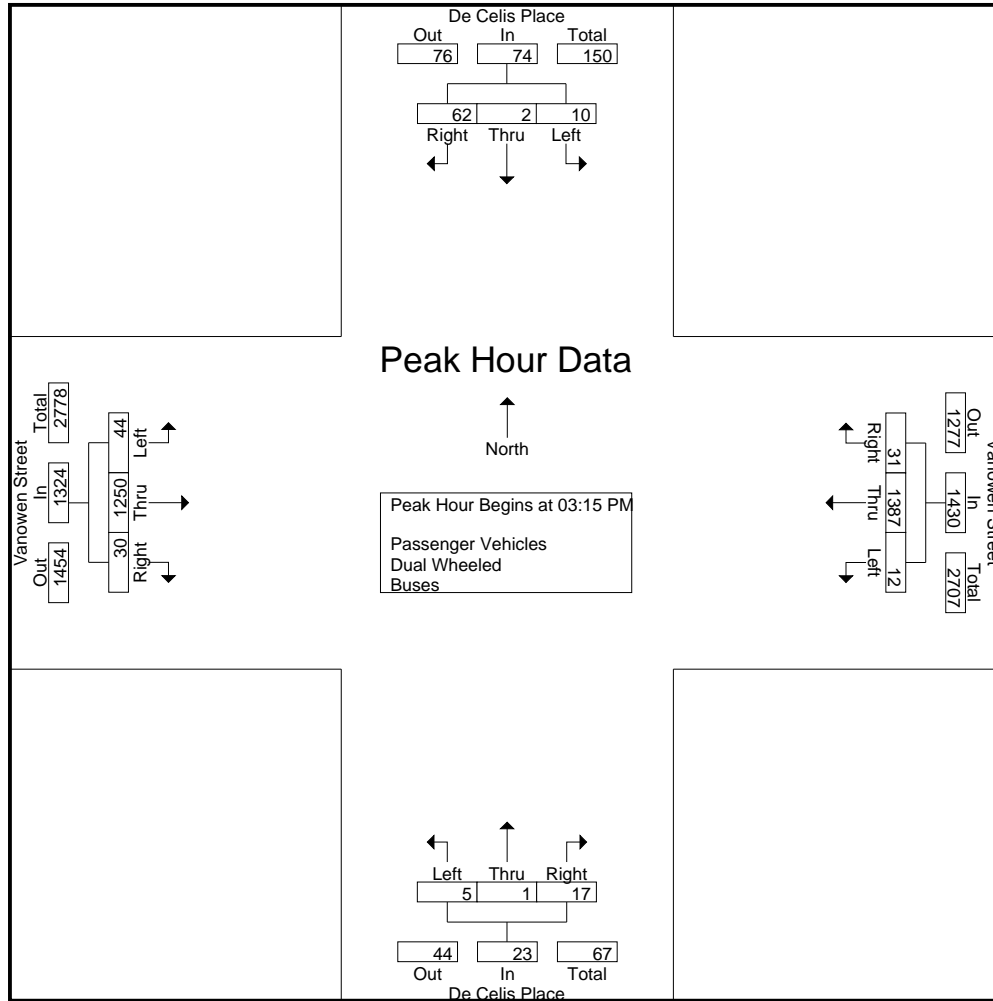
Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

	De Celis Place Southbound				Vanowen Street Westbound				De Celis Place Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	2	0	9	11	3	336	7	346	2	0	0	2	5	195	1	201	560
03:15 PM	7	0	17	24	1	338	6	345	0	0	3	3	8	303	3	314	686
03:30 PM	1	0	13	14	1	376	8	385	2	0	4	6	15	329	13	357	762
03:45 PM	2	1	10	13	7	328	9	344	2	1	4	7	11	341	8	360	724
Total	12	1	49	62	12	1378	30	1420	6	1	11	18	39	1168	25	1232	2732
04:00 PM	0	1	22	23	3	345	8	356	1	0	6	7	10	277	6	293	679
04:15 PM	3	0	14	17	1	285	6	292	3	0	2	5	9	319	8	336	650
04:30 PM	3	0	10	13	4	340	11	355	2	0	4	6	8	250	5	263	637
04:45 PM	2	0	15	17	2	291	9	302	1	0	4	5	6	242	8	256	580
Total	8	1	61	70	10	1261	34	1305	7	0	16	23	33	1088	27	1148	2546
05:00 PM	4	0	10	14	3	319	13	335	1	0	4	5	6	265	4	275	629
05:15 PM	7	0	8	15	7	296	9	312	1	0	4	5	8	253	5	266	598
05:30 PM	2	0	12	14	8	320	4	332	1	2	6	9	7	258	7	272	627
05:45 PM	2	0	4	6	2	328	12	342	2	0	2	4	9	211	5	225	577
Total	15	0	34	49	20	1263	38	1321	5	2	16	23	30	987	21	1038	2431
Grand Total	35	2	144	181	42	3902	102	4046	18	3	43	64	102	3243	73	3418	7709
Apprch %	19.3	1.1	79.6		1	96.4	2.5		28.1	4.7	67.2		3	94.9	2.1		
Total %	0.5	0	1.9	2.3	0.5	50.6	1.3	52.5	0.2	0	0.6	0.8	1.3	42.1	0.9	44.3	
Passenger Vehicles	31	2	142	175	42	3839	98	3979	18	3	43	64	101	3178	73	3352	7570
% Passenger Vehicles	88.6	100	98.6	96.7	100	98.4	96.1	98.3	100	100	100	100	99	98	100	98.1	98.2
Dual Wheeled	4	0	2	6	0	41	3	44	0	0	0	0	1	37	0	38	88
% Dual Wheeled	11.4	0	1.4	3.3	0	1.1	2.9	1.1	0	0	0	0	1	1.1	0	1.1	1.1
Buses	0	0	0	0	0	22	1	23	0	0	0	0	0	28	0	28	51
% Buses	0	0	0	0	0	0.6	1	0.6	0	0	0	0	0	0.9	0	0.8	0.7

	De Celis Place Southbound				Vanowen Street Westbound				De Celis Place Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	7	0	17	24	1	338	6	345	0	0	3	3	8	303	3	314	686
03:30 PM	1	0	13	14	1	376	8	385	2	0	4	6	15	329	13	357	762
03:45 PM	2	1	10	13	7	328	9	344	2	1	4	7	11	341	8	360	724
04:00 PM	0	1	22	23	3	345	8	356	1	0	6	7	10	277	6	293	679
Total Volume	10	2	62	74	12	1387	31	1430	5	1	17	23	44	1250	30	1324	2851
% App. Total	13.5	2.7	83.8		0.8	97	2.2		21.7	4.3	73.9		3.3	94.4	2.3		
PHF	.357	.500	.705	.771	.429	.922	.861	.929	.625	.250	.708	.821	.733	.916	.577	.919	.935

City of Los Angeles
N/S: De Celis Place
E/W: Vanowen Street
Weather: Clear

File Name : 03_LAC_De C_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:15 PM				03:15 PM				03:30 PM				03:30 PM			
+0 mins.	7	0	17	24	1	338	6	345	2	0	4	6	15	329	13	357
+15 mins.	1	0	13	14	1	376	8	385	2	1	4	7	11	341	8	360
+30 mins.	2	1	10	13	7	328	9	344	1	0	6	7	10	277	6	293
+45 mins.	0	1	22	23	3	345	8	356	3	0	2	5	9	319	8	336
Total Volume	10	2	62	74	12	1387	31	1430	8	1	16	25	45	1266	35	1346
% App. Total	13.5	2.7	83.8		0.8	97	2.2		32	4	64		3.3	94.1	2.6	
PHF	.357	.500	.705	.771	.429	.922	.861	.929	.667	.250	.667	.893	.750	.928	.673	.935

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Los Angeles
N/S: De Celis Place
E/W: Vanowen Street
Weather: Clear

File Name : 03_LAC_De C_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

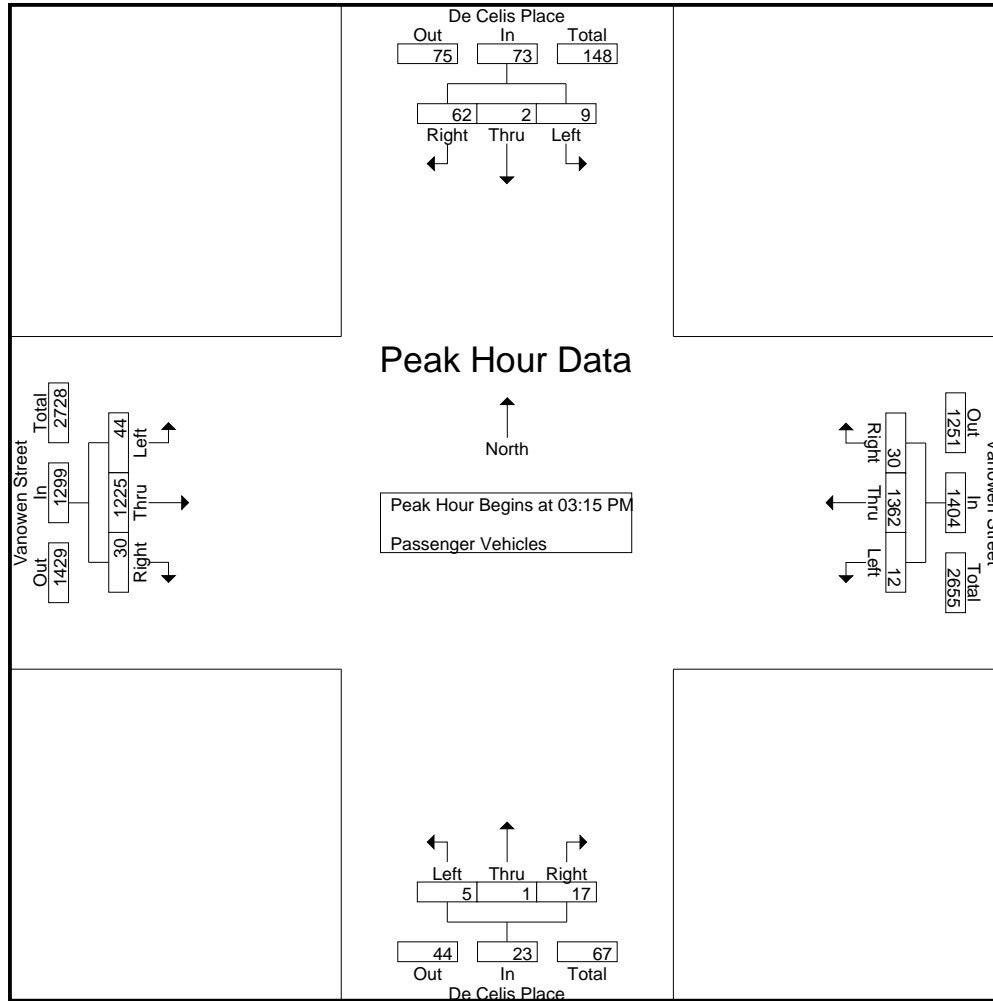
Groups Printed- Passenger Vehicles

	De Celis Place Southbound				Vanowen Street Westbound				De Celis Place Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	1	0	8	9	3	326	7	336	2	0	0	2	5	192	1	198	545
03:15 PM	6	0	17	23	1	330	6	337	0	0	3	3	8	298	3	309	672
03:30 PM	1	0	13	14	1	372	8	381	2	0	4	6	15	322	13	350	751
03:45 PM	2	1	10	13	7	325	8	340	2	1	4	7	11	333	8	352	712
Total	10	1	48	59	12	1353	29	1394	6	1	11	18	39	1145	25	1209	2680
04:00 PM	0	1	22	23	3	335	8	346	1	0	6	7	10	272	6	288	664
04:15 PM	3	0	14	17	1	280	5	286	3	0	2	5	9	308	8	325	633
04:30 PM	3	0	10	13	4	336	10	350	2	0	4	6	8	245	5	258	627
04:45 PM	2	0	15	17	2	287	9	298	1	0	4	5	6	238	8	252	572
Total	8	1	61	70	10	1238	32	1280	7	0	16	23	33	1063	27	1123	2496
05:00 PM	3	0	9	12	3	313	12	328	1	0	4	5	5	259	4	268	613
05:15 PM	7	0	8	15	7	294	9	310	1	0	4	5	8	249	5	262	592
05:30 PM	2	0	12	14	8	318	4	330	1	2	6	9	7	253	7	267	620
05:45 PM	1	0	4	5	2	323	12	337	2	0	2	4	9	209	5	223	569
Total	13	0	33	46	20	1248	37	1305	5	2	16	23	29	970	21	1020	2394
Grand Total	31	2	142	175	42	3839	98	3979	18	3	43	64	101	3178	73	3352	7570
Apprch %	17.7	1.1	81.1		1.1	96.5	2.5		28.1	4.7	67.2		3	94.8	2.2		
Total %	0.4	0	1.9	2.3	0.6	50.7	1.3	52.6	0.2	0	0.6	0.8	1.3	42	1	44.3	

	De Celis Place Southbound				Vanowen Street Westbound				De Celis Place Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:15 PM to 04:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	6	0	17	23	1	330	6	337	0	0	3	3	8	298	3	309	672
03:30 PM	1	0	13	14	1	372	8	381	2	0	4	6	15	322	13	350	751
03:45 PM	2	1	10	13	7	325	8	340	2	1	4	7	11	333	8	352	712
04:00 PM	0	1	22	23	3	335	8	346	1	0	6	7	10	272	6	288	664
Total Volume	9	2	62	73	12	1362	30	1404	5	1	17	23	44	1225	30	1299	2799
% App. Total	12.3	2.7	84.9		0.9	97	2.1		21.7	4.3	73.9		3.4	94.3	2.3		
PHF	.375	.500	.705	.793	.429	.915	.938	.921	.625	.250	.708	.821	.733	.920	.577	.923	.932

City of Los Angeles
N/S: De Celis Place
E/W: Vanowen Street
Weather: Clear

File Name : 03_LAC_De C_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 03:15 PM to 04:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:15 PM				03:15 PM				03:15 PM				03:15 PM			
+0 mins.	6	0	17	23	1	330	6	337	0	0	3	3	8	298	3	309
+15 mins.	1	0	13	14	1	372	8	381	2	0	4	6	15	322	13	350
+30 mins.	2	1	10	13	7	325	8	340	2	1	4	7	11	333	8	352
+45 mins.	0	1	22	23	3	335	8	346	1	0	6	7	10	272	6	288
Total Volume	9	2	62	73	12	1362	30	1404	5	1	17	23	44	1225	30	1299
% App. Total	12.3	2.7	84.9		0.9	97	2.1		21.7	4.3	73.9		3.4	94.3	2.3	
PHF	.375	.500	.705	.793	.429	.915	.938	.921	.625	.250	.708	.821	.733	.920	.577	.923

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Los Angeles
N/S: De Celis Place
E/W: Vanowen Street
Weather: Clear

File Name : 03_LAC_De C_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

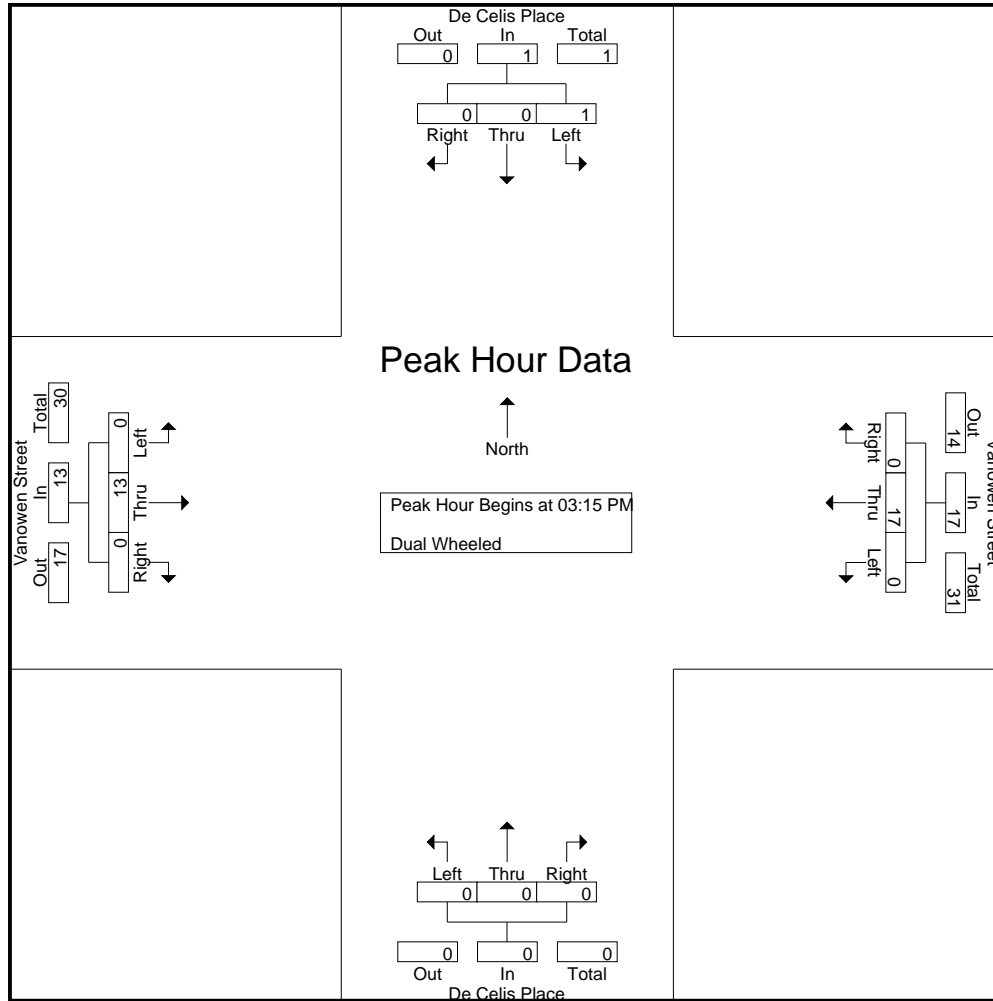
Groups Printed- Dual Wheeled

	De Celis Place Southbound				Vanowen Street Westbound				De Celis Place Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	1	0	1	2	0	4	0	4	0	0	0	0	0	1	0	1	7
03:15 PM	1	0	0	1	0	5	0	5	0	0	0	0	0	2	0	2	8
03:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	5	0	5	7
03:45 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	4	0	4	7
Total	2	0	1	3	0	14	0	14	0	0	0	0	0	12	0	12	29
04:00 PM	0	0	0	0	0	7	0	7	0	0	0	0	0	2	0	2	9
04:15 PM	0	0	0	0	0	4	1	5	0	0	0	0	0	9	0	9	14
04:30 PM	0	0	0	0	0	3	1	4	0	0	0	0	0	1	0	1	5
04:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	5
Total	0	0	0	0	0	16	2	18	0	0	0	0	0	15	0	15	33
05:00 PM	1	0	1	2	0	5	1	6	0	0	0	0	1	4	0	5	13
05:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
05:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3	4
05:45 PM	1	0	0	1	0	3	0	3	0	0	0	0	0	1	0	1	5
Total	2	0	1	3	0	11	1	12	0	0	0	0	1	10	0	11	26
Grand Total	4	0	2	6	0	41	3	44	0	0	0	0	1	37	0	38	88
Apprch %	66.7	0	33.3		0	93.2	6.8		0	0	0		2.6	97.4	0		
Total %	4.5	0	2.3	6.8	0	46.6	3.4	50	0	0	0	0	1.1	42	0	43.2	

	De Celis Place Southbound				Vanowen Street Westbound				De Celis Place Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:15 PM to 04:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	1	0	0	1	0	5	0	5	0	0	0	0	0	2	0	2	8
03:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	5	0	5	7
03:45 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	4	0	4	7
04:00 PM	0	0	0	0	0	7	0	7	0	0	0	0	0	2	0	2	9
Total Volume	1	0	0	1	0	17	0	17	0	0	0	0	0	13	0	13	31
% App. Total	100	0	0		0	100	0		0	0	0		0	100	0		
PHF	.250	.000	.000	.250	.000	.607	.000	.607	.000	.000	.000	.000	.000	.650	.000	.650	.861

City of Los Angeles
N/S: De Celis Place
E/W: Vanowen Street
Weather: Clear

File Name : 03_LAC_De C_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 03:15 PM to 04:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:15 PM				03:15 PM				03:15 PM				03:15 PM			
+0 mins.	1	0	0	1	0	5	0	5	0	0	0	0	0	2	0	2
+15 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	5	0	5
+30 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	4	0	4
+45 mins.	0	0	0	0	0	7	0	7	0	0	0	0	0	2	0	2
Total Volume	1	0	0	1	0	17	0	17	0	0	0	0	0	13	0	13
% App. Total	100	0	0		0	100	0		0	0	0		0	100	0	
PHF	.250	.000	.000	.250	.000	.607	.000	.607	.000	.000	.000	.000	.000	.650	.000	.650

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Los Angeles
N/S: De Celis Place
E/W: Vanowen Street
Weather: Clear

File Name : 03_LAC_De C_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

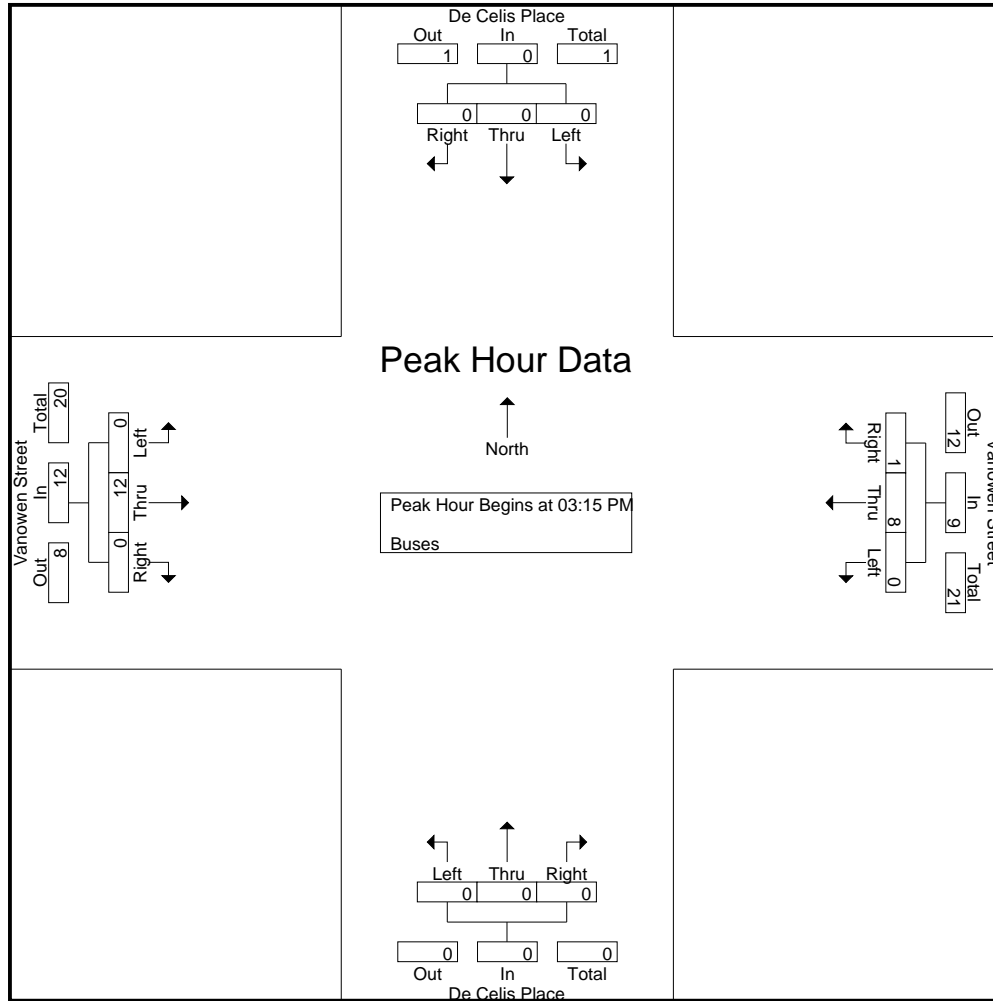
Groups Printed- Buses

	De Celis Place Southbound				Vanowen Street Westbound				De Celis Place Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	0	0	0	0	0	6	0	6	0	0	0	0	0	2	0	2	8
03:15 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
03:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
03:45 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	4	0	4	5
Total	0	0	0	0	0	11	1	12	0	0	0	0	0	11	0	11	23
04:00 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	4	0	4	5
04:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
Total	0	0	0	0	0	7	0	7	0	0	0	0	0	10	0	10	17
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
05:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
05:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
Total	0	0	0	0	0	4	0	4	0	0	0	0	0	7	0	7	11
Grand Total	0	0	0	0	0	22	1	23	0	0	0	0	0	28	0	28	51
Apprch %	0	0	0		0	95.7	4.3		0	0	0		0	100	0		
Total %	0	0	0	0	0	43.1	2	45.1	0	0	0	0	0	54.9	0	54.9	

	De Celis Place Southbound				Vanowen Street Westbound				De Celis Place Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:15 PM to 04:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
03:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
03:45 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	4	0	4	5
04:00 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
Total Volume	0	0	0	0	0	8	1	9	0	0	0	0	0	12	0	12	21
% App. Total	0	0	0		0	88.9	11.1		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.667	.250	.750	.000	.000	.000	.000	.000	.750	.000	.750	.875

City of Los Angeles
N/S: De Celis Place
E/W: Vanowen Street
Weather: Clear

File Name : 03_LAC_De C_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 03:15 PM to 04:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:15 PM				03:15 PM				03:15 PM				03:15 PM			
+0 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3
+15 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2
+30 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	4	0	4
+45 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3
Total Volume	0	0	0	0	0	8	1	9	0	0	0	0	0	12	0	12
% App. Total	0	0	0	0	0	88.9	11.1		0	0	0	0	0	100	0	
PHF	.000	.000	.000	.000	.000	.667	.250	.750	.000	.000	.000	.000	.000	.750	.000	.750



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South De Celis Place

East/West Vanowen Street

Day: Thursday Date: June 1, 2023 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: East Valley I/S CODE 33475

	N/B	S/B	E/B	W/B
DUAL-WHEELED	2	11	102	124
BIKES	2	3	18	12
BUSES	0	0	61	49

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
AM PK 15 MIN	9 7.45	33 8.00	348 8.30	391 7.45
PM PK 15 MIN	9 5.30	24 3.15	360 3.45	385 3.30
AM PK HOUR	29 7.15	106 7.45	1309 7.45	1527 7.30
PM PK HOUR	25 3.30	74 3.15	1346 3.30	1430 3.15

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	13	0	15	28
8-9	7	2	8	17
9-10	6	0	10	16
3-4	6	1	11	18
4-5	7	0	16	23
5-6	5	2	16	23
TOTAL	44	5	76	125

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	14	3	54	71
8-9	20	5	76	101
9-10	19	2	37	58
3-4	12	1	49	62
4-5	8	1	61	70
5-6	15	0	34	49
TOTAL	88	12	311	411

TOTAL

N-S
99
118
74
80
93
72
536

XING S/L

Ped	Sch
8	0
7	0
6	0
38	9
13	2
5	4
77	15

XING N/L

Ped	Sch
7	1
9	0
3	0
20	4
5	2
12	0
56	7

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	21	1026	16	1063
8-9	26	1146	27	1199
9-10	24	841	11	876
3-4	39	1168	25	1232
4-5	33	1088	27	1148
5-6	30	987	21	1038
TOTAL	173	6256	127	6556

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	7	1275	16	1298
8-9	9	1362	34	1405
9-10	6	975	27	1008
3-4	12	1378	30	1420
4-5	10	1261	34	1305
5-6	20	1263	38	1321
TOTAL	64	7514	179	7757

TOTAL

E-W
2361
2604
1884
2652
2453
2359
14313

XING W/L

Ped	Sch
0	0
0	0
0	0
0	0
1	2
0	0
1	2

XING E/L

Ped	Sch
0	0
4	0
0	0
0	0
0	0
0	0
4	0

BICYCLE COUNT SUMMARY

STREET:

North/South: De Celis Place

East/West: Vanowen Street

Day: Thursday

Date: 6/1/2023

Weather: CLEAR

School Day: Yes

District: East Valley

I/S Code: 33475

Hours: 7-10 AM, 3-6 PM

Staff: CUI

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	1	0	1	2
TOTAL	1	0	1	2

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total	N-S
7-8	0	0	1	1	1
8-9	1	0	0	1	1
9-10	0	0	0	0	0
3-4	0	0	0	0	0
4-5	0	1	0	1	1
5-6	0	0	0	0	2
TOTAL	1	1	1	3	5

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	4	0	4
8-9	0	2	0	2
9-10	0	0	0	0
3-4	0	7	1	8
4-5	1	3	0	4
5-6	0	0	0	0
TOTAL	1	16	1	18

WESTBOUND Approach

Hours	Lt	Th	Rt	Total	E-W
7-8	0	1	0	1	5
8-9	1	1	0	2	4
9-10	0	1	0	1	1
3-4	0	1	0	1	9
4-5	0	6	0	6	10
5-6	0	1	0	1	1
TOTAL	1	11	0	12	30

REMARKS (6 hour total):

- Female Riders
- No helmet riders
- Sidewalk Riding
- Wrong way riding

NB	SB	EB	WB	TOTAL
0	0	1	1	2
2	2	11	11	26
2	1	11	10	24
1	1	3	3	8

NB: Northbound, SB: Southbound, EB: Eastbound, WB: Westbound, I/S: Intersection

Source: CUI

LADOT 2015 CMP

City of Los Angeles
Department of Transportation
PEDESTRIAN COUNT SUMMARY

STREET:

North/South:	De Celis Place			
East/West:	Vanowen Street			
Day:	Thursday	Date:	6/1/2023	Weather: CLEAR
School Day:	YES	District:	East Valley	I/S Code: 33475
Hours:	7-10 AM, 3-6 PM	Staff:	CUI	

AM PEAK PERIOD

15 Min. Interval	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
7:00-7:15	4	0	0	0	4
7:15-7:30	0	1	0	0	1
7:30-7:45	2	4	0	0	6
7:45-8:00	2	3	0	0	5
8:00-8:15	4	1	2	0	7
8:15-8:30	2	1	0	0	3
8:30-8:45	1	2	0	0	3
8:45-9:00	2	3	2	0	7
9:00-9:15	0	2	0	0	2
9:15-9:30	1	3	0	0	4
9:30-9:45	0	0	0	0	0
9:45-10:00	2	1	0	0	3

Hours

7 - 8	8	8	0	0	16
8 - 9	9	7	4	0	20
9 - 10	3	6	0	0	9
TOTAL	20	21	4	0	45

PM PEAK PERIOD

15 Min. Interval	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
3:00-3:15	7	0	0	0	7
3:15-3:30	5	8	0	0	13
3:30-3:45	2	10	0	0	12
3:45-4:00	10	29	0	0	39
4:00-4:15	2	4	0	2	8
4:15-4:30	2	2	0	0	4
4:30-4:45	1	9	0	1	11
4:45-5:00	2	0	0	0	2
5:00-5:15	0	4	0	0	4
5:15-5:30	7	2	0	0	9
5:30-5:45	1	3	0	0	4
5:45-6:00	4	0	0	0	4

Hours

3 - 4	24	47	0	0	71
4 - 5	7	15	0	3	25
5 - 6	12	9	0	0	21
TOTAL	43	71	0	3	117

REMARKS (6 hour total):

- Wheelchair/special needs assistance
- Skateboard/scooter

N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
0	0	0	0	0
2	3	0	0	5

N: North, **S:** South, **E:** East, **W:** West, **I/S:** Intersection

Source:

LADOT 2015 CMP

Location: Los Angeles
 N/S: De Celis Place
 E/W: Vanowen Street



Date: 6/1/2023
 Day: Thursday

ADULT PEDESTRIANS

		North Leg De Celis Place	East Leg Vanowen Street	South Leg De Celis Place	West Leg Vanowen Street	
		Pedestrians	Pedestrians	Pedestrians	Pedestrians	
	7:00 AM	3	0	0	0	3
	7:15 AM	0	0	1	0	1
	7:30 AM	2	0	4	0	6
	7:45 AM	2	0	3	0	5
	8:00 AM	4	2	1	0	7
	8:15 AM	2	0	1	0	3
	8:30 AM	1	0	2	0	3
	8:45 AM	2	2	3	0	7
	9:00 AM	0	0	2	0	2
	9:15 AM	1	0	3	0	4
	9:30 AM	0	0	0	0	0
	9:45 AM	2	0	1	0	3
	TOTAL VOLUMES:	19	4	21	0	44

		North Leg De Celis Place	East Leg Vanowen Street	South Leg De Celis Place	West Leg Vanowen Street	
		Pedestrians	Pedestrians	Pedestrians	Pedestrians	
	3:00 PM	4	0	0	0	4
	3:15 PM	4	0	4	0	8
	3:30 PM	2	0	10	0	12
	3:45 PM	10	0	24	0	34
	4:00 PM	2	0	2	0	4
	4:15 PM	2	0	2	0	4
	4:30 PM	1	0	9	1	11
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	7	0	2	0	9
	5:30 PM	1	0	3	0	4
	5:45 PM	4	0	0	0	4
	TOTAL VOLUMES:	37	0	56	1	94

Location: Los Angeles
 N/S: De Celis Place
 E/W: Vanowen Street



Date: 6/1/2023
 Day: Thursday

SCHOOL AGE PEDESTRIANS

		North Leg De Celis Place	East Leg Vanowen Street	South Leg De Celis Place	West Leg Vanowen Street	
		Pedestrians	Pedestrians	Pedestrians	Pedestrians	
	7:00 AM	1	0	0	0	1
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
	9:00 AM	0	0	0	0	0
	9:15 AM	0	0	0	0	0
	9:30 AM	0	0	0	0	0
	9:45 AM	0	0	0	0	0
	TOTAL VOLUMES:	1	0	0	0	1

		North Leg De Celis Place	East Leg Vanowen Street	South Leg De Celis Place	West Leg Vanowen Street	
		Pedestrians	Pedestrians	Pedestrians	Pedestrians	
	3:00 PM	3	0	0	0	3
	3:15 PM	1	0	4	0	5
	3:30 PM	0	0	0	0	0
	3:45 PM	0	0	5	0	5
	4:00 PM	0	0	2	2	4
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	2	0	0	0	2
	5:00 PM	0	0	4	0	4
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL VOLUMES:	6	0	15	2	23

Location: Los Angeles
 N/S: De Celis Place
 E/W: Vanowen Street



Date: 6/1/2023
 Day: Thursday

BICYCLES

	Southbound De Celis Place			Westbound Vanowen Street			Northbound De Celis Place			Eastbound Vanowen Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	4
7:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	2
8:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	1	0	0	0	0	0	0	2	0	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	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	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
TOTAL VOLUMES:	1	0	1	1	3	0	0	0	0	0	6	0	12

	Southbound De Celis Place			Westbound Vanowen Street			Northbound De Celis Place			Eastbound Vanowen Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	4
3:45 PM	0	0	0	0	1	0	0	0	0	0	2	0	3
4:00 PM	0	1	0	0	3	0	0	0	0	0	1	0	5
4:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	1	0	0	0	0	1	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
5:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	0	0	0	1	0	0	0	2
TOTAL VOLUMES:	0	1	0	0	8	0	1	0	1	1	10	1	23

City of Los Angeles
N/S: Hayvenhurst Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 04_LAC_Hay_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

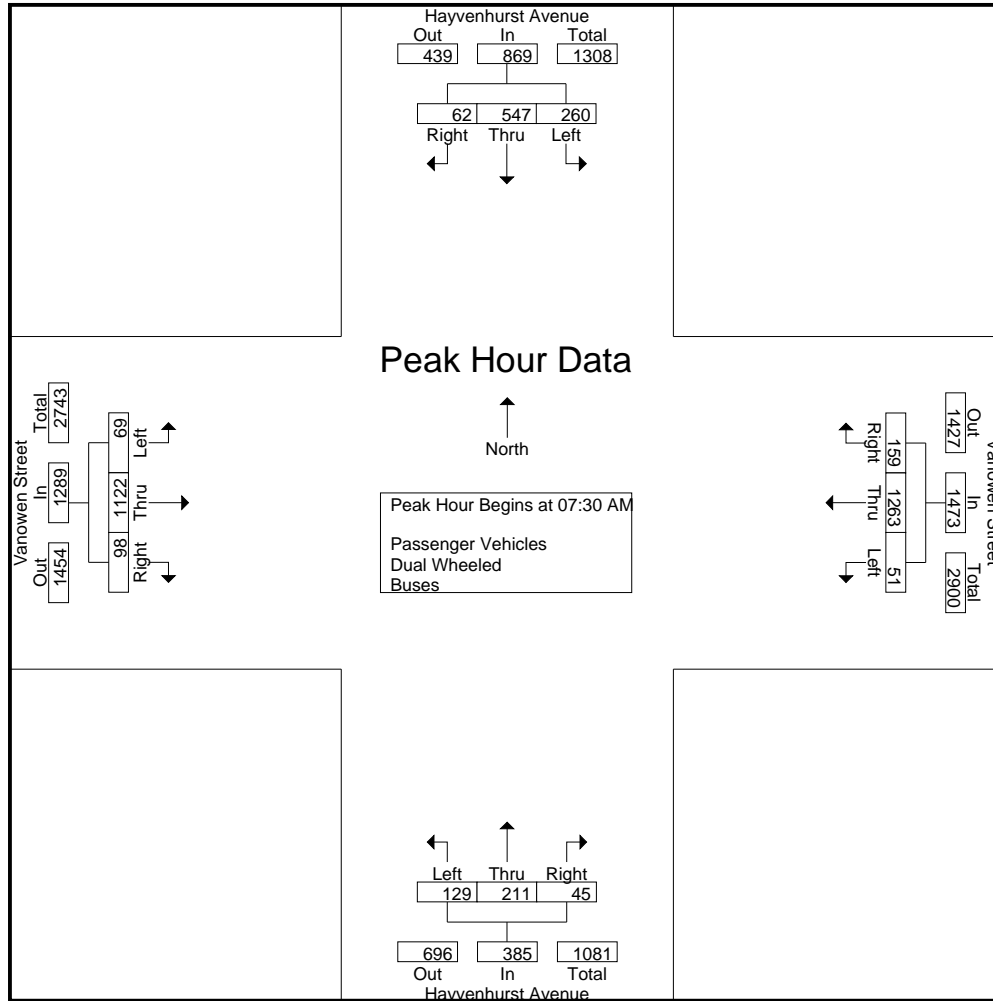
Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

	Hayvenhurst Avenue Southbound				Vanowen Street Westbound				Hayvenhurst Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	37	56	12	105	6	223	34	263	6	35	13	54	7	187	13	207	629
07:15 AM	46	109	10	165	9	261	30	300	16	38	11	65	6	196	17	219	749
07:30 AM	46	154	9	209	12	329	38	379	22	53	12	87	14	280	19	313	988
07:45 AM	55	132	14	201	13	300	41	354	55	61	7	123	19	286	36	341	1019
Total	184	451	45	680	40	1113	143	1296	99	187	43	329	46	949	85	1080	3385
08:00 AM	82	136	21	239	10	311	34	355	28	52	15	95	19	258	24	301	990
08:15 AM	77	125	18	220	16	323	46	385	24	45	11	80	17	298	19	334	1019
08:30 AM	51	130	22	203	14	265	27	306	10	52	9	71	10	303	20	333	913
08:45 AM	38	135	7	180	17	284	41	342	15	52	4	71	14	217	20	251	844
Total	248	526	68	842	57	1183	148	1388	77	201	39	317	60	1076	83	1219	3766
09:00 AM	36	65	8	109	8	240	26	274	3	35	12	50	11	199	7	217	650
09:15 AM	30	35	16	81	6	225	31	262	8	48	4	60	15	215	8	238	641
09:30 AM	25	52	13	90	10	211	31	252	7	32	6	45	9	204	7	220	607
09:45 AM	27	52	11	90	9	210	26	245	8	37	11	56	10	171	7	188	579
Total	118	204	48	370	33	886	114	1033	26	152	33	211	45	789	29	863	2477
Grand Total	550	1181	161	1892	130	3182	405	3717	202	540	115	857	151	2814	197	3162	9628
Apprch %	29.1	62.4	8.5		3.5	85.6	10.9		23.6	63	13.4		4.8	89	6.2		
Total %	5.7	12.3	1.7	19.7	1.4	33	4.2	38.6	2.1	5.6	1.2	8.9	1.6	29.2	2	32.8	
Passenger Vehicles	536	1156	153	1845	128	3096	395	3619	198	535	112	845	145	2742	194	3081	9390
% Passenger Vehicles	97.5	97.9	95	97.5	98.5	97.3	97.5	97.4	98	99.1	97.4	98.6	96	97.4	98.5	97.4	97.5
Dual Wheeled	12	21	7	40	2	62	10	74	1	4	2	7	3	42	3	48	169
% Dual Wheeled	2.2	1.8	4.3	2.1	1.5	1.9	2.5	2	0.5	0.7	1.7	0.8	2	1.5	1.5	1.5	1.8
Buses	2	4	1	7	0	24	0	24	3	1	1	5	3	30	0	33	69
% Buses	0.4	0.3	0.6	0.4	0	0.8	0	0.6	1.5	0.2	0.9	0.6	2	1.1	0	1	0.7

	Hayvenhurst Avenue Southbound				Vanowen Street Westbound				Hayvenhurst Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	46	154	9	209	12	329	38	379	22	53	12	87	14	280	19	313	988
07:45 AM	55	132	14	201	13	300	41	354	55	61	7	123	19	286	36	341	1019
08:00 AM	82	136	21	239	10	311	34	355	28	52	15	95	19	258	24	301	990
08:15 AM	77	125	18	220	16	323	46	385	24	45	11	80	17	298	19	334	1019
Total Volume	260	547	62	869	51	1263	159	1473	129	211	45	385	69	1122	98	1289	4016
% App. Total	29.9	62.9	7.1		3.5	85.7	10.8		33.5	54.8	11.7		5.4	87	7.6		
PHF	.793	.888	.738	.909	.797	.960	.864	.956	.586	.865	.750	.783	.908	.941	.681	.945	.985

City of Los Angeles
N/S: Hayvenhurst Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 04_LAC_Hay_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:45 AM			
+0 mins.	46	154	9	209	12	329	38	379	22	53	12	87	19	286	36	341
+15 mins.	55	132	14	201	13	300	41	354	55	61	7	123	19	258	24	301
+30 mins.	82	136	21	239	10	311	34	355	28	52	15	95	17	298	19	334
+45 mins.	77	125	18	220	16	323	46	385	24	45	11	80	10	303	20	333
Total Volume	260	547	62	869	51	1263	159	1473	129	211	45	385	65	1145	99	1309
% App. Total	29.9	62.9	7.1		3.5	85.7	10.8		33.5	54.8	11.7		5	87.5	7.6	
PHF	.793	.888	.738	.909	.797	.960	.864	.956	.586	.865	.750	.783	.855	.945	.688	.960

City of Los Angeles
N/S: Hayvenhurst Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 04_LAC_Hay_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

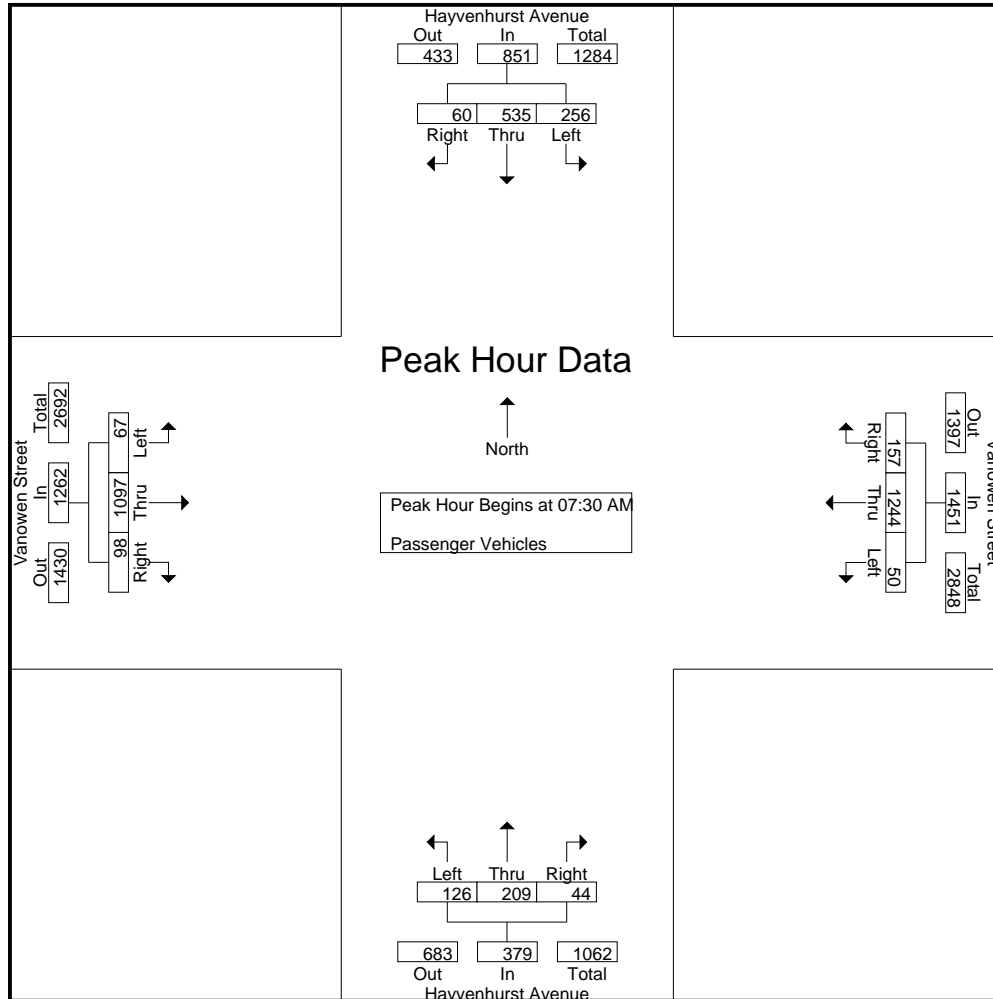
Groups Printed- Passenger Vehicles

	Hayvenhurst Avenue Southbound				Vanowen Street Westbound				Hayvenhurst Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	36	54	11	101	6	220	33	259	5	35	13	53	7	184	12	203	616
07:15 AM	43	108	10	161	9	251	29	289	16	37	10	63	6	189	17	212	725
07:30 AM	45	152	9	206	12	323	38	373	20	51	11	82	14	271	19	304	965
07:45 AM	55	130	14	199	12	295	40	347	55	61	7	123	19	284	36	339	1008
Total	179	444	44	667	39	1089	140	1268	96	184	41	321	46	928	84	1058	3314
08:00 AM	81	131	20	232	10	307	33	350	27	52	15	94	18	250	24	292	968
08:15 AM	75	122	17	214	16	319	46	381	24	45	11	80	16	292	19	327	1002
08:30 AM	50	128	22	200	14	261	25	300	10	52	9	71	9	295	19	323	894
08:45 AM	37	131	7	175	16	271	41	328	15	51	4	70	14	212	20	246	819
Total	243	512	66	821	56	1158	145	1359	76	200	39	315	57	1049	82	1188	3683
09:00 AM	36	63	8	107	8	233	25	266	3	35	12	50	11	192	7	210	633
09:15 AM	30	35	15	80	6	216	30	252	8	47	4	59	13	209	7	229	620
09:30 AM	23	51	11	85	10	201	29	240	7	32	5	44	8	198	7	213	582
09:45 AM	25	51	9	85	9	199	26	234	8	37	11	56	10	166	7	183	558
Total	114	200	43	357	33	849	110	992	26	151	32	209	42	765	28	835	2393
Grand Total	536	1156	153	1845	128	3096	395	3619	198	535	112	845	145	2742	194	3081	9390
Apprch %	29.1	62.7	8.3		3.5	85.5	10.9		23.4	63.3	13.3		4.7	89	6.3		
Total %	5.7	12.3	1.6	19.6	1.4	33	4.2	38.5	2.1	5.7	1.2	9	1.5	29.2	2.1	32.8	

	Hayvenhurst Avenue Southbound				Vanowen Street Westbound				Hayvenhurst Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	45	152	9	206	12	323	38	373	20	51	11	82	14	271	19	304	965
07:45 AM	55	130	14	199	12	295	40	347	55	61	7	123	19	284	36	339	1008
08:00 AM	81	131	20	232	10	307	33	350	27	52	15	94	18	250	24	292	968
08:15 AM	75	122	17	214	16	319	46	381	24	45	11	80	16	292	19	327	1002
Total Volume	256	535	60	851	50	1244	157	1451	126	209	44	379	67	1097	98	1262	3943
% App. Total	30.1	62.9	7.1		3.4	85.7	10.8		33.2	55.1	11.6		5.3	86.9	7.8		
PHF	.790	.880	.750	.917	.781	.963	.853	.952	.573	.857	.733	.770	.882	.939	.681	.931	.978

City of Los Angeles
N/S: Hayvenhurst Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 04_LAC_Hay_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	45	152	9	206	12	323	38	373	20	51	11	82	14	271	19	304
+15 mins.	55	130	14	199	12	295	40	347	55	61	7	123	19	284	36	339
+30 mins.	81	131	20	232	10	307	33	350	27	52	15	94	18	250	24	292
+45 mins.	75	122	17	214	16	319	46	381	24	45	11	80	16	292	19	327
Total Volume	256	535	60	851	50	1244	157	1451	126	209	44	379	67	1097	98	1262
% App. Total	30.1	62.9	7.1		3.4	85.7	10.8		33.2	55.1	11.6		5.3	86.9	7.8	
PHF	.790	.880	.750	.917	.781	.963	.853	.952	.573	.857	.733	.770	.882	.939	.681	.931

City of Los Angeles
N/S: Hayvenhurst Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 04_LAC_Hay_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

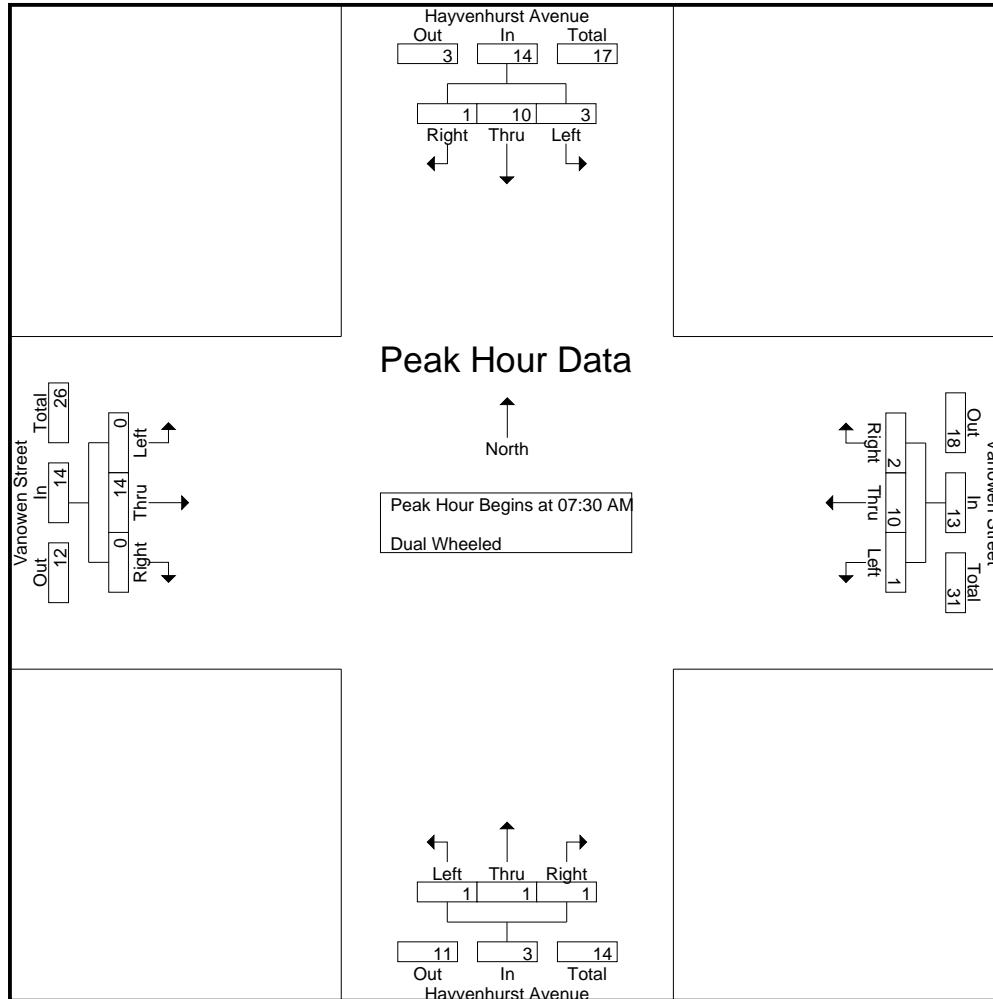
Groups Printed- Dual Wheeled

	Hayvenhurst Avenue Southbound				Vanowen Street Westbound				Hayvenhurst Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	1	1	3	0	2	1	3	0	0	0	0	0	3	1	4	10
07:15 AM	3	1	0	4	0	7	1	8	0	1	0	1	0	5	0	5	18
07:30 AM	1	1	0	2	0	5	0	5	0	1	1	2	0	5	0	5	14
07:45 AM	0	2	0	2	1	2	1	4	0	0	0	0	0	1	0	1	7
Total	5	5	1	11	1	16	3	20	0	2	1	3	0	14	1	15	49
08:00 AM	1	4	0	5	0	1	1	2	1	0	0	1	0	3	0	3	11
08:15 AM	1	3	1	5	0	2	0	2	0	0	0	0	0	5	0	5	12
08:30 AM	1	2	0	3	0	3	2	5	0	0	0	0	0	3	1	4	12
08:45 AM	1	4	0	5	1	12	0	13	0	1	0	1	0	2	0	2	21
Total	4	13	1	18	1	18	3	22	1	1	0	2	0	13	1	14	56
09:00 AM	0	1	0	1	0	4	1	5	0	0	0	0	0	4	0	4	10
09:15 AM	0	0	1	1	0	7	1	8	0	1	0	1	2	4	1	7	17
09:30 AM	1	1	2	4	0	9	2	11	0	0	1	1	1	3	0	4	20
09:45 AM	2	1	2	5	0	8	0	8	0	0	0	0	0	4	0	4	17
Total	3	3	5	11	0	28	4	32	0	1	1	2	3	15	1	19	64
Grand Total	12	21	7	40	2	62	10	74	1	4	2	7	3	42	3	48	169
Apprch %	30	52.5	17.5		2.7	83.8	13.5		14.3	57.1	28.6		6.2	87.5	6.2		
Total %	7.1	12.4	4.1	23.7	1.2	36.7	5.9	43.8	0.6	2.4	1.2	4.1	1.8	24.9	1.8	28.4	

	Hayvenhurst Avenue Southbound				Vanowen Street Westbound				Hayvenhurst Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	1	1	0	2	0	5	0	5	0	1	1	2	0	5	0	5	14
07:45 AM	0	2	0	2	1	2	1	4	0	0	0	0	0	1	0	1	7
08:00 AM	1	4	0	5	0	1	1	2	1	0	0	1	0	3	0	3	11
08:15 AM	1	3	1	5	0	2	0	2	0	0	0	0	0	5	0	5	12
Total Volume	3	10	1	14	1	10	2	13	1	1	1	3	0	14	0	14	44
% App. Total	21.4	71.4	7.1		7.7	76.9	15.4		33.3	33.3	33.3		0	100	0		
PHF	.750	.625	.250	.700	.250	.500	.500	.650	.250	.250	.250	.375	.000	.700	.000	.700	.786

City of Los Angeles
N/S: Hayvenhurst Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 04_LAC_Hay_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	1	1	0	2	0	5	0	5	0	1	1	2	0	5	0	5
+15 mins.	0	2	0	2	1	2	1	4	0	0	0	0	0	1	0	1
+30 mins.	1	4	0	5	0	1	1	2	1	0	0	1	0	3	0	3
+45 mins.	1	3	1	5	0	2	0	2	0	0	0	0	0	5	0	5
Total Volume	3	10	1	14	1	10	2	13	1	1	1	3	0	14	0	14
% App. Total	21.4	71.4	7.1		7.7	76.9	15.4		33.3	33.3	33.3		0	100	0	
PHF	.750	.625	.250	.700	.250	.500	.500	.650	.250	.250	.250	.375	.000	.700	.000	.700

City of Los Angeles
N/S: Hayvenhurst Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 04_LAC_Hay_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

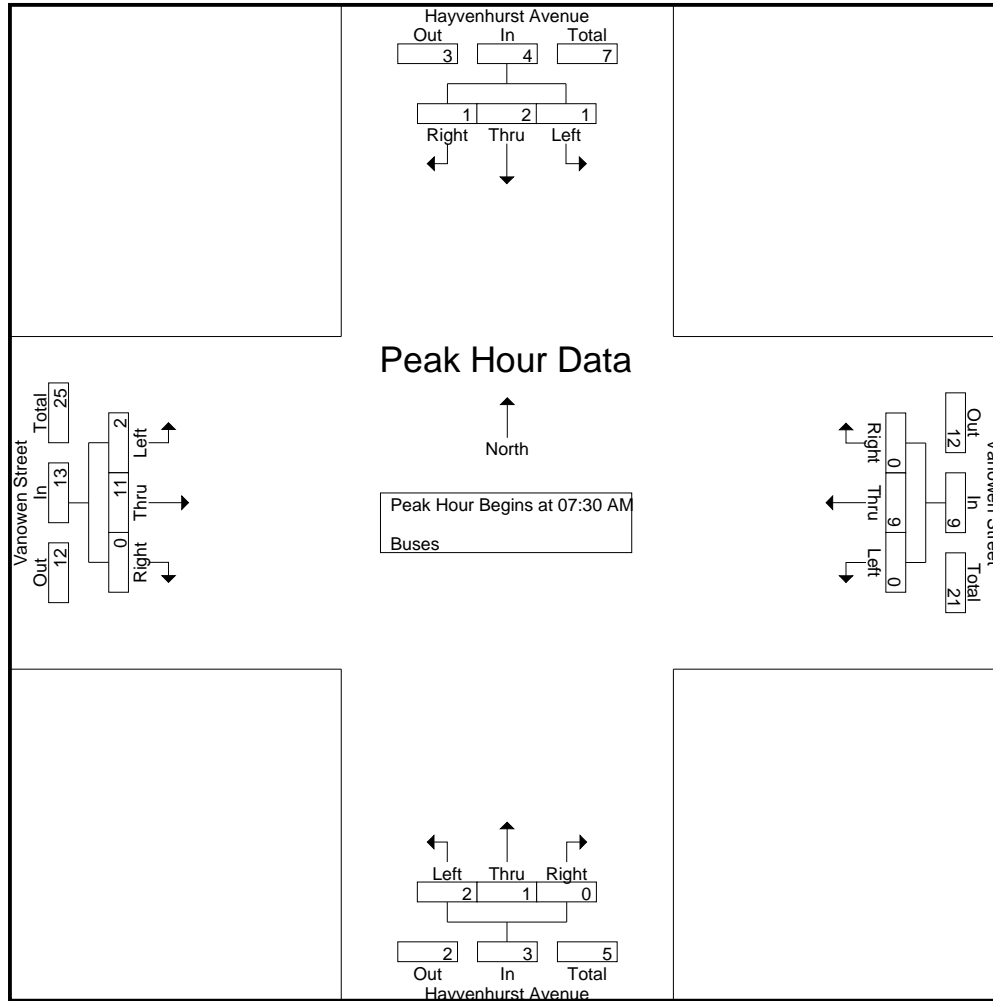
Groups Printed- Buses

	Hayvenhurst Avenue Southbound				Vanowen Street Westbound				Hayvenhurst Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	1	0	1	1	0	0	1	0	0	0	0	3
07:15 AM	0	0	0	0	0	3	0	3	0	0	1	1	0	2	0	2	6
07:30 AM	0	1	0	1	0	1	0	1	2	1	0	3	0	4	0	4	9
07:45 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	4
Total	0	2	0	2	0	8	0	8	3	1	1	5	0	7	0	7	22
08:00 AM	0	1	1	2	0	3	0	3	0	0	0	0	1	5	0	6	11
08:15 AM	1	0	0	1	0	2	0	2	0	0	0	0	1	1	0	2	5
08:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1	5	0	6	7
08:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3	4
Total	1	1	1	3	0	7	0	7	0	0	0	0	3	14	0	17	27
09:00 AM	0	1	0	1	0	3	0	3	0	0	0	0	0	3	0	3	7
09:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
09:30 AM	1	0	0	1	0	1	0	1	0	0	0	0	0	3	0	3	5
09:45 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	4
Total	1	1	0	2	0	9	0	9	0	0	0	0	0	9	0	9	20
Grand Total	2	4	1	7	0	24	0	24	3	1	1	5	3	30	0	33	69
Apprch %	28.6	57.1	14.3		0	100	0		60	20	20		9.1	90.9	0		
Total %	2.9	5.8	1.4	10.1	0	34.8	0	34.8	4.3	1.4	1.4	7.2	4.3	43.5	0	47.8	

	Hayvenhurst Avenue Southbound				Vanowen Street Westbound				Hayvenhurst Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	1	0	1	0	1	0	1	2	1	0	3	0	4	0	4	9
07:45 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	4
08:00 AM	0	1	1	2	0	3	0	3	0	0	0	0	1	5	0	6	11
08:15 AM	1	0	0	1	0	2	0	2	0	0	0	0	1	1	0	2	5
Total Volume	1	2	1	4	0	9	0	9	2	1	0	3	2	11	0	13	29
% App. Total	25	50	25		0	100	0		66.7	33.3	0		15.4	84.6	0		
PHF	.250	.500	.250	.500	.000	.750	.000	.750	.250	.250	.000	.250	.500	.550	.000	.542	.659

City of Los Angeles
N/S: Hayvenhurst Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 04_LAC_Hay_VO AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	1	0	1	0	1	0	1	2	1	0	3	0	4	0	4
+15 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1
+30 mins.	0	1	1	2	0	3	0	3	0	0	0	0	1	5	0	6
+45 mins.	1	0	0	1	0	2	0	2	0	0	0	0	1	1	0	2
Total Volume	1	2	1	4	0	9	0	9	2	1	0	3	2	11	0	13
% App. Total	25	50	25		0	100	0		66.7	33.3	0		15.4	84.6	0	
PHF	.250	.500	.250	.500	.000	.750	.000	.750	.250	.250	.000	.250	.500	.550	.000	.542

City of Los Angeles
N/S: Hayvenhurst Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 04_LAC_Hay_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

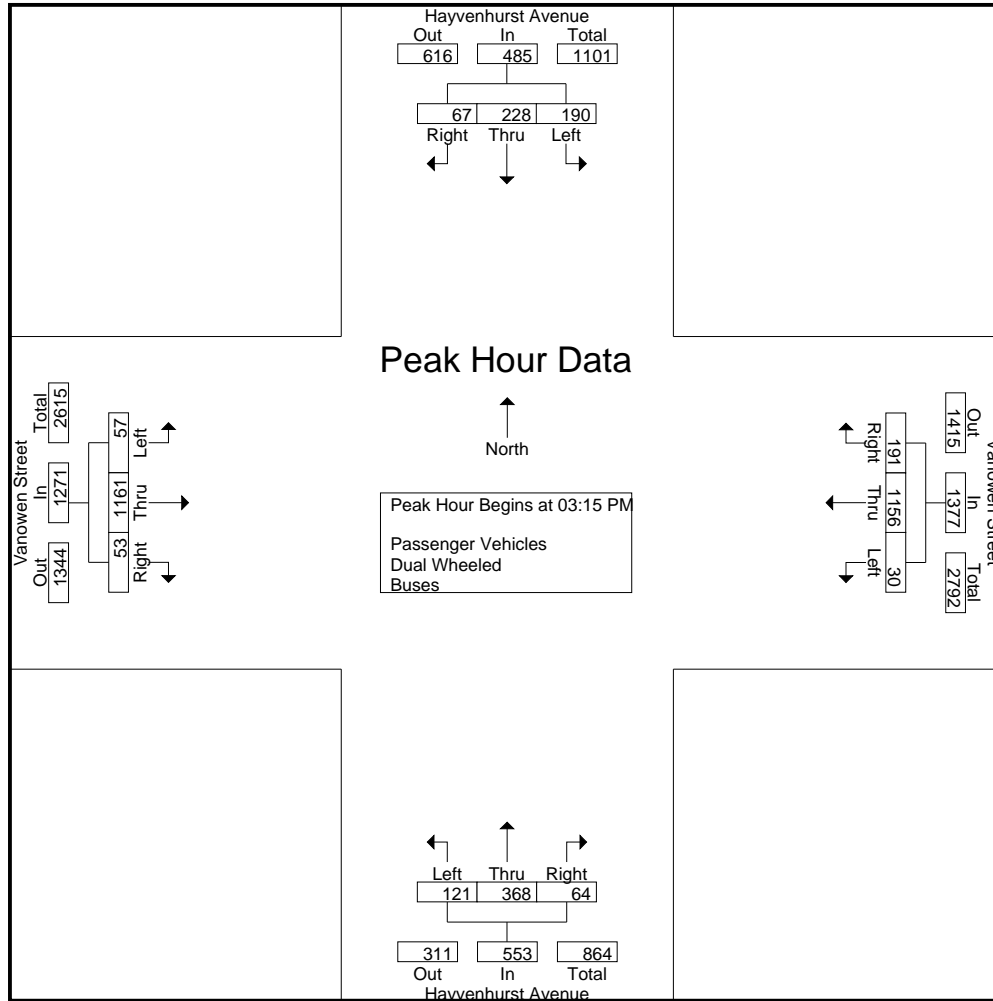
Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

	Hayvenhurst Avenue Southbound				Vanowen Street Westbound				Hayvenhurst Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	35	72	15	122	3	298	39	340	16	67	17	100	10	170	11	191	753
03:15 PM	32	53	16	101	4	285	52	341	26	78	10	114	14	290	9	313	869
03:30 PM	53	69	17	139	6	317	41	364	27	96	15	138	16	284	19	319	960
03:45 PM	49	53	17	119	13	267	50	330	35	107	21	163	14	315	10	339	951
Total	169	247	65	481	26	1167	182	1375	104	348	63	515	54	1059	49	1162	3533
04:00 PM	56	53	17	126	7	287	48	342	33	87	18	138	13	272	15	300	906
04:15 PM	59	63	20	142	9	246	27	282	17	84	15	116	14	297	6	317	857
04:30 PM	64	57	28	149	5	298	51	354	13	92	16	121	17	246	10	273	897
04:45 PM	52	47	21	120	8	268	50	326	23	72	16	111	10	224	7	241	798
Total	231	220	86	537	29	1099	176	1304	86	335	65	486	54	1039	38	1131	3458
05:00 PM	55	63	13	131	10	293	39	342	17	85	19	121	12	240	14	266	860
05:15 PM	43	63	12	118	10	268	50	328	21	79	20	120	12	243	8	263	829
05:30 PM	52	55	17	124	3	309	55	367	16	76	20	112	11	255	10	276	879
05:45 PM	55	50	16	121	7	296	69	372	28	76	16	120	8	209	10	227	840
Total	205	231	58	494	30	1166	213	1409	82	316	75	473	43	947	42	1032	3408
Grand Total	605	698	209	1512	85	3432	571	4088	272	999	203	1474	151	3045	129	3325	10399
Apprch %	40	46.2	13.8		2.1	84	14		18.5	67.8	13.8		4.5	91.6	3.9		
Total %	5.8	6.7	2	14.5	0.8	33	5.5	39.3	2.6	9.6	2	14.2	1.5	29.3	1.2	32	
Passenger Vehicles	594	694	207	1495	82	3386	557	4025	267	969	190	1426	148	2993	128	3269	10215
% Passenger Vehicles	98.2	99.4	99	98.9	96.5	98.7	97.5	98.5	98.2	97	93.6	96.7	98	98.3	99.2	98.3	98.2
Dual Wheeled	9	3	2	14	3	26	11	40	4	28	9	41	2	29	1	32	127
% Dual Wheeled	1.5	0.4	1	0.9	3.5	0.8	1.9	1	1.5	2.8	4.4	2.8	1.3	1	0.8	1	1.2
Buses	2	1	0	3	0	20	3	23	1	2	4	7	1	23	0	24	57
% Buses	0.3	0.1	0	0.2	0	0.6	0.5	0.6	0.4	0.2	2	0.5	0.7	0.8	0	0.7	0.5

	Hayvenhurst Avenue Southbound				Vanowen Street Westbound				Hayvenhurst Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	32	53	16	101	4	285	52	341	26	78	10	114	14	290	9	313	869
03:30 PM	53	69	17	139	6	317	41	364	27	96	15	138	16	284	19	319	960
03:45 PM	49	53	17	119	13	267	50	330	35	107	21	163	14	315	10	339	951
04:00 PM	56	53	17	126	7	287	48	342	33	87	18	138	13	272	15	300	906
Total Volume	190	228	67	485	30	1156	191	1377	121	368	64	553	57	1161	53	1271	3686
% App. Total	39.2	47	13.8		2.2	84	13.9		21.9	66.5	11.6		4.5	91.3	4.2		
PHF	.848	.826	.985	.872	.577	.912	.918	.946	.864	.860	.762	.848	.891	.921	.697	.937	.960

City of Los Angeles
N/S: Hayvenhurst Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 04_LAC_Hay_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				05:00 PM				03:30 PM				03:30 PM			
+0 mins.	59	63	20	142	10	293	39	342	27	96	15	138	16	284	19	319
+15 mins.	64	57	28	149	10	268	50	328	35	107	21	163	14	315	10	339
+30 mins.	52	47	21	120	3	309	55	367	33	87	18	138	13	272	15	300
+45 mins.	55	63	13	131	7	296	69	372	17	84	15	116	14	297	6	317
Total Volume	230	230	82	542	30	1166	213	1409	112	374	69	555	57	1168	50	1275
% App. Total	42.4	42.4	15.1		2.1	82.8	15.1		20.2	67.4	12.4		4.5	91.6	3.9	
PHF	.898	.913	.732	.909	.750	.943	.772	.947	.800	.874	.821	.851	.891	.927	.658	.940

City of Los Angeles
N/S: Hayvenhurst Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 04_LAC_Hay_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

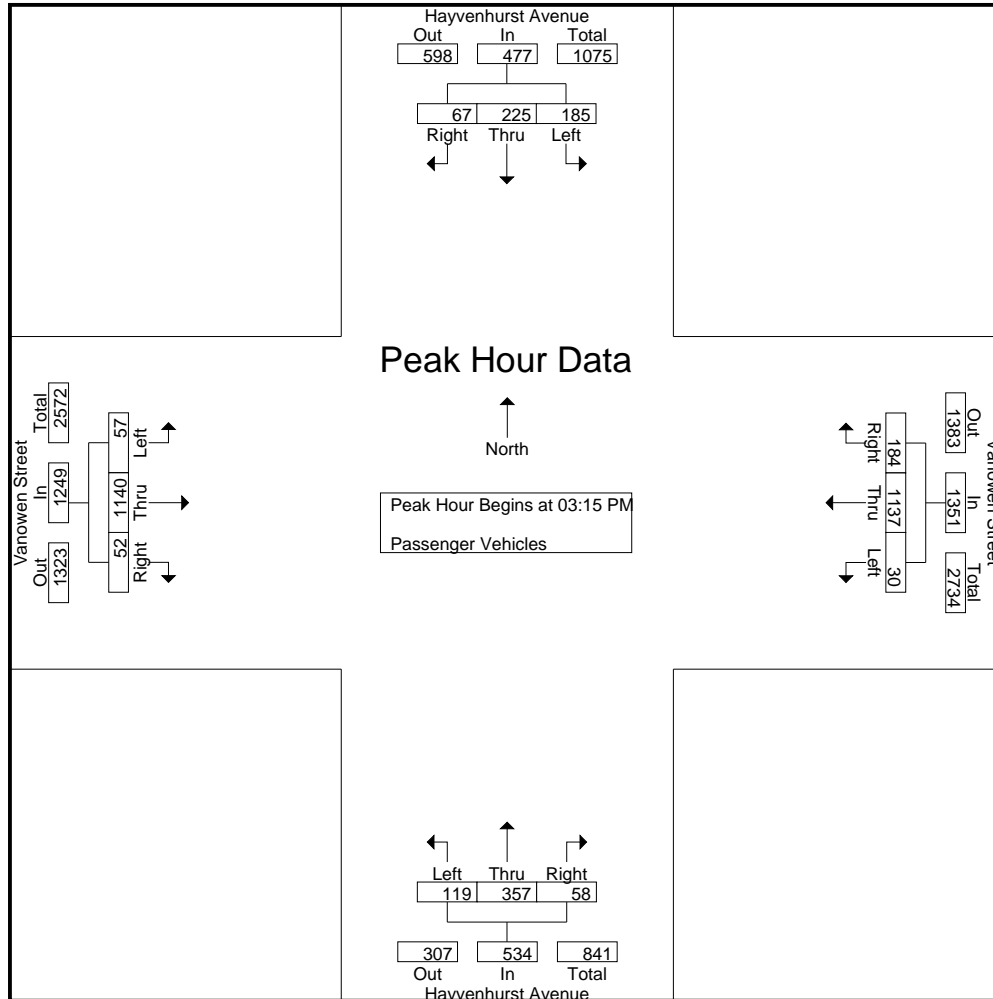
Groups Printed- Passenger Vehicles

	Hayvenhurst Avenue Southbound				Vanowen Street Westbound				Hayvenhurst Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	34	72	15	121	1	291	36	328	16	62	15	93	10	168	11	189	731
03:15 PM	30	52	16	98	4	279	51	334	26	76	9	111	14	285	9	308	851
03:30 PM	51	69	17	137	6	313	40	359	27	95	13	135	16	278	18	312	943
03:45 PM	48	52	17	117	13	266	45	324	33	103	19	155	14	310	10	334	930
Total	163	245	65	473	24	1149	172	1345	102	336	56	494	54	1041	48	1143	3455
04:00 PM	56	52	17	125	7	279	48	334	33	83	17	133	13	267	15	295	887
04:15 PM	58	63	20	141	8	241	27	276	17	83	15	115	14	291	6	311	843
04:30 PM	63	57	27	147	5	296	50	351	13	87	16	116	17	241	10	268	882
04:45 PM	52	47	21	120	8	264	49	321	20	70	15	105	9	221	7	237	783
Total	229	219	85	533	28	1080	174	1282	83	323	63	469	53	1020	38	1111	3395
05:00 PM	55	62	13	130	10	290	39	339	17	82	18	117	11	236	14	261	847
05:15 PM	42	63	12	117	10	267	50	327	21	79	20	120	12	238	8	258	822
05:30 PM	52	55	17	124	3	307	53	363	16	73	19	108	10	251	10	271	866
05:45 PM	53	50	15	118	7	293	69	369	28	76	14	118	8	207	10	225	830
Total	202	230	57	489	30	1157	211	1398	82	310	71	463	41	932	42	1015	3365
Grand Total	594	694	207	1495	82	3386	557	4025	267	969	190	1426	148	2993	128	3269	10215
Apprch %	39.7	46.4	13.8		2	84.1	13.8		18.7	68	13.3		4.5	91.6	3.9		
Total %	5.8	6.8	2	14.6	0.8	33.1	5.5	39.4	2.6	9.5	1.9	14	1.4	29.3	1.3	32	

	Hayvenhurst Avenue Southbound				Vanowen Street Westbound				Hayvenhurst Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:15 PM to 04:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	30	52	16	98	4	279	51	334	26	76	9	111	14	285	9	308	851
03:30 PM	51	69	17	137	6	313	40	359	27	95	13	135	16	278	18	312	943
03:45 PM	48	52	17	117	13	266	45	324	33	103	19	155	14	310	10	334	930
04:00 PM	56	52	17	125	7	279	48	334	33	83	17	133	13	267	15	295	887
Total Volume	185	225	67	477	30	1137	184	1351	119	357	58	534	57	1140	52	1249	3611
% App. Total	38.8	47.2	14		2.2	84.2	13.6		22.3	66.9	10.9		4.6	91.3	4.2		
PHF	.826	.815	.985	.870	.577	.908	.902	.941	.902	.867	.763	.861	.891	.919	.722	.935	.957

City of Los Angeles
N/S: Hayvenhurst Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 04_LAC_Hay_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 03:15 PM to 04:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:15 PM				03:15 PM				03:15 PM				03:15 PM			
+0 mins.	30	52	16	98	4	279	51	334	26	76	9	111	14	285	9	308
+15 mins.	51	69	17	137	6	313	40	359	27	95	13	135	16	278	18	312
+30 mins.	48	52	17	117	13	266	45	324	33	103	19	155	14	310	10	334
+45 mins.	56	52	17	125	7	279	48	334	33	83	17	133	13	267	15	295
Total Volume	185	225	67	477	30	1137	184	1351	119	357	58	534	57	1140	52	1249
% App. Total	38.8	47.2	14		2.2	84.2	13.6		22.3	66.9	10.9		4.6	91.3	4.2	
PHF	.826	.815	.985	.870	.577	.908	.902	.941	.902	.867	.763	.861	.891	.919	.722	.935

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Los Angeles
N/S: Hayvenhurst Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 04_LAC_Hay_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

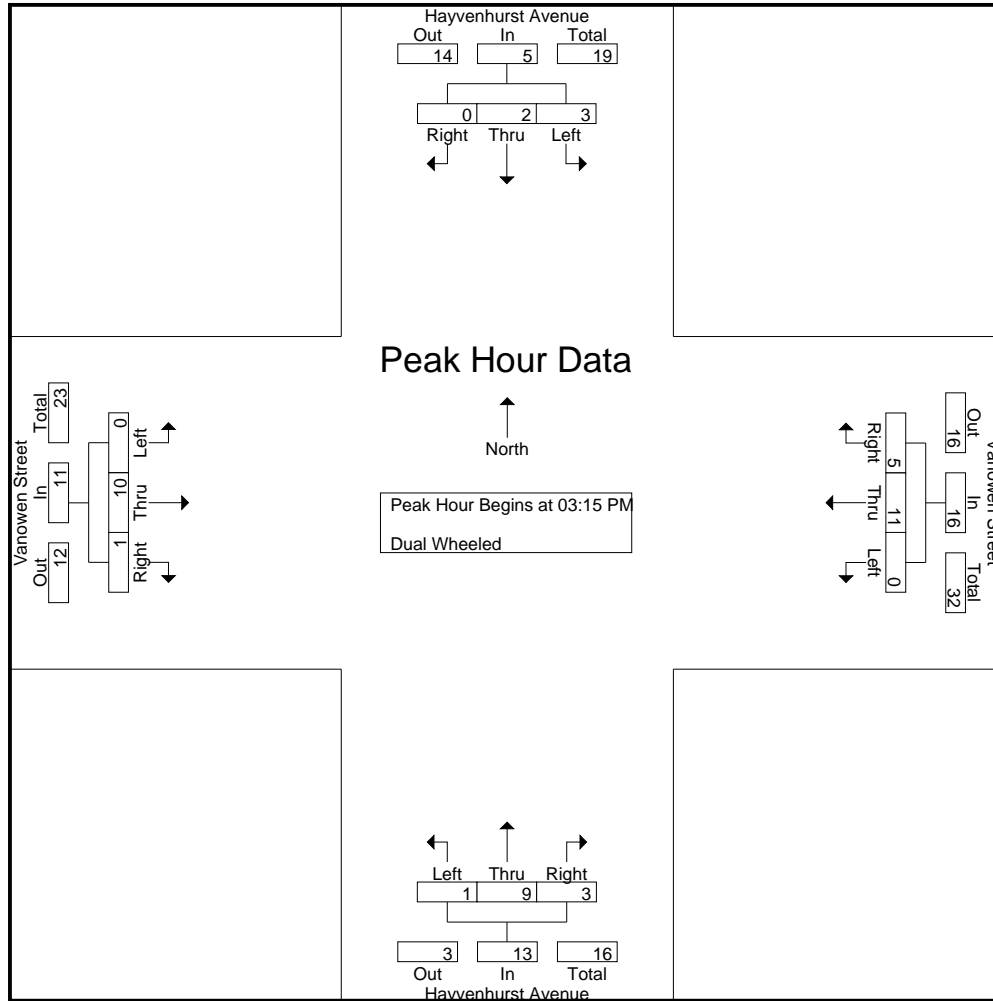
Groups Printed- Dual Wheeled

	Hayvenhurst Avenue Southbound				Vanowen Street Westbound				Hayvenhurst Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	1	0	0	1	2	2	2	6	0	5	2	7	0	1	0	1	15
03:15 PM	1	1	0	2	0	3	1	4	0	1	1	2	0	3	0	3	11
03:30 PM	2	0	0	2	0	2	1	3	0	1	0	1	0	4	1	5	11
03:45 PM	0	0	0	0	0	1	3	4	1	3	1	5	0	1	0	1	10
Total	4	1	0	5	2	8	7	17	1	10	4	15	0	9	1	10	47
04:00 PM	0	1	0	1	0	5	0	5	0	4	1	5	0	2	0	2	13
04:15 PM	1	0	0	1	1	5	0	6	0	1	0	1	0	6	0	6	14
04:30 PM	1	0	1	2	0	1	1	2	0	5	0	5	0	1	0	1	10
04:45 PM	0	0	0	0	0	2	1	3	3	2	0	5	1	2	0	3	11
Total	2	1	1	4	1	13	2	16	3	12	1	16	1	11	0	12	48
05:00 PM	0	1	0	1	0	2	0	2	0	3	1	4	0	3	0	3	10
05:15 PM	1	0	0	1	0	1	0	1	0	0	0	0	0	3	0	3	5
05:30 PM	0	0	0	0	0	1	2	3	0	3	1	4	1	2	0	3	10
05:45 PM	2	0	1	3	0	1	0	1	0	0	2	2	0	1	0	1	7
Total	3	1	1	5	0	5	2	7	0	6	4	10	1	9	0	10	32
Grand Total	9	3	2	14	3	26	11	40	4	28	9	41	2	29	1	32	127
Apprch %	64.3	21.4	14.3		7.5	65	27.5		9.8	68.3	22		6.2	90.6	3.1		
Total %	7.1	2.4	1.6	11	2.4	20.5	8.7	31.5	3.1	22	7.1	32.3	1.6	22.8	0.8	25.2	

	Hayvenhurst Avenue Southbound				Vanowen Street Westbound				Hayvenhurst Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:15 PM to 04:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	1	1	0	2	0	3	1	4	0	1	1	2	0	3	0	3	11
03:30 PM	2	0	0	2	0	2	1	3	0	1	0	1	0	4	1	5	11
03:45 PM	0	0	0	0	0	1	3	4	1	3	1	5	0	1	0	1	10
04:00 PM	0	1	0	1	0	5	0	5	0	4	1	5	0	2	0	2	13
Total Volume	3	2	0	5	0	11	5	16	1	9	3	13	0	10	1	11	45
% App. Total	60	40	0		0	68.8	31.2		7.7	69.2	23.1		0	90.9	9.1		
PHF	.375	.500	.000	.625	.000	.550	.417	.800	.250	.563	.750	.650	.000	.625	.250	.550	.865

City of Los Angeles
N/S: Hayvenhurst Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 04_LAC_Hay_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 03:15 PM to 04:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:15 PM				03:15 PM				03:15 PM				03:15 PM			
+0 mins.	1	1	0	2	0	3	1	4	0	1	1	2	0	3	0	3
+15 mins.	2	0	0	2	0	2	1	3	0	1	0	1	0	4	1	5
+30 mins.	0	0	0	0	0	1	3	4	1	3	1	5	0	1	0	1
+45 mins.	0	1	0	1	0	5	0	5	0	4	1	5	0	2	0	2
Total Volume	3	2	0	5	0	11	5	16	1	9	3	13	0	10	1	11
% App. Total	60	40	0		0	68.8	31.2		7.7	69.2	23.1		0	90.9	9.1	
PHF	.375	.500	.000	.625	.000	.550	.417	.800	.250	.563	.750	.650	.000	.625	.250	.550

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Los Angeles
N/S: Hayvenhurst Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 04_LAC_Hay_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

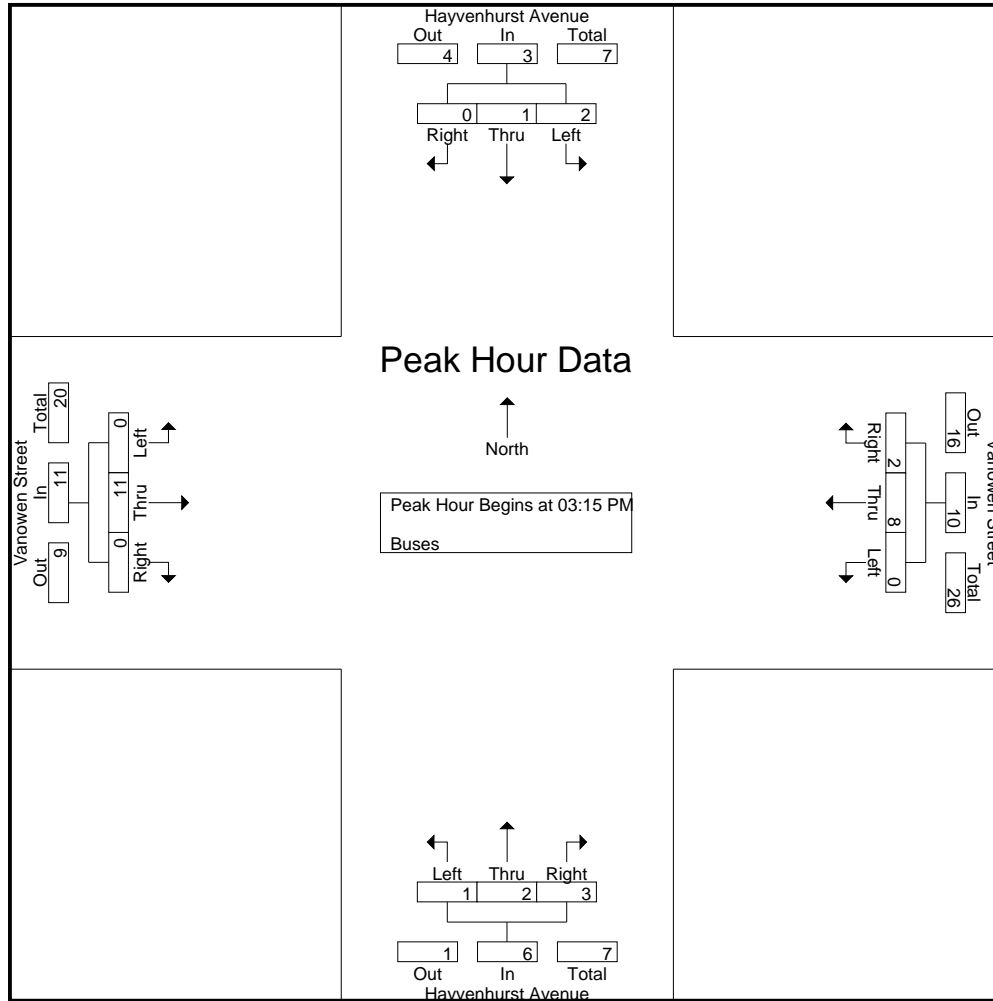
Groups Printed- Buses

	Hayvenhurst Avenue Southbound				Vanowen Street Westbound				Hayvenhurst Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	0	0	0	0	0	5	1	6	0	0	0	0	0	1	0	1	7
03:15 PM	1	0	0	1	0	3	0	3	0	1	0	1	0	2	0	2	7
03:30 PM	0	0	0	0	0	2	0	2	0	0	2	2	0	2	0	2	6
03:45 PM	1	1	0	2	0	0	2	2	1	1	1	3	0	4	0	4	11
Total	2	1	0	3	0	10	3	13	1	2	3	6	0	9	0	9	31
04:00 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	4	0	4	5
04:45 PM	0	0	0	0	0	2	0	2	0	0	1	1	0	1	0	1	4
Total	0	0	0	0	0	6	0	6	0	0	1	1	0	8	0	8	15
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	1	1	0	2	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
05:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
05:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
Total	0	0	0	0	0	4	0	4	0	0	0	0	1	6	0	7	11
Grand Total	2	1	0	3	0	20	3	23	1	2	4	7	1	23	0	24	57
Apprch %	66.7	33.3	0		0	87	13		14.3	28.6	57.1		4.2	95.8	0		
Total %	3.5	1.8	0	5.3	0	35.1	5.3	40.4	1.8	3.5	7	12.3	1.8	40.4	0	42.1	

	Hayvenhurst Avenue Southbound				Vanowen Street Westbound				Hayvenhurst Avenue Northbound				Vanowen Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:15 PM to 04:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	1	0	0	1	0	3	0	3	0	1	0	1	0	2	0	2	7
03:30 PM	0	0	0	0	0	2	0	2	0	0	2	2	0	2	0	2	6
03:45 PM	1	1	0	2	0	0	2	2	1	1	1	3	0	4	0	4	11
04:00 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
Total Volume	2	1	0	3	0	8	2	10	1	2	3	6	0	11	0	11	30
% App. Total	66.7	33.3	0		0	80	20		16.7	33.3	50		0	100	0		
PHF	.500	.250	.000	.375	.000	.667	.250	.833	.250	.500	.375	.500	.000	.688	.000	.688	.682

City of Los Angeles
N/S: Hayvenhurst Avenue
E/W: Vanowen Street
Weather: Clear

File Name : 04_LAC_Hay_VO PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 03:15 PM to 04:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:15 PM				03:15 PM				03:15 PM				03:15 PM			
+0 mins.	1	0	0	1	0	3	0	3	0	1	0	1	0	2	0	2
+15 mins.	0	0	0	0	0	2	0	2	0	0	2	2	0	2	0	2
+30 mins.	1	1	0	2	0	0	2	2	1	1	1	3	0	4	0	4
+45 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3
Total Volume	2	1	0	3	0	8	2	10	1	2	3	6	0	11	0	11
% App. Total	66.7	33.3	0		0	80	20		16.7	33.3	50		0	100	0	
PHF	.500	.250	.000	.375	.000	.667	.250	.833	.250	.500	.375	.500	.000	.688	.000	.688



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Hayvenhurst Avenue

East/West Vanowen Street

Day: Thursday Date: June 1, 2023 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: East Valley I/S CODE 33476

	<u>N/B</u>	<u>S/B</u>	<u>E/B</u>	<u>W/B</u>
DUAL-WHEELED	48	54	80	114
BIKES	12	10	15	12
BUSES	12	10	57	47

	<u>N/B TIME</u>	<u>S/B TIME</u>	<u>E/B TIME</u>	<u>W/B TIME</u>
AM PK 15 MIN	123 7.45	239 8.00	341 7.45	385 8.15
PM PK 15 MIN	163 3.45	149 4.30	339 3.45	372 5.45
AM PK HOUR	385 7.30	869 7.30	1309 7.45	1473 7.30
PM PK HOUR	555 3.30	542 4.15	1275 3.30	1409 5.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	99	187	43	329
8-9	77	201	39	317
9-10	26	152	33	211
3-4	104	348	63	515
4-5	86	335	65	486
5-6	82	316	75	473
TOTAL	474	1539	318	2331

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	184	451	45	680
8-9	248	526	68	842
9-10	118	204	48	370
3-4	169	247	65	481
4-5	231	220	86	537
5-6	205	231	58	494
TOTAL	1155	1879	370	3404

TOTAL

N-S
1009
1159
581
996
1023
967
5735

XING S/L

Ped	Sch
4	2
11	0
9	0
18	36
7	6
12	4
61	48

XING N/L

Ped	Sch
6	3
12	5
16	0
18	6
16	3
19	0
87	17

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	46	949	85	1080
8-9	60	1076	83	1219
9-10	45	789	29	863
3-4	54	1059	49	1162
4-5	54	1039	38	1131
5-6	43	947	42	1032
TOTAL	302	5859	326	6487

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	40	1113	143	1296
8-9	57	1183	148	1388
9-10	33	886	114	1033
3-4	26	1167	182	1375
4-5	29	1099	176	1304
5-6	30	1166	213	1409
TOTAL	215	6614	976	7805

TOTAL

E-W
2376
2607
1896
2537
2435
2441
14292

XING W/L

Ped	Sch
2	2
6	1
4	0
7	2
6	0
6	1
31	6

XING E/L

Ped	Sch
17	9
13	8
27	0
35	3
13	2
18	1
123	23

City of Los Angeles
Department of Transportation
BICYCLE COUNT SUMMARY

STREET:

North/South: Hayvenhurst Avenue

East/West: Vanowen Street

Day: Thursday

Date: 6/1/2023

Weather: CLEAR

School Day: Yes

District: East Valley

I/S Code: 33476

Hours: 7-10 AM, 3-6 PM

Staff: CUI

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	1	0	1
9-10	0	3	1	4
3-4	0	3	0	3
4-5	1	2	0	3
5-6	0	1	0	1
TOTAL	1	10	1	12

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total	N-S
7-8	0	1	0	1	1
8-9	0	1	0	1	2
9-10	0	1	0	1	5
3-4	0	1	0	1	4
4-5	0	1	1	2	5
5-6	0	4	0	4	5
TOTAL	0	9	1	10	22

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	2	0	2
8-9	0	3	0	3
9-10	0	0	0	0
3-4	0	3	0	3
4-5	0	5	0	5
5-6	1	1	0	2
TOTAL	1	14	0	15

WESTBOUND Approach

Hours	Lt	Th	Rt	Total	E-W
7-8	0	1	0	1	3
8-9	0	1	0	1	4
9-10	0	1	0	1	1
3-4	0	1	0	1	4
4-5	1	3	1	5	10
5-6	2	1	0	3	5
TOTAL	3	8	1	12	27

REMARKS (6 hour total):

- Female Riders
- No helmet riders
- Sidewalk Riding
- Wrong way riding

NB	SB	EB	WB	TOTAL
0	0	0	0	0
10	7	12	11	40
6	6	12	9	33
1	5	6	6	18

NB: Northbound, **SB:** Southbound, **EB:** Eastbound, **WB:** Westbound, **I/S:** Intersection

Source: CUI

LADOT 2015 CMP

PEDESTRIAN COUNT SUMMARY

STREET:

North/South:

Hayvenhurst Avenue

East/West:

Vanowen Street

Day:

Thursday

Date:

6/1/2023

Weather:

CLEAR

School Day:

YES

District:

East Valley

I/S Code:

33476

Hours:

7-10 AM, 3-6 PM

Staff:

CUI

AM PEAK PERIOD

15 Min. Interval

	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
7:00-7:15	5	1	4	1	11
7:15-7:30	1	1	13	1	16
7:30-7:45	2	1	7	2	12
7:45-8:00	1	3	2	0	6
8:00-8:15	6	1	7	0	14
8:15-8:30	4	3	10	4	21
8:30-8:45	4	2	3	1	10
8:45-9:00	3	5	1	2	11
9:00-9:15	4	2	5	0	11
9:15-9:30	2	2	4	1	9
9:30-9:45	6	1	10	2	19
9:45-10:00	4	4	8	1	17

Hours

7 - 8	9	6	26	4	45
8 - 9	17	11	21	7	56
9 - 10	16	9	27	4	56
TOTAL	42	26	74	15	157

PM PEAK PERIOD

15 Min. Interval

	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
3:00-3:15	8	0	9	0	17
3:15-3:30	3	11	13	3	30
3:30-3:45	7	11	11	3	32
3:45-4:00	6	32	5	3	46
4:00-4:15	3	3	2	1	9
4:15-4:30	5	4	5	2	16
4:30-4:45	5	5	1	2	13
4:45-5:00	6	1	7	1	15
5:00-5:15	4	7	5	0	16
5:15-5:30	5	1	6	1	13
5:30-5:45	1	3	2	1	7
5:45-6:00	9	5	6	5	25

Hours

3 - 4	24	54	38	9	125
4 - 5	19	13	15	6	53
5 - 6	19	16	19	7	61
TOTAL	62	83	72	22	239

REMARKS (6 hour total):

- Wheelchair/special needs assistance
- Skateboard/scooter

N-LEG S-LEG E-LEG W-LEG TOTAL

0	0	0	0	0
1	3	0	0	4

N: North, S: South, E: East, W: West, I/S: Intersection

Source:

LADOT 2015 CMP

Location: Los Angeles
 N/S: Hayvenhurst Avenue
 E/W: Vanowen Street



Date: 6/1/2023
 Day: Thursday

ADULT PEDESTRIANS

		North Leg Hayvenhurst Avenue	East Leg Vanowen Street	South Leg Hayvenhurst Avenue	West Leg Vanowen Street	
		Pedestrians	Pedestrians	Pedestrians	Pedestrians	
	7:00 AM	4	4	1	1	10
	7:15 AM	1	5	1	1	8
	7:30 AM	0	7	0	0	7
	7:45 AM	1	1	2	0	4
	8:00 AM	5	1	1	0	7
	8:15 AM	1	8	3	4	16
	8:30 AM	4	3	2	1	10
	8:45 AM	2	1	5	1	9
	9:00 AM	4	5	2	0	11
	9:15 AM	2	4	2	1	9
	9:30 AM	6	10	1	2	19
	9:45 AM	4	8	4	1	17
	TOTAL VOLUMES:	34	57	24	12	127

		North Leg Hayvenhurst Avenue	East Leg Vanowen Street	South Leg Hayvenhurst Avenue	West Leg Vanowen Street	
		Pedestrians	Pedestrians	Pedestrians	Pedestrians	
	3:00 PM	5	9	0	0	14
	3:15 PM	3	13	9	3	28
	3:30 PM	7	11	5	2	25
	3:45 PM	3	2	4	2	11
	4:00 PM	3	2	3	1	9
	4:15 PM	4	5	2	2	13
	4:30 PM	5	1	1	2	9
	4:45 PM	4	5	1	1	11
	5:00 PM	4	4	3	0	11
	5:15 PM	5	6	1	1	13
	5:30 PM	1	2	3	1	7
	5:45 PM	9	6	5	4	24
	TOTAL VOLUMES:	53	66	37	19	175

Location: Los Angeles
 N/S: Hayvenhurst Avenue
 E/W: Vanowen Street



Date: 6/1/2023
 Day: Thursday

SCHOOL AGE PEDESTRIANS

	North Leg Hayvenhurst Avenue Pedestrians	East Leg Vanowen Street Pedestrians	South Leg Hayvenhurst Avenue Pedestrians	West Leg Vanowen Street Pedestrians	
7:00 AM	1	0	0	0	1
7:15 AM	0	8	0	0	8
7:30 AM	2	0	1	2	5
7:45 AM	0	1	1	0	2
8:00 AM	1	6	0	0	7
8:15 AM	3	2	0	0	5
8:30 AM	0	0	0	0	0
8:45 AM	1	0	0	1	2
9:00 AM	0	0	0	0	0
9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
TOTAL VOLUMES:	8	17	2	3	30

	North Leg Hayvenhurst Avenue Pedestrians	East Leg Vanowen Street Pedestrians	South Leg Hayvenhurst Avenue Pedestrians	West Leg Vanowen Street Pedestrians	
3:00 PM	3	0	0	0	3
3:15 PM	0	0	2	0	2
3:30 PM	0	0	6	1	7
3:45 PM	3	3	28	1	35
4:00 PM	0	0	0	0	0
4:15 PM	1	0	2	0	3
4:30 PM	0	0	4	0	4
4:45 PM	2	2	0	0	4
5:00 PM	0	1	4	0	5
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	1	1
TOTAL VOLUMES:	9	6	46	3	64

Location: Los Angeles
 N/S: Hayvenhurst Avenue
 E/W: Vanowen Street



Date: 6/1/2023
 Day: Thursday

BICYCLES

		Southbound Hayvenhurst Avenue			Westbound Vanowen Street			Northbound Hayvenhurst Avenue			Eastbound Vanowen Street			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
	7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	8:00 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
	8:15 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
	8:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
	9:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	9:45 AM	0	1	0	0	1	0	0	2	0	0	0	0	4
TOTAL VOLUMES:		0	3	0	0	3	0	0	4	1	0	5	0	16

		Southbound Hayvenhurst Avenue			Westbound Vanowen Street			Northbound Hayvenhurst Avenue			Eastbound Vanowen Street			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	3:00 PM	0	1	0	0	0	0	0	0	0	0	1	0	2
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
	3:45 PM	0	0	0	0	1	0	0	2	0	0	0	0	3
	4:00 PM	0	1	1	0	2	0	0	0	0	0	2	0	6
	4:15 PM	0	0	0	1	0	1	1	1	0	0	1	0	5
	4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
	5:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	2
	5:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	5:30 PM	0	3	0	0	0	0	0	0	0	0	0	0	3
	5:45 PM	0	0	0	1	1	0	0	0	0	1	0	0	3
TOTAL VOLUMES:		0	6	1	3	5	1	1	6	0	1	9	0	33

City of Los Angeles
N/S: De Celis Place
E/W: Archwood Street
Weather: Clear

File Name : 05_LAC_De C_Arch AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

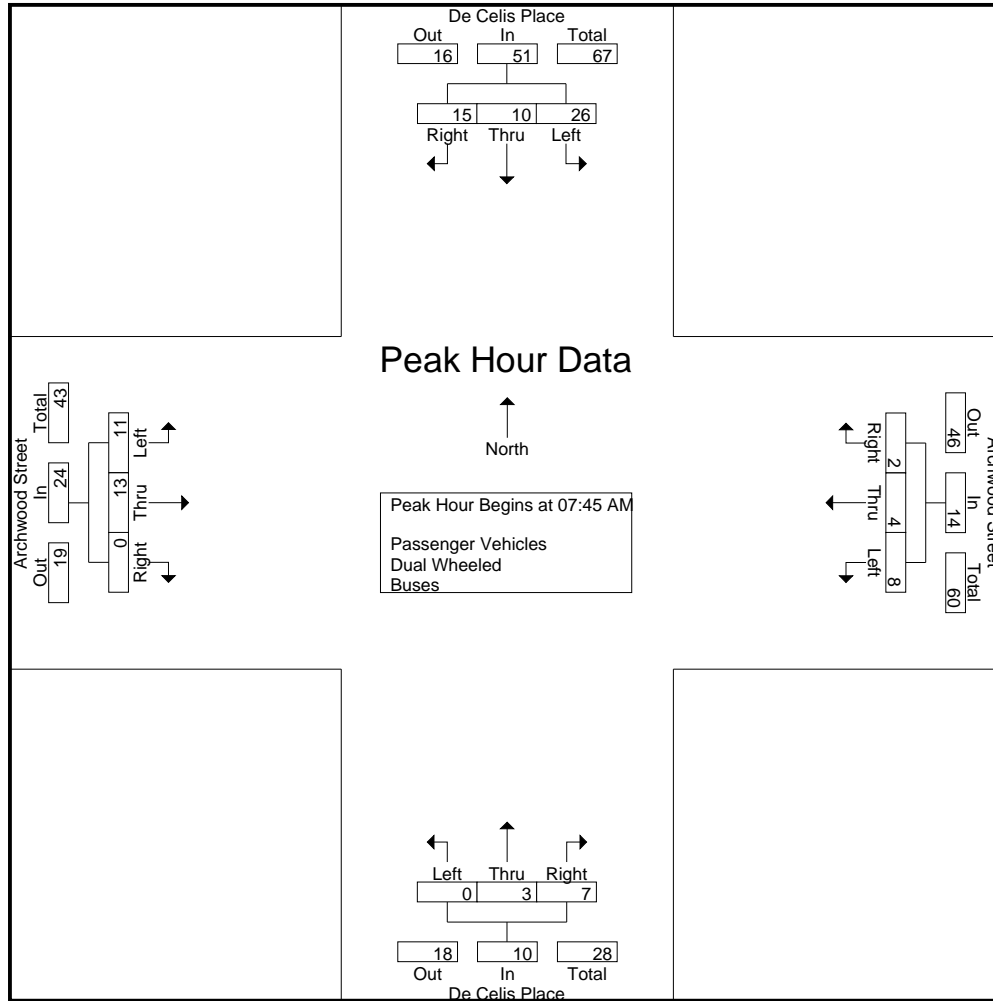
Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

	De Celis Place Southbound				Archwood Street Westbound				De Celis Place Northbound				Archwood Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	2	2	4	2	1	1	4	0	2	0	2	1	2	0	3	13
07:15 AM	1	0	3	4	1	0	0	1	0	2	0	2	2	3	0	5	12
07:30 AM	2	2	1	5	2	3	0	5	0	2	0	2	2	4	0	6	18
07:45 AM	6	2	6	14	0	0	0	0	0	1	5	6	4	4	0	8	28
Total	9	6	12	27	5	4	1	10	0	7	5	12	9	13	0	22	71
08:00 AM	6	4	3	13	5	3	2	10	0	1	1	2	3	4	0	7	32
08:15 AM	6	2	3	11	2	1	0	3	0	0	1	1	2	2	0	4	19
08:30 AM	8	2	3	13	1	0	0	1	0	1	0	1	2	3	0	5	20
08:45 AM	2	3	2	7	0	5	0	5	0	2	1	3	2	3	0	5	20
Total	22	11	11	44	8	9	2	19	0	4	3	7	9	12	0	21	91
09:00 AM	1	2	1	4	0	2	2	4	0	0	1	1	2	2	0	4	13
09:15 AM	0	1	3	4	0	1	0	1	1	1	0	2	2	4	1	7	14
09:30 AM	2	0	0	2	1	2	0	3	0	0	0	0	1	0	1	2	7
09:45 AM	2	2	2	6	2	4	1	7	1	2	1	4	3	5	0	8	25
Total	5	5	6	16	3	9	3	15	2	3	2	7	8	11	2	21	59
Grand Total	36	22	29	87	16	22	6	44	2	14	10	26	26	36	2	64	221
Apprch %	41.4	25.3	33.3		36.4	50	13.6		7.7	53.8	38.5		40.6	56.2	3.1		
Total %	16.3	10	13.1	39.4	7.2	10	2.7	19.9	0.9	6.3	4.5	11.8	11.8	16.3	0.9	29	
Passenger Vehicles	35	22	28	85	16	22	5	43	2	14	9	25	24	36	1	61	214
% Passenger Vehicles	97.2	100	96.6	97.7	100	100	83.3	97.7	100	100	90	96.2	92.3	100	50	95.3	96.8
Dual Wheeled	0	0	1	1	0	0	1	1	0	0	1	1	1	0	1	2	5
% Dual Wheeled	0	0	3.4	1.1	0	0	16.7	2.3	0	0	10	3.8	3.8	0	50	3.1	2.3
Buses	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
% Buses	2.8	0	0	1.1	0	0	0	0	0	0	0	0	3.8	0	0	1.6	0.9

	De Celis Place Southbound				Archwood Street Westbound				De Celis Place Northbound				Archwood Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	6	2	6	14	0	0	0	0	0	1	5	6	4	4	0	8	28
08:00 AM	6	4	3	13	5	3	2	10	0	1	1	2	3	4	0	7	32
08:15 AM	6	2	3	11	2	1	0	3	0	0	1	1	2	2	0	4	19
08:30 AM	8	2	3	13	1	0	0	1	0	1	0	1	2	3	0	5	20
Total Volume	26	10	15	51	8	4	2	14	0	3	7	10	11	13	0	24	99
% App. Total	51	19.6	29.4		57.1	28.6	14.3		0	30	70		45.8	54.2	0		
PHF	.813	.625	.625	.911	.400	.333	.250	.350	.000	.750	.350	.417	.688	.813	.000	.750	.773

City of Los Angeles
N/S: De Celis Place
E/W: Archwood Street
Weather: Clear

File Name : 05_LAC_De C_Arch AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				08:00 AM				07:00 AM				07:15 AM			
+0 mins.	6	2	6	14	5	3	2	10	0	2	0	2	2	3	0	5
+15 mins.	6	4	3	13	2	1	0	3	0	2	0	2	2	4	0	6
+30 mins.	6	2	3	11	1	0	0	1	0	2	0	2	4	4	0	8
+45 mins.	8	2	3	13	0	5	0	5	0	1	5	6	3	4	0	7
Total Volume	26	10	15	51	8	9	2	19	0	7	5	12	11	15	0	26
% App. Total	51	19.6	29.4		42.1	47.4	10.5		0	58.3	41.7		42.3	57.7	0	
PHF	.813	.625	.625	.911	.400	.450	.250	.475	.000	.875	.250	.500	.688	.938	.000	.813

City of Los Angeles
N/S: De Celis Place
E/W: Archwood Street
Weather: Clear

File Name : 05_LAC_De C_Arch AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

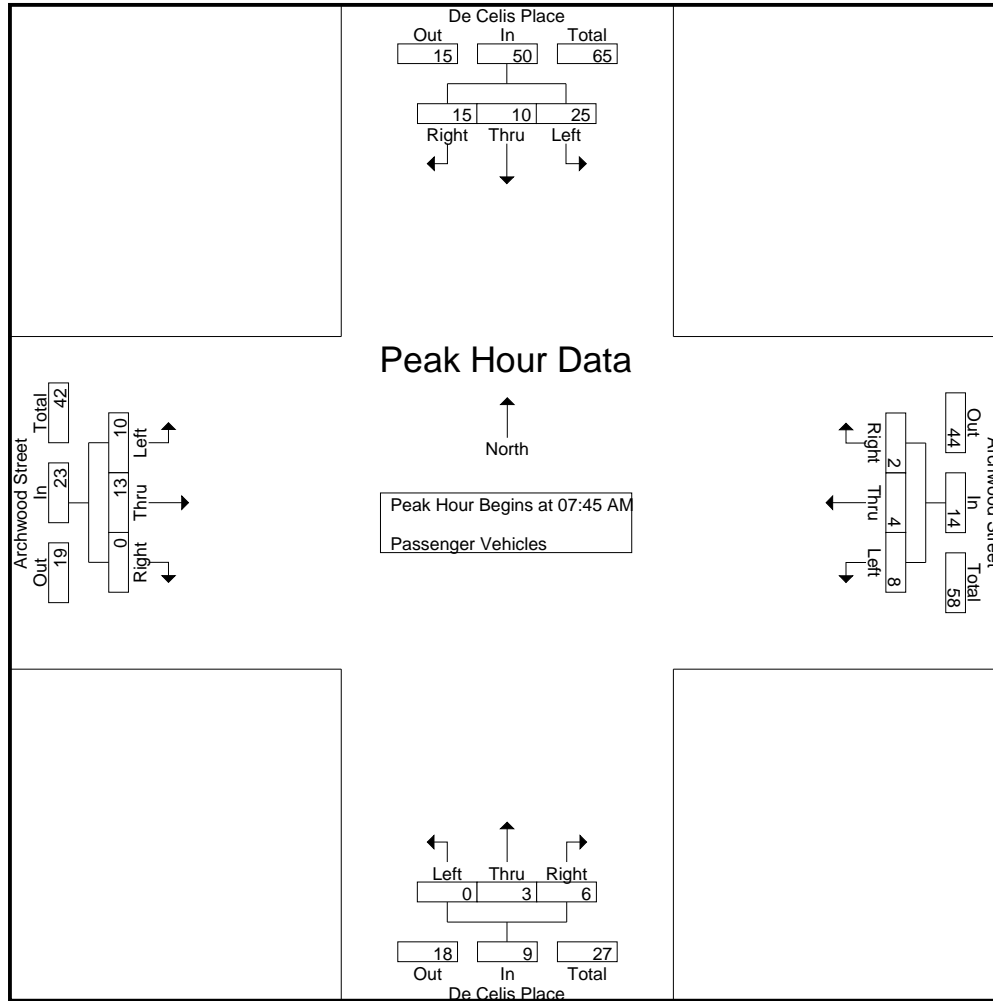
Groups Printed- Passenger Vehicles

	De Celis Place Southbound				Archwood Street Westbound				De Celis Place Northbound				Archwood Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	2	2	4	2	1	1	4	0	2	0	2	1	2	0	3	13
07:15 AM	1	0	2	3	1	0	0	1	0	2	0	2	2	3	0	5	11
07:30 AM	2	2	1	5	2	3	0	5	0	2	0	2	2	4	0	6	18
07:45 AM	6	2	6	14	0	0	0	0	0	1	5	6	4	4	0	8	28
Total	9	6	11	26	5	4	1	10	0	7	5	12	9	13	0	22	70
08:00 AM	5	4	3	12	5	3	2	10	0	1	1	2	3	4	0	7	31
08:15 AM	6	2	3	11	2	1	0	3	0	0	0	0	1	2	0	3	17
08:30 AM	8	2	3	13	1	0	0	1	0	1	0	1	2	3	0	5	20
08:45 AM	2	3	2	7	0	5	0	5	0	2	1	3	2	3	0	5	20
Total	21	11	11	43	8	9	2	19	0	4	2	6	8	12	0	20	88
09:00 AM	1	2	1	4	0	2	2	4	0	0	1	1	2	2	0	4	13
09:15 AM	0	1	3	4	0	1	0	1	1	1	0	2	2	4	1	7	14
09:30 AM	2	0	0	2	1	2	0	3	0	0	0	0	0	0	0	0	5
09:45 AM	2	2	2	6	2	4	0	6	1	2	1	4	3	5	0	8	24
Total	5	5	6	16	3	9	2	14	2	3	2	7	7	11	1	19	56
Grand Total	35	22	28	85	16	22	5	43	2	14	9	25	24	36	1	61	214
Apprch %	41.2	25.9	32.9		37.2	51.2	11.6		8	56	36		39.3	59	1.6		
Total %	16.4	10.3	13.1	39.7	7.5	10.3	2.3	20.1	0.9	6.5	4.2	11.7	11.2	16.8	0.5	28.5	

	De Celis Place Southbound				Archwood Street Westbound				De Celis Place Northbound				Archwood Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	6	2	6	14	0	0	0	0	0	1	5	6	4	4	0	8	28
08:00 AM	5	4	3	12	5	3	2	10	0	1	1	2	3	4	0	7	31
08:15 AM	6	2	3	11	2	1	0	3	0	0	0	0	1	2	0	3	17
08:30 AM	8	2	3	13	1	0	0	1	0	1	0	1	2	3	0	5	20
Total Volume	25	10	15	50	8	4	2	14	0	3	6	9	10	13	0	23	96
% App. Total	50	20	30		57.1	28.6	14.3		0	33.3	66.7		43.5	56.5	0		
PHF	.781	.625	.625	.893	.400	.333	.250	.350	.000	.750	.300	.375	.625	.813	.000	.719	.774

City of Los Angeles
N/S: De Celis Place
E/W: Archwood Street
Weather: Clear

File Name : 05_LAC_De C_Arch AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	6	2	6	14	0	0	0	0	0	1	5	6	4	4	0	8
+15 mins.	5	4	3	12	5	3	2	10	0	1	1	2	3	4	0	7
+30 mins.	6	2	3	11	2	1	0	3	0	0	0	0	1	2	0	3
+45 mins.	8	2	3	13	1	0	0	1	0	1	0	1	2	3	0	5
Total Volume	25	10	15	50	8	4	2	14	0	3	6	9	10	13	0	23
% App. Total	50	20	30		57.1	28.6	14.3		0	33.3	66.7		43.5	56.5	0	
PHF	.781	.625	.625	.893	.400	.333	.250	.350	.000	.750	.300	.375	.625	.813	.000	.719

City of Los Angeles
N/S: De Celis Place
E/W: Archwood Street
Weather: Clear

File Name : 05_LAC_De C_Arch AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

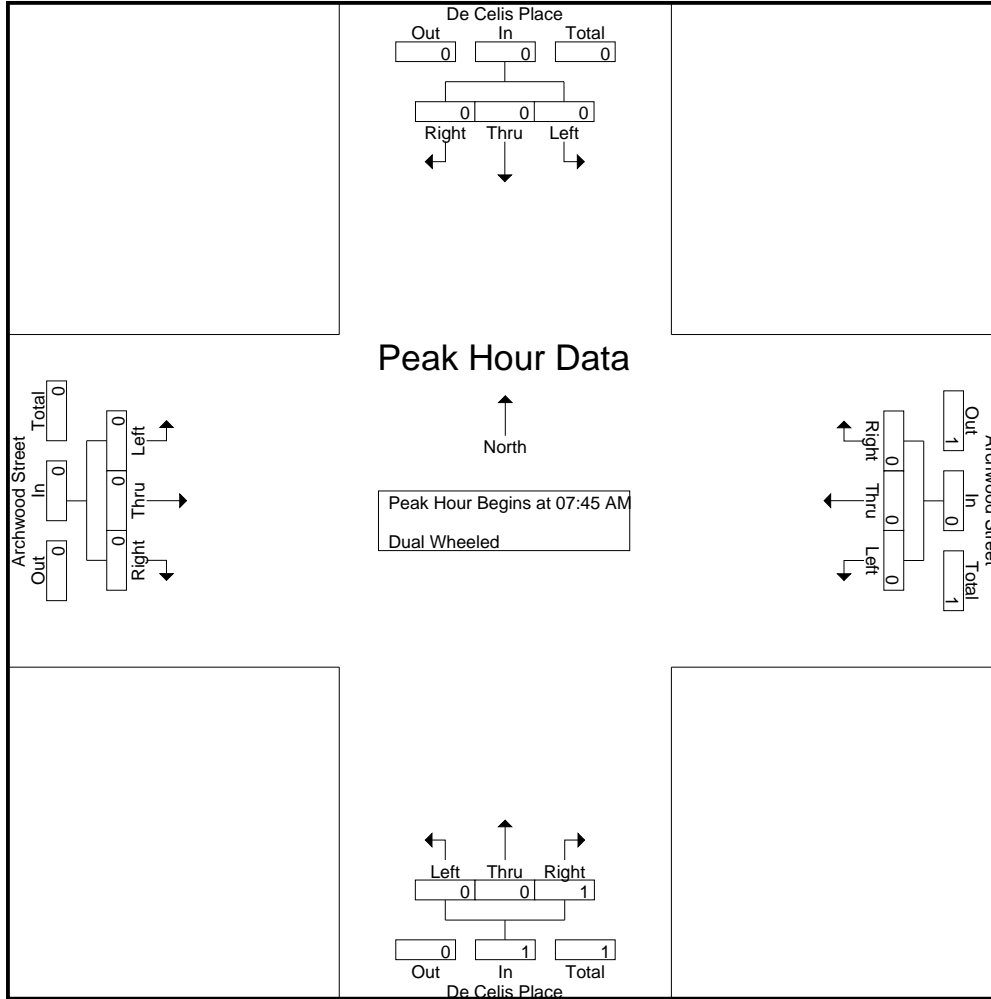
Groups Printed- Dual Wheeled

	De Celis Place Southbound				Archwood Street Westbound				De Celis Place Northbound				Archwood Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	2
09:45 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1	2	3
Grand Total	0	0	1	1	0	0	1	1	0	0	1	1	1	0	1	2	5
Apprch %	0	0	100		0	0	100		0	0	100		50	0	50		
Total %	0	0	20	20	0	0	20	20	0	0	20	20	20	0	20	40	

	De Celis Place Southbound				Archwood Street Westbound				De Celis Place Northbound				Archwood Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
% App. Total	0	0	0		0	0	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.250

City of Los Angeles
N/S: De Celis Place
E/W: Archwood Street
Weather: Clear

File Name : 05_LAC_De C_Arch AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	100		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000

City of Los Angeles
N/S: De Celis Place
E/W: Archwood Street
Weather: Clear

File Name : 05_LAC_De C_Arch AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

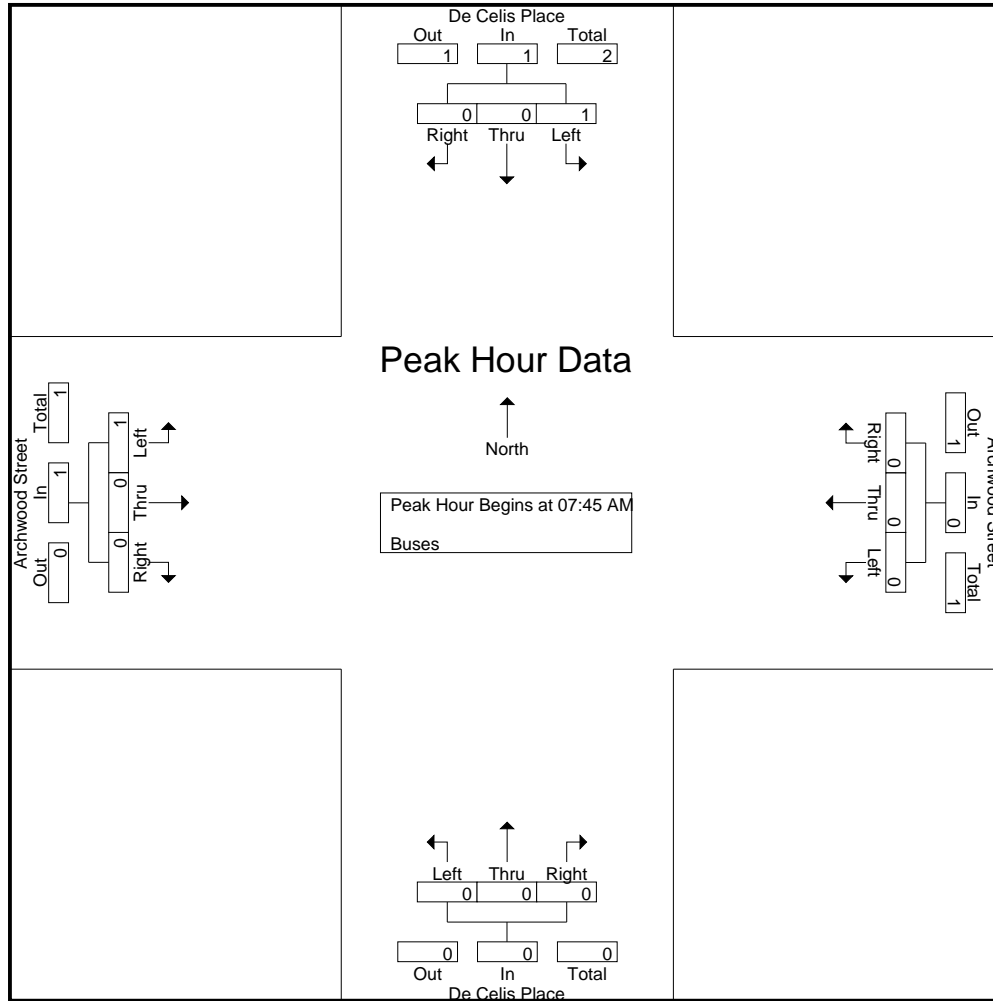
Groups Printed- Buses

	De Celis Place Southbound				Archwood Street Westbound				De Celis Place Northbound				Archwood Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
Apprch %	100	0	0		0	0	0		0	0	0		100	0	0		
Total %	50	0	0	50	0	0	0	0	0	0	0	0	50	0	0	50	

	De Celis Place Southbound				Archwood Street Westbound				De Celis Place Northbound				Archwood Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
% App. Total	100	0	0		0	0	0		0	0	0		100	0	0		
PHF	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.500

City of Los Angeles
N/S: De Celis Place
E/W: Archwood Street
Weather: Clear

File Name : 05_LAC_De C_Arch AM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1
% App. Total	100	0	0		0	0	0		0	0	0		100	0	0	
PHF	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250

City of Los Angeles
N/S: De Celis Place
E/W: Archwood Street
Weather: Clear

File Name : 05_LAC_De C_Arch PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

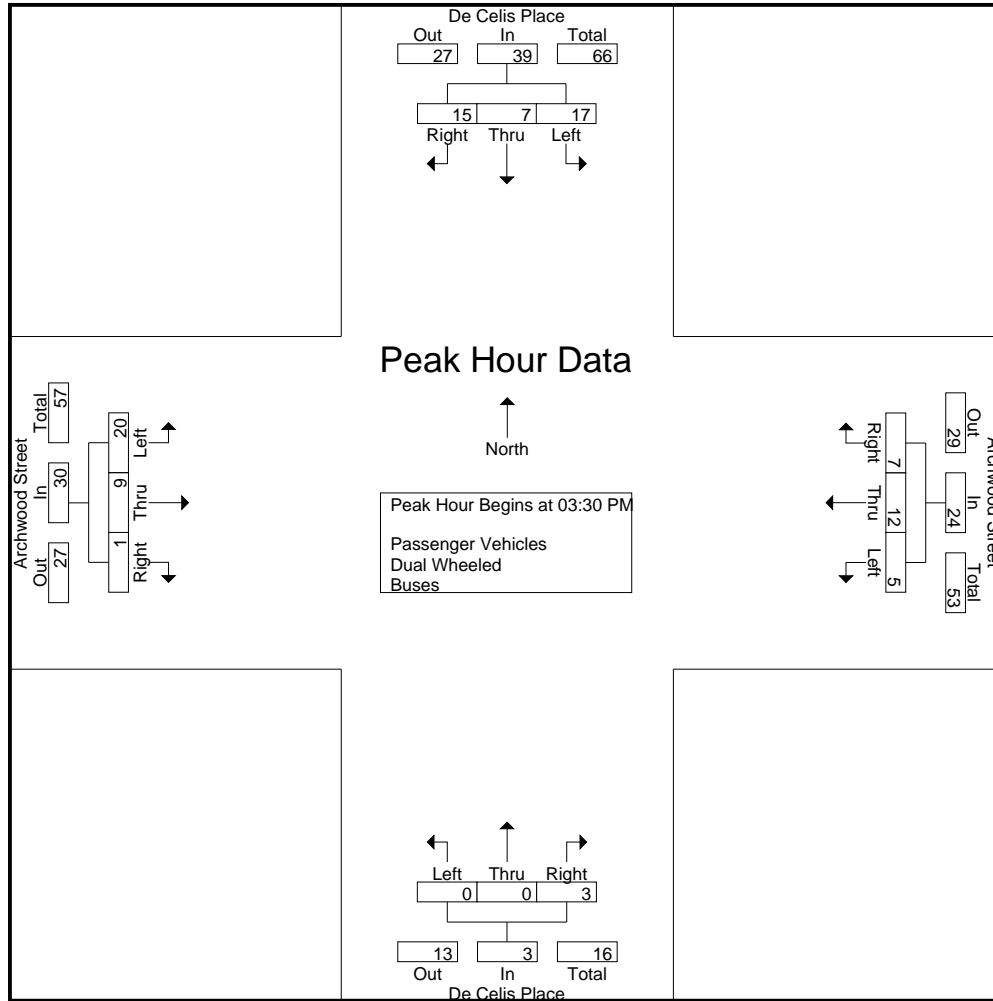
Groups Printed- Passenger Vehicles - Dual Wheeled - Buses

	De Celis Place Southbound				Archwood Street Westbound				De Celis Place Northbound				Archwood Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	1	1	2	4	1	0	2	3	0	0	1	1	1	3	0	4	12
03:15 PM	1	2	2	5	0	1	1	2	0	1	2	3	1	2	0	3	13
03:30 PM	3	2	4	9	1	5	0	6	0	0	0	0	6	1	1	8	23
03:45 PM	7	2	4	13	1	0	2	3	0	0	2	2	7	4	0	11	29
Total	12	7	12	31	3	6	5	14	0	1	5	6	15	10	1	26	77
04:00 PM	5	0	3	8	1	0	2	3	0	0	0	0	4	1	0	5	16
04:15 PM	2	3	4	9	2	7	3	12	0	0	1	1	3	3	0	6	28
04:30 PM	3	1	1	5	1	1	0	2	0	2	1	3	1	2	0	3	13
04:45 PM	2	2	5	9	3	2	2	7	1	1	2	4	4	1	0	5	25
Total	12	6	13	31	7	10	7	24	1	3	4	8	12	7	0	19	82
05:00 PM	3	1	1	5	0	2	0	2	1	1	1	3	2	2	1	5	15
05:15 PM	2	4	3	9	0	5	1	6	1	0	1	2	3	3	1	7	24
05:30 PM	2	4	4	10	4	1	1	6	0	2	3	5	2	1	0	3	24
05:45 PM	3	3	1	7	3	4	3	10	0	1	0	1	1	2	0	3	21
Total	10	12	9	31	7	12	5	24	2	4	5	11	8	8	2	18	84
Grand Total	34	25	34	93	17	28	17	62	3	8	14	25	35	25	3	63	243
Apprch %	36.6	26.9	36.6		27.4	45.2	27.4		12	32	56		55.6	39.7	4.8		
Total %	14	10.3	14	38.3	7	11.5	7	25.5	1.2	3.3	5.8	10.3	14.4	10.3	1.2	25.9	
Passenger Vehicles	34	25	34	93	16	28	17	61	3	8	14	25	35	24	3	62	241
% Passenger Vehicles	100	100	100	100	94.1	100	100	98.4	100	100	100	100	100	96	100	98.4	99.2
Dual Wheeled	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
% Dual Wheeled	0	0	0	0	5.9	0	0	1.6	0	0	0	0	0	0	0	0	0.4
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1.6	0.4

	De Celis Place Southbound				Archwood Street Westbound				De Celis Place Northbound				Archwood Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:30 PM																	
03:30 PM	3	2	4	9	1	5	0	6	0	0	0	0	6	1	1	8	23
03:45 PM	7	2	4	13	1	0	2	3	0	0	2	2	7	4	0	11	29
04:00 PM	5	0	3	8	1	0	2	3	0	0	0	0	4	1	0	5	16
04:15 PM	2	3	4	9	2	7	3	12	0	0	1	1	3	3	0	6	28
Total Volume	17	7	15	39	5	12	7	24	0	0	3	3	20	9	1	30	96
% App. Total	43.6	17.9	38.5		20.8	50	29.2		0	0	100		66.7	30	3.3		
PHF	.607	.583	.938	.750	.625	.429	.583	.500	.000	.000	.375	.375	.714	.563	.250	.682	.828

City of Los Angeles
N/S: De Celis Place
E/W: Archwood Street
Weather: Clear

File Name : 05_LAC_De C_Arch PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:30 PM				03:30 PM				04:45 PM				03:30 PM			
+0 mins.	3	2	4	9	1	5	0	6	1	1	2	4	6	1	1	8
+15 mins.	7	2	4	13	1	0	2	3	1	1	1	3	7	4	0	11
+30 mins.	5	0	3	8	1	0	2	3	1	0	1	2	4	1	0	5
+45 mins.	2	3	4	9	2	7	3	12	0	2	3	5	3	3	0	6
Total Volume	17	7	15	39	5	12	7	24	3	4	7	14	20	9	1	30
% App. Total	43.6	17.9	38.5		20.8	50	29.2		21.4	28.6	50		66.7	30	3.3	
PHF	.607	.583	.938	.750	.625	.429	.583	.500	.750	.500	.583	.700	.714	.563	.250	.682

City of Los Angeles
N/S: De Celis Place
E/W: Archwood Street
Weather: Clear

File Name : 05_LAC_De C_Arch PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

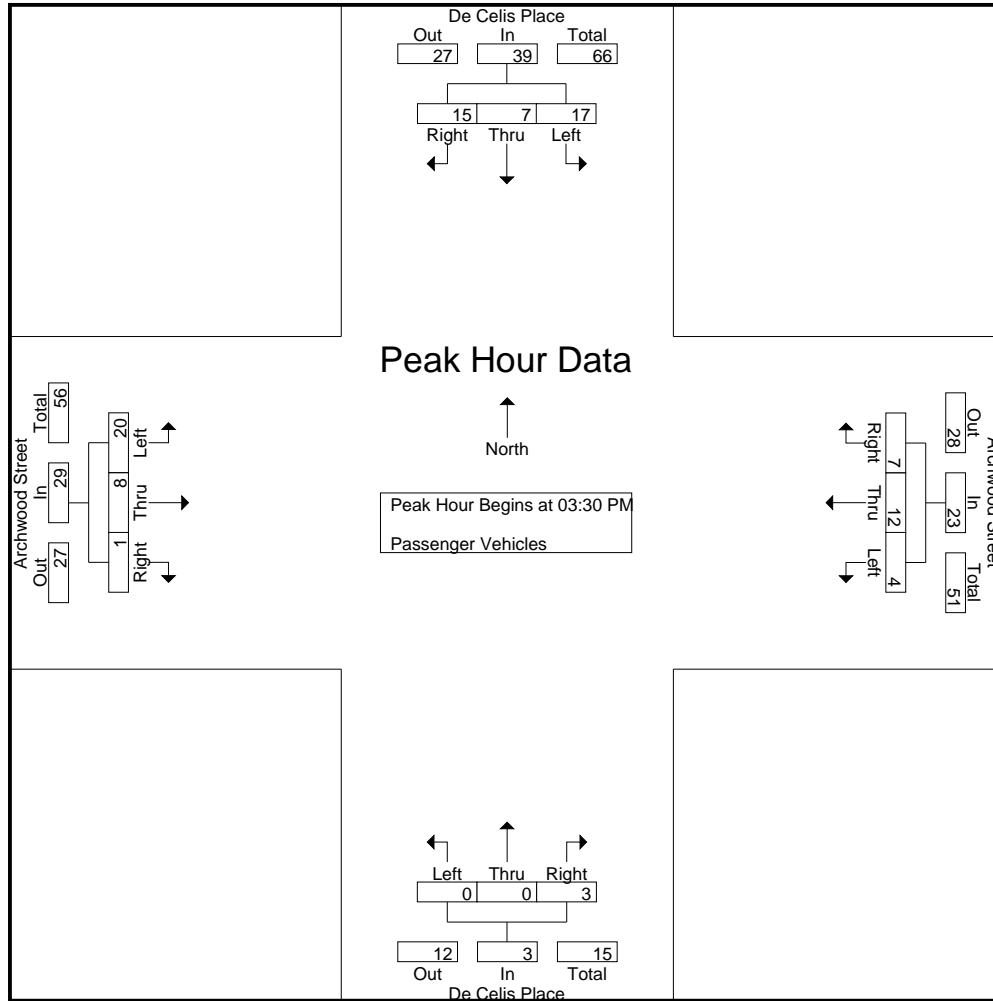
Groups Printed- Passenger Vehicles

	De Celis Place Southbound				Archwood Street Westbound				De Celis Place Northbound				Archwood Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	1	1	2	4	1	0	2	3	0	0	1	1	1	3	0	4	12
03:15 PM	1	2	2	5	0	1	1	2	0	1	2	3	1	2	0	3	13
03:30 PM	3	2	4	9	1	5	0	6	0	0	0	0	6	1	1	8	23
03:45 PM	7	2	4	13	1	0	2	3	0	0	2	2	7	3	0	10	28
Total	12	7	12	31	3	6	5	14	0	1	5	6	15	9	1	25	76
04:00 PM	5	0	3	8	0	0	2	2	0	0	0	0	4	1	0	5	15
04:15 PM	2	3	4	9	2	7	3	12	0	0	1	1	3	3	0	6	28
04:30 PM	3	1	1	5	1	1	0	2	0	2	1	3	1	2	0	3	13
04:45 PM	2	2	5	9	3	2	2	7	1	1	2	4	4	1	0	5	25
Total	12	6	13	31	6	10	7	23	1	3	4	8	12	7	0	19	81
05:00 PM	3	1	1	5	0	2	0	2	1	1	1	3	2	2	1	5	15
05:15 PM	2	4	3	9	0	5	1	6	1	0	1	2	3	3	1	7	24
05:30 PM	2	4	4	10	4	1	1	6	0	2	3	5	2	1	0	3	24
05:45 PM	3	3	1	7	3	4	3	10	0	1	0	1	1	2	0	3	21
Total	10	12	9	31	7	12	5	24	2	4	5	11	8	8	2	18	84
Grand Total	34	25	34	93	16	28	17	61	3	8	14	25	35	24	3	62	241
Apprch %	36.6	26.9	36.6		26.2	45.9	27.9		12	32	56		56.5	38.7	4.8		
Total %	14.1	10.4	14.1	38.6	6.6	11.6	7.1	25.3	1.2	3.3	5.8	10.4	14.5	10	1.2	25.7	

	De Celis Place Southbound				Archwood Street Westbound				De Celis Place Northbound				Archwood Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:30 PM to 04:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:30 PM																	
03:30 PM	3	2	4	9	1	5	0	6	0	0	0	0	6	1	1	8	23
03:45 PM	7	2	4	13	1	0	2	3	0	0	2	2	7	3	0	10	28
04:00 PM	5	0	3	8	0	0	2	2	0	0	0	0	4	1	0	5	15
04:15 PM	2	3	4	9	2	7	3	12	0	0	1	1	3	3	0	6	28
Total Volume	17	7	15	39	4	12	7	23	0	0	3	3	20	8	1	29	94
% App. Total	43.6	17.9	38.5		17.4	52.2	30.4		0	0	100		69	27.6	3.4		
PHF	.607	.583	.938	.750	.500	.429	.583	.479	.000	.000	.375	.375	.714	.667	.250	.725	.839

City of Los Angeles
N/S: De Celis Place
E/W: Archwood Street
Weather: Clear

File Name : 05_LAC_De C_Arch PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 03:30 PM to 04:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:30 PM				03:30 PM				03:30 PM				03:30 PM			
+0 mins.	3	2	4	9	1	5	0	6	0	0	0	0	6	1	1	8
+15 mins.	7	2	4	13	1	0	2	3	0	0	2	2	7	3	0	10
+30 mins.	5	0	3	8	0	0	2	2	0	0	0	0	4	1	0	5
+45 mins.	2	3	4	9	2	7	3	12	0	0	1	1	3	3	0	6
Total Volume	17	7	15	39	4	12	7	23	0	0	3	3	20	8	1	29
% App. Total	43.6	17.9	38.5		17.4	52.2	30.4		0	0	100		69	27.6	3.4	
PHF	.607	.583	.938	.750	.500	.429	.583	.479	.000	.000	.375	.375	.714	.667	.250	.725

File Name : 05_LAC_De C_Arch PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

City of Los Angeles
N/S: De Celis Place
E/W: Archwood Street
Weather: Clear

File Name : 05_LAC_De C_Arch PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 1

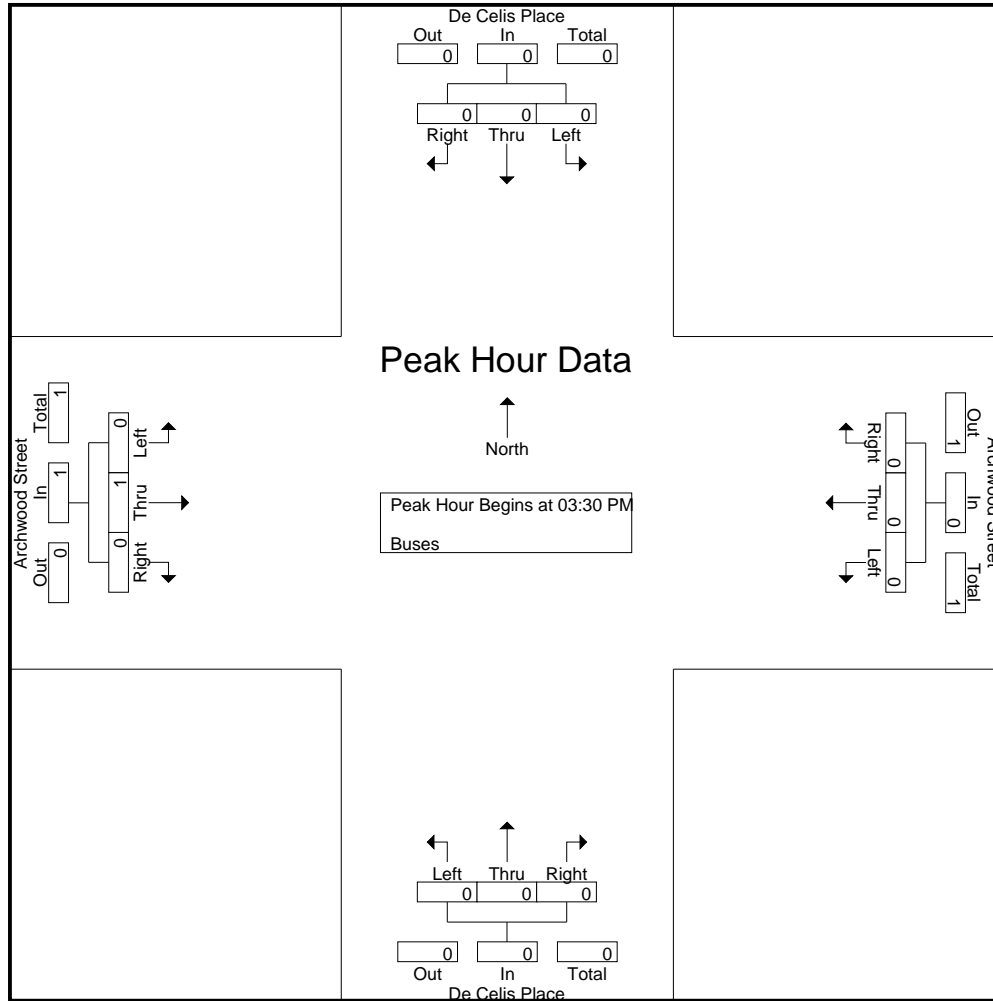
Groups Printed- Buses

	De Celis Place Southbound				Archwood Street Westbound				De Celis Place Northbound				Archwood Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Apprch %	0	0	0		0	0	0		0	0	0		0	100	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	100	

	De Celis Place Southbound				Archwood Street Westbound				De Celis Place Northbound				Archwood Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:30 PM to 04:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:30 PM																	
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% App. Total	0	0	0		0	0	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250

City of Los Angeles
N/S: De Celis Place
E/W: Archwood Street
Weather: Clear

File Name : 05_LAC_De C_Arch PM
Site Code : 04123577
Start Date : 6/1/2023
Page No : 2



Peak Hour Analysis From 03:30 PM to 04:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:30 PM				03:30 PM				03:30 PM				03:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250



City Of Los Angeles Department Of Transportation MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South De Celis Place

East/West Archwood Street

Day: Thursday Date: June 1, 2023 Weather: CLEAR

Hours: 7-10AM 3-6PM Staff: CUI

School Day: YES District: East Valley I/S CODE 29964

	N/B	S/B	E/B	W/B
DUAL-WHEELED	1	1	2	2
BIKES	0	2	4	4
BUSES	0	1	2	0

	N/B TIME	S/B TIME	E/B TIME	W/B TIME
AM PK 15 MIN	6 7.45	14 7.45	8 7.45	10 8.00
PM PK 15 MIN	5 5.30	13 3.45	11 3.45	12 4.15
AM PK HOUR	12 7.00	51 7.45	26 7.15	19 8.00
PM PK HOUR	14 4.45	39 3.30	30 3.30	24 3.30

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	7	5	12
8-9	0	4	3	7
9-10	2	3	2	7
3-4	0	1	5	6
4-5	1	3	4	8
5-6	2	4	5	11
TOTAL	5	22	24	51

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	9	6	12	27
8-9	22	11	11	44
9-10	5	5	6	16
3-4	12	7	12	31
4-5	12	6	13	31
5-6	10	12	9	31
TOTAL	70	47	63	180

TOTAL

N-S
39
51
23
37
39
42
231

XING S/L

Ped	Sch
8	3
6	0
5	0
3	3
9	0
6	0
37	6

XING N/L

Ped	Sch
0	0
2	1
2	0
4	0
1	0
1	0
10	1

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	9	13	0	22
8-9	9	12	0	21
9-10	8	11	2	21
3-4	15	10	1	26
4-5	12	7	0	19
5-6	8	8	2	18
TOTAL	61	61	5	127

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	5	4	1	10
8-9	8	9	2	19
9-10	3	9	3	15
3-4	3	6	5	14
4-5	7	10	7	24
5-6	7	12	5	24
TOTAL	33	50	23	106

TOTAL

E-W
32
40
36
40
43
42
233

XING W/L

Ped	Sch
0	2
1	1
0	0
2	1
0	0
0	0
3	4

XING E/L

Ped	Sch
1	1
0	0
1	0
1	0
1	0
1	0
5	1

BICYCLE COUNT SUMMARY

STREET:

North/South: De Celis Place

East/West: Archwood Street

Day: Thursday

Date: 6/1/2023

Weather: CLEAR

School Day: Yes

District: East Valley

I/S Code: 29964

Hours: 7-10 AM, 3-6 PM

Staff: CUI

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	0	0	0	0

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total	N-S
7-8	0	0	0	0	0
8-9	0	0	1	1	1
9-10	0	0	0	0	0
3-4	0	0	0	0	0
4-5	0	0	1	1	1
5-6	0	0	0	0	0
TOTAL	0	0	2	2	2

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	1	0	0	1
4-5	0	1	0	1
5-6	1	1	0	2
TOTAL	2	2	0	4

WESTBOUND Approach

Hours	Lt	Th	Rt	Total	E-W
7-8	0	0	0	0	0
8-9	0	0	0	0	0
9-10	0	0	0	0	0
3-4	2	1	0	3	4
4-5	0	0	0	0	1
5-6	0	0	1	1	3
TOTAL	2	1	1	4	8

REMARKS (6 hour total):

- Female Riders
- No helmet riders
- Sidewalk Riding
- Wrong way riding

NB	SB	EB	WB	TOTAL
0	0	0	0	0
0	1	4	3	8
0	0	1	1	2
0	0	0	1	1

NB: Northbound, SB: Southbound, EB: Eastbound, WB: Westbound, I/S: Intersection

Source: CUI

LADOT 2015 CMP

PEDESTRIAN COUNT SUMMARY

STREET:

North/South:

De Celis Place

East/West:

Archwood Street

Day:

Thursday

Date:

6/1/2023

Weather:

CLEAR

School Day:

YES

District:

East Valley

I/S Code:

29964

Hours:

7-10 AM, 3-6 PM

Staff:

CUI

AM PEAK PERIOD

15 Min. Interval

	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
7:00-7:15	0	1	0	0	1
7:15-7:30	0	3	1	2	6
7:30-7:45	0	4	0	0	4
7:45-8:00	0	3	1	0	4
8:00-8:15	1	2	0	1	4
8:15-8:30	0	2	0	0	2
8:30-8:45	2	0	0	0	2
8:45-9:00	0	2	0	1	3
9:00-9:15	0	1	0	0	1
9:15-9:30	1	4	0	0	5
9:30-9:45	1	0	1	0	2
9:45-10:00	0	0	0	0	0

Hours

7 - 8	0	11	2	2	15
8 - 9	3	6	0	2	11
9 - 10	2	5	1	0	8
TOTAL	5	22	3	4	34

PM PEAK PERIOD

15 Min. Interval

	N-LEG	S-LEG	E-LEG	W-LEG	TOTAL
3:00-3:15	1	0	0	0	1
3:15-3:30	1	3	1	0	5
3:30-3:45	2	0	0	0	2
3:45-4:00	0	3	0	3	6
4:00-4:15	0	2	0	0	2
4:15-4:30	1	1	1	0	3
4:30-4:45	0	4	0	0	4
4:45-5:00	0	2	0	0	2
5:00-5:15	1	0	1	0	2
5:15-5:30	0	1	0	0	1
5:30-5:45	0	4	0	0	4
5:45-6:00	0	1	0	0	1

Hours

3 - 4	4	6	1	3	14
4 - 5	1	9	1	0	11
5 - 6	1	6	1	0	8
TOTAL	6	21	3	3	33

REMARKS (6 hour total):

- Wheelchair/special needs assistance
- Skateboard/scooter

N-LEG S-LEG E-LEG W-LEG TOTAL

0	0	0	0	0
0	3	0	0	3

N: North, S: South, E: East, W: West, I/S: Intersection

Source:

LADOT 2015 CMP

Location: Los Angeles
 N/S: De Celis Place
 E/W: Archwood Street



Date: 6/1/2023
 Day: Thursday

ADULT PEDESTRIANS

	North Leg De Celis Place	East Leg Archwood Street	South Leg De Celis Place	West Leg Archwood Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	1	0	1
7:15 AM	0	1	1	0	2
7:30 AM	0	0	4	0	4
7:45 AM	0	0	2	0	2
8:00 AM	0	0	2	0	2
8:15 AM	0	0	2	0	2
8:30 AM	2	0	0	0	2
8:45 AM	0	0	2	1	3
9:00 AM	0	0	1	0	1
9:15 AM	1	0	4	0	5
9:30 AM	1	1	0	0	2
9:45 AM	0	0	0	0	0
TOTAL VOLUMES:	4	2	19	1	26

	North Leg De Celis Place	East Leg Archwood Street	South Leg De Celis Place	West Leg Archwood Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
3:00 PM	1	0	0	0	1
3:15 PM	1	1	3	0	5
3:30 PM	2	0	0	0	2
3:45 PM	0	0	0	2	2
4:00 PM	0	0	2	0	2
4:15 PM	1	1	1	0	3
4:30 PM	0	0	4	0	4
4:45 PM	0	0	2	0	2
5:00 PM	1	1	0	0	2
5:15 PM	0	0	1	0	1
5:30 PM	0	0	4	0	4
5:45 PM	0	0	1	0	1
TOTAL VOLUMES:	6	3	18	2	29

Location: Los Angeles
 N/S: De Celis Place
 E/W: Archwood Street



Date: 6/1/2023
 Day: Thursday

SCHOOL AGE PEDESTRIANS

	North Leg De Celis Place	East Leg Archwood Street	South Leg De Celis Place	West Leg Archwood Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	2	2	4
7:30 AM	0	0	0	0	0
7:45 AM	0	1	1	0	2
8:00 AM	1	0	0	1	2
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
9:00 AM	0	0	0	0	0
9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	1	3	3	8

	North Leg De Celis Place	East Leg Archwood Street	South Leg De Celis Place	West Leg Archwood Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
3:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	3	1	4
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	3	1	4

Location: Los Angeles
 N/S: De Celis Place
 E/W: Archwood Street



Date: 6/1/2023
 Day: Thursday

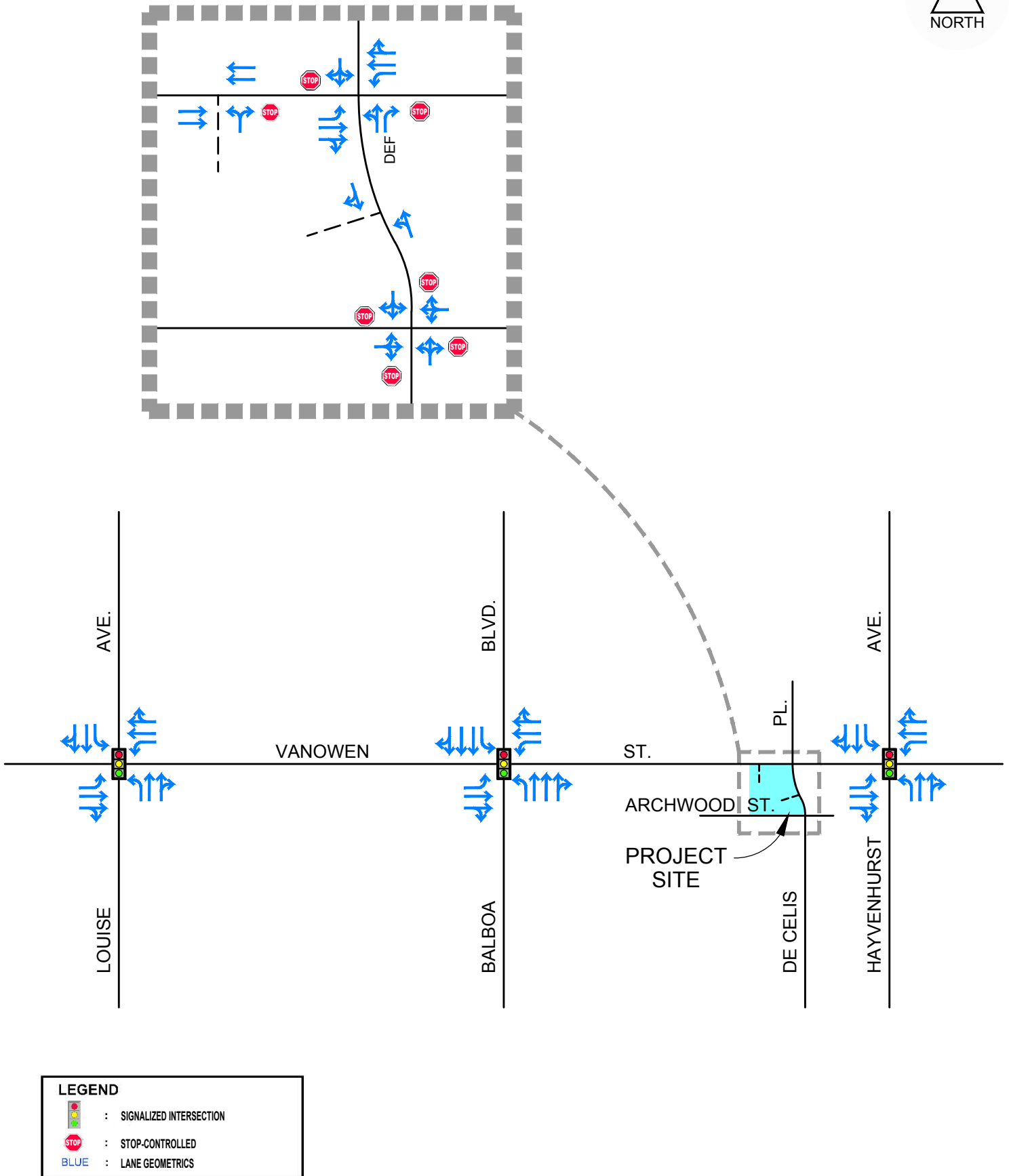
BICYCLES

		Southbound De Celis Place			Westbound Archwood Street			Northbound De Celis Place			Eastbound Archwood Street			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM		0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM		0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM		0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM		0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM		0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM		0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM		0	0	1	0	0	0	0	0	0	0	0	0	1
8:45 AM		0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM		0	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	0	0	0
9:30 AM		0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM		0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:		0	0	1	0	0	0	0	0	0	0	0	0	1

		Southbound De Celis Place			Westbound Archwood Street			Northbound De Celis Place			Eastbound Archwood Street			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3:00 PM		0	0	0	2	0	0	0	0	0	0	0	0	2
3:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM		0	0	0	0	1	0	0	0	0	0	0	0	1
3:45 PM		0	0	0	0	0	0	0	0	0	1	0	0	1
4:00 PM		0	0	1	0	0	0	0	0	0	0	1	0	2
4:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM		0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM		0	0	0	0	0	1	0	0	0	0	0	0	1
5:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM		0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM		0	0	0	0	0	0	0	0	0	1	1	0	2
TOTAL VOLUMES:		0	0	1	2	1	1	0	0	0	2	2	0	9

APPENDIX D

STUDY INTERSECTION GEOMETRICS AND TRAFFIC CONTROL CONDITIONS



APPENDIX D

11/20/2023

APPENDIX E





















SYNCHRO DELAY AND QUEUE CALCULATION WORKSHEETS

EXISTING (2023) CONDITIONS

HCM 6th Signalized Intersection Summary

1: Louise Avenue & Vanowen Street

11/27/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	1087	74	92	953	71	58	378	71	191	683	116
Future Volume (veh/h)	77	1087	74	92	953	71	58	378	71	191	683	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1781	1945	1885	1856	1856	1900	1824	1885	1900	1810	1961	1856
Adj Flow Rate, veh/h	85	1195	81	98	1014	76	75	491	92	225	804	136
Peak Hour Factor	0.91	0.91	0.91	0.94	0.94	0.94	0.77	0.77	0.77	0.85	0.85	0.85
Percent Heavy Veh, %	3	2	1	3	3	0	0	1	0	1	1	3
Cap, veh/h	257	1561	106	148	1479	111	220	1299	242	338	1377	233
Arrive On Green	0.45	0.45	0.45	0.89	0.89	0.89	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	492	3504	237	430	3319	249	581	2997	558	802	3178	538
Grp Volume(v), veh/h	85	629	647	98	538	552	75	292	291	225	471	469
Grp Sat Flow(s), veh/h/ln	492	1848	1894	430	1763	1805	581	1791	1765	802	1863	1853
Q Serve(g_s), s	12.0	25.8	25.9	14.2	7.7	7.7	10.1	9.9	10.1	23.8	17.3	17.3
Cycle Q Clear(g_c), s	19.7	25.8	25.9	40.1	7.7	7.7	27.4	9.9	10.1	33.9	17.3	17.3
Prop In Lane	1.00		0.13	1.00		0.14	1.00		0.32	1.00		0.29
Lane Grp Cap(c), veh/h	257	823	844	148	785	804	220	776	765	338	807	803
V/C Ratio(X)	0.33	0.76	0.77	0.66	0.69	0.69	0.34	0.38	0.38	0.67	0.58	0.58
Avail Cap(c_a), veh/h	257	823	844	148	785	804	234	820	808	357	853	848
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	21.0	21.0	20.0	3.1	3.1	29.7	17.3	17.3	28.8	19.3	19.3
Incr Delay (d2), s/veh	3.4	6.7	6.6	16.2	3.7	3.6	0.9	0.3	0.3	4.3	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	17.4	17.8	4.5	3.6	3.7	2.5	6.9	6.9	8.2	11.4	11.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	27.7	27.6	36.2	6.8	6.7	30.6	17.6	17.6	33.1	20.3	20.3
LnGrp LOS	C	C	C	D	A	A	C	B	B	C	C	C
Approach Vol, veh/h	1361			1188			658			1165		
Approach Delay, s/veh	27.5			9.2			19.1			22.8		
Approach LOS	C			A			B			C		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	45.8			44.2			45.8			44.2		
Change Period (Y+Rc), s	5.7			* 5.2			5.7			* 5.2		
Max Green Setting (Gmax), s	37.9			* 41			37.9			* 41		
Max Q Clear Time (g_c+I1), s	42.1			35.9			27.9			29.4		
Green Ext Time (p_c), s	0.0			3.1			6.2			3.2		

Intersection Summary

HCM 6th Ctrl Delay	20.0
HCM 6th LOS	B

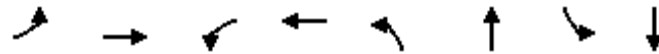
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

1: Louise Avenue & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	85	1276	98	1090	75	583	225	940
v/c Ratio	0.67	0.74	1.18	0.68	0.61	0.44	0.92	0.64
Control Delay	52.6	23.9	169.3	16.7	42.4	19.1	65.9	22.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.6	23.9	169.3	16.7	42.4	19.1	65.9	22.4
Queue Length 50th (ft)	40	329	~72	136	30	107	106	192
Queue Length 95th (ft)	#128	421	m#144	m276	65	121	#221	231
Internal Link Dist (ft)		558		2548		228		379
Turn Bay Length (ft)	110		105		100		100	
Base Capacity (vph)	126	1716	83	1596	139	1492	277	1658
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.74	1.18	0.68	0.54	0.39	0.81	0.57

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.









m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

2: Balboa Boulevard & Vanowen Street

11/27/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	979	284	373	1019	120	69	557	197	80	1251	65
Future Volume (veh/h)	107	979	284	373	1019	120	69	557	197	80	1251	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.92	1.00		0.96	1.00		0.89	0.98		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1945	1767	1885	1945	1781	1885	1870	1885	1826	1870	1856
Adj Flow Rate, veh/h	115	1053	305	385	1051	124	78	633	224	88	1375	71
Peak Hour Factor	0.93	0.93	0.93	0.97	0.97	0.97	0.88	0.88	0.88	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	4	1	2	3	1	2	1	5	2	3
Cap, veh/h	218	819	234	327	1789	211	105	1189	406	191	1618	84
Arrive On Green	0.59	0.59	0.59	0.36	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	467	2772	793	1795	3313	390	371	3626	1238	618	4935	255
Grp Volume(v), veh/h	115	698	660	385	586	589	78	593	264	88	948	498
Grp Sat Flow(s),veh/h/ln	467	1848	1717	1795	1848	1856	371	1702	1460	618	1702	1786
Q Serve(g_s), s	17.9	26.6	26.6	16.4	0.0	0.0	6.1	12.8	13.4	12.3	23.4	23.4
Cycle Q Clear(g_c), s	17.9	26.6	26.6	16.4	0.0	0.0	29.5	12.8	13.4	25.6	23.4	23.4
Prop In Lane	1.00		0.46	1.00		0.21	1.00		0.85	1.00		0.14
Lane Grp Cap(c), veh/h	218	546	507	327	998	1002	105	1116	479	191	1116	585
V/C Ratio(X)	0.53	1.28	1.30	1.18	0.59	0.59	0.74	0.53	0.55	0.46	0.85	0.85
Avail Cap(c_a), veh/h	218	546	507	327	998	1002	105	1116	479	191	1116	585
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.55	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	18.4	18.4	28.6	0.0	0.0	44.0	24.6	24.8	35.3	28.2	28.2
Incr Delay (d2), s/veh	5.0	132.7	143.6	106.8	2.5	2.5	37.1	1.8	4.5	7.8	8.2	14.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.6	38.1	37.9	23.2	1.3	1.3	5.1	9.1	8.9	4.0	15.9	17.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.6	151.1	162.0	135.4	2.5	2.5	81.1	26.4	29.4	43.2	36.3	42.6
LnGrp LOS	C	F	F	F	A	A	F	C	C	D	D	D
Approach Vol, veh/h	1473			1560			935			1534		
Approach Delay, s/veh	145.9			35.3			31.8			38.8		
Approach LOS	F			D			C			D		
Timer - Assigned Phs	2			4		5	6		8			
Phs Duration (G+Y+Rc), s	54.6			35.4		22.0	32.6		35.4			
Change Period (Y+Rc), s	* 6			* 5.9		5.6	* 6		* 5.9			
Max Green Setting (Gmax), s	* 49			* 30		16.4	* 27		* 30			
Max Q Clear Time (g_c+I1), s	2.0			27.6		18.4	28.6		31.5			
Green Ext Time (p_c), s	11.5			1.6		0.0	0.0		0.0			

Intersection Summary

HCM 6th Ctrl Delay 65.3

HCM 6th LOS E

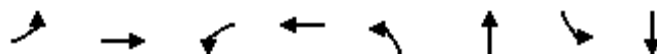
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

2: Balboa Boulevard & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	115	1358	385	1175	78	857	88	1446
v/c Ratio	0.96	1.27	1.27	0.59	1.01	0.52	0.67	0.94
Control Delay	89.0	151.1	177.5	7.8	143.1	22.6	53.6	42.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.0	151.1	177.5	7.8	143.1	22.6	53.6	42.6
Queue Length 50th (ft)	37	~492	~271	80	~45	124	43	288
Queue Length 95th (ft)	m#111	#630	m#410	117	#133	159	#120	#389
Internal Link Dist (ft)		2548		1913		526		433
Turn Bay Length (ft)	200		115		115		90	
Base Capacity (vph)	120	1072	303	1995	77	1642	132	1538
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	1.27	1.27	0.59	1.01	0.52	0.67	0.94

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.








95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th TWSC
3: De Celis Place & Vanowen Street





















11/27/2023

Intersection												
Int Delay, s/veh	30.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	1208	23	7	1493	27	14	0	10	14	6	84
Future Vol, veh/h	27	1208	23	7	1493	27	14	0	10	14	6	84
Conflicting Peds, #/hr	10	0	9	9	0	10	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	98	98	98	67	67	67	79	79	79
Heavy Vehicles, %	4	2	0	14	2	0	0	0	10	0	0	1
Mvmt Flow	29	1299	25	7	1523	28	21	0	15	18	8	106
Major/Minor	Major1		Major2			Minor1			Minor2			
Conflicting Flow All	1561	0	0	1333	0	0	2159	2954	673	2271	2952	786
Stage 1	-	-	-	-	-	-	1379	1379	-	1561	1561	-
Stage 2	-	-	-	-	-	-	780	1575	-	710	1391	-
Critical Hdwy	4.18	-	-	4.38	-	-	7.5	6.5	7.1	7.5	6.5	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.24	-	-	2.34	-	-	3.5	4	3.4	3.5	4	3.31
Pot Cap-1 Maneuver	410	-	-	454	-	-	27	15	379	22	15	337
Stage 1	-	-	-	-	-	-	155	214	-	119	175	-
Stage 2	-	-	-	-	-	-	359	172	-	395	211	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	407	-	-	450	-	-	~ 9	13	375	20	13	334
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 9	13	-	20	13	-
Stage 1	-	-	-	-	-	-	143	197	-	110	171	-
Stage 2	-	-	-	-	-	-	230	168	-	351	194	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0.3		0.1			\$ 831.1			\$ 492.9			
HCM LOS						F			F			
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	9 375		407	-	-	450	-	-	74			
HCM Lane V/C Ratio	2.322 0.04		0.071	-	-	0.016	-	-	1.779			
HCM Control Delay (s)	\$ 1414 15		14.5	-	-	13.1	-	-	\$ 492.9			
HCM Lane LOS	F C		B	-	-	B	-	-	F			
HCM 95th %tile Q(veh)	3.6 0.1		0.2	-	-	0	-	-	11.5			
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined				*: All major volume in platoon			

HCM 6th Signalized Intersection Summary

4: Hayvenhurst Avenue & Vanowen Street

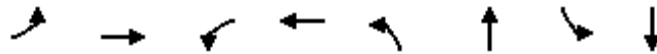
11/27/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	1122	98	51	1263	159	129	211	45	260	547	62
Future Volume (veh/h)	69	1122	98	51	1263	159	129	211	45	260	547	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1781	1945	1824	1796	1945	1810	1796	1961	1796	1796	1945	1781
Adj Flow Rate, veh/h	73	1194	104	53	1316	166	165	271	58	286	601	68
Peak Hour Factor	0.94	0.94	0.94	0.96	0.96	0.96	0.78	0.78	0.78	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	0	2	2	1	2	1	2	2	2	3
Cap, veh/h	126	1659	144	261	1592	200	267	1184	249	408	1297	146
Arrive On Green	0.97	0.97	0.97	0.48	0.48	0.48	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	339	3433	298	407	3296	413	735	3043	639	999	3334	376
Grp Volume(v), veh/h	73	642	656	53	734	748	165	164	165	286	332	337
Grp Sat Flow(s),veh/h/ln	339	1848	1884	407	1848	1861	735	1863	1820	999	1848	1862
Q Serve(g_s), s	12.2	3.4	3.5	7.5	30.7	31.3	19.4	5.3	5.5	24.3	12.1	12.1
Cycle Q Clear(g_c), s	43.5	3.4	3.5	11.0	30.7	31.3	31.6	5.3	5.5	29.7	12.1	12.1
Prop In Lane	1.00		0.16	1.00		0.22	1.00		0.35	1.00		0.20
Lane Grp Cap(c), veh/h	126	893	910	261	893	899	267	725	708	408	719	725
V/C Ratio(X)	0.58	0.72	0.72	0.20	0.82	0.83	0.62	0.23	0.23	0.70	0.46	0.46
Avail Cap(c_a), veh/h	126	893	910	261	893	899	299	807	789	452	801	807
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.4	0.8	0.8	16.0	19.9	20.1	32.3	18.4	18.5	28.5	20.5	20.5
Incr Delay (d2), s/veh	18.0	5.0	4.9	1.7	8.4	8.9	3.2	0.2	0.2	4.3	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.6	3.0	3.0	1.4	20.2	20.7	6.4	4.0	4.0	10.0	8.7	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	5.8	5.8	17.7	28.4	29.0	35.4	18.6	18.6	32.7	20.9	21.0
LnGrp LOS	D	A	A	B	C	C	D	B	B	C	C	C
Approach Vol, veh/h	1371			1535			494			955		
Approach Delay, s/veh	7.5			28.3			24.2			24.5		
Approach LOS	A			C			C			C		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	49.2			40.8			49.2			40.8		
Change Period (Y+Rc), s	5.7			* 5.8			5.7			* 5.8		
Max Green Setting (Gmax), s	39.5			* 39			39.5			* 39		
Max Q Clear Time (g_c+I1), s	33.3			31.7			45.5			33.6		
Green Ext Time (p_c), s	4.7			3.2			0.0			1.5		
Intersection Summary												
HCM 6th Ctrl Delay			20.4									
HCM 6th LOS			C									
Notes												

Queues

4: Hayvenhurst Avenue & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	73	1298	53	1482	165	329	286	669
v/c Ratio	1.00	0.69	0.58	0.80	0.88	0.25	0.86	0.50
Control Delay	78.0	37.0	50.1	24.1	67.3	17.4	49.4	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.0	37.0	50.1	24.1	67.3	17.4	49.4	21.8
Queue Length 50th (ft)	~44	384	22	373	81	57	139	138
Queue Length 95th (ft)	m#54	m341	#90	#548	#147	69	#264	177
Internal Link Dist (ft)		584		442		274		213
Turn Bay Length (ft)	145		80		155		175	
Base Capacity (vph)	73	1873	92	1863	219	1558	390	1565
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.69	0.58	0.80	0.75	0.21	0.73	0.43

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th AWSC
5: De Celis Place & Archwood Street

11/27/2023

Intersection

Intersection Delay, s/veh 7.3

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	11	13	0	8	4	2	0	3	7	26	10	15
Future Vol, veh/h	11	13	0	8	4	2	0	3	7	26	10	15
Peak Hour Factor	0.75	0.75	0.75	0.35	0.35	0.35	0.42	0.42	0.42	0.91	0.91	0.91
Heavy Vehicles, %	9	0	0	0	0	0	0	0	14	4	0	0
Mvmt Flow	15	17	0	23	11	6	0	7	17	29	11	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0





















Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.3	6.8	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	46%	57%	51%
Vol Thru, %	30%	54%	29%	20%
Vol Right, %	70%	0%	14%	29%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	24	14	51
LT Vol	0	11	8	26
Through Vol	3	13	4	10
RT Vol	7	0	2	15
Lane Flow Rate	24	32	40	56
Geometry Grp	1	1	1	1
Degree of Util (X)	0.024	0.038	0.045	0.063
Departure Headway (Hd)	3.647	4.315	4.091	4.036
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	975	827	872	884
Service Time	1.695	2.354	2.131	2.076
HCM Lane V/C Ratio	0.025	0.039	0.046	0.063
HCM Control Delay	6.8	7.5	7.3	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.1	0.2

HCM 6th Signalized Intersection Summary

1: Louise Avenue & Vanowen Street

11/27/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	897	46	58	1010	110	91	512	81	88	252	85
Future Volume (veh/h)	96	897	46	58	1010	110	91	512	81	88	252	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1945	1900	1870	1885	1885	1796	1885	1841	1796	1976	1900
Adj Flow Rate, veh/h	102	954	49	64	1110	121	100	563	89	99	283	96
Peak Hour Factor	0.94	0.94	0.94	0.91	0.91	0.91	0.91	0.91	0.91	0.89	0.89	0.89
Percent Heavy Veh, %	3	2	0	2	1	1	2	1	4	2	0	0
Cap, veh/h	198	1973	101	299	1794	195	315	1006	158	211	895	296
Arrive On Green	0.55	0.55	0.55	0.37	0.37	0.37	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	431	3571	183	561	3247	353	954	3082	485	746	2743	906
Grp Volume(v), veh/h	102	494	509	64	611	620	100	326	326	99	191	188
Grp Sat Flow(s),veh/h/ln	431	1848	1906	561	1791	1810	954	1791	1777	746	1877	1772
Q Serve(g_s), s	20.3	14.7	14.7	8.2	25.1	25.2	7.9	13.5	13.6	11.4	6.9	7.2
Cycle Q Clear(g_c), s	45.5	14.7	14.7	22.9	25.1	25.2	15.1	13.5	13.6	25.0	6.9	7.2
Prop In Lane	1.00		0.10	1.00		0.20	1.00		0.27	1.00		0.51
Lane Grp Cap(c), veh/h	198	1021	1053	299	990	1000	315	584	580	211	613	578
V/C Ratio(X)	0.52	0.48	0.48	0.21	0.62	0.62	0.32	0.56	0.56	0.47	0.31	0.32
Avail Cap(c_a), veh/h	198	1021	1053	299	990	1000	441	820	813	309	859	811
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.73	0.73	0.73	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	12.3	12.3	25.8	20.6	20.6	28.5	25.0	25.0	35.3	22.7	22.8
Incr Delay (d2), s/veh	9.3	1.6	1.6	1.2	2.1	2.1	0.6	0.8	0.9	1.6	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.5	9.9	10.1	2.2	16.1	16.3	3.2	9.4	9.4	3.7	5.3	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.5	13.9	13.9	27.0	22.7	22.7	29.1	25.8	25.9	36.9	23.0	23.2
LnGrp LOS	D	B	B	C	C	C	C	C	C	D	C	C
Approach Vol, veh/h		1105			1295			752			478	
Approach Delay, s/veh		16.4			22.9			26.3			26.0	
Approach LOS		B			C			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		55.4		34.6		55.4		34.6				
Change Period (Y+Rc), s		5.7		* 5.2		5.7		* 5.2				
Max Green Setting (Gmax), s		37.9		* 41		37.9		* 41				
Max Q Clear Time (g_c+I1), s		27.2		27.0		47.5		17.1				
Green Ext Time (p_c), s		6.1		2.4		0.0		4.4				

Intersection Summary

HCM 6th Ctrl Delay	22.0
HCM 6th LOS	C

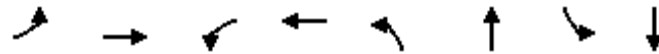
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

1: Louise Avenue & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	102	1003	64	1231	100	652	99	379
v/c Ratio	0.63	0.46	0.26	0.61	0.45	0.70	0.86	0.37
Control Delay	36.8	12.1	15.8	16.4	31.6	31.1	83.9	23.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.8	12.1	15.8	16.4	31.6	31.1	83.9	23.7
Queue Length 50th (ft)	34	150	24	325	47	168	54	83
Queue Length 95th (ft)	#143	262	m56	m410	81	190	#120	101
Internal Link Dist (ft)		558		2548		228		379
Turn Bay Length (ft)	110		105		100		100	
Base Capacity (vph)	163	2163	243	2028	356	1495	186	1647
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.46	0.26	0.61	0.28	0.44	0.53	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.









m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

2: Balboa Boulevard & Vanowen Street

11/27/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	972	168	198	974	136	112	1103	164	84	760	87
Future Volume (veh/h)	134	972	168	198	974	136	112	1103	164	84	760	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.93	1.00		0.95	0.99		0.89	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1945	1753	1885	1945	1810	1885	1870	1856	1900	1885	1885
Adj Flow Rate, veh/h	151	1092	189	208	1025	143	120	1186	176	94	854	98
Peak Hour Factor	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93	0.89	0.89	0.89
Percent Heavy Veh, %	0	2	5	1	2	1	1	2	3	0	1	1
Cap, veh/h	246	1068	184	241	1746	243	182	1444	214	112	1513	172
Arrive On Green	0.11	0.11	0.11	0.27	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	482	3110	536	1795	3233	450	586	4405	653	405	4616	525
Grp Volume(v), veh/h	151	647	634	208	585	583	120	916	446	94	633	319
Grp Sat Flow(s),veh/h/ln	482	1848	1798	1795	1848	1835	586	1702	1654	405	1716	1711
Q Serve(g_s), s	27.9	30.9	30.9	9.9	0.0	0.0	15.6	22.3	22.3	7.2	13.7	13.9
Cycle Q Clear(g_c), s	27.9	30.9	30.9	9.9	0.0	0.0	29.5	22.3	22.3	29.5	13.7	13.9
Prop In Lane	1.00		0.30	1.00		0.25	1.00		0.40	1.00		0.31
Lane Grp Cap(c), veh/h	246	635	617	241	998	991	182	1116	542	112	1125	561
V/C Ratio(X)	0.61	1.02	1.03	0.86	0.59	0.59	0.66	0.82	0.82	0.84	0.56	0.57
Avail Cap(c_a), veh/h	246	635	617	327	998	991	182	1116	542	112	1125	561
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	39.9	39.9	32.1	0.0	0.0	38.4	27.8	27.8	43.8	24.9	25.0
Incr Delay (d2), s/veh	9.5	38.1	40.7	15.9	2.5	2.6	17.3	6.8	13.2	49.1	2.0	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.4	29.5	29.4	8.3	1.3	1.3	6.4	15.1	15.9	6.5	9.8	10.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.1	78.0	80.6	48.1	2.5	2.6	55.6	34.7	41.0	92.8	27.0	29.1
LnGrp LOS	D	F	F	D	A	A	E	C	D	F	C	C
Approach Vol, veh/h	1432			1376			1482			1046		
Approach Delay, s/veh	76.0			9.4			38.3			33.6		
Approach LOS	E			A			D			C		
Timer - Assigned Phs	2			4		5	6	8				
Phs Duration (G+Y+Rc), s	54.6			35.4		17.7	36.9	35.4				
Change Period (Y+Rc), s	* 6			* 5.9		5.6	* 6	* 5.9				
Max Green Setting (Gmax), s	* 49			* 30		16.4	* 27	* 30				
Max Q Clear Time (g_c+I1), s	2.0			31.5		11.9	32.9	31.5				
Green Ext Time (p_c), s	11.4			0.0		0.2	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	40.0
HCM 6th LOS	D

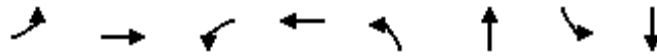
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

2: Balboa Boulevard & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	151	1281	208	1168	120	1362	94	952
v/c Ratio	1.14	1.11	0.76	0.59	1.05	0.83	1.21	0.62
Control Delay	158.5	97.8	51.1	9.5	133.7	32.7	200.0	27.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	158.5	97.8	51.1	9.5	133.7	32.7	200.0	27.0
Queue Length 50th (ft)	~110	~475	86	102	~75	254	~65	161
Queue Length 95th (ft)	#228	#595	m145	75	#184	312	#161	202
Internal Link Dist (ft)		2548		1913		526		433
Turn Bay Length (ft)	200		115		115		90	
Base Capacity (vph)	132	1156	303	1984	114	1637	78	1539
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.14	1.11	0.69	0.59	1.05	0.83	1.21	0.62

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.








95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th TWSC
3: De Celis Place & Vanowen Street





















11/27/2023

Intersection												
Int Delay, s/veh	12.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	1250	30	12	1387	31	5	1	17	10	2	62
Future Vol, veh/h	44	1250	30	12	1387	31	5	1	17	10	2	62
Conflicting Peds, #/hr	10	0	9	9	0	10	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	93	93	93	82	82	82	77	77	77
Heavy Vehicles, %	0	2	0	0	2	3	0	0	0	10	0	0
Mvmt Flow	48	1359	33	13	1491	33	6	1	21	13	3	81
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1534	0	0	1401	0	0	2254	3041	707	2322	3041	772
Stage 1	-	-	-	-	-	-	1481	1481	-	1544	1544	-
Stage 2	-	-	-	-	-	-	773	1560	-	778	1497	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.7	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.7	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.7	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.6	4	3.3
Pot Cap-1 Maneuver	439	-	-	494	-	-	23	13	382	18	13	347
Stage 1	-	-	-	-	-	-	134	191	-	111	178	-
Stage 2	-	-	-	-	-	-	362	175	-	338	188	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	436	-	-	490	-	-	13	11	378	14	11	344
Mov Cap-2 Maneuver	-	-	-	-	-	-	13	11	-	14	11	-
Stage 1	-	-	-	-	-	-	118	168	-	98	172	-
Stage 2	-	-	-	-	-	-	266	169	-	282	166	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.1			132.8			\$ 346.8		
HCM LOS							F			F		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	13 378		436	-	-	490	-	-	69			
HCM Lane V/C Ratio	0.563 0.055		0.11	-	-	0.026	-	-	1.393			
HCM Control Delay (s)	\$ 466.1 15.1		14.3	-	-	12.5	-	-	\$ 346.8			
HCM Lane LOS	F C		B	-	-	B	-	-	F			
HCM 95th %tile Q(veh)	1.3 0.2		0.4	-	-	0.1	-	-	7.9			
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined				*: All major volume in platoon			

HCM 6th Signalized Intersection Summary

4: Hayvenhurst Avenue & Vanowen Street

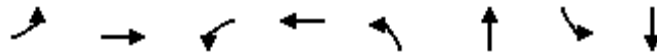
11/27/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	1161	53	30	1156	191	121	368	64	190	228	67
Future Volume (veh/h)	57	1161	53	30	1156	191	121	368	64	190	228	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	0.99		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1824	1945	1796	1824	1945	1767	1796	1930	1696	1781	1961	1824
Adj Flow Rate, veh/h	61	1235	56	32	1217	201	142	433	75	218	262	77
Peak Hour Factor	0.94	0.94	0.94	0.95	0.95	0.95	0.85	0.85	0.85	0.87	0.87	0.87
Percent Heavy Veh, %	0	2	2	0	2	4	2	3	9	3	1	0
Cap, veh/h	139	1741	79	188	1533	251	401	1207	207	323	1099	315
Arrive On Green	0.64	0.64	0.64	0.48	0.48	0.48	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	369	3597	163	417	3167	520	990	3110	534	844	2832	811
Grp Volume(v), veh/h	61	634	657	32	707	711	142	254	254	218	170	169
Grp Sat Flow(s),veh/h/ln	369	1848	1912	417	1848	1838	990	1833	1811	844	1863	1781
Q Serve(g_s), s	14.3	20.2	20.3	5.5	28.8	29.3	10.2	8.8	9.0	22.3	5.5	5.8
Cycle Q Clear(g_c), s	43.6	20.2	20.3	25.8	28.8	29.3	16.0	8.8	9.0	31.3	5.5	5.8
Prop In Lane	1.00		0.09	1.00		0.28	1.00		0.29	1.00		0.46
Lane Grp Cap(c), veh/h	139	894	925	188	894	890	401	712	703	323	723	691
V/C Ratio(X)	0.44	0.71	0.71	0.17	0.79	0.80	0.35	0.36	0.36	0.67	0.24	0.24
Avail Cap(c_a), veh/h	139	894	925	188	894	890	446	794	785	361	807	772
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.0	11.9	11.9	26.8	19.4	19.5	24.0	19.6	19.6	30.7	18.5	18.6
Incr Delay (d2), s/veh	9.8	4.7	4.6	2.0	7.0	7.4	0.5	0.3	0.3	4.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	11.1	11.3	1.1	18.9	19.2	4.2	6.6	6.6	8.3	4.2	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	16.6	16.5	28.8	26.4	27.0	24.5	19.9	19.9	35.0	18.7	18.8
LnGrp LOS	D	B	B	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h	1352			1450			650			557		
Approach Delay, s/veh	17.6			26.8			20.9			25.1		
Approach LOS	B			C			C			C		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	49.3			40.7			49.3			40.7		
Change Period (Y+Rc), s	5.7			* 5.8			5.7			* 5.8		
Max Green Setting (Gmax), s	39.5			* 39			39.5			* 39		
Max Q Clear Time (g_c+I1), s	31.3			33.3			45.6			18.0		
Green Ext Time (p_c), s	5.6			1.6			0.0			3.7		
Intersection Summary												
HCM 6th Ctrl Delay			22.5									
HCM 6th LOS			C									
Notes												

Queues

4: Hayvenhurst Avenue & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	61	1291	32	1418	142	508	218	339
v/c Ratio	0.80	0.67	0.31	0.75	0.44	0.40	0.92	0.26
Control Delay	59.1	27.6	27.2	21.9	24.8	20.6	69.3	18.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.1	27.6	27.2	21.9	24.8	20.6	69.3	18.3
Queue Length 50th (ft)	38	412	11	337	57	100	110	61
Queue Length 95th (ft)	m39	m395	43	#470	94	121	#216	82
Internal Link Dist (ft)		584		442		274		213
Turn Bay Length (ft)	145		80		155		175	
Base Capacity (vph)	76	1927	102	1898	389	1524	286	1554
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.67	0.31	0.75	0.37	0.33	0.76	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th AWSC
5: De Celis Place & Archwood Street

11/27/2023

Intersection

Intersection Delay, s/veh 7.5

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	3	5	12	7	20	9	1	17	7	15
Future Vol, veh/h	0	0	3	5	12	7	20	9	1	17	7	15
Peak Hour Factor	0.72	0.72	0.72	0.48	0.48	0.48	0.38	0.38	0.38	0.75	0.75	0.75
Heavy Vehicles, %	0	0	0	20	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	4	10	25	15	53	24	3	23	9	20
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.7	7.7	7.6	7.2
HCM LOS	A	A	A	A





















Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	67%	0%	21%	44%
Vol Thru, %	30%	0%	50%	18%
Vol Right, %	3%	100%	29%	38%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	3	24	39
LT Vol	20	0	5	17
Through Vol	9	0	12	7
RT Vol	1	3	7	15
Lane Flow Rate	79	4	50	52
Geometry Grp	1	1	1	1
Degree of Util (X)	0.091	0.004	0.06	0.056
Departure Headway (Hd)	4.147	3.563	4.336	3.91
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	861	990	820	910
Service Time	2.187	1.637	2.395	1.96
HCM Lane V/C Ratio	0.092	0.004	0.061	0.057
HCM Control Delay	7.6	6.7	7.7	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0	0.2	0.2

EXISTING (2023) PLUS PROJECT CONDITIONS

HCM 6th Signalized Intersection Summary

1: Louise Avenue & Vanowen Street

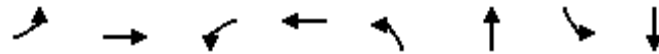
11/27/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	1144	74	92	991	85	58	378	71	211	683	116
Future Volume (veh/h)	77	1144	74	92	991	85	58	378	71	211	683	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1781	1945	1885	1856	1856	1900	1824	1885	1900	1810	1961	1856
Adj Flow Rate, veh/h	85	1257	81	98	1054	90	75	491	92	248	804	136
Peak Hour Factor	0.91	0.91	0.91	0.94	0.94	0.94	0.77	0.77	0.77	0.85	0.85	0.85
Percent Heavy Veh, %	3	2	1	3	3	0	0	1	0	1	1	3
Cap, veh/h	224	1518	98	126	1416	121	231	1341	250	351	1422	240
Arrive On Green	0.43	0.43	0.43	0.86	0.86	0.86	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	467	3517	226	405	3282	280	581	2998	558	802	3178	538
Grp Volume(v), veh/h	85	659	679	98	566	578	75	292	291	248	471	469
Grp Sat Flow(s),veh/h/ln	467	1848	1896	405	1763	1799	581	1791	1765	802	1863	1853
Q Serve(g_s), s	13.8	28.4	28.5	10.3	11.0	11.1	9.9	9.7	9.8	26.7	16.8	16.8
Cycle Q Clear(g_c), s	24.9	28.4	28.5	38.8	11.0	11.1	26.7	9.7	9.8	36.5	16.8	16.8
Prop In Lane	1.00		0.12	1.00		0.16	1.00		0.32	1.00		0.29
Lane Grp Cap(c), veh/h	224	798	818	126	761	776	231	801	790	351	833	829
V/C Ratio(X)	0.38	0.83	0.83	0.77	0.74	0.74	0.32	0.36	0.37	0.71	0.57	0.57
Avail Cap(c_a), veh/h	224	798	818	126	761	776	237	820	808	360	853	848
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.71	0.71	0.71	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.3	22.6	22.6	23.1	4.3	4.3	28.3	16.4	16.5	28.5	18.4	18.4
Incr Delay (d2), s/veh	4.8	9.6	9.5	27.4	4.7	4.6	0.8	0.3	0.3	6.1	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.2	19.5	20.0	5.0	4.7	4.8	2.4	6.7	6.7	9.1	11.1	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.1	32.2	32.2	50.5	8.9	8.9	29.1	16.7	16.7	34.6	19.2	19.2
LnGrp LOS	C	C	C	D	A	A	C	B	B	C	B	B
Approach Vol, veh/h	1423		1242				658			1188		
Approach Delay, s/veh	32.1		12.2				18.1			22.4		
Approach LOS	C		B				B			C		
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	44.5		45.5		44.5		45.5					
Change Period (Y+Rc), s	5.7		* 5.2		5.7		* 5.2					
Max Green Setting (Gmax), s	37.9		* 41		37.9		* 41					
Max Q Clear Time (g_c+I1), s	40.8		38.5		30.5		28.7					
Green Ext Time (p_c), s	0.0		1.8		5.1		3.3					
Intersection Summary												
HCM 6th Ctrl Delay			22.0									
HCM 6th LOS			C									
Notes												

Queues

1: Louise Avenue & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	85	1338	98	1144	75	583	248	940
v/c Ratio	0.86	0.81	1.29	0.75	0.54	0.42	0.94	0.61
Control Delay	89.6	27.4	209.0	17.9	35.0	18.1	68.8	20.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.6	27.4	209.0	17.9	35.0	18.1	68.8	20.9
Queue Length 50th (ft)	45	355	~74	202	29	107	123	192
Queue Length 95th (ft)	#140	#464	m#137	m292	62	121	#249	231
Internal Link Dist (ft)		558		2548		228		379
Turn Bay Length (ft)	110		105		100		100	
Base Capacity (vph)	99	1642	76	1522	148	1490	283	1658
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.81	1.29	0.75	0.51	0.39	0.88	0.57

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

2: Balboa Boulevard & Vanowen Street

11/27/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱↰		↰	↱↰		↰	↱↰↰		↰	↱↰↰	
Traffic Volume (veh/h)	107	1056	284	381	1071	140	69	557	209	110	1251	65
Future Volume (veh/h)	107	1056	284	381	1071	140	69	557	209	110	1251	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.92	1.00		0.96	1.00		0.89	0.98		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1945	1767	1885	1945	1781	1885	1870	1885	1826	1870	1856
Adj Flow Rate, veh/h	115	1135	305	393	1104	144	78	633	238	121	1375	71
Peak Hour Factor	0.93	0.93	0.93	0.97	0.97	0.97	0.88	0.88	0.88	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	4	1	2	3	1	2	1	5	2	3
Cap, veh/h	209	836	221	327	1766	230	105	1166	423	187	1618	84
Arrive On Green	0.59	0.59	0.59	0.36	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	436	2830	748	1795	3270	426	371	3557	1290	611	4935	255
Grp Volume(v), veh/h	115	734	706	393	623	625	78	605	266	121	948	498
Grp Sat Flow(s),veh/h/ln	436	1848	1730	1795	1848	1848	371	1702	1443	611	1702	1786
Q Serve(g_s), s	20.5	26.6	26.6	16.4	0.0	0.0	6.1	13.1	13.7	15.8	23.4	23.4
Cycle Q Clear(g_c), s	20.5	26.6	26.6	16.4	0.0	0.0	29.5	13.1	13.7	29.5	23.4	23.4
Prop In Lane	1.00		0.43	1.00		0.23	1.00		0.89	1.00		0.14
Lane Grp Cap(c), veh/h	209	546	511	327	998	998	105	1116	473	187	1116	585
V/C Ratio(X)	0.55	1.34	1.38	1.20	0.62	0.63	0.74	0.54	0.56	0.65	0.85	0.85
Avail Cap(c_a), veh/h	209	546	511	327	998	998	105	1116	473	187	1116	585
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.2	18.4	18.4	28.6	0.0	0.0	44.0	24.7	24.9	38.0	28.2	28.2
Incr Delay (d2), s/veh	4.5	160.6	176.5	116.2	2.9	3.0	37.1	1.9	4.8	15.9	8.2	14.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.6	43.9	44.7	24.6	1.5	1.5	5.1	9.3	9.0	6.4	15.9	17.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.7	179.0	194.9	144.8	2.9	3.0	81.1	26.6	29.7	53.9	36.3	42.6
LnGrp LOS	C	F	F	F	A	A	F	C	C	D	D	D
Approach Vol, veh/h	1555			1641			949			1567		
Approach Delay, s/veh	174.6			36.9			32.0			39.7		
Approach LOS	F			D			C			D		
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	54.6		35.4		22.0	32.6	35.4					
Change Period (Y+Rc), s	* 6		* 5.9		5.6	* 6	* 5.9					
Max Green Setting (Gmax), s	* 49		* 30		16.4	* 27	* 30					
Max Q Clear Time (g_c+I1), s	2.0		31.5		18.4	28.6	31.5					
Green Ext Time (p_c), s	12.8		0.0		0.0	0.0	0.0					

Intersection Summary

HCM 6th Ctrl Delay 74.3

HCM 6th LOS E

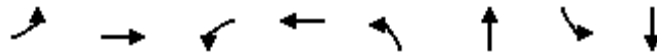
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

2: Balboa Boulevard & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	115	1440	393	1248	78	871	121	1446
v/c Ratio	1.03	1.34	1.30	0.63	1.01	0.53	0.94	0.94
Control Delay	104.8	182.9	188.3	8.6	143.1	22.6	98.4	42.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	104.8	182.9	188.3	8.6	143.1	22.6	98.4	42.6
Queue Length 50th (ft)	~53	~545	~281	94	~45	126	66	288
Queue Length 95th (ft)	m#102	m#684	m#410	135	#133	161	#176	#389
Internal Link Dist (ft)		2548		1609		526		433
Turn Bay Length (ft)	200		115		115		90	
Base Capacity (vph)	112	1074	303	1992	77	1642	129	1538
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	1.34	1.30	0.63	1.01	0.53	0.94	0.94

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.








95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th TWSC
3: De Celis Place & Vanowen Street

11/27/2023

Intersection												
Int Delay, s/veh	38.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	1259	146	72	1493	27	14	0	10	14	6	84
Future Vol, veh/h	27	1259	146	72	1493	27	14	0	10	14	6	84
Conflicting Peds, #/hr	10	0	9	9	0	10	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	98	98	98	67	67	67	79	79	79
Heavy Vehicles, %	4	2	0	14	2	0	0	0	10	0	0	1
Mvmt Flow	29	1354	157	73	1523	28	21	0	15	18	8	106

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1561	0	0	1520	0	0	2412	3207	767	2430	3271	786
Stage 1	-	-	-	-	-	-	1500	1500	-	1693	1693	-
Stage 2	-	-	-	-	-	-	912	1707	-	737	1578	-
Critical Hdwy	4.18	-	-	4.38	-	-	7.5	6.5	7.1	7.5	6.5	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.24	-	-	2.34	-	-	3.5	4	3.4	3.5	4	3.31
Pot Cap-1 Maneuver	410	-	-	381	-	-	~ 18	10	328	~ 17	9	337
Stage 1	-	-	-	-	-	-	130	187	-	99	150	-
Stage 2	-	-	-	-	-	-	299	148	-	381	171	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	407	-	-	378	-	-	-	7	324	~ 13	~ 7	334
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	7	-	~ 13	~ 7	-
Stage 1	-	-	-	-	-	-	120	172	-	91	120	-
Stage 2	-	-	-	-	-	-	154	119	-	337	157	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.8		\$ 968.4
HCM LOS			-	F





















Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	324	407	-	-	378	-	-	48
HCM Lane V/C Ratio	-	0.046	0.071	-	-	0.194	-	-	2.743
HCM Control Delay (s)	-	16.6	14.5	-	-	16.8	-	-	\$ 968.4
HCM Lane LOS	-	C	B	-	-	C	-	-	F
HCM 95th %tile Q(veh)	-	0.1	0.2	-	-	0.7	-	-	14

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th Signalized Intersection Summary

4: Hayvenhurst Avenue & Vanowen Street

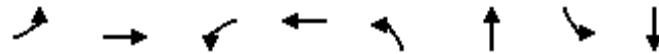
11/27/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	1162	106	51	1324	159	129	211	45	260	547	66
Future Volume (veh/h)	72	1162	106	51	1324	159	129	211	45	260	547	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1781	1945	1824	1796	1945	1810	1796	1961	1796	1796	1945	1781
Adj Flow Rate, veh/h	77	1236	113	53	1379	166	165	271	58	286	601	73
Peak Hour Factor	0.94	0.94	0.94	0.96	0.96	0.96	0.78	0.78	0.78	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	0	2	2	1	2	1	2	2	2	3
Cap, veh/h	114	1645	150	248	1596	191	266	1190	250	410	1292	157
Arrive On Green	0.96	0.96	0.96	0.48	0.48	0.48	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	319	3418	312	388	3316	396	731	3043	639	999	3305	400
Grp Volume(v), veh/h	77	667	682	53	764	781	165	164	165	286	335	339
Grp Sat Flow(s),veh/h/ln	319	1848	1881	388	1848	1864	731	1863	1820	999	1848	1857
Q Serve(g_s), s	9.6	4.3	4.4	8.1	32.9	33.7	19.5	5.3	5.5	24.2	12.2	12.2
Cycle Q Clear(g_c), s	43.3	4.3	4.4	12.5	32.9	33.7	31.8	5.3	5.5	29.7	12.2	12.2
Prop In Lane	1.00		0.17	1.00		0.21	1.00		0.35	1.00		0.22
Lane Grp Cap(c), veh/h	114	890	906	248	890	897	266	728	711	410	722	726
V/C Ratio(X)	0.67	0.75	0.75	0.21	0.86	0.87	0.62	0.22	0.23	0.70	0.46	0.47
Avail Cap(c_a), veh/h	114	890	906	248	890	897	298	807	789	452	801	805
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	1.0	1.0	16.8	20.6	20.8	32.3	18.3	18.4	28.3	20.4	20.4
Incr Delay (d2), s/veh	27.5	5.8	5.8	2.0	10.5	11.3	3.2	0.2	0.2	4.2	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.2	3.4	3.5	1.5	21.8	22.7	6.4	4.0	4.0	9.9	8.7	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.7	6.7	6.7	18.8	31.1	32.2	35.5	18.5	18.5	32.5	20.9	20.9
LnGrp LOS	D	A	A	B	C	C	D	B	B	C	C	C
Approach Vol, veh/h	1426			1598			494			960		
Approach Delay, s/veh	9.0			31.2			24.2			24.3		
Approach LOS	A			C			C			C		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	49.0			41.0			49.0			41.0		
Change Period (Y+Rc), s	5.7			* 5.8			5.7			* 5.8		
Max Green Setting (Gmax), s	39.5			* 39			39.5			* 39		
Max Q Clear Time (g_c+I1), s	35.7			31.7			45.3			33.8		
Green Ext Time (p_c), s	3.1			3.2			0.0			1.4		
Intersection Summary												
HCM 6th Ctrl Delay			21.9									
HCM 6th LOS			C									
Notes												

Queues

4: Hayvenhurst Avenue & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	77	1349	53	1545	165	329	286	674
v/c Ratio	1.05	0.72	0.65	0.83	0.89	0.25	0.86	0.50
Control Delay	90.0	36.5	62.7	25.7	69.1	17.5	49.4	22.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.0	36.5	62.7	25.7	69.1	17.5	49.4	22.0
Queue Length 50th (ft)	~49	398	23	400	81	58	139	141
Queue Length 95th (ft)	m#55	m344	#96	#590	#148	70	#264	180
Internal Link Dist (ft)		584		442		274		213
Turn Bay Length (ft)	145		80		155		175	
Base Capacity (vph)	73	1871	81	1865	217	1556	390	1562
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.05	0.72	0.65	0.83	0.76	0.21	0.73	0.43

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th AWSC
5: De Celis Place & Archwood Street

11/27/2023

Intersection

Intersection Delay, s/veh 7.3

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	11	13	0	8	4	20	0	3	7	30	10	15
Future Vol, veh/h	11	13	0	8	4	20	0	3	7	30	10	15
Peak Hour Factor	0.75	0.75	0.75	0.35	0.35	0.35	0.42	0.42	0.42	0.91	0.91	0.91
Heavy Vehicles, %	9	0	0	0	0	0	0	0	14	4	0	0
Mvmt Flow	15	17	0	23	11	57	0	7	17	33	11	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.2	6.9	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	46%	25%	55%
Vol Thru, %	30%	54%	12%	18%
Vol Right, %	70%	0%	62%	27%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	24	32	55
LT Vol	0	11	8	30
Through Vol	3	13	4	10
RT Vol	7	0	20	15
Lane Flow Rate	24	32	91	60
Geometry Grp	1	1	1	1
Degree of Util (X)	0.025	0.039	0.095	0.07
Departure Headway (Hd)	3.739	4.362	3.745	4.144
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	947	816	951	859
Service Time	1.801	2.413	1.793	2.196
HCM Lane V/C Ratio	0.025	0.039	0.096	0.07
HCM Control Delay	6.9	7.6	7.2	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.3	0.2




HCM 6th TWSC
6: Project Driveway & Vanowen Street

11/27/2023

Intersection						
Int Delay, s/veh	4.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↓	
Traffic Vol, veh/h	1377	0	0	1591	80	55
Future Vol, veh/h	1377	0	0	1591	80	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1497	0	0	1729	87	60
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	2362	749
Stage 1	-	-	-	-	1497	-
Stage 2	-	-	-	-	865	-
Critical Hdwy	-	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	-	0	0	-	~ 29	354
Stage 1	-	0	0	-	172	-
Stage 2	-	0	0	-	373	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	~ 29	354
Mov Cap-2 Maneuver	-	-	-	-	119	-
Stage 1	-	-	-	-	172	-
Stage 2	-	-	-	-	373	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		101.9	
HCM LOS					F	
Minor Lane/Major Mvmt	NBLn1		EBT	WBT		
Capacity (veh/h)	163		-	-		
HCM Lane V/C Ratio	0.9		-	-		
HCM Control Delay (s)	101.9		-	-		
HCM Lane LOS	F		-	-		
HCM 95th %tile Q(veh)	6.5		-	-		
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

HCM 6th TWSC
7: De Celis Place & Project Driveway





















11/27/2023

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	18	24	55	184
Future Vol, veh/h	0	0	18	24	55	184
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	20	26	60	200
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	226	160	260	0	-	0
Stage 1	160	-	-	-	-	-
Stage 2	66	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	762	885	1304	-	-	-
Stage 1	869	-	-	-	-	-
Stage 2	957	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	750	885	1304	-	-	-
Mov Cap-2 Maneuver	750	-	-	-	-	-
Stage 1	855	-	-	-	-	-
Stage 2	957	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	0	3.3		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1304	-	-	-	-	
HCM Lane V/C Ratio	0.015	-	-	-	-	
HCM Control Delay (s)	7.8	0	0	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	-	-	-	

HCM 6th Signalized Intersection Summary

1: Louise Avenue & Vanowen Street

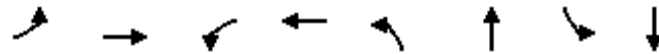
11/27/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	908	46	58	1022	114	91	512	81	92	252	85
Future Volume (veh/h)	96	908	46	58	1022	114	91	512	81	92	252	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1945	1900	1870	1885	1885	1796	1885	1841	1796	1976	1900
Adj Flow Rate, veh/h	102	966	49	64	1123	125	100	563	89	103	283	96
Peak Hour Factor	0.94	0.94	0.94	0.91	0.91	0.91	0.91	0.91	0.91	0.89	0.89	0.89
Percent Heavy Veh, %	3	2	0	2	1	1	2	1	4	2	0	0
Cap, veh/h	191	1960	99	291	1777	197	320	1019	160	214	907	300
Arrive On Green	0.55	0.55	0.55	0.37	0.37	0.37	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	424	3573	181	555	3239	360	954	3082	486	746	2744	906
Grp Volume(v), veh/h	102	500	515	64	620	628	100	326	326	103	191	188
Grp Sat Flow(s),veh/h/ln	424	1848	1907	555	1791	1808	954	1791	1777	746	1877	1773
Q Serve(g_s), s	21.0	15.1	15.1	8.4	25.7	25.8	7.9	13.4	13.5	11.8	6.8	7.1
Cycle Q Clear(g_c), s	46.8	15.1	15.1	23.4	25.7	25.8	15.0	13.4	13.5	25.3	6.8	7.1
Prop In Lane	1.00		0.10	1.00		0.20	1.00		0.27	1.00		0.51
Lane Grp Cap(c), veh/h	191	1013	1046	291	982	992	320	592	587	214	620	586
V/C Ratio(X)	0.53	0.49	0.49	0.22	0.63	0.63	0.31	0.55	0.55	0.48	0.31	0.32
Avail Cap(c_a), veh/h	191	1013	1046	291	982	992	441	820	814	309	859	812
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.72	0.72	0.72	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.3	12.6	12.6	26.3	21.0	21.0	28.2	24.7	24.7	35.1	22.5	22.6
Incr Delay (d2), s/veh	10.3	1.7	1.7	1.2	2.2	2.2	0.6	0.8	0.8	1.7	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.7	10.1	10.4	2.2	16.5	16.7	3.2	9.3	9.3	3.9	5.2	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.5	14.3	14.2	27.6	23.2	23.2	28.7	25.5	25.5	36.8	22.7	22.9
LnGrp LOS	D	B	B	C	C	C	C	C	C	D	C	C
Approach Vol, veh/h		1117			1312			752			482	
Approach Delay, s/veh		16.8			23.4			25.9			25.8	
Approach LOS		B			C			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		55.1		34.9		55.1		34.9				
Change Period (Y+Rc), s		5.7		* 5.2		5.7		* 5.2				
Max Green Setting (Gmax), s		37.9		* 41		37.9		* 41				
Max Q Clear Time (g_c+I1), s		27.8		27.3		48.8		17.0				
Green Ext Time (p_c), s		6.0		2.4		0.0		4.4				
Intersection Summary												
HCM 6th Ctrl Delay				22.2								
HCM 6th LOS				C								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Queues

1: Louise Avenue & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	102	1015	64	1248	100	652	103	379
v/c Ratio	0.66	0.47	0.27	0.62	0.44	0.69	0.87	0.36
Control Delay	40.8	12.5	16.8	17.1	30.7	30.4	83.0	23.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	12.5	16.8	17.1	30.7	30.4	83.0	23.4
Queue Length 50th (ft)	35	152	24	330	47	168	56	84
Queue Length 95th (ft)	#148	273	m55	m421	79	185	#122	98
Internal Link Dist (ft)		558		2548		228		379
Turn Bay Length (ft)	110		105		100		100	
Base Capacity (vph)	155	2146	235	2012	357	1495	189	1646
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.47	0.27	0.62	0.28	0.44	0.54	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

2: Balboa Boulevard & Vanowen Street

11/27/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱↰		↰	↱↰		↰	↱↰↰		↰	↱↰↰	
Traffic Volume (veh/h)	134	987	168	201	990	142	112	1103	167	90	760	87
Future Volume (veh/h)	134	987	168	201	990	142	112	1103	167	90	760	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.93	1.00		0.95	0.99		0.89	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1945	1753	1885	1945	1810	1885	1870	1856	1900	1885	1885
Adj Flow Rate, veh/h	151	1109	189	212	1042	149	120	1186	180	101	854	98
Peak Hour Factor	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93	0.89	0.89	0.89
Percent Heavy Veh, %	0	2	5	1	2	1	1	2	3	0	1	1
Cap, veh/h	241	1064	180	245	1739	248	182	1438	218	112	1513	172
Arrive On Green	0.11	0.11	0.11	0.27	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	472	3119	529	1795	3221	460	586	4388	666	404	4616	525
Grp Volume(v), veh/h	151	655	643	212	597	594	120	920	446	101	633	319
Grp Sat Flow(s),veh/h/ln	472	1848	1799	1795	1848	1833	586	1702	1650	404	1716	1711
Q Serve(g_s), s	28.6	30.7	30.7	10.1	0.0	0.0	15.6	22.4	22.4	7.1	13.7	13.9
Cycle Q Clear(g_c), s	28.6	30.7	30.7	10.1	0.0	0.0	29.5	22.4	22.4	29.5	13.7	13.9
Prop In Lane	1.00		0.29	1.00		0.25	1.00		0.40	1.00		0.31
Lane Grp Cap(c), veh/h	241	631	614	245	998	990	182	1116	541	112	1125	561
V/C Ratio(X)	0.63	1.04	1.05	0.87	0.60	0.60	0.66	0.82	0.82	0.90	0.56	0.57
Avail Cap(c_a), veh/h	241	631	614	327	998	990	182	1116	541	112	1125	561
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	39.9	39.9	31.9	0.0	0.0	38.4	27.9	27.9	43.9	24.9	25.0
Incr Delay (d2), s/veh	10.0	43.4	46.5	16.6	2.6	2.7	17.3	7.0	13.4	62.1	2.0	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.4	30.8	30.8	8.5	1.3	1.3	6.4	15.2	16.0	7.5	9.8	10.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.0	83.4	86.4	48.5	2.6	2.7	55.6	34.8	41.3	106.0	27.0	29.1
LnGrp LOS	D	F	F	D	A	A	E	C	D	F	C	C
Approach Vol, veh/h	1449		1403				1486			1053		
Approach Delay, s/veh	81.1		9.6				38.4			35.2		
Approach LOS	F		A				D			D		
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	54.6		35.4		17.9	36.7	35.4					
Change Period (Y+Rc), s	* 6		* 5.9		5.6	* 6	* 5.9					
Max Green Setting (Gmax), s	* 49		* 30		16.4	* 27	* 30					
Max Q Clear Time (g_c+I1), s	2.0		31.5		12.1	32.7	31.5					
Green Ext Time (p_c), s	11.8		0.0		0.2	0.0	0.0					

Intersection Summary

HCM 6th Ctrl Delay 41.8

HCM 6th LOS D

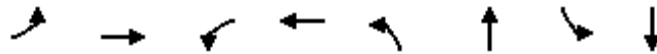
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

2: Balboa Boulevard & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	151	1298	212	1191	120	1366	101	952
v/c Ratio	1.17	1.13	0.77	0.60	1.05	0.84	1.29	0.62
Control Delay	168.9	104.5	51.0	9.8	133.7	32.9	231.1	27.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	168.9	104.5	51.0	9.8	133.7	32.9	231.1	27.0
Queue Length 50th (ft)	~111	~487	89	127	~75	254	~74	161
Queue Length 95th (ft)	#231	#606	m149	92	#184	313	#172	202
Internal Link Dist (ft)		2548		1609		526		433
Turn Bay Length (ft)	200		115		115		90	
Base Capacity (vph)	129	1152	303	1982	114	1635	78	1539
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.17	1.13	0.70	0.60	1.05	0.84	1.29	0.62

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.








95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th TWSC
3: De Celis Place & Vanowen Street





















11/27/2023

Intersection												
Int Delay, s/veh	13.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	1266	55	25	1387	31	5	1	17	10	2	62
Future Vol, veh/h	44	1266	55	25	1387	31	5	1	17	10	2	62
Conflicting Peds, #/hr	10	0	9	9	0	10	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	93	93	93	82	82	82	77	77	77
Heavy Vehicles, %	0	2	0	0	2	3	0	0	0	10	0	0
Mvmt Flow	48	1376	60	27	1491	33	6	1	21	13	3	81
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1534	0	0	1445	0	0	2312	3099	729	2359	3113	772
Stage 1	-	-	-	-	-	-	1511	1511	-	1572	1572	-
Stage 2	-	-	-	-	-	-	801	1588	-	787	1541	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.7	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.7	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.7	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.6	4	3.3
Pot Cap-1 Maneuver	439	-	-	475	-	-	21	12	370	17	12	347
Stage 1	-	-	-	-	-	-	128	185	-	106	172	-
Stage 2	-	-	-	-	-	-	349	169	-	334	179	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	436	-	-	471	-	-	11	10	366	13	10	344
Mov Cap-2 Maneuver	-	-	-	-	-	-	11	10	-	13	10	-
Stage 1	-	-	-	-	-	-	113	163	-	94	161	-
Stage 2	-	-	-	-	-	-	248	158	-	278	158	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.2			162.4			\$ 399.4		
HCM LOS							F			F		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	11 366		436	-	-	471	-	-	64			
HCM Lane V/C Ratio	0.665 0.057		0.11	-	-	0.057	-	-	1.502			
HCM Control Delay (s)	\$ 578.9 15.4		14.3	-	-	13.1	-	-	\$ 399.4			
HCM Lane LOS	F C		B	-	-	B	-	-	F			
HCM 95th %tile Q(veh)	1.4 0.2		0.4	-	-	0.2	-	-	8.3			
Notes												
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon												

HCM 6th Signalized Intersection Summary

4: Hayvenhurst Avenue & Vanowen Street

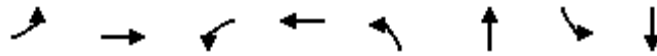
11/27/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	1173	56	30	1168	191	121	368	64	190	228	68
Future Volume (veh/h)	58	1173	56	30	1168	191	121	368	64	190	228	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	0.99		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1824	1945	1796	1824	1945	1767	1796	1930	1696	1781	1961	1824
Adj Flow Rate, veh/h	62	1248	60	32	1229	201	142	433	75	218	262	78
Peak Hour Factor	0.94	0.94	0.94	0.95	0.95	0.95	0.85	0.85	0.85	0.87	0.87	0.87
Percent Heavy Veh, %	0	2	2	0	2	4	2	3	9	3	1	0
Cap, veh/h	136	1736	83	184	1535	249	400	1207	207	323	1096	318
Arrive On Green	0.64	0.64	0.64	0.48	0.48	0.48	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	365	3586	172	410	3172	515	989	3110	534	844	2823	819
Grp Volume(v), veh/h	62	643	666	32	712	718	142	254	254	218	170	170
Grp Sat Flow(s),veh/h/ln	365	1848	1910	410	1848	1839	989	1833	1811	844	1863	1779
Q Serve(g_s), s	13.8	20.7	20.8	5.7	29.1	29.7	10.2	8.8	9.0	22.3	5.5	5.8
Cycle Q Clear(g_c), s	43.6	20.7	20.8	26.5	29.1	29.7	16.0	8.8	9.0	31.3	5.5	5.8
Prop In Lane	1.00		0.09	1.00		0.28	1.00		0.29	1.00		0.46
Lane Grp Cap(c), veh/h	136	894	924	184	894	890	400	712	703	323	723	691
V/C Ratio(X)	0.46	0.72	0.72	0.17	0.80	0.81	0.35	0.36	0.36	0.67	0.24	0.25
Avail Cap(c_a), veh/h	136	894	924	184	894	890	445	794	785	361	807	771
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.5	12.0	12.0	27.3	19.5	19.6	24.0	19.5	19.6	30.7	18.5	18.6
Incr Delay (d2), s/veh	10.6	4.9	4.8	2.1	7.3	7.7	0.5	0.3	0.3	4.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	11.3	11.5	1.2	19.1	19.4	4.2	6.6	6.6	8.3	4.2	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.1	16.9	16.8	29.3	26.8	27.4	24.6	19.9	19.9	35.0	18.7	18.8
LnGrp LOS	D	B	B	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h	1370			1462			650			558		
Approach Delay, s/veh	18.0			27.1			20.9			25.1		
Approach LOS	B			C			C			C		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	49.3			40.7			49.3			40.7		
Change Period (Y+Rc), s	5.7			* 5.8			5.7			* 5.8		
Max Green Setting (Gmax), s	39.5			* 39			39.5			* 39		
Max Q Clear Time (g_c+I1), s	31.7			33.3			45.6			18.0		
Green Ext Time (p_c), s	5.4			1.6			0.0			3.7		
Intersection Summary												
HCM 6th Ctrl Delay			22.7									
HCM 6th LOS			C									
Notes												

Queues

4: Hayvenhurst Avenue & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	62	1308	32	1430	142	508	218	340
v/c Ratio	0.82	0.68	0.33	0.75	0.44	0.40	0.92	0.26
Control Delay	45.7	23.0	28.3	22.1	24.8	20.6	69.3	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.7	23.0	28.3	22.1	24.8	20.6	69.3	18.4
Queue Length 50th (ft)	38	404	11	342	57	100	110	62
Queue Length 95th (ft)	m39	m376	44	#484	94	121	#216	82
Internal Link Dist (ft)		584		442		274		213
Turn Bay Length (ft)	145		80		155		175	
Base Capacity (vph)	76	1927	98	1898	389	1523	286	1554
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.68	0.33	0.75	0.37	0.33	0.76	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th AWSC
5: De Celis Place & Archwood Street

11/27/2023

Intersection

Intersection Delay, s/veh 7.5

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	0	3	5	12	10	20	9	1	18	7	15
Future Vol, veh/h	0	0	3	5	12	10	20	9	1	18	7	15
Peak Hour Factor	0.72	0.72	0.72	0.48	0.48	0.48	0.38	0.38	0.38	0.75	0.75	0.75
Heavy Vehicles, %	0	0	0	20	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	4	10	25	21	53	24	3	24	9	20
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.7	7.7	7.6	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	67%	0%	19%	45%
Vol Thru, %	30%	0%	44%	18%
Vol Right, %	3%	100%	37%	38%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	3	27	40
LT Vol	20	0	5	18
Through Vol	9	0	12	7
RT Vol	1	3	10	15
Lane Flow Rate	79	4	56	53
Geometry Grp	1	1	1	1
Degree of Util (X)	0.091	0.004	0.067	0.058
Departure Headway (Hd)	4.159	3.57	4.286	3.93
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	857	987	829	905
Service Time	2.203	1.647	2.347	1.982
HCM Lane V/C Ratio	0.092	0.004	0.068	0.059
HCM Control Delay	7.6	6.7	7.7	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0	0.2	0.2




HCM 6th TWSC
6: Project Driveway & Vanowen Street

11/27/2023

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↓	
Traffic Vol, veh/h	1348	0	0	1454	25	17
Future Vol, veh/h	1348	0	0	1454	25	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1465	0	0	1580	27	18
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	-	-	-	2255	733
Stage 1	-	-	-	-	1465	-
Stage 2	-	-	-	-	790	-
Critical Hdwy	-	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	-	0	0	-	35	363
Stage 1	-	0	0	-	179	-
Stage 2	-	0	0	-	408	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	35	363
Mov Cap-2 Maneuver	-	-	-	-	127	-
Stage 1	-	-	-	-	179	-
Stage 2	-	-	-	-	408	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		33.3		
HCM LOS				D		
Minor Lane/Major Mvmt	NBLn1	EBT	WBT			
Capacity (veh/h)	172	-	-			
HCM Lane V/C Ratio	0.265	-	-			
HCM Control Delay (s)	33.3	-	-			
HCM Lane LOS	D	-	-			
HCM 95th %tile Q(veh)	1	-	-			

HCM 6th TWSC
7: De Celis Place & Project Driveway

11/27/2023





















Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	3	23	45	37
Future Vol, veh/h	0	0	3	23	45	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	3	25	49	40
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	100	69	89	0	-	0
Stage 1	69	-	-	-	-	-
Stage 2	31	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	899	994	1506	-	-	-
Stage 1	954	-	-	-	-	-
Stage 2	992	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	897	994	1506	-	-	-
Mov Cap-2 Maneuver	897	-	-	-	-	-
Stage 1	952	-	-	-	-	-
Stage 2	992	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	0	0.9		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1506	-	-	-	-	
HCM Lane V/C Ratio	0.002	-	-	-	-	
HCM Control Delay (s)	7.4	0	0	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	-	-	-	

FUTURE (2026) WITHOUT PROJECT CONDITIONS

HCM 6th Signalized Intersection Summary

1: Louise Avenue & Vanowen Street

11/27/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	1121	76	95	983	73	62	392	73	197	709	122
Future Volume (veh/h)	79	1121	76	95	983	73	62	392	73	197	709	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1781	1945	1885	1856	1856	1900	1824	1885	1900	1810	1961	1856
Adj Flow Rate, veh/h	83	1180	80	100	1035	77	65	413	77	207	746	128
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	2	1	3	3	0	0	1	0	1	1	3
Cap, veh/h	303	1705	115	178	1616	120	207	1178	218	337	1244	213
Arrive On Green	0.49	0.49	0.49	0.97	0.97	0.97	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	481	3505	237	437	3322	247	618	3001	554	872	3169	544
Grp Volume(v), veh/h	83	622	638	100	549	563	65	245	245	207	438	436
Grp Sat Flow(s),veh/h/ln	481	1848	1894	437	1763	1806	618	1791	1764	872	1863	1850
Q Serve(g_s), s	10.1	23.4	23.5	20.3	2.0	2.0	8.4	8.7	8.8	19.8	16.8	16.8
Cycle Q Clear(g_c), s	12.1	23.4	23.5	43.8	2.0	2.0	25.3	8.7	8.8	28.6	16.8	16.8
Prop In Lane	1.00		0.13	1.00		0.14	1.00		0.31	1.00		0.29
Lane Grp Cap(c), veh/h	303	899	921	178	857	879	207	703	692	337	731	726
V/C Ratio(X)	0.27	0.69	0.69	0.56	0.64	0.64	0.31	0.35	0.35	0.61	0.60	0.60
Avail Cap(c_a), veh/h	303	899	921	178	857	879	247	820	808	394	853	847
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.72	0.72	0.72	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.6	17.9	17.9	13.1	0.7	0.7	31.8	19.2	19.3	29.4	21.7	21.7
Incr Delay (d2), s/veh	2.2	4.4	4.3	8.9	2.6	2.6	0.9	0.3	0.3	2.2	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.2	15.4	15.8	3.3	1.7	1.7	2.3	6.2	6.2	7.4	11.3	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.9	22.2	22.2	22.0	3.3	3.2	32.6	19.5	19.6	31.5	22.6	22.6
LnGrp LOS	B	C	C	C	A	A	C	B	B	C	C	C
Approach Vol, veh/h	1343			1212			555			1081		
Approach Delay, s/veh	21.9			4.8			21.1			24.3		
Approach LOS	C			A			C			C		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	49.5			40.5			49.5			40.5		
Change Period (Y+Rc), s	5.7			* 5.2			5.7			* 5.2		
Max Green Setting (Gmax), s	37.9			* 41			37.9			* 41		
Max Q Clear Time (g_c+I1), s	45.8			30.6			25.5			27.3		
Green Ext Time (p_c), s	0.0			4.7			7.2			2.8		

Intersection Summary

HCM 6th Ctrl Delay 17.5

HCM 6th LOS B

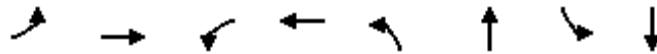
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

1: Louise Avenue & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	83	1260	100	1112	65	490	207	874
v/c Ratio	0.58	0.68	0.92	0.65	0.57	0.41	0.82	0.65
Control Delay	40.0	20.4	81.5	14.8	40.5	20.3	50.1	24.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.0	20.4	81.5	14.8	40.5	20.3	50.1	24.6
Queue Length 50th (ft)	32	274	23	131	28	100	103	202
Queue Length 95th (ft)	#120	413	m#129	m279	69	122	#186	229
Internal Link Dist (ft)		558		2548		228		379
Turn Bay Length (ft)	110		105		100		100	
Base Capacity (vph)	143	1850	109	1719	143	1493	314	1658
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.68	0.92	0.65	0.45	0.33	0.66	0.53

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

2: Balboa Boulevard & Vanowen Street

11/27/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱↰		↰	↱↰		↰↱↰↱			↰↱↰↱		
Traffic Volume (veh/h)	110	1011	295	385	1051	125	71	579	206	83	1292	67
Future Volume (veh/h)	110	1011	295	385	1051	125	71	579	206	83	1292	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.92	1.00		0.96	1.00		0.89	0.98		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1945	1767	1885	1945	1781	1885	1870	1885	1826	1870	1856
Adj Flow Rate, veh/h	116	1064	311	405	1106	132	75	609	217	87	1360	71
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	2	4	1	2	3	1	2	1	5	2	3
Cap, veh/h	210	817	236	327	1787	213	107	1187	407	198	1616	84
Arrive On Green	0.59	0.59	0.59	0.36	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	440	2766	798	1795	3309	394	377	3623	1241	636	4931	257
Grp Volume(v), veh/h	116	706	669	405	617	621	75	571	255	87	939	492
Grp Sat Flow(s),veh/h/ln	440	1848	1715	1795	1848	1855	377	1702	1459	636	1702	1785
Q Serve(g_s), s	20.5	26.6	26.6	16.4	0.0	0.0	6.5	12.2	12.8	11.6	23.0	23.0
Cycle Q Clear(g_c), s	20.5	26.6	26.6	16.4	0.0	0.0	29.5	12.2	12.8	24.5	23.0	23.0
Prop In Lane	1.00		0.46	1.00		0.21	1.00		0.85	1.00		0.14
Lane Grp Cap(c), veh/h	210	546	507	327	998	1002	107	1116	478	198	1116	585
V/C Ratio(X)	0.55	1.29	1.32	1.24	0.62	0.62	0.70	0.51	0.53	0.44	0.84	0.84
Avail Cap(c_a), veh/h	210	546	507	327	998	1002	107	1116	478	198	1116	585
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.65	0.65	0.65	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.2	18.4	18.4	28.6	0.0	0.0	43.8	24.4	24.6	34.6	28.1	28.1
Incr Delay (d2), s/veh	6.6	140.6	152.7	130.5	2.9	2.9	31.8	1.7	4.2	7.0	7.7	13.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	40.4	40.4	26.6	1.4	1.4	4.7	8.8	8.6	3.9	15.6	17.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	159.0	171.1	159.1	2.9	2.9	75.7	26.1	28.9	41.6	35.8	41.8
LnGrp LOS	C	F	F	F	A	A	E	C	C	D	D	D
Approach Vol, veh/h	1491		1643				901			1518		
Approach Delay, s/veh	153.9		41.4				31.0			38.1		
Approach LOS	F		D				C			D		
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	54.6		35.4		22.0	32.6	35.4					
Change Period (Y+Rc), s	* 6		* 5.9		5.6	* 6	* 5.9					
Max Green Setting (Gmax), s	* 49		* 30		16.4	* 27	* 30					
Max Q Clear Time (g_c+I1), s	2.0		26.5		18.4	28.6	31.5					
Green Ext Time (p_c), s	12.6		2.4		0.0	0.0	0.0					

Intersection Summary

HCM 6th Ctrl Delay 69.0

HCM 6th LOS E

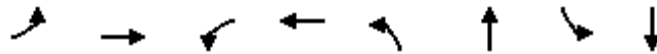
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

2: Balboa Boulevard & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	116	1375	405	1238	75	826	87	1431
v/c Ratio	1.03	1.29	1.34	0.62	0.97	0.50	0.63	0.93
Control Delay	112.4	159.9	203.5	8.1	132.5	22.2	48.6	41.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	112.4	159.9	203.5	8.1	132.5	22.2	48.6	41.3
Queue Length 50th (ft)	~72	~532	~294	82	42	118	41	284
Queue Length 95th (ft)	m#138	#643	m#435	121	#132	157	#115	#382
Internal Link Dist (ft)		2548		1913		526		433
Turn Bay Length (ft)	200		115		115		90	
Base Capacity (vph)	113	1069	303	1995	77	1643	139	1538
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	1.29	1.34	0.62	0.97	0.50	0.63	0.93

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.








95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th TWSC
3: De Celis Place & Vanowen Street

11/27/2023

Intersection												
Int Delay, s/veh	22.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	1251	24	7	1541	28	14	0	10	14	6	87
Future Vol, veh/h	28	1251	24	7	1541	28	14	0	10	14	6	87
Conflicting Peds, #/hr	10	0	9	9	0	10	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	4	2	0	14	2	0	0	0	10	0	0	1
Mvmt Flow	29	1317	25	7	1622	29	15	0	11	15	6	92

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1661	0	0	1351	0	0	2225	3072	682	2380	3070	836
Stage 1	-	-	-	-	-	-	1397	1397	-	1661	1661	-
Stage 2	-	-	-	-	-	-	828	1675	-	719	1409	-
Critical Hdwy	4.18	-	-	4.38	-	-	7.5	6.5	7.1	7.5	6.5	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.24	-	-	2.34	-	-	3.5	4	3.4	3.5	4	3.31
Pot Cap-1 Maneuver	375	-	-	447	-	-	24	12	374	19	12	312
Stage 1	-	-	-	-	-	-	151	210	-	103	156	-
Stage 2	-	-	-	-	-	-	336	153	-	390	207	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	372	-	-	443	-	-	~ 9	11	370	17	11	310
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 9	11	-	17	11	-
Stage 1	-	-	-	-	-	-	138	192	-	94	152	-
Stage 2	-	-	-	-	-	-	223	149	-	349	189	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.1	\$ 653.7	\$ 490.5
HCM LOS			F	F





















Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	9	370	372	-	-	443	-	-	65
HCM Lane V/C Ratio	1.637	0.028	0.079	-	-	0.017	-	-	1.733
HCM Control Delay (s)	\$ 1109.9	15	15.5	-	-	13.3	-	-	\$ 490.5
HCM Lane LOS	F	C	C	-	-	B	-	-	F
HCM 95th %tile Q(veh)	2.7	0.1	0.3	-	-	0.1	-	-	10.1

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th Signalized Intersection Summary

4: Hayvenhurst Avenue & Vanowen Street

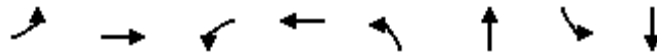
11/27/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	1162	101	53	1304	164	133	218	47	269	565	64
Future Volume (veh/h)	71	1162	101	53	1304	164	133	218	47	269	565	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1781	1945	1824	1796	1945	1810	1796	1961	1796	1796	1945	1781
Adj Flow Rate, veh/h	75	1223	106	56	1373	173	140	229	49	283	595	67
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	2	0	2	2	1	2	1	2	2	2	3
Cap, veh/h	126	1727	149	279	1658	207	252	1125	235	411	1232	138
Arrive On Green	1.00	1.00	1.00	0.50	0.50	0.50	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	319	3435	297	395	3297	412	739	3045	637	1045	3335	375
Grp Volume(v), veh/h	75	657	672	56	764	782	140	138	140	283	329	333
Grp Sat Flow(s),veh/h/ln	319	1848	1884	395	1848	1861	739	1863	1819	1045	1848	1862
Q Serve(g_s), s	12.8	0.0	0.0	7.4	31.6	32.4	16.1	4.5	4.7	22.8	12.3	12.4
Cycle Q Clear(g_c), s	45.2	0.0	0.0	7.4	31.6	32.4	28.5	4.5	4.7	27.6	12.3	12.4
Prop In Lane	1.00		0.16	1.00		0.22	1.00		0.35	1.00		0.20
Lane Grp Cap(c), veh/h	126	929	947	279	929	936	252	688	672	411	683	688
V/C Ratio(X)	0.60	0.71	0.71	0.20	0.82	0.84	0.56	0.20	0.21	0.69	0.48	0.48
Avail Cap(c_a), veh/h	126	929	947	279	929	936	299	807	788	478	801	807
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.7	0.0	0.0	13.0	19.0	19.2	32.7	19.3	19.4	28.8	21.8	21.8
Incr Delay (d2), s/veh	19.2	4.5	4.5	1.6	8.2	8.7	1.9	0.1	0.2	3.4	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.7	2.1	2.1	1.3	20.5	21.2	5.2	3.4	3.5	9.8	8.9	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	4.5	4.5	14.6	27.1	27.9	34.7	19.5	19.5	32.2	22.3	22.3
LnGrp LOS	D	A	A	B	C	C	C	B	B	C	C	C
Approach Vol, veh/h	1404			1602			418			945		
Approach Delay, s/veh	6.3			27.1			24.6			25.3		
Approach LOS	A			C			C			C		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	50.9			39.1			50.9			39.1		
Change Period (Y+Rc), s	5.7			* 5.8			5.7			* 5.8		
Max Green Setting (Gmax), s	39.5			* 39			39.5			* 39		
Max Q Clear Time (g_c+I1), s	34.4			29.6			47.2			30.5		
Green Ext Time (p_c), s	4.0			3.7			0.0			1.6		
Intersection Summary												
HCM 6th Ctrl Delay			19.8									
HCM 6th LOS			B									
Notes												

Queues

4: Hayvenhurst Avenue & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	75	1329	56	1546	140	278	283	662
v/c Ratio	1.03	0.69	0.62	0.81	0.77	0.21	0.83	0.51
Control Delay	83.8	36.5	54.3	24.5	52.6	17.3	45.6	22.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.8	36.5	54.3	24.5	52.6	17.3	45.6	22.7
Queue Length 50th (ft)	~46	392	23	383	67	49	138	143
Queue Length 95th (ft)	m#57	m345	#98	#591	#153	70	227	176
Internal Link Dist (ft)		584		442		274		213
Turn Bay Length (ft)	145		80		155		175	
Base Capacity (vph)	73	1915	91	1905	217	1557	412	1564
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.69	0.62	0.81	0.65	0.18	0.69	0.42

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th AWSC
5: De Celis Place & Archwood Street

11/27/2023

Intersection

Intersection Delay, s/veh 7.3

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	14	0	8	5	2	0	3	7	27	10	15
Future Vol, veh/h	11	14	0	8	5	2	0	3	7	27	10	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	9	0	0	0	0	0	0	0	14	4	0	0
Mvmt Flow	12	15	0	8	5	2	0	3	7	28	11	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0





















Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.4	7.2	6.7	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	44%	53%	52%
Vol Thru, %	30%	56%	33%	19%
Vol Right, %	70%	0%	13%	29%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	25	15	52
LT Vol	0	11	8	27
Through Vol	3	14	5	10
RT Vol	7	0	2	15
Lane Flow Rate	11	26	16	55
Geometry Grp	1	1	1	1
Degree of Util (X)	0.011	0.031	0.018	0.06
Departure Headway (Hd)	3.593	4.267	4.06	3.979
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	993	838	880	900
Service Time	1.626	2.296	2.092	2.004
HCM Lane V/C Ratio	0.011	0.031	0.018	0.061
HCM Control Delay	6.7	7.4	7.2	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.1	0.1	0.2

HCM 6th Signalized Intersection Summary

1: Louise Avenue & Vanowen Street

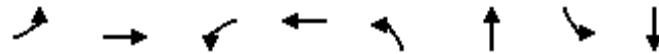
09/21/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	926	49	60	1041	113	95	531	83	91	265	89
Future Volume (veh/h)	100	926	49	60	1041	113	95	531	83	91	265	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1781	1945	1900	1870	1885	1885	1796	1885	1841	1796	1976	1900
Adj Flow Rate, veh/h	105	975	52	63	1096	119	100	559	87	96	279	94
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	2	0	2	1	1	2	1	4	2	0	0
Cap, veh/h	204	1987	106	295	1812	197	312	992	154	208	882	289
Arrive On Green	0.56	0.56	0.56	0.37	0.37	0.37	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	438	3563	190	549	3249	352	959	3090	479	750	2749	901
Grp Volume(v), veh/h	105	506	521	63	603	612	100	323	323	96	188	185
Grp Sat Flow(s),veh/h/ln	438	1848	1905	549	1791	1810	959	1791	1778	750	1877	1773
Q Serve(g_s), s	20.3	15.0	15.0	8.3	24.5	24.6	7.9	13.5	13.6	11.0	6.8	7.1
Cycle Q Clear(g_c), s	44.9	15.0	15.0	23.3	24.5	24.6	15.1	13.5	13.6	24.5	6.8	7.1
Prop In Lane	1.00		0.10	1.00		0.19	1.00		0.27	1.00		0.51
Lane Grp Cap(c), veh/h	204	1031	1063	295	999	1010	312	575	571	208	603	569
V/C Ratio(X)	0.51	0.49	0.49	0.21	0.60	0.61	0.32	0.56	0.57	0.46	0.31	0.32
Avail Cap(c_a), veh/h	204	1031	1063	295	999	1010	443	820	814	310	859	812
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.72	0.72	0.72	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.3	12.1	12.1	25.7	20.1	20.2	28.9	25.3	25.3	35.5	23.1	23.2
Incr Delay (d2), s/veh	8.9	1.7	1.6	1.2	2.0	1.9	0.6	0.9	0.9	1.6	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.6	10.0	10.2	2.2	15.8	15.9	3.2	9.4	9.4	3.6	5.2	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.2	13.8	13.7	26.9	22.1	22.1	29.5	26.2	26.2	37.1	23.3	23.5
LnGrp LOS	D	B	B	C	C	C	C	C	C	D	C	C
Approach Vol, veh/h	1132			1278			746			469		
Approach Delay, s/veh	16.1			22.3			26.6			26.2		
Approach LOS	B			C			C			C		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	55.9			34.1			55.9			34.1		
Change Period (Y+Rc), s	5.7			* 5.2			5.7			* 5.2		
Max Green Setting (Gmax), s	37.9			* 41			37.9			* 41		
Max Q Clear Time (g_c+I1), s	26.6			26.5			46.9			17.1		
Green Ext Time (p_c), s	6.3			2.4			0.0			4.4		
Intersection Summary												
HCM 6th Ctrl Delay			21.8									
HCM 6th LOS			C									
Notes												

Queues

1: Louise Avenue & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	105	1027	63	1215	100	646	96	373
v/c Ratio	0.62	0.47	0.27	0.59	0.46	0.70	0.85	0.37
Control Delay	34.8	11.9	15.2	15.8	32.2	31.6	82.7	23.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.8	11.9	15.2	15.8	32.2	31.6	82.7	23.9
Queue Length 50th (ft)	35	155	23	325	47	166	52	82
Queue Length 95th (ft)	#144	263	m53	m408	83	192	#120	102
Internal Link Dist (ft)		558		2548		228		379
Turn Bay Length (ft)	110		105		100		100	
Base Capacity (vph)	170	2177	237	2043	359	1495	186	1648
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.47	0.27	0.59	0.28	0.43	0.52	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

2: Balboa Boulevard & Vanowen Street

11/27/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱↰		↰	↱↰		↰↱↰↱			↰↱↰↱		
Traffic Volume (veh/h)	139	1002	174	207	1005	142	115	1144	170	88	787	90
Future Volume (veh/h)	139	1002	174	207	1005	142	115	1144	170	88	787	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.92	1.00		0.95	0.99		0.89	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1945	1753	1885	1945	1810	1885	1870	1856	1900	1885	1885
Adj Flow Rate, veh/h	146	1055	183	218	1058	149	121	1204	179	93	828	95
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	5	1	2	1	1	2	3	0	1	1
Cap, veh/h	237	1050	182	251	1743	245	188	1443	215	110	1513	172
Arrive On Green	0.11	0.11	0.11	0.28	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	465	3107	537	1795	3229	454	602	4403	654	398	4617	525
Grp Volume(v), veh/h	146	626	612	218	605	602	121	931	452	93	613	310
Grp Sat Flow(s),veh/h/ln	465	1848	1797	1795	1848	1834	602	1702	1654	398	1716	1711
Q Serve(g_s), s	28.0	30.4	30.4	10.4	0.0	0.0	16.1	22.8	22.8	6.7	13.2	13.4
Cycle Q Clear(g_c), s	28.0	30.4	30.4	10.4	0.0	0.0	29.5	22.8	22.8	29.5	13.2	13.4
Prop In Lane	1.00		0.30	1.00		0.25	1.00		0.40	1.00		0.31
Lane Grp Cap(c), veh/h	237	625	607	251	998	991	188	1116	542	110	1125	561
V/C Ratio(X)	0.62	1.00	1.01	0.87	0.61	0.61	0.64	0.83	0.83	0.85	0.55	0.55
Avail Cap(c_a), veh/h	237	625	607	327	998	991	188	1116	542	110	1125	561
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	40.0	40.0	31.6	0.0	0.0	37.8	28.0	28.0	43.9	24.8	24.8
Incr Delay (d2), s/veh	9.8	33.7	35.6	17.5	2.7	2.8	15.8	7.4	14.1	52.0	1.9	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.2	27.8	27.6	8.7	1.4	1.4	6.3	15.4	16.3	6.6	9.4	9.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.7	73.7	75.6	49.1	2.7	2.8	53.6	35.4	42.1	95.9	26.7	28.7
LnGrp LOS	D	F	F	D	A	A	D	D	D	F	C	C
Approach Vol, veh/h	1384		1425			1504			1016			
Approach Delay, s/veh	71.9		9.9			38.9			33.6			
Approach LOS	E		A			D			C			
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	54.6		35.4		18.2	36.4	35.4					
Change Period (Y+Rc), s	* 6		* 5.9		5.6	* 6	* 5.9					
Max Green Setting (Gmax), s	* 49		* 30		16.4	* 27	* 30					
Max Q Clear Time (g_c+I1), s	2.0		31.5		12.4	32.4	31.5					
Green Ext Time (p_c), s	12.1		0.0		0.2	0.0	0.0					

Intersection Summary

HCM 6th Ctrl Delay	38.7
HCM 6th LOS	D

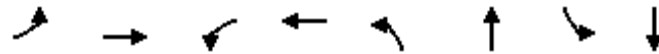
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

2: Balboa Boulevard & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	146	1238	218	1207	121	1383	93	923
v/c Ratio	1.16	1.08	0.78	0.61	1.01	0.84	1.19	0.60
Control Delay	165.7	88.8	51.8	10.4	119.7	33.4	195.7	26.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	165.7	88.8	51.8	10.4	119.7	33.4	195.7	26.6
Queue Length 50th (ft)	~107	~448	92	186	~69	259	~64	155
Queue Length 95th (ft)	#228	#578	m#157	70	#182	319	#161	198
Internal Link Dist (ft)		2548		1913		526		433
Turn Bay Length (ft)	200		115		115		90	
Base Capacity (vph)	126	1145	303	1982	120	1637	78	1539
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.16	1.08	0.72	0.61	1.01	0.84	1.19	0.60

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.








95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th TWSC
3: De Celis Place & Vanowen Street

11/27/2023

Intersection												
Int Delay, s/veh	8.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	1291	31	12	1435	32	5	1	18	10	2	64
Future Vol, veh/h	45	1291	31	12	1435	32	5	1	18	10	2	64
Conflicting Peds, #/hr	10	0	9	9	0	10	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	2	0	0	2	3	0	0	0	10	0	0
Mvmt Flow	47	1359	33	13	1511	34	5	1	19	11	2	67

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1555	0	0	1401	0	0	2262	3060	707	2340	3059	783
Stage 1	-	-	-	-	-	-	1479	1479	-	1564	1564	-
Stage 2	-	-	-	-	-	-	783	1581	-	776	1495	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.7	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.7	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.7	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.6	4	3.3
Pot Cap-1 Maneuver	431	-	-	494	-	-	23	13	382	17	13	341
Stage 1	-	-	-	-	-	-	134	191	-	108	174	-
Stage 2	-	-	-	-	-	-	357	171	-	339	188	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	428	-	-	490	-	-	14	11	378	13	11	338
Mov Cap-2 Maneuver	-	-	-	-	-	-	14	11	-	13	11	-
Stage 1	-	-	-	-	-	-	118	168	-	95	168	-
Stage 2	-	-	-	-	-	-	275	165	-	284	166	-





















Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.1	120.8	277.8
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	13	378	428	-	-	490	-	-	67
HCM Lane V/C Ratio	0.486	0.05	0.111	-	-	0.026	-	-	1.194
HCM Control Delay (s)	\$ 438.1	15	14.5	-	-	12.5	-	-	277.8
HCM Lane LOS	F	C	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	1.2	0.2	0.4	-	-	0.1	-	-	6.3

HCM 6th Signalized Intersection Summary

4: Hayvenhurst Avenue & Vanowen Street

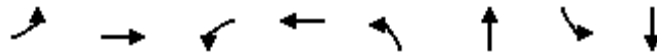
11/27/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	1199	55	32	1197	198	125	380	66	196	237	69
Future Volume (veh/h)	59	1199	55	32	1197	198	125	380	66	196	237	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	0.99		0.96	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1824	1945	1796	1824	1945	1767	1796	1930	1696	1781	1961	1824
Adj Flow Rate, veh/h	62	1262	58	34	1260	208	132	400	69	206	249	73
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	4	2	3	9	3	1	0
Cap, veh/h	143	1826	84	286	1610	264	382	1133	194	315	1032	294
Arrive On Green	1.00	1.00	1.00	0.51	0.51	0.51	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	352	3594	165	405	3168	519	1005	3113	532	874	2834	808
Grp Volume(v), veh/h	62	648	672	34	731	737	132	234	235	206	161	161
Grp Sat Flow(s),veh/h/ln	352	1848	1912	405	1848	1839	1005	1833	1811	874	1863	1780
Q Serve(g_s), s	15.7	0.0	0.0	4.1	28.9	29.6	9.5	8.4	8.5	20.3	5.4	5.7
Cycle Q Clear(g_c), s	45.4	0.0	0.0	4.1	28.9	29.6	15.2	8.4	8.5	28.8	5.4	5.7
Prop In Lane	1.00		0.09	1.00		0.28	1.00		0.29	1.00		0.45
Lane Grp Cap(c), veh/h	143	939	971	286	939	934	382	667	659	315	678	648
V/C Ratio(X)	0.43	0.69	0.69	0.12	0.78	0.79	0.35	0.35	0.36	0.65	0.24	0.25
Avail Cap(c_a), veh/h	143	939	971	286	939	934	452	794	785	376	807	771
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.7	0.0	0.0	11.9	18.0	18.2	25.3	20.9	20.9	31.4	19.9	20.0
Incr Delay (d2), s/veh	9.3	4.1	4.0	0.8	6.3	6.7	0.5	0.3	0.3	3.1	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	1.9	2.0	0.7	18.6	19.0	4.0	6.3	6.3	7.8	4.1	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.0	4.1	4.0	12.7	24.3	24.9	25.8	21.2	21.2	34.5	20.1	20.2
LnGrp LOS	C	A	A	B	C	C	C	C	C	C	C	C
Approach Vol, veh/h	1382			1502			601			528		
Approach Delay, s/veh	5.0			24.4			22.2			25.8		
Approach LOS	A			C			C			C		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	51.4			38.6			51.4			38.6		
Change Period (Y+Rc), s	5.7			* 5.8			5.7			* 5.8		
Max Green Setting (Gmax), s	39.5			* 39			39.5			* 39		
Max Q Clear Time (g_c+I1), s	31.6			30.8			47.4			17.2		
Green Ext Time (p_c), s	5.6			1.9			0.0			3.4		
Intersection Summary												
HCM 6th Ctrl Delay			17.5									
HCM 6th LOS			B									
Notes												

Queues

4: Hayvenhurst Avenue & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	62	1320	34	1468	132	469	206	322
v/c Ratio	0.78	0.65	0.31	0.74	0.44	0.40	0.90	0.27
Control Delay	60.5	25.6	25.3	20.5	26.0	21.9	67.1	19.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.5	25.6	25.3	20.5	26.0	21.9	67.1	19.8
Queue Length 50th (ft)	38	412	11	325	56	98	107	63
Queue Length 95th (ft)	m#42	m413	45	#541	94	120	#204	82
Internal Link Dist (ft)		584		442		274		213
Turn Bay Length (ft)	145		80		155		175	
Base Capacity (vph)	79	2028	111	1997	396	1523	298	1553
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.65	0.31	0.74	0.33	0.31	0.69	0.21

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th AWSC
5: De Celis Place & Archwood Street

11/27/2023

Intersection

Intersection Delay, s/veh 7.2

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	1	3	5	13	7	21	9	1	18	7	15
Future Vol, veh/h	0	1	3	5	13	7	21	9	1	18	7	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	20	0	0	0	0	0	0	0	0
Mvmt Flow	0	1	3	5	14	7	22	9	1	19	7	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.7	7.4	7.3	7
HCM LOS	A	A	A	A





















Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	68%	0%	20%	45%
Vol Thru, %	29%	25%	52%	18%
Vol Right, %	3%	75%	28%	38%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	4	25	40
LT Vol	21	0	5	18
Through Vol	9	1	13	7
RT Vol	1	3	7	15
Lane Flow Rate	33	4	26	42
Geometry Grp	1	1	1	1
Degree of Util (X)	0.037	0.004	0.031	0.045
Departure Headway (Hd)	4.1	3.598	4.244	3.842
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	874	990	842	932
Service Time	2.123	1.636	2.275	1.865
HCM Lane V/C Ratio	0.038	0.004	0.031	0.045
HCM Control Delay	7.3	6.7	7.4	7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.1	0.1

FUTURE (2026) WITH PROJECT CONDITIONS

HCM 6th Signalized Intersection Summary

1: Louise Avenue & Vanowen Street

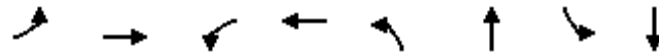
11/27/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	1178	76	95	1021	87	62	392	73	217	709	122
Future Volume (veh/h)	79	1178	76	95	1021	87	62	392	73	217	709	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1781	1945	1885	1856	1856	1900	1824	1885	1900	1810	1961	1856
Adj Flow Rate, veh/h	83	1240	80	100	1075	92	65	413	77	228	746	128
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	2	1	3	3	0	0	1	0	1	1	3
Cap, veh/h	270	1656	107	155	1545	132	219	1225	226	353	1293	222
Arrive On Green	0.47	0.47	0.47	0.94	0.94	0.94	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	457	3518	227	413	3281	281	618	3001	554	872	3170	544
Grp Volume(v), veh/h	83	650	670	100	577	590	65	245	245	228	438	436
Grp Sat Flow(s),veh/h/ln	457	1848	1896	413	1763	1799	618	1791	1765	872	1863	1851
Q Serve(g_s), s	11.7	25.9	26.0	16.4	5.0	5.0	8.2	8.4	8.6	21.9	16.4	16.4
Cycle Q Clear(g_c), s	16.7	25.9	26.0	42.4	5.0	5.0	24.6	8.4	8.6	30.5	16.4	16.4
Prop In Lane	1.00		0.12	1.00		0.16	1.00		0.31	1.00		0.29
Lane Grp Cap(c), veh/h	270	870	893	155	830	847	219	731	720	353	760	755
V/C Ratio(X)	0.31	0.75	0.75	0.64	0.70	0.70	0.30	0.34	0.34	0.65	0.58	0.58
Avail Cap(c_a), veh/h	270	870	893	155	830	847	250	820	808	396	853	847
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.68	0.68	0.68	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.8	19.4	19.5	17.7	1.5	1.5	30.1	18.3	18.3	28.8	20.6	20.6
Incr Delay (d2), s/veh	2.9	5.8	5.8	13.2	3.3	3.2	0.7	0.3	0.3	3.1	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.5	17.2	17.6	4.4	2.6	2.6	2.2	5.9	6.0	8.1	11.0	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.7	25.3	25.2	30.9	4.8	4.8	30.9	18.5	18.6	31.9	21.4	21.4
LnGrp LOS	C	C	C	C	A	A	C	B	B	C	C	C
Approach Vol, veh/h	1403			1267			555			1102		
Approach Delay, s/veh	25.0			6.9			20.0			23.6		
Approach LOS	C			A			C			C		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	48.1			41.9			48.1			41.9		
Change Period (Y+Rc), s	5.7			* 5.2			5.7			* 5.2		
Max Green Setting (Gmax), s	37.9			* 41			37.9			* 41		
Max Q Clear Time (g_c+I1), s	44.4			32.5			28.0			26.6		
Green Ext Time (p_c), s	0.0			4.2			6.4			2.9		
Intersection Summary												
HCM 6th Ctrl Delay			18.7									
HCM 6th LOS			B									
Notes												

Queues

1: Louise Avenue & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	83	1320	100	1167	65	490	228	874
v/c Ratio	0.70	0.74	1.15	0.70	0.52	0.39	0.86	0.63
Control Delay	56.6	22.8	156.0	15.9	34.5	19.4	53.5	23.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.6	22.8	156.0	15.9	34.5	19.4	53.5	23.2
Queue Length 50th (ft)	37	315	~69	135	27	95	111	191
Queue Length 95th (ft)	#130	#443	m#131	m285	67	123	#225	229
Internal Link Dist (ft)		558		2548		228		379
Turn Bay Length (ft)	110		105		100		100	
Base Capacity (vph)	119	1795	87	1664	151	1490	318	1658
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.74	1.15	0.70	0.43	0.33	0.72	0.53

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

2: Balboa Boulevard & Vanowen Street

11/27/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱↰		↰	↱↰		↰↱↰			↰↱↰↰		
Traffic Volume (veh/h)	110	1088	295	393	1103	145	71	579	218	113	1292	67
Future Volume (veh/h)	110	1088	295	393	1103	145	71	579	218	113	1292	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.92	1.00		0.96	1.00		0.89	0.98		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1856	1945	1767	1885	1945	1781	1885	1870	1885	1826	1870	1856
Adj Flow Rate, veh/h	116	1145	311	414	1161	153	75	609	229	119	1360	71
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	2	4	1	2	3	1	2	1	5	2	3
Cap, veh/h	201	834	223	327	1764	232	107	1167	422	195	1616	84
Arrive On Green	0.59	0.59	0.59	0.36	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	410	2823	753	1795	3266	429	377	3562	1286	629	4931	257
Grp Volume(v), veh/h	116	742	714	414	655	659	75	581	257	119	939	492
Grp Sat Flow(s),veh/h/ln	410	1848	1728	1795	1848	1847	377	1702	1444	629	1702	1785
Q Serve(g_s), s	24.0	26.6	26.6	16.4	0.0	0.0	6.5	12.4	13.1	16.4	23.0	23.0
Cycle Q Clear(g_c), s	24.0	26.6	26.6	16.4	0.0	0.0	29.5	12.4	13.1	29.5	23.0	23.0
Prop In Lane	1.00		0.44	1.00		0.23	1.00		0.89	1.00		0.14
Lane Grp Cap(c), veh/h	201	546	511	327	998	997	107	1116	473	195	1116	585
V/C Ratio(X)	0.58	1.36	1.40	1.27	0.66	0.66	0.70	0.52	0.54	0.61	0.84	0.84
Avail Cap(c_a), veh/h	201	546	511	327	998	997	107	1116	473	195	1116	585
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.57	0.57	0.57	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.9	18.4	18.4	28.6	0.0	0.0	43.8	24.5	24.7	37.1	28.1	28.1
Incr Delay (d2), s/veh	6.7	168.4	185.6	141.6	3.4	3.4	31.8	1.7	4.4	13.5	7.7	13.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	46.5	47.5	28.2	1.7	1.7	4.7	9.0	8.7	6.0	15.6	17.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.6	186.8	204.0	170.2	3.4	3.4	75.7	26.3	29.2	50.6	35.8	41.8
LnGrp LOS	C	F	F	F	A	A	E	C	C	D	D	D
Approach Vol, veh/h	1572				1728		913				1550	
Approach Delay, s/veh	182.6				43.4		31.1				38.8	
Approach LOS	F				D		C				D	
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	54.6		35.4		22.0	32.6	35.4					
Change Period (Y+Rc), s	* 6		* 5.9		5.6	* 6	* 5.9					
Max Green Setting (Gmax), s	* 49		* 30		16.4	* 27	* 30					
Max Q Clear Time (g_c+I1), s	2.0		31.5		18.4	28.6	31.5					
Green Ext Time (p_c), s	13.9		0.0		0.0	0.0	0.0					

Intersection Summary

HCM 6th Ctrl Delay 78.2

HCM 6th LOS E

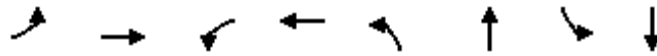
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

2: Balboa Boulevard & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	116	1456	414	1314	75	838	119	1431
v/c Ratio	1.12	1.36	1.37	0.66	0.97	0.51	0.87	0.93
Control Delay	139.2	191.0	215.3	8.3	132.5	22.2	81.1	41.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	139.2	191.0	215.3	8.3	132.5	22.2	81.1	41.3
Queue Length 50th (ft)	~73	~555	~306	91	42	119	63	284
Queue Length 95th (ft)	m#128	#696	m#426	123	#132	158	#168	#382
Internal Link Dist (ft)		2548		1609		526		433
Turn Bay Length (ft)	200		115		115		90	
Base Capacity (vph)	104	1072	303	1992	77	1642	137	1538
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.12	1.36	1.37	0.66	0.97	0.51	0.87	0.93

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.








95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th TWSC
3: De Celis Place & Vanowen Street

11/27/2023

Intersection												
Int Delay, s/veh	32.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	1302	147	72	1541	28	14	0	10	14	6	87
Future Vol, veh/h	28	1302	147	72	1541	28	14	0	10	14	6	87
Conflicting Peds, #/hr	10	0	9	9	0	10	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	4	2	0	14	2	0	0	0	10	0	0	1
Mvmt Flow	29	1371	155	76	1622	29	15	0	11	15	6	92

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1661	0	0	1535	0	0	2482	3329	774	2545	3392	836
Stage 1	-	-	-	-	-	-	1516	1516	-	1799	1799	-
Stage 2	-	-	-	-	-	-	966	1813	-	746	1593	-
Critical Hdwy	4.18	-	-	4.38	-	-	7.5	6.5	7.1	7.5	6.5	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.24	-	-	2.34	-	-	3.5	4	3.4	3.5	4	3.31
Pot Cap-1 Maneuver	375	-	-	376	-	-	15	8	324	~ 14	8	312
Stage 1	-	-	-	-	-	-	127	184	-	85	133	-
Stage 2	-	-	-	-	-	-	277	131	-	376	168	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	372	-	-	373	-	-	-	6	321	~ 11	~ 6	310
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	6	-	~ 11	~ 6	-
Stage 1	-	-	-	-	-	-	116	168	-	78	105	-
Stage 2	-	-	-	-	-	-	146	103	-	335	154	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.8		\$ 965.7
HCM LOS			-	F





















Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	321	372	-	-	373	-	-	42
HCM Lane V/C Ratio	-	0.033	0.079	-	-	0.203	-	-	2.682
HCM Control Delay (s)	-	16.6	15.5	-	-	17.1	-	-	\$ 965.7
HCM Lane LOS	-	C	C	-	-	C	-	-	F
HCM 95th %tile Q(veh)	-	0.1	0.3	-	-	0.8	-	-	12.3

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th Signalized Intersection Summary

4: Hayvenhurst Avenue & Vanowen Street

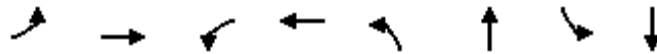
11/27/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	1202	109	53	1365	164	133	218	47	269	565	68
Future Volume (veh/h)	74	1202	109	53	1365	164	133	218	47	269	565	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1781	1945	1824	1796	1945	1810	1796	1961	1796	1796	1945	1781
Adj Flow Rate, veh/h	78	1265	115	56	1437	173	140	229	49	283	595	72
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	2	0	2	2	1	2	1	2	2	2	3
Cap, veh/h	115	1719	156	269	1667	199	250	1126	235	411	1222	147
Arrive On Green	1.00	1.00	1.00	0.50	0.50	0.50	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	300	3420	310	376	3317	395	736	3045	637	1045	3306	399
Grp Volume(v), veh/h	78	682	698	56	794	816	140	138	140	283	332	335
Grp Sat Flow(s),veh/h/ln	300	1848	1882	376	1848	1864	736	1863	1819	1045	1848	1857
Q Serve(g_s), s	10.4	0.0	0.0	7.8	33.7	34.8	16.3	4.5	4.7	22.8	12.4	12.5
Cycle Q Clear(g_c), s	45.2	0.0	0.0	7.8	33.7	34.8	28.8	4.5	4.7	27.6	12.4	12.5
Prop In Lane	1.00		0.16	1.00		0.21	1.00		0.35	1.00		0.21
Lane Grp Cap(c), veh/h	115	929	946	269	929	937	250	689	672	411	683	686
V/C Ratio(X)	0.68	0.73	0.74	0.21	0.86	0.87	0.56	0.20	0.21	0.69	0.49	0.49
Avail Cap(c_a), veh/h	115	929	946	269	929	937	297	807	788	478	801	805
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	0.0	0.0	13.1	19.5	19.8	32.9	19.3	19.4	28.8	21.8	21.8
Incr Delay (d2), s/veh	28.0	5.1	5.1	1.7	9.9	10.9	2.0	0.1	0.2	3.4	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.2	2.4	2.4	1.3	22.0	23.0	5.3	3.4	3.5	9.8	9.0	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.3	5.1	5.1	14.8	29.5	30.7	34.8	19.5	19.5	32.2	22.3	22.4
LnGrp LOS	D	A	A	B	C	C	C	B	B	C	C	C
Approach Vol, veh/h	1458			1666			418			950		
Approach Delay, s/veh	7.4			29.6			24.6			25.3		
Approach LOS	A			C			C			C		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	50.9			39.1			50.9			39.1		
Change Period (Y+Rc), s	5.7			* 5.8			5.7			* 5.8		
Max Green Setting (Gmax), s	39.5			* 39			39.5			* 39		
Max Q Clear Time (g_c+I1), s	36.8			29.6			47.2			30.8		
Green Ext Time (p_c), s	2.3			3.7			0.0			1.6		
Intersection Summary												
HCM 6th Ctrl Delay			21.0									
HCM 6th LOS			C									
Notes												

Queues

4: Hayvenhurst Avenue & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	78	1380	56	1610	140	278	283	667
v/c Ratio	1.07	0.72	0.70	0.84	0.78	0.21	0.83	0.51
Control Delay	94.2	36.2	69.4	26.1	53.9	17.5	45.6	22.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	94.2	36.2	69.4	26.1	53.9	17.5	45.6	22.9
Queue Length 50th (ft)	~53	438	24	412	67	50	138	145
Queue Length 95th (ft)	m#67	m382	#103	#632	#154	71	227	178
Internal Link Dist (ft)		584		442		274		213
Turn Bay Length (ft)	145		80		155		175	
Base Capacity (vph)	73	1913	80	1906	215	1555	412	1560
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.07	0.72	0.70	0.84	0.65	0.18	0.69	0.43

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th AWSC
5: De Celis Place & Archwood Street

11/27/2023

Intersection

Intersection Delay, s/veh 7.2

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	11	14	0	8	5	20	0	3	7	31	10	15
Future Vol, veh/h	11	14	0	8	5	20	0	3	7	31	10	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	9	0	0	0	0	0	0	0	14	4	0	0
Mvmt Flow	12	15	0	8	5	21	0	3	7	33	11	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	6.9	6.7	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	44%	24%	55%
Vol Thru, %	30%	56%	15%	18%
Vol Right, %	70%	0%	61%	27%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	25	33	56
LT Vol	0	11	8	31
Through Vol	3	14	5	10
RT Vol	7	0	20	15
Lane Flow Rate	11	26	35	59
Geometry Grp	1	1	1	1
Degree of Util (X)	0.011	0.031	0.036	0.066
Departure Headway (Hd)	3.629	4.287	3.723	4.031
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	982	833	957	888
Service Time	1.667	2.323	1.762	2.058
HCM Lane V/C Ratio	0.011	0.031	0.037	0.066
HCM Control Delay	6.7	7.5	6.9	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.1	0.1	0.2




HCM 6th TWSC
6: Project Driveway & Vanowen Street

11/27/2023

Intersection						
Int Delay, s/veh	5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↓	
Traffic Vol, veh/h	1421	0	0	1642	80	55
Future Vol, veh/h	1421	0	0	1642	80	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1545	0	0	1785	87	60
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	-	-	-	2438	773
Stage 1	-	-	-	-	1545	-
Stage 2	-	-	-	-	893	-
Critical Hdwy	-	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	-	0	0	-	~ 26	342
Stage 1	-	0	0	-	162	-
Stage 2	-	0	0	-	360	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	~ 26	342
Mov Cap-2 Maneuver	-	-	-	-	112	-
Stage 1	-	-	-	-	162	-
Stage 2	-	-	-	-	360	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		118.4		
HCM LOS				F		
Minor Lane/Major Mvmt	NBLn1	EBT	WBT			
Capacity (veh/h)	154	-	-			
HCM Lane V/C Ratio	0.953	-	-			
HCM Control Delay (s)	118.4	-	-			
HCM Lane LOS	F	-	-			
HCM 95th %tile Q(veh)	7	-	-			
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

HCM 6th TWSC
7: De Celis Place & Project Driveway





















11/27/2023

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	18	25	57	184
Future Vol, veh/h	0	0	18	25	57	184
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	20	27	62	200
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	229	162	262	0	-	0
Stage 1	162	-	-	-	-	-
Stage 2	67	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	759	883	1302	-	-	-
Stage 1	867	-	-	-	-	-
Stage 2	956	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	747	883	1302	-	-	-
Mov Cap-2 Maneuver	747	-	-	-	-	-
Stage 1	853	-	-	-	-	-
Stage 2	956	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	0	3.3		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1302	-	-	-	-	
HCM Lane V/C Ratio	0.015	-	-	-	-	
HCM Control Delay (s)	7.8	0	0	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	-	-	-	

HCM 6th Signalized Intersection Summary

1: Louise Avenue & Vanowen Street

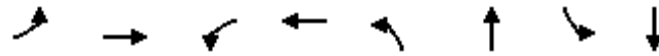
11/27/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	937	49	60	1053	117	95	531	83	95	265	89
Future Volume (veh/h)	100	937	49	60	1053	117	95	531	83	95	265	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1781	1945	1900	1870	1885	1885	1796	1885	1841	1796	1976	1900
Adj Flow Rate, veh/h	105	986	52	63	1108	123	100	559	87	100	279	94
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	2	0	2	1	1	2	1	4	2	0	0
Cap, veh/h	198	1974	104	288	1794	199	317	1005	156	212	894	293
Arrive On Green	0.55	0.55	0.55	0.37	0.37	0.37	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	431	3565	188	543	3240	359	959	3090	479	750	2749	902
Grp Volume(v), veh/h	105	511	527	63	612	619	100	323	323	100	188	185
Grp Sat Flow(s),veh/h/ln	431	1848	1905	543	1791	1809	959	1791	1778	750	1877	1773
Q Serve(g_s), s	21.0	15.4	15.4	8.4	25.1	25.2	7.9	13.4	13.5	11.4	6.8	7.1
Cycle Q Clear(g_c), s	46.2	15.4	15.4	23.8	25.1	25.2	15.0	13.4	13.5	24.9	6.8	7.1
Prop In Lane	1.00		0.10	1.00		0.20	1.00		0.27	1.00		0.51
Lane Grp Cap(c), veh/h	198	1023	1055	288	992	1001	317	582	578	212	610	577
V/C Ratio(X)	0.53	0.50	0.50	0.22	0.62	0.62	0.32	0.55	0.56	0.47	0.31	0.32
Avail Cap(c_a), veh/h	198	1023	1055	288	992	1001	444	820	814	311	859	812
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.71	0.71	0.71	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	12.4	12.4	26.3	20.5	20.5	28.5	25.0	25.0	35.3	22.8	22.9
Incr Delay (d2), s/veh	9.8	1.7	1.7	1.2	2.0	2.0	0.6	0.8	0.8	1.6	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.7	10.2	10.5	2.2	16.0	16.2	3.2	9.3	9.3	3.8	5.2	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	14.1	14.1	27.5	22.6	22.6	29.1	25.8	25.9	36.9	23.1	23.2
LnGrp LOS	D	B	B	C	C	C	C	C	C	D	C	C
Approach Vol, veh/h	1143			1294				746			473	
Approach Delay, s/veh	16.6			22.8				26.3			26.0	
Approach LOS	B			C				C			C	
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	55.5			34.5			55.5			34.5		
Change Period (Y+Rc), s	5.7			* 5.2			5.7			* 5.2		
Max Green Setting (Gmax), s	37.9			* 41			37.9			* 41		
Max Q Clear Time (g_c+I1), s	27.2			26.9			48.2			17.0		
Green Ext Time (p_c), s	6.2			2.4			0.0			4.4		
Intersection Summary												
HCM 6th Ctrl Delay			22.0									
HCM 6th LOS			C									
Notes												

Queues

1: Louise Avenue & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	105	1038	63	1231	100	646	100	373
v/c Ratio	0.64	0.48	0.27	0.61	0.45	0.70	0.87	0.36
Control Delay	37.5	12.2	15.9	16.2	31.6	31.2	85.4	23.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.5	12.2	15.9	16.2	31.6	31.2	85.4	23.7
Queue Length 50th (ft)	35	157	23	328	47	166	54	82
Queue Length 95th (ft)	#148	273	m52	m414	81	188	#124	101
Internal Link Dist (ft)		558		2548		228		379
Turn Bay Length (ft)	110		105		100		100	
Base Capacity (vph)	164	2167	231	2033	360	1495	188	1647
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.48	0.27	0.61	0.28	0.43	0.53	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th Signalized Intersection Summary

2: Balboa Boulevard & Vanowen Street

11/27/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱↰		↰	↱↰		↰	↱↰↰		↰	↱↰↰	
Traffic Volume (veh/h)	139	1017	174	210	1021	148	115	1144	173	94	787	90
Future Volume (veh/h)	139	1017	174	210	1021	148	115	1144	173	94	787	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.92	1.00		0.95	0.99		0.89	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1945	1753	1885	1945	1810	1885	1870	1856	1900	1885	1885
Adj Flow Rate, veh/h	146	1071	183	221	1075	156	121	1204	182	99	828	95
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	5	1	2	1	1	2	3	0	1	1
Cap, veh/h	233	1048	178	254	1736	251	188	1439	218	109	1513	172
Arrive On Green	0.11	0.11	0.11	0.28	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	455	3116	530	1795	3214	465	602	4391	664	396	4617	525
Grp Volume(v), veh/h	146	634	620	221	617	614	121	933	453	99	613	310
Grp Sat Flow(s),veh/h/ln	455	1848	1798	1795	1848	1832	602	1702	1651	396	1716	1711
Q Serve(g_s), s	28.7	30.3	30.3	10.5	0.0	0.0	16.1	22.9	22.9	6.6	13.2	13.4
Cycle Q Clear(g_c), s	28.7	30.3	30.3	10.5	0.0	0.0	29.5	22.9	22.9	29.5	13.2	13.4
Prop In Lane	1.00		0.29	1.00		0.25	1.00		0.40	1.00		0.31
Lane Grp Cap(c), veh/h	233	622	605	254	998	989	188	1116	541	109	1125	561
V/C Ratio(X)	0.63	1.02	1.03	0.87	0.62	0.62	0.64	0.84	0.84	0.91	0.55	0.55
Avail Cap(c_a), veh/h	233	622	605	327	998	989	188	1116	541	109	1125	561
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	40.0	40.0	31.5	0.0	0.0	37.8	28.0	28.0	44.0	24.8	24.8
Incr Delay (d2), s/veh	10.4	38.1	40.4	18.0	2.9	2.9	15.8	7.5	14.3	63.6	1.9	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.2	28.9	28.8	8.8	1.4	1.4	6.3	15.5	16.4	7.4	9.4	9.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.7	78.1	80.4	49.5	2.9	2.9	53.6	35.5	42.3	107.6	26.7	28.7
LnGrp LOS	D	F	F	D	A	A	D	D	D	F	C	C
Approach Vol, veh/h	1400			1452			1507			1022		
Approach Delay, s/veh	76.2			10.0			39.0			35.1		
Approach LOS	E			A			D			D		
Timer - Assigned Phs	2			4		5	6		8			
Phs Duration (G+Y+Rc), s	54.6			35.4		18.3	36.3		35.4			
Change Period (Y+Rc), s	* 6			* 5.9		5.6	* 6		* 5.9			
Max Green Setting (Gmax), s	* 49			* 30		16.4	* 27		* 30			
Max Q Clear Time (g_c+I1), s	2.0			31.5		12.5	32.3		31.5			
Green Ext Time (p_c), s	12.5			0.0		0.2	0.0		0.0			

Intersection Summary

HCM 6th Ctrl Delay	40.1
HCM 6th LOS	D

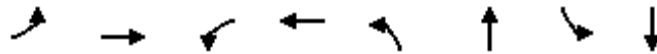
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

2: Balboa Boulevard & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	146	1254	221	1231	121	1386	99	923
v/c Ratio	1.19	1.10	0.79	0.62	1.01	0.85	1.27	0.60
Control Delay	176.3	94.3	52.0	10.9	119.7	33.5	222.1	26.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	176.3	94.3	52.0	10.9	119.7	33.5	222.1	26.6
Queue Length 50th (ft)	~109	~458	96	212	~69	260	~71	155
Queue Length 95th (ft)	#230	#588	m#165	93	#182	320	#172	198
Internal Link Dist (ft)		2548		1609		526		433
Turn Bay Length (ft)	200		115		115		90	
Base Capacity (vph)	123	1143	303	1982	120	1635	78	1539
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.19	1.10	0.73	0.62	1.01	0.85	1.27	0.60

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.








95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th TWSC
3: De Celis Place & Vanowen Street





















11/27/2023

Intersection												
Int Delay, s/veh	9.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	1307	56	25	1435	32	5	1	18	10	2	64
Future Vol, veh/h	45	1307	56	25	1435	32	5	1	18	10	2	64
Conflicting Peds, #/hr	10	0	9	9	0	10	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	2	0	0	2	3	0	0	0	10	0	0
Mvmt Flow	47	1376	59	26	1511	34	5	1	19	11	2	67
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1555	0	0	1444	0	0	2318	3116	729	2375	3128	783
Stage 1	-	-	-	-	-	-	1509	1509	-	1590	1590	-
Stage 2	-	-	-	-	-	-	809	1607	-	785	1538	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.7	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.7	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.7	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.6	4	3.3
Pot Cap-1 Maneuver	431	-	-	476	-	-	21	12	370	16	11	341
Stage 1	-	-	-	-	-	-	129	185	-	104	169	-
Stage 2	-	-	-	-	-	-	345	166	-	335	179	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	428	-	-	472	-	-	12	10	366	12	9	338
Mov Cap-2 Maneuver	-	-	-	-	-	-	12	10	-	12	9	-
Stage 1	-	-	-	-	-	-	114	163	-	92	158	-
Stage 2	-	-	-	-	-	-	258	156	-	280	158	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.2			132.9			\$ 333.4		
HCM LOS							F			F		
Minor Lane/Major Mvmt	NBLn1		NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1		
Capacity (veh/h)	12		366	428	-	-	472	-	-	61		
HCM Lane V/C Ratio	0.526		0.052	0.111	-	-	0.056	-	-	1.311		
HCM Control Delay (s)	\$ 485.5		15.4	14.5	-	-	13.1	-	-	\$ 333.4		
HCM Lane LOS	F		C	B	-	-	B	-	-	F		
HCM 95th %tile Q(veh)	1.2		0.2	0.4	-	-	0.2	-	-	6.8		
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s				+: Computation Not Defined				*: All major volume in platoon		

HCM 6th Signalized Intersection Summary

4: Hayvenhurst Avenue & Vanowen Street

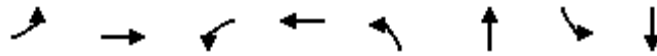
11/27/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1211	58	32	1209	198	125	380	66	196	237	70
Future Volume (veh/h)	60	1211	58	32	1209	198	125	380	66	196	237	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	0.99		0.96	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1824	1945	1796	1824	1945	1767	1796	1930	1696	1781	1961	1824
Adj Flow Rate, veh/h	63	1275	61	34	1273	208	132	400	69	206	249	74
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	4	2	3	9	3	1	0
Cap, veh/h	140	1822	87	283	1612	261	382	1133	194	315	1028	297
Arrive On Green	1.00	1.00	1.00	0.51	0.51	0.51	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	348	3587	171	399	3174	514	1004	3113	532	874	2824	816
Grp Volume(v), veh/h	63	656	680	34	737	744	132	234	235	206	162	161
Grp Sat Flow(s),veh/h/ln	348	1848	1910	399	1848	1840	1004	1833	1811	874	1863	1778
Q Serve(g_s), s	15.6	0.0	0.0	4.1	29.3	30.1	9.5	8.4	8.5	20.3	5.4	5.7
Cycle Q Clear(g_c), s	45.7	0.0	0.0	4.1	29.3	30.1	15.2	8.4	8.5	28.8	5.4	5.7
Prop In Lane	1.00		0.09	1.00		0.28	1.00		0.29	1.00		0.46
Lane Grp Cap(c), veh/h	140	939	971	283	939	935	382	668	659	315	678	648
V/C Ratio(X)	0.45	0.70	0.70	0.12	0.78	0.80	0.35	0.35	0.36	0.65	0.24	0.25
Avail Cap(c_a), veh/h	140	939	971	283	939	935	451	794	785	376	807	771
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.4	0.0	0.0	11.9	18.1	18.3	25.3	20.9	20.9	31.4	19.9	20.0
Incr Delay (d2), s/veh	10.0	4.3	4.2	0.9	6.5	7.0	0.5	0.3	0.3	3.1	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.5	2.0	2.0	0.7	18.9	19.3	4.0	6.3	6.3	7.8	4.1	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.4	4.3	4.2	12.8	24.6	25.3	25.9	21.2	21.2	34.5	20.1	20.2
LnGrp LOS	C	A	A	B	C	C	C	C	C	C	C	C
Approach Vol, veh/h	1399			1515			601			529		
Approach Delay, s/veh	5.2			24.7			22.2			25.7		
Approach LOS	A			C			C			C		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	51.4			38.6			51.4			38.6		
Change Period (Y+Rc), s	5.7			* 5.8			5.7			* 5.8		
Max Green Setting (Gmax), s	39.5			* 39			39.5			* 39		
Max Q Clear Time (g_c+I1), s	32.1			30.8			47.7			17.2		
Green Ext Time (p_c), s	5.3			2.0			0.0			3.4		
Intersection Summary												
HCM 6th Ctrl Delay			17.7									
HCM 6th LOS			B									
Notes												

Queues

4: Hayvenhurst Avenue & Vanowen Street

11/27/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	63	1336	34	1481	132	469	206	323
v/c Ratio	0.83	0.66	0.31	0.74	0.44	0.40	0.90	0.27
Control Delay	65.7	21.4	26.2	20.7	26.0	22.0	67.1	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.7	21.4	26.2	20.7	26.0	22.0	67.1	19.9
Queue Length 50th (ft)	38	391	11	331	56	98	107	63
Queue Length 95th (ft)	m#46	m399	47	#550	94	120	#204	82
Internal Link Dist (ft)		584		442		274		213
Turn Bay Length (ft)	145		80		155		175	
Base Capacity (vph)	76	2028	108	1997	395	1522	298	1552
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.66	0.31	0.74	0.33	0.31	0.69	0.21

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 6th AWSC
5: De Celis Place & Archwood Street

11/27/2023

Intersection

Intersection Delay, s/veh 7.2

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	1	3	5	13	10	21	9	1	19	7	15
Future Vol, veh/h	0	1	3	5	13	10	21	9	1	19	7	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	20	0	0	0	0	0	0	0	0
Mvmt Flow	0	1	3	5	14	11	22	9	1	20	7	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.7	7.4	7.3	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	68%	0%	18%	46%
Vol Thru, %	29%	25%	46%	17%
Vol Right, %	3%	75%	36%	37%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	4	28	41
LT Vol	21	0	5	19
Through Vol	9	1	13	7
RT Vol	1	3	10	15
Lane Flow Rate	33	4	29	43
Geometry Grp	1	1	1	1
Degree of Util (X)	0.037	0.004	0.034	0.046
Departure Headway (Hd)	4.107	3.602	4.196	3.856
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	872	989	852	929
Service Time	2.13	1.64	2.227	1.879
HCM Lane V/C Ratio	0.038	0.004	0.034	0.046
HCM Control Delay	7.3	6.7	7.4	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.1	0.1

HCM 6th TWSC
6: Project Driveway & Vanowen Street

11/27/2023

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↓	
Traffic Vol, veh/h	1391	0	0	1504	25	17
Future Vol, veh/h	1391	0	0	1504	25	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1512	0	0	1635	27	18




Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	2330	756
Stage 1	-	-	-	1512	-
Stage 2	-	-	-	818	-
Critical Hdwy	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	5.84	-
Follow-up Hdwy	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	-	0	0	31	351
Stage 1	-	0	0	169	-
Stage 2	-	0	0	394	-
Platoon blocked, %	-		-		
Mov Cap-1 Maneuver	-	-	-	31	351
Mov Cap-2 Maneuver	-	-	-	120	-
Stage 1	-	-	-	169	-
Stage 2	-	-	-	394	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	35.2
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	164	-	-
HCM Lane V/C Ratio	0.278	-	-
HCM Control Delay (s)	35.2	-	-
HCM Lane LOS	E	-	-
HCM 95th %tile Q(veh)	1.1	-	-

HCM 6th TWSC
7: De Celis Place & Project Driveway

11/27/2023

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	3	24	46	37
Future Vol, veh/h	0	0	3	24	46	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	3	26	50	40
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	102	70	90	0	-	0
Stage 1	70	-	-	-	-	-
Stage 2	32	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	896	993	1505	-	-	-
Stage 1	953	-	-	-	-	-
Stage 2	991	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	894	993	1505	-	-	-
Mov Cap-2 Maneuver	894	-	-	-	-	-
Stage 1	951	-	-	-	-	-
Stage 2	991	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	0	0.8		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1505	-	-	-	-	
HCM Lane V/C Ratio	0.002	-	-	-	-	
HCM Control Delay (s)	7.4	0	0	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	-	-	-	