Appendix 6.17-2: Local Transportation Assessment

Kimley»Horn

TECHNICAL MEMORANDUM

To:	Francesca Bravo Linscott, Law & Greenspan, Engineers
From:	Connie Leung
Copy:	Rita Garcia, Kiana Graham, and Sowmya Chandrasekhar Kimley-Horn and Associates
Date:	October 20, 2023
Subject:	**TPG 1610 Artesia Project, Local Transportation Assessment Peer Review**

Kimley-Horn has conducted a follow-up third-party peer review of the *TPG 1610 Artesia Project – Local Transportation Assessment (*Linscott, Law and Greenspan, Engineers, October 2023) on behalf of the City of Gardena to verify that Kimley-Horn's September 25, 2023 third-party peer review recommendations have been incorporated. The revised report addressed the third-party peer review comments and thus is in compliance with the peer review recommendations. The analysis, as revised, meets the applicable provisions of CEQA and the State CEQA Guidelines and is adequate for inclusion in the Project SCEA.

Please do not hesitate to contact Connie Leung at 925-965-7707 or connie.leung@kimley-horn.com with any questions.

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LOCAL TRANSPORTATION ASSESSMENT

TPG 1610 ARTESIA PROJECT

City of Gardena, California
October 19, 2023

Prepared for:

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LLG Ref. 1-23-4536-1

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LOCAL TRANSPORTATION ASSESSMENT

TPG 1610 ARTESIA PROJECT

City of Gardena, California
October 19, 2023

1.0 INTRODUCTION

1.1 Transportation Assessment Overview

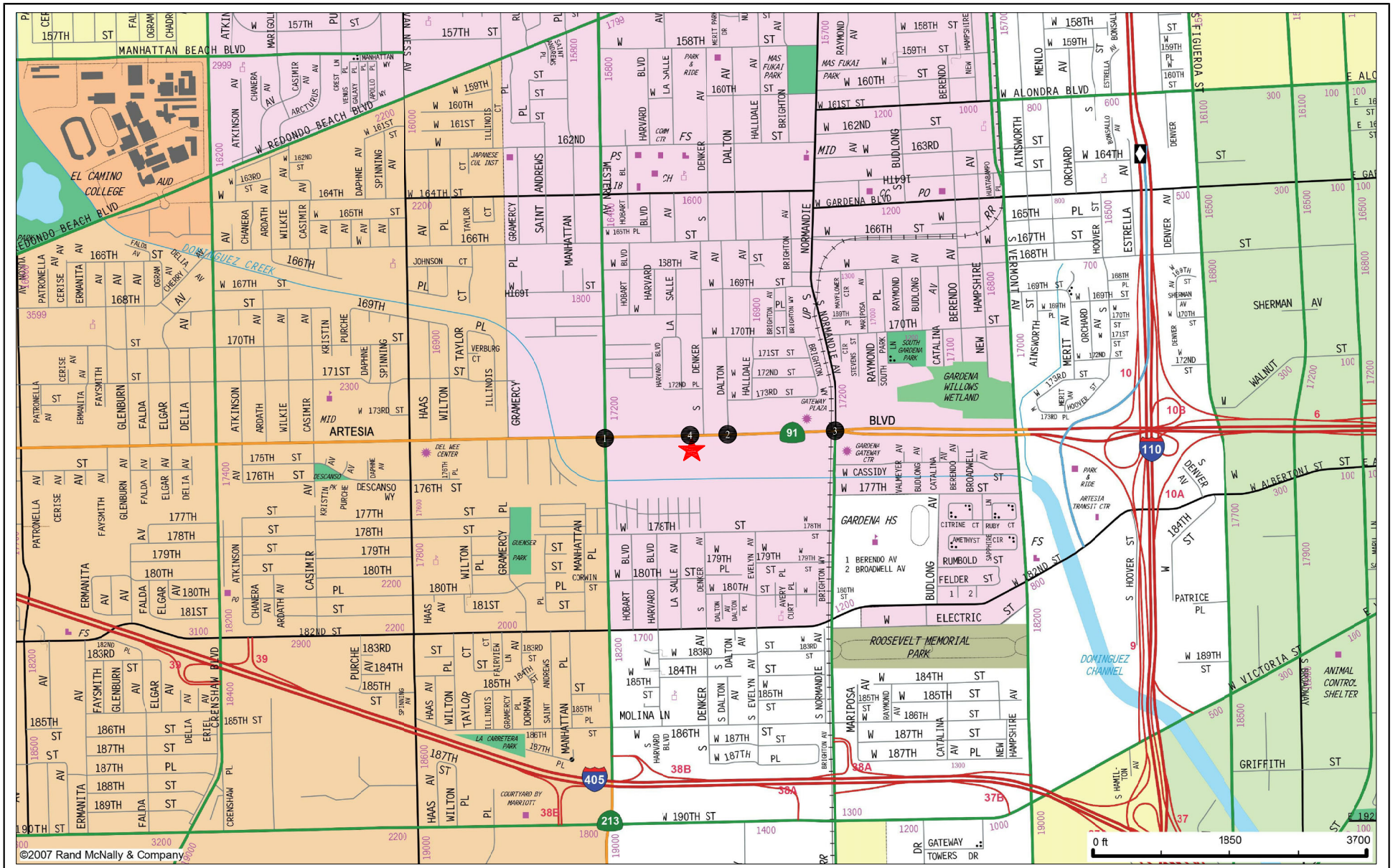
This transportation assessment report has been prepared to identify and evaluate the potential effects on the transportation network resulting from the proposed TPG 1610 Artesia project (the "Project") located in the City of Gardena (the "City"). The project site is located at 1610 Artesia Boulevard situated along the south side of Artesia Boulevard between Western Avenue and Normandie Avenue. The proposed project site and general vicinity are shown in ***Figure 1-1***.

The transportation assessment follows the analysis requirements set forth in the City of Gardena's *SB743 Implementation Transportation Analysis Updates*[1] ("Guidelines"). In compliance with the California Environmental Quality Act (CEQA) Sections 15064.3 and 15064.7, the City of Gardena utilizes Vehicle Miles Traveled (VMT) for the purpose of analyzing transportation impacts under CEQA. With the enactment of Senate Bill 743 (SB 743), as of July 1, 2020, Level of Service (LOS) is no longer a CEQA transportation impact, and local agencies need not evaluate LOS for CEQA purposes. However, the City maintains vehicle Level of Service (LOS) standards for local transportation infrastructure for purposes outside of CEQA. The City's requirements identify both CEQA based analysis requirements and non-CEQA based analysis requirements for analyzing the potential transportation impacts of proposed development projects.

Pursuant to the current statutory requirements of the CEQA Guidelines, the proposed project's transportation impacts are determined on the basis of VMT. The VMT assessment and impact conclusions are summarized separately in the "TPG 1610 Artesia Project – Vehicle Miles Traveled Assessment," prepared by Linscott, Law and Greenspan, Engineers in October 2023.

This local transportation assessment evaluates potential project-related effects on intersection operations and LOS at three (3) key intersections in the vicinity of the project site. The study intersections were determined in consultation with City of Gardena staff. Two study intersections are located within the City of Gardena while one study intersection is located within the City of Torrance. This local transportation assessment also includes operational analysis at the site driveway. This report (i) presents the proposed project's existing transportation network context, (ii) presents existing traffic volumes, (iii) forecasts future cumulative baseline conditions, (iv) forecasts project-generated traffic, (v) assesses the potential for project-related effects on the existing transportation network consistent with the non-CEQA based metrics set forth as requested by City staff, and (vi) recommends transportation network improvement measures, where necessary.

[1] City of Gardena *SB743 Implementation Transportation Analysis Updates*, Fehr & Peers, June 2020.



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MAP SOURCE: RAND MCNALLY & COMPANY

LINSCOTT LAW & GREENSPAN engineers

★ Project Site

(XX) Study Locations

Figure 1-1
Vicinity Map

1.2 Study Methodology

The local transportation analysis criteria for this assessment were identified in consultation with City of Gardena staff. The analysis criteria were determined based on the City's requirements, the proposed project description and location, and the characteristics of the surrounding transportation system. City of Gardena staff confirmed the appropriateness of the analysis criteria when it approved the scoping document. The approved scoping document is attached to this report in ***Appendix A***.

On September 27, 2013, Governor Brown signed Senate Bill (SB) 743 (Steinberg, 2013). Among other things, SB 743 created a process to change the methodology to analyze transportation impacts under CEQA (Public Resources Code Section 21000 and following) in order to promote 1) the reduction of greenhouse gas emissions, 2) the development of multimodal transportation networks, and 3) a diversity of land uses. On December 30, 2013, the State of California Governor's Office of Planning and Research (OPR) released a preliminary evaluation of alternative methods of transportation analysis, which included analysis based on project VMT rather than impacts to intersection Level of Service (LOS). OPR issued other draft discussion documents in March 2015 and January 2016, suggesting new revisions to the CEQA Guidelines. Concurrently, OPR developed the *Technical Advisory on Evaluating Transportation Impacts in CEQA*[2] *("Technical Advisory")*, which provides non-binding recommendations on the implementation of VMT methodology and which has significantly informed the way VMT analyses are conducted in the State. In November 2017, OPR submitted the proposed amendments to the CEQA Guidelines to the State's Natural Resources Agency (including the new Guidelines Section 15064.3 which governs how analyses of potential traffic impacts should be conducted). On January 26, 2018, the Natural Resources Agency published a Notice of Rulemaking, commencing the formal rulemaking process for the amendments to the CEQA Guidelines. On December 28, 2018, the California Office of Administrative Law adopted the proposed amendments, formally implementing the use of VMT as the metric for transportation analysis under CEQA. State-wide implementation of the new metric was required by July 1, 2020. The proposed project's CEQA-compliant VMT impact analysis is presented separately in the "TPG 1610 Artesia Project – Vehicle Miles Traveled Assessment," prepared by Linscott, Law and Greenspan, Engineers in August 2023.

The passage of SB 743 and the resulting amendment to the CEQA Guidelines does not prevent agencies from continuing to analyze delay or LOS outside of CEQA review for other transportation planning or analysis purposes (i.e., general plans, impact fee programs, corridor studies, congestion reduction, or ongoing network monitoring). These analysis requirements and LOS standards apply to discretionary approvals of new land use development projects. This assessment utilizes the latest version of the Highway Capacity Manual (HCM) and Intersection Capacity Utilization (ICU) methodologies to evaluate intersection LOS, which is then compared to the City's LOS standards and reviewed for detrimental effects on circulation within the existing transportation network. In conjunction with City staff, a total of four (4) study locations (including the project driveway) was

[2] *Technical Advisory on Evaluating Transportation Impacts in CEQA*, Governor's Office of Planning and Research, December 2018.

selected for analysis. The City's requirements also require an analysis of a proposed project's effect on existing pedestrian, bicycle, and transit infrastructure in the vicinity of the project site as well as the provision of multi-modal facilities within the site itself.

1.3 Los Angeles County Congestion Management Program Status

The Los Angeles County Congestion Management Program (CMP) was previously a state-mandated program that was enacted by the California State Legislature with the passage of Proposition 111 in 1990 that primarily utilized a level of service (LOS) performance metric. Pursuant to California Government Code §65088.3, local jurisdictions may opt out of the CMP requirement without penalty if a majority of the local jurisdictions representing a majority of the County's population formally adopt resolutions requesting to opt out of the program. As stated in a letter from the Los Angeles County Metropolitan Transportation Authority (Metro)[3], by August 28, 2019 fifty-seven local jurisdictions, which in total represent 8.5 million in population, had adopted resolutions electing to be exempt from the CMP. With the Los Angeles County region having reached the statutorily required threshold, the provisions of the CMP are no longer applicable to any of the 89 local jurisdictions within Los Angeles County, regardless of whether or not a jurisdiction adopted an opt-out resolution. Therefore, CMP Traffic Impact Analysis is no longer required.

[3] Kalieh Honish, Los Angeles County Metropolitan Transportation Authority, to Seleta Reynolds, City of Los Angeles Department of Transportation, "Re: Dissolution of the Congestion Management Program in Los Angeles County", August 28, 2019.

2.0 PROJECT DESCRIPTION

2.1 Existing Project Site

The 3.43-acre project site is located at 1610 West Artesia Boulevard situated along the south side of Artesia Boulevard, east of Western Avenue (APN 6106-013-049). The site is bordered by Artesia Boulevard to the north, residential uses to the south, and commercial uses to the east and west. The project site is currently occupied by two, one-story commercial buildings totaling approximately 39,510 square feet and a surface parking lot. Of the existing total square footage, approximately 31,010 is currently active and operational with auto repair stores. The remaining 8,500 square feet of building floor area, which were formerly occupied by a car wash/detail center, are currently vacant. All existing structures will be removed to accommodate the proposed project. The project vicinity is shown in *Figure 1-1*.

Vehicular access to the existing project site is currently provided via three driveways on Artesia Boulevard. The existing driveways are located on the south side of Artesia Boulevard along the northerly project frontage. The westerly site driveway on Artesia Boulevard currently accommodates left-turn and right-turn ingress and right-turn egress movements (i.e., no left-turns movements out). The middle site driveway on Artesia Boulevard is limited to right-turn ingress and egress movements only. The easternmost site driveway on Artesia Boulevard currently accommodates full access (i.e., (i.e., left-turn and right-turn ingress and egress traffic movements). An aerial photograph of the existing site is presented in ***Figure 2-1***.

2.2 Proposed Project Description

The proposed project consists of the development of a 6-story, podium apartment building comprised of 300 residential units including 283 market rate units and 17 affordable (very low income) units. The proposed unit mix consists of 54 studio units, 168 one-bedroom units, and 78 two-bedroom units. Vehicular access is planned to be provided via the existing westerly driveway on Artesia Boulevard. A total of 528 parking spaces is planned to be provided on-site. The project build-out and occupancy year is anticipated by the year 2026. The site plan for the proposed project is illustrated in ***Figure 2-2***.

2.3 Project Site Access

2.3.1 *Vehicular Site Access*

As shown in *Figure 2*-2, vehicular access to the proposed project site will continue to be provided via the existing westerly driveway located on the south side of Artesia Boulevard. The project site driveway will continue to accommodate left-turn ingress and right-turn ingress and egress traffic movements. The westbound left-turn movement into the site from Artesia Boulevard will continue to be facilitated by the existing westbound left-turn lane/pocket and median break at this location. The two remaining existing site driveways on Artesia Boulevard (i.e., the middle and easternmost driveways) will be closed with the development of the project.

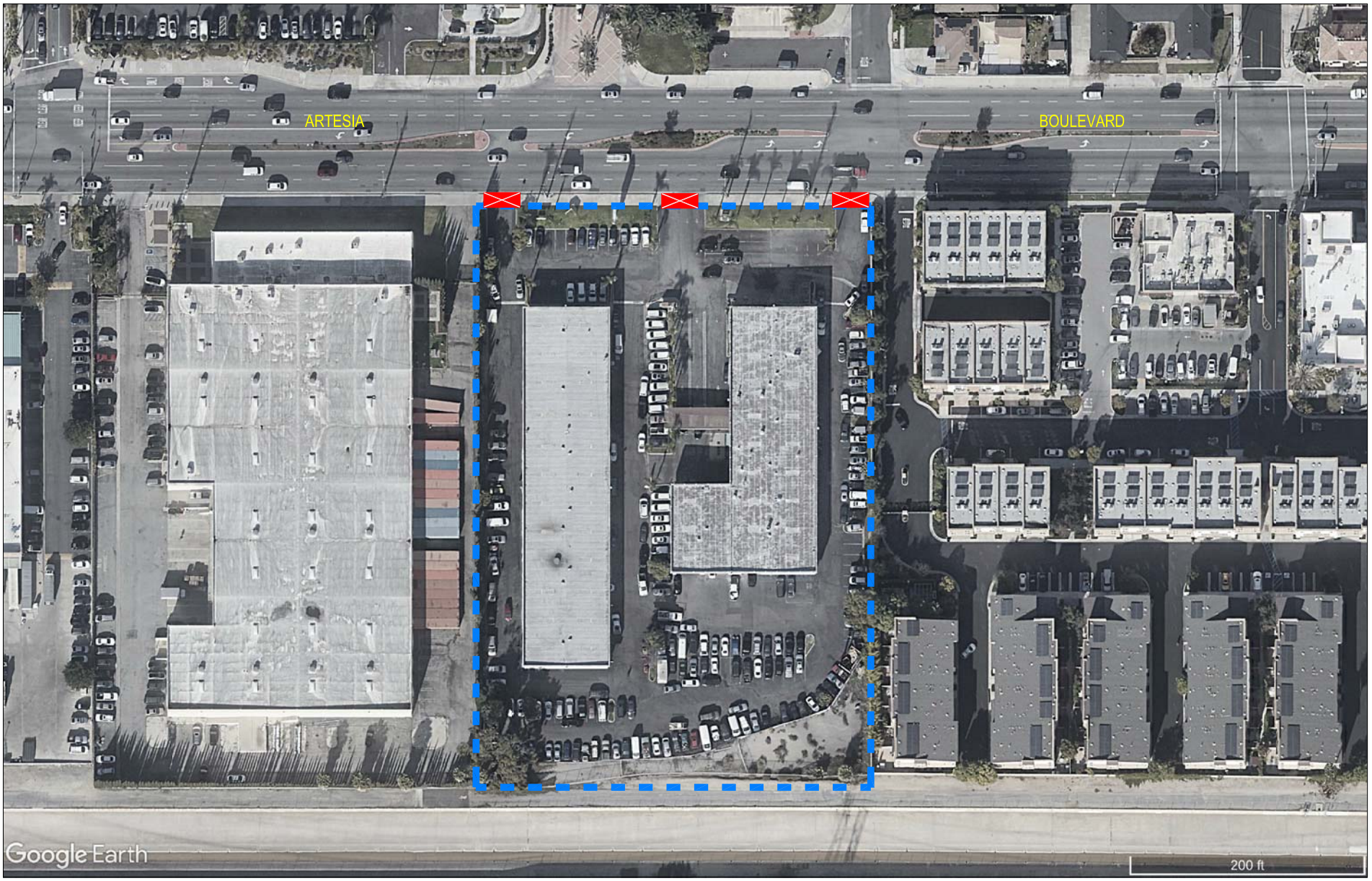

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Figure 2-1
Aerial Photograph of Existing Project Site

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MAP SOURCE: TCA ARCHITECT

Figure 2-2
Conceptual Site Plan

2.4 Project Parking

The proposed project is planned to provide a total of 528 vehicular parking spaces, consisting of 487 residential spaces and 41 guest parking spaces.

2.5 Project Trip Generation and Distribution

2.5.1 *Existing Site Trip Generation*

In order to determine the existing site traffic generation, weekday peak hour manual turning movement traffic counts were conducted at the existing site. Specifically, manual driveway traffic counts were conducted at the three existing site driveways on an hourly basis (in 15-minute time increments) from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM in May 2023. In addition, automatic 24-hour machine were conducted at the three existing site driveways for two consecutive weekdays. Through the conduct of these counts, the number of existing vehicle trips entering and exiting the site on a daily basis as well as during the peak hours can be determined. The traffic count data for the three site driveways was compiled, reviewed and analyzed to determine the highest daily and one hour period of traffic volume at the site during both the weekday morning and afternoon periods. The peak hour traffic generation associated with the existing uses are presented below:

- Daily: 822 vehicle trips (292 inbound trips and 530 outbound trips)
- AM peak hour: 47 vehicle trips (27 inbound trips and 20 outbound trips)
- PM peak hour: 78 vehicle trips (30 inbound trips and 48 outbound trips)

Summary data worksheets of the manual traffic counts and the 24-hour machine counts at the site driveways are contained in ***Appendix B***.

2.5.2 *Project Trip Generation Forecast*

Traffic volumes to be generated by the proposed project were forecast for the weekday AM and PM peak hours, and over a 24-hour period. Trip generation rates provided in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*[4] were utilized to forecast project traffic generation for the proposed project. ITE Land Use Code 221 (Multi-Family Housing [Mid-Rise]) and ITE Land Use Code 223 (Affordable Housing) trip generation rates were used to forecast the traffic volumes expected to be generated by the proposed project.

The trip generation forecast for the proposed project is summarized in ***Table 2-1***. As presented in *Table 2-1*, the proposed project is expected to generate 67 net new vehicle trips (67 outbound trips) during the weekday AM peak hour. During the weekday PM peak hour, the proposed project is expected to generate 40 net new vehicle trips (42 inbound trips and 2 fewer outbound trips). Over a 24-hour period, the proposed project is forecast to generate 545 net new daily trip ends during a

[4] Institute of Transportation Engineers *Trip Generation Manual*, 11th Edition, Washington, D.C., 2021.

Table 2-1
PROJECT TRIP GENERATION FORECAST

TRIP GENERATION RATES [1]									
	ITE			WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
ITE LAND USE CATEGORY	LAND USE CODE	VARIABLE	WEEKDAY DAILY	IN (%)	OUT (%)	TOTAL	IN (%)	OUT (%)	TOTAL
Multifamily Housing (Mid Rise) Not Close to Rail Transit	221	Per Dwelling Unit	4.54	23%	77%	0.37	61%	39%	0.39
Affordable Housing - Income Limits	223	Per Dwelling Unit	4.81	29%	71%	0.50	59%	41%	0.46

PROJECT TRIP GENERATION FORECAST									
	ITE		DAILY	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
LAND USE	LAND USE CODE	SIZE	TRIP ENDS [2] VOLUMES	IN	OUT	TOTAL	IN	OUT	TOTAL
Proposed Project									
Apartment	221	283 DU	1,285	24	81	105	67	43	110
Affordable Housing	223	17 DU	82	3	6	9	5	3	8
Subtotal Proposed Project			***1,367***	***27***	***87***	***114***	***72***	***46***	***118***
Existing Uses									
Automobile Care Center [3]	942	(31,010) GSF	(822)	(27)	(20)	(47)	(30)	(48)	(78)
Subtotal Existing Uses			***(822)***	***(27)***	***(20)***	***(47)***	***(30)***	***(48)***	***(78)***
NET NEW PROJECT TRIPS			***545***	***0***	***67***	***67***	***42***	***(2)***	***40***

[1] Source: ITE "Trip Generation Manual", 11th Edition, 2021.
[2] Trips are one-way traffic movements, entering or leaving.
[3] Based on traffic counts conducted at the existing site driveways on May 2023.

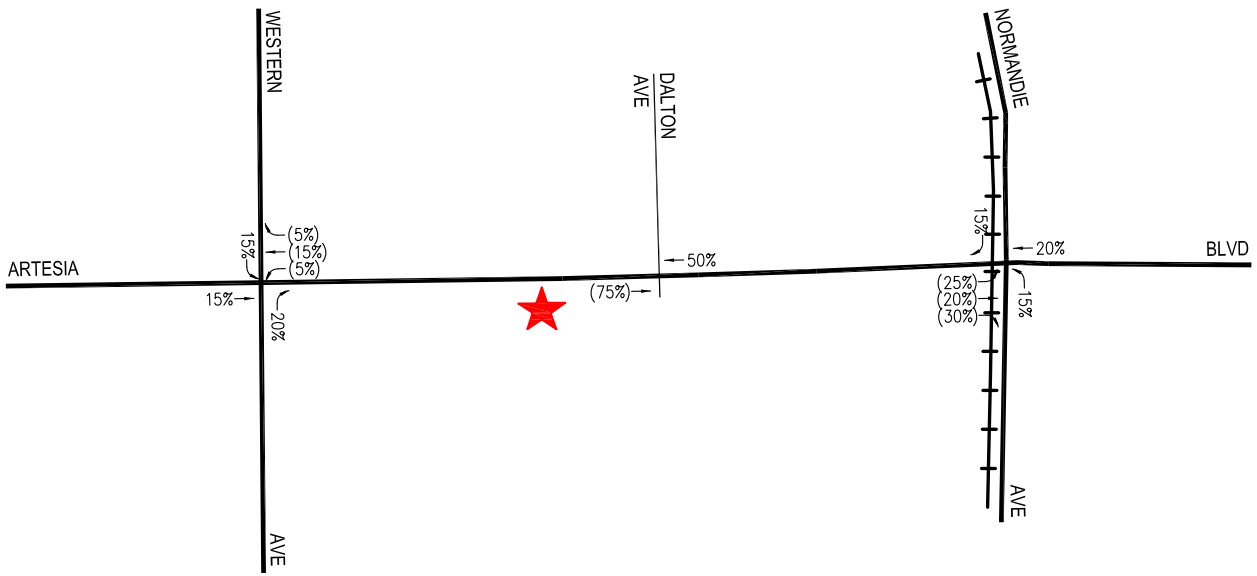
typical weekday (273 inbound trips and 273 outbound trips). It should be noted that transit/walk-in adjustments were not applied to the forecast in order to provide a conservative analysis.

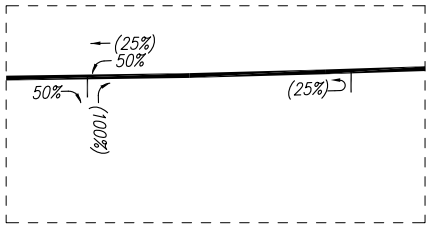
2.5.3 *Project Trip Distribution and Assignment*

Project traffic volumes both entering and exiting the site have been distributed and assigned to the adjacent street system based on the following considerations:

- The site's proximity to major traffic corridors (i.e., Artesia Boulevard, Western Avenue, Normandie Avenue, etc.);
- Expected localized traffic flow patterns based on adjacent roadway channelization and presence of traffic signals;
- Existing intersection traffic volumes;
- Ingress/egress scheme planned for the proposed project;
- Nearby population and employment centers; and
- Input from City of Gardena staff.

The traffic volume distribution percentages for the proposed project during AM and PM peak hours at the study intersections are illustrated in ***Figure 2-3***. The forecast AM and PM peak hour project traffic volumes at the study intersections are displayed in ***Figures 2-4*** and ***2-5***, respectively. The traffic volume assignments presented in *Figures 2-4 and 2-5* reflect the traffic distribution characteristics shown in *Figure 2-3* and the proposed project traffic generation forecast presented in *Table 2-1*.





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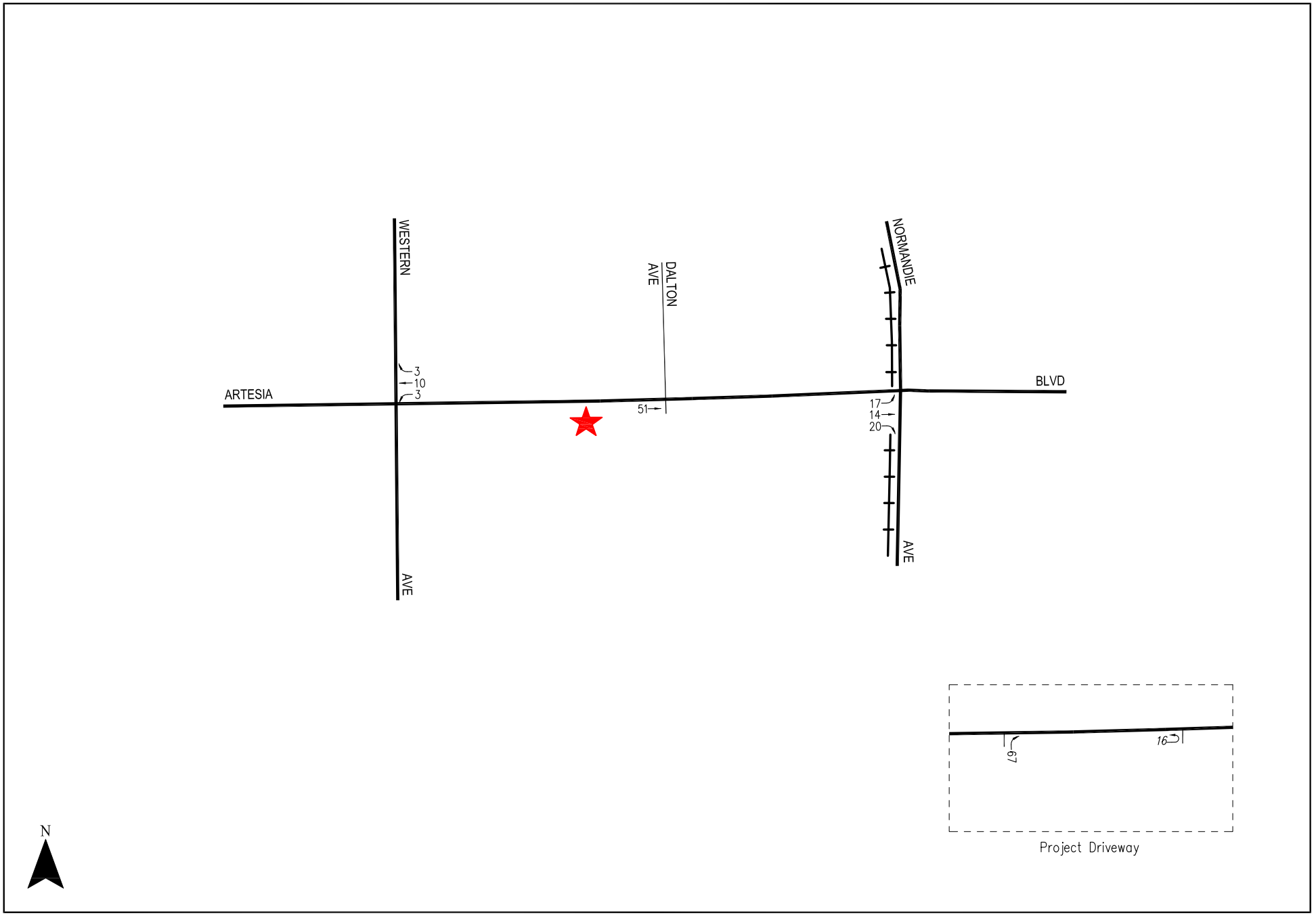
Project Site

XX = Inbound Percentage

(XX) = Outbound Percentage

Figure 2-3
Project Trip Distribution



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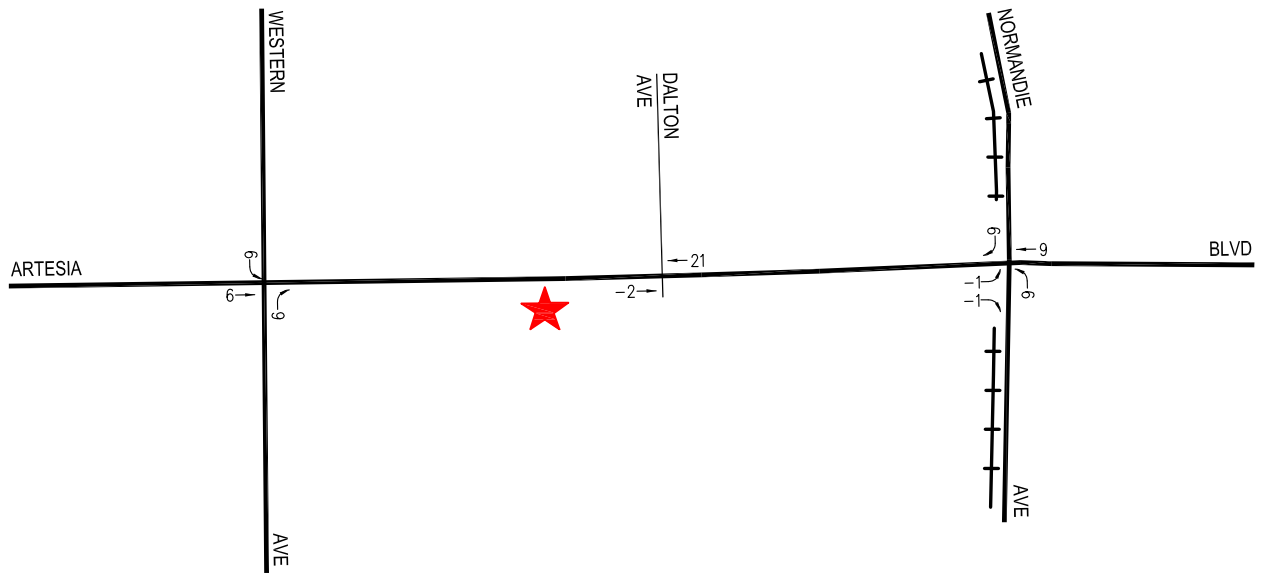
★ Project Site

Figure 2-4
Net New Project Traffic Volumes
Weekday AM Peak Hour
TPG 1610 Artesia Project



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★ Project Site

Figure 2-5
Net New Project Traffic Volumes
Weekday PM Peak Hour
TPG 1610 Artesia Project

3.0 PROJECT SITE CONTEXT

The following sections provide an overview of the transportation infrastructure in the vicinity of the proposed project, including infrastructure which supports both motorized and non-motorized transportation modes.

3.1 Non-Vehicle Network

Non-vehicular transportation generally encompasses walking, biking, and other active transportation modes. Distinct facilities are often provided for these non-vehicular modes. Most prominently, paved sidewalks are typically provided to facilitate pedestrian travel outside of the roadway. In some cases, bicycle facilities such as painted bike lanes or separated bike paths are provided within the roadway in order to separate bike traffic from vehicular traffic. Roadways which are designed to prioritize non-vehicular transportation modes utilize complimentary non-vehicular infrastructure in order to promote comfortable, safe travel for both pedestrians and bicyclists. A review of the pedestrian and bicycle infrastructure provided in the vicinity of the project site is provided below.

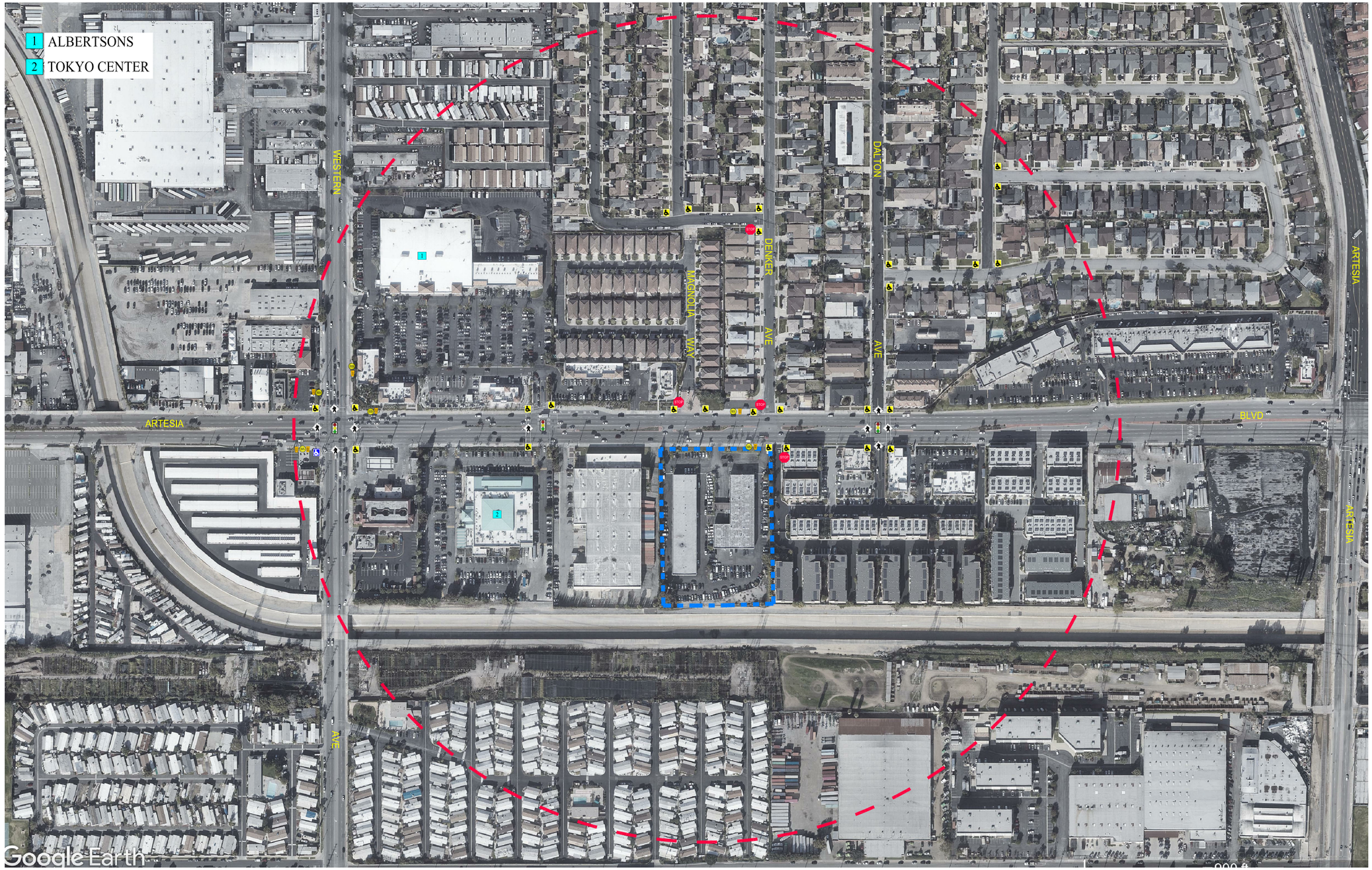
3.1.1 *Pedestrian System*

Pedestrian infrastructure consists of facilities such as sidewalks, crosswalks, pedestrian signals, curb access ramps, Americans with Disabilities Act (ADA) compliant tactile warning strips, and curb extensions, among other things. These facilities are generally provided within the study area. Public sidewalks and pedestrian facilities are provided on all streets within the project vicinity, including Artesia Boulevard, Western Avenue, Dalton Avenue, and Normandie Avenue. ***Figure 3-1*** shows the existing pedestrian and transit facilities near the project site.

The project frontage along Artesia Boulevard is currently improved with sidewalk, landscaping strips along the south side of the sidewalk, curb, and gutter. As described in *Section 2.3, Project Site Access*, the proposed project will require construction of a modified driveway at the existing westerly driveway location on Artesia Boulevard while the two remaining existing site driveways on Artesia Boulevard (i.e., the middle and easternmost driveways) will be closed with the development of the project (i.e., consolidation to one access point). The driveway will be constructed to City of Gardena standards and will maintain public sidewalk access across the driveway opening. The proposed project therefore will not result in the removal, degradation, or loss of access to any existing pedestrian facilities in the vicinity. Additionally, the project will provide an ADA compliant pedestrian walkway connecting the existing public sidewalks surrounding the project site to the walkways within the proposed development.

Walkability indicates walking is readily available as a safe, connected, accessible and pleasant mode of transport. Several criteria are widely accepted as key aspects of walkability of urban areas that should be satisfied. The underlying principle is that pedestrians should not be delayed, diverted, or placed in danger. These criteria include:

- Connectivity: People can walk from one place to another without encountering major obstacles, obstructions, or loss of connectivity.



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NO SCALE

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- SITE
- 0.25 MILE RADIUS FROM PROJECT SITE
- SIGNAL
- ADA
- STOP SIGN
- ADA YELLOW TRUNCATED DOME
- CROSSWALK
- CROSSWALK YELLOW
- B BENCH
- BR BIKE RACK
- BS BUS STOP
- BB BUS STOP WITH BUS BENCH
- BBS BUS STOP WITH BUS BENCH & SHELTER
- BIKE ROUTE/LANE
- MAIL BOX
- TRASH

Figure 3-1
Existing Nearby Pedestrian & Transit Facilities and Pedestrian Destinations
TPG 1610 Artesia Project

- Convivial: Pedestrian routes are friendly and attractive, and perceived as such by pedestrians.

- Conspicuous: Suitable levels of lighting, visibility and surveillance over its entire length, with high quality delineation and signage.

- Comfortable: High quality and well-maintained footpaths of suitable widths, attractive landscaping and architecture, shelter and rest spaces, and a suitable allocation of roadspace to pedestrians.

- Convenient: Walking is a realistic travel choice, partly because of the impact of the other criteria set forth above, but also because walking routes are of a suitable length as a result of land use planning with minimal delays.

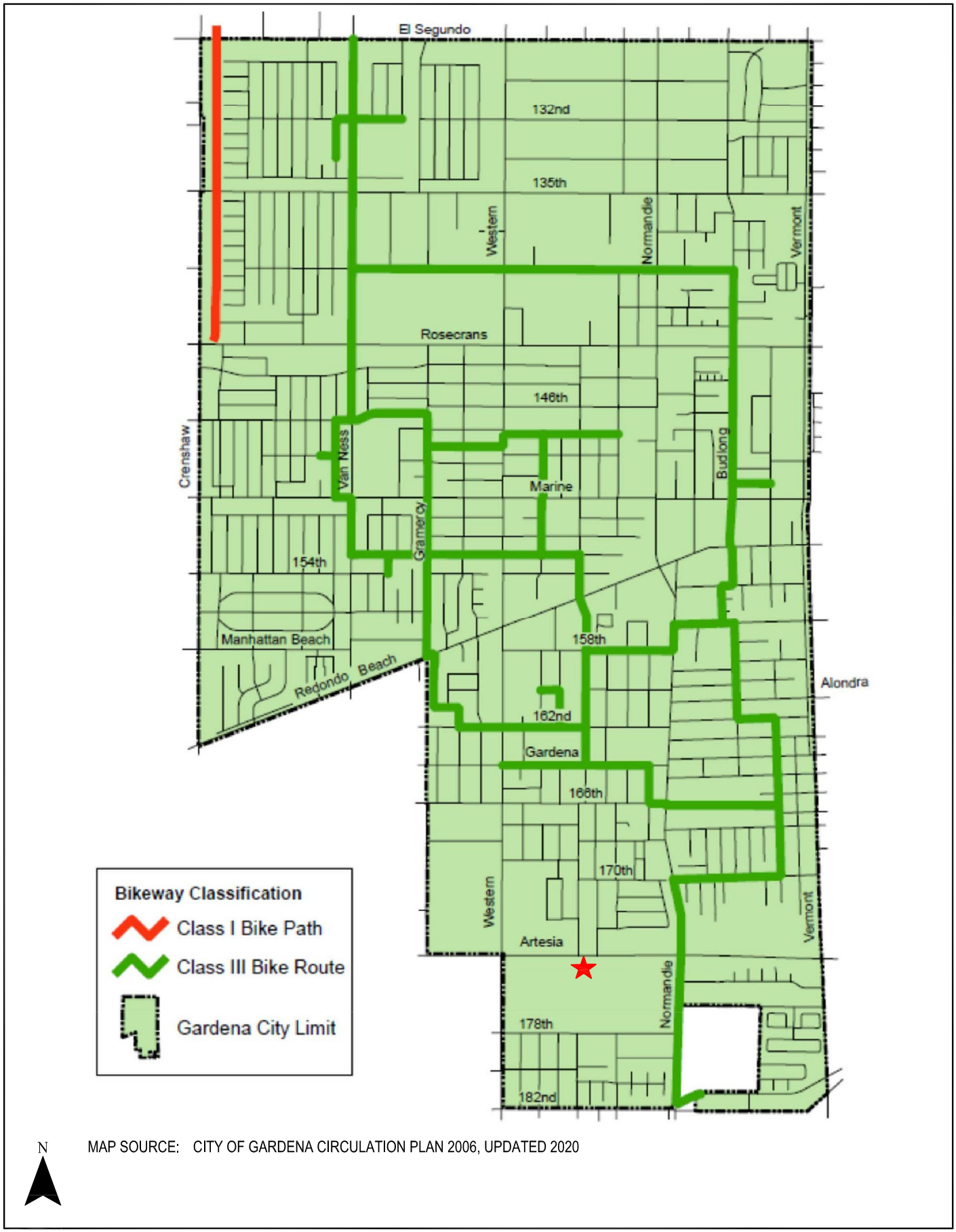
A review of the proposed project pedestrian walkways indicates that these primary characteristics are accommodated within and adjacent to the project. Proposed project features would include landscaped and lighted pedestrian walkways connecting facilities within the site, as well as connections with the adjacent public sidewalks along the project frontage. Street trees and streetscape plantings should be introduced along the same public frontages in accordance with the City's standards. In addition, project signage could include general ground level and wayfinding pedestrian signage around the perimeter of the project site, building identification signs, and other sign types. Wayfinding signs would be located at access points to the on-site amenities and facilities, parking area/s, and building entrances.

3.1.2 *Bicycle System*

Bicycle infrastructure consists of both facilities within the roadway as well as public bicycle parking spaces. The Federal and State transportation systems recognize three primary bikeway facilities: Bicycle Paths (Class I), Bicycle Lanes (Class II), and Bicycle Routes (Class III). Bicycle Paths (Class I) are exclusive car-free facilities that are typically not located within a roadway area. Bicycle Lanes (Class II) are part of the street design that is dedicated only for bicycles and identified by a striped lane separating vehicle lanes from bicycle lanes. Bicycle Routes (Class III) are preferably located on collector and lower volume arterial streets.

Bicycle access to the project site will be facilitated by the City's bicycle roadway network. Existing bicycle facilities (e.g., Class I Bicycle Path, Class II Bicycle Lanes, Class III Bicycle Routes, Proposed Bicycle Routes, Bicycle Boulevards, etc.) identified in the City's General Plan[5] are located within an approximate one-mile radius from the project site. The location of the bicycle lane network for the City in close proximity to the project site and in the surrounding area is illustrated in ***Figure 3-2***. As shown in *Figure 3-2*, existing Class III Bicycle Route is provided along Normandie Avenue within the project vicinity.

[5] City of Gardena General Plan 2006, Updated 2020.



MAP SOURCE: CITY OF GARDENA CIRCULATION PLAN 2006, UPDATED 2020

Project Site

Figure 3-2
City of Gardena Existing Bicycle Network

3.2 Transit Network

Public bus transit service in the project vicinity is currently provided by the Los Angeles Metropolitan Transportation Authority (Metro), City of Gardena Transit (Gtrans), and Torrance Transit (TT). A summary of the existing transit routes, including the transit route, destinations and number of buses during the AM and PM peak hours is presented in ***Table 3–1***. The existing public transit routes in the project vicinity are illustrated in ***Figure 3–3***. As summarized in *Table 3-1*, a total of three public transit routes provide service near the project site.

3.3 Vehicle Network

3.3.1 *Roadway Classifications*

The City of Gardena utilizes the roadway categories recognized by regional, state and federal transportation agencies. There are four (4) categories in the roadway hierarchy, ranging from freeways with the highest capacity to two-lane undivided roadways with the lowest capacity. The roadway categories are summarized as follows:

- *Freeways* are limited-access and high speed travel ways included in the state and federal highway systems. Their purpose is to carry regional through-traffic. Access is provided by interchanges with typical spacing of one mile or greater. No local access is provided to adjacent land uses.

- *Arterial* roadways are major streets that primarily accommodate regional, subregional, and intra-city travel. Through traffic comprises the bulk of traffic volumes on arterial roadways. In the City of Gardena, this roadway type is divided into two categories: Major and Minor arterials. Major arterial roadways are designed to move relatively high volumes of traffic between the freeway and local circulation system. Intersections along major arterials are at-grade and typically signalized. Access from private property and collector streets is limited, as is on-street parking. Minor arterial roadways are similar to major arterials, but serve a more localized function. Minor arterials generally have less access and parking restrictions and a narrower right-of-way than major arterials.

- *Collector* roadways are designed to distribute traffic from higher classified arterial streets to local access streets and adjacent properties.

- *Local* roadways are designed to be low-volume and low-speed streets that provide access to individual properties. Residential streets are generally not intended to handle through traffic.

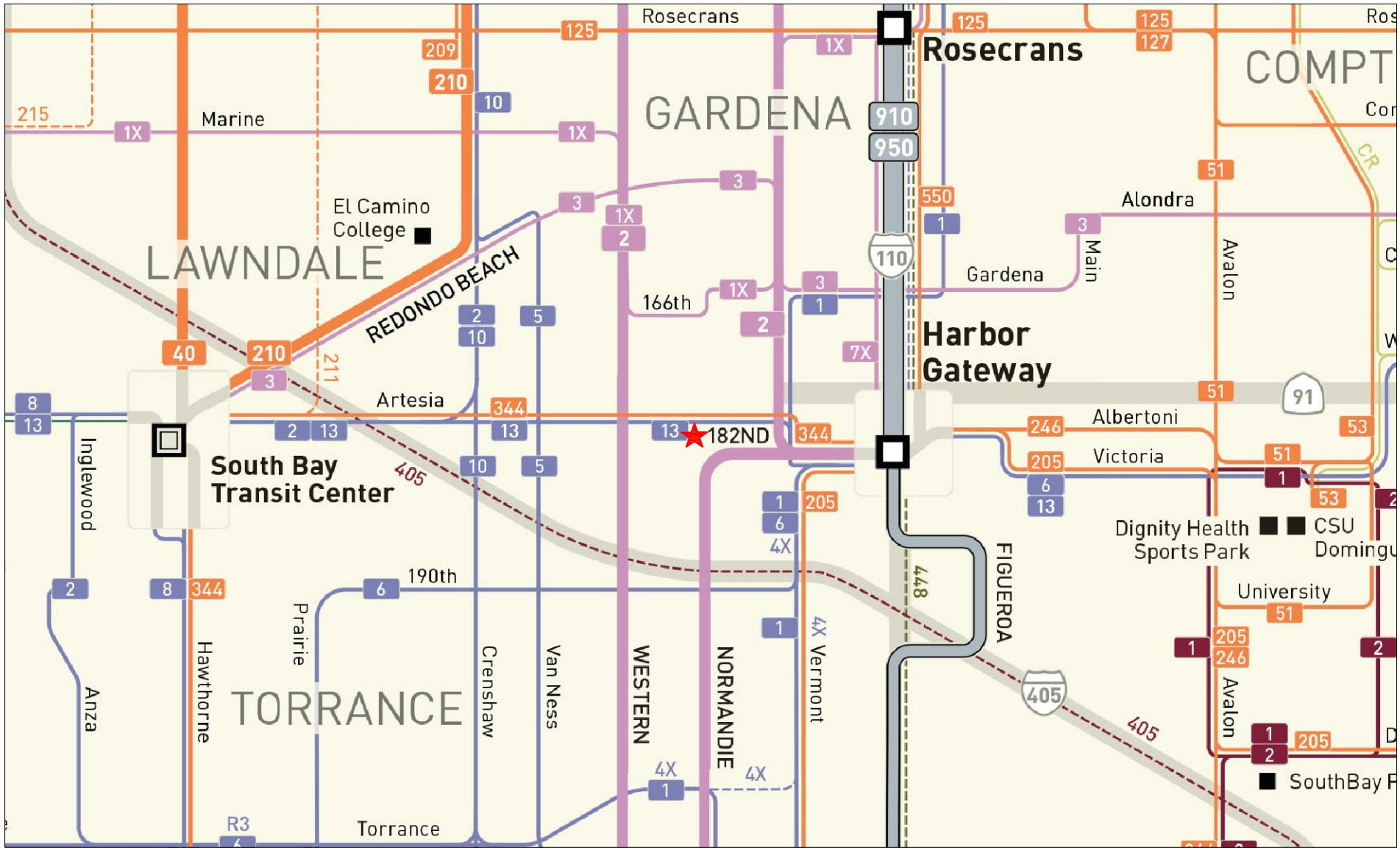
3.3.2 *Roadway Descriptions*

Immediate access to the project site is provided via Artesia Boulevard. The current lane configurations and traffic control measures at each study intersection is presented in ***Figure 3-4***. Descriptions of the roadways which make up the study area are provided in ***Table 3-2***, including the roadway classification, number of lanes, median types, and speed limits designated by the City of Gardena.

Table 3-1
EXISTING TRANSIT ROUTES [1]

ROUTE	DESTINATIONS	ROADWAY(S) NEAR SITE	NO. OF BUSES DURING PEAK HOUR		
			DIR	AM	PM
Metro 344	Rancho Palos Verdes to Harbor Gateway via Torrance	Artesia Boulevard, Western Avenue, Normandie Avenue	NB SB	2 2	2 2
Gtrans 2	Harbor Gateway, Gardena High School, Narborne High School, Gardena Civic Center	Western Avenue, Artesia Boulevard	NB SB	4 4	4 4
TT 13	Redondo Beach Pier, King Harbor Marina, Hermosa Beach Pier, South Bay Galleria, Harbor Gateway Transit Center, Dignity Health Sports Park, Cal State Dominguez Hills	Artesia Boulevard, Normandie Avenue, Denker Avenue, Western Avenue	EB WB	2 1	2 1
TOTAL				**15**	**15**

[1] Sources: Los Angeles County Metropolitan Transportation Authority (Metro), City of Gardena Transit (GTrans), and City of Torrance Transit (TT) websites, April 2023.



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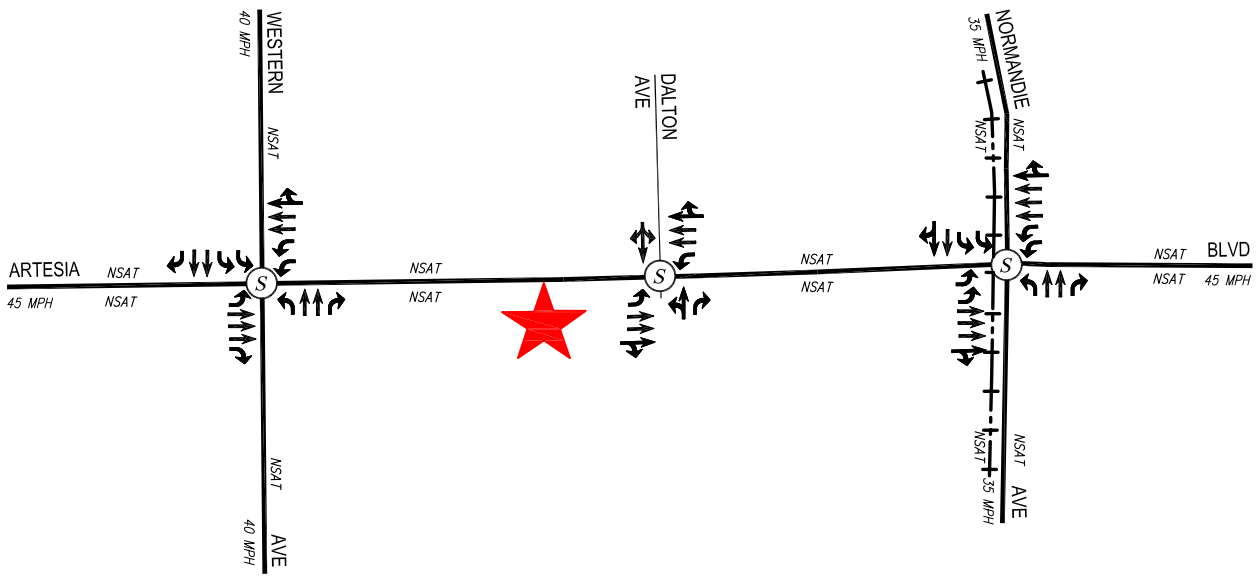
★ Project Site

Figure 3-3
Existing Transit Routes



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★ Project Site

(S) Signalized

NSAT No Stopping Anytime

Figure 3-4
Existing Lane Configurations

Table 3-2
EXISTING ROADWAY DESCRIPTIONS

ROADWAY	CLASSIFICATION [1]	TRAVEL LANES			MEDIAN	SPEED
		DIRECTION [2]	NO. LANES [3]		TYPES [4]	LIMIT
Western Avenue						
-North of Artesia Boulevard	Arterial	NB-SB	4	[5]	2WLT	40
-South of Artesia Boulevard	Arterial	NB-SB	4		2WLT	40
Artesia Boulevard						
-West of Vermont Avenue	Arterial	EB-WB	8	[6]	RMI	45
-950' East of Dalton Avenue	Arterial	EB-WB	6	[6]	RMI	45
Dalton Avenue	Local Street	NB-SB	2		N/A	25
Normandie Avenue	Arterial	NB-SB	4	[7]	2WLT	35

Notes:
[1] Roadway classifications obtained from the Circulation Plan of the *City of Gardena General Plan 2006, Updated 2020.*
[2] Direction of roadways in the project area: NB-SB = northbound and southbound; and EB-WB = eastbound and westbound.
[3] Number of lanes in both directions on the roadway. Variations in number of travel lanes due to time restricted on-street parallel parking are noted below.
[4] Median type of the road: RMI = Raised Median Island; 2WLT = 2-Way Left-Turn Lane; and N/A = Not Applicable.
[5] No Stopping Anytime in the northbound direction.
[6] No Stopping Anytime in the eastbound direction and westbound direction.
[7] No Stopping Anytime.

3.4 Traffic Count Data

Manual counts of vehicular turning movements for the following intersections identified for review in consultation with City staff were obtained from the City:

1. Western Avenue/Artesia Boulevard (Signalized)

2. Dalton Avenue/Artesia Boulevard (Signalized)

3. Normandie Avenue/Artesia Boulevard (Signalized)

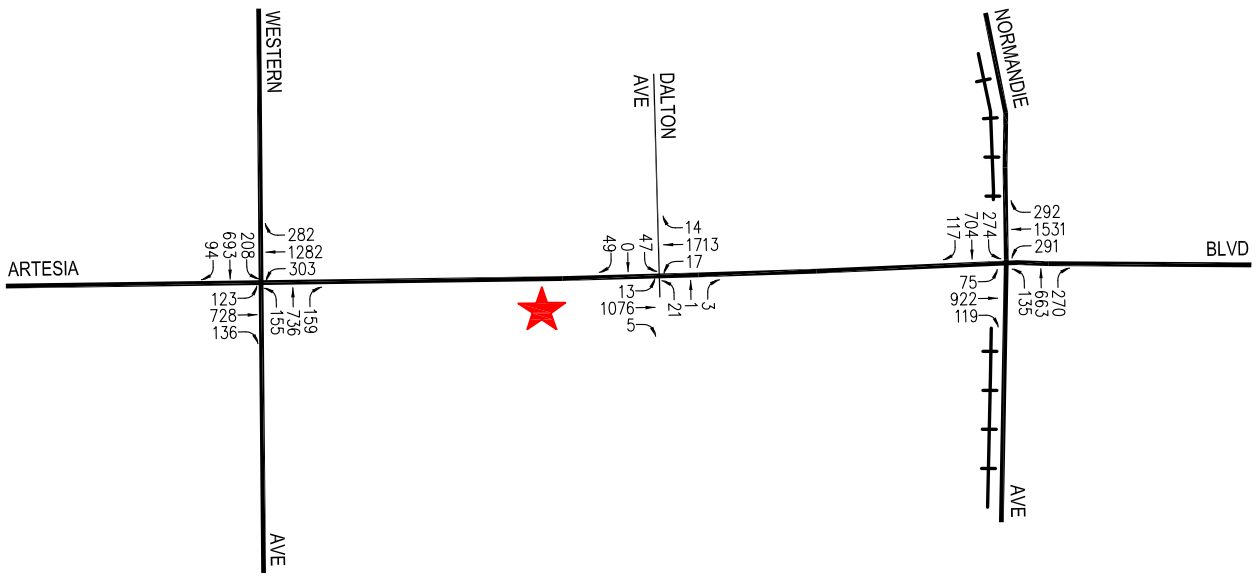
The manual traffic counts were conducted at the signalized intersections during the weekday morning (AM) and afternoon (PM) commute periods to determine the peak hour traffic volumes. The manual counts were conducted in May 2022 and August 2022 by an independent traffic count subconsultant (AimTD LLC) at the study intersections on a typical weekday from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM to determine the AM and PM peak commute hours, respectively. It is noted that all of the traffic counts were conducted when local schools were in session. The existing traffic volumes at the study intersections during the weekday AM and PM peak hours are shown in ***Figures 3-5*** and ***3-6***, respectively. Summary data worksheets of the manual traffic counts at the study intersections are contained in *Appendix B*.

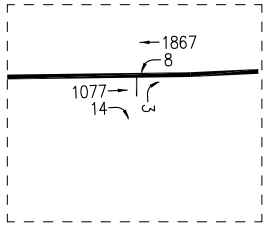
3.5 Cumulative Development Projects

The forecast of future pre-project conditions was prepared in accordance to procedures outlined in Section 15130 of the CEQA Guidelines. Specifically, the CEQA Guidelines provide two (2) options for developing the future traffic volume forecast:

> "(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or
>
> (B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency."

Although the CEQA Guidelines do not strictly apply to the local transportation assessment required by the City of Gardena, this transportation analysis provides a highly conservative estimate of future pre-project traffic volumes as it incorporates both the "A" and "B" options outlined in the CEQA Guidelines for purposes of developing the forecast.





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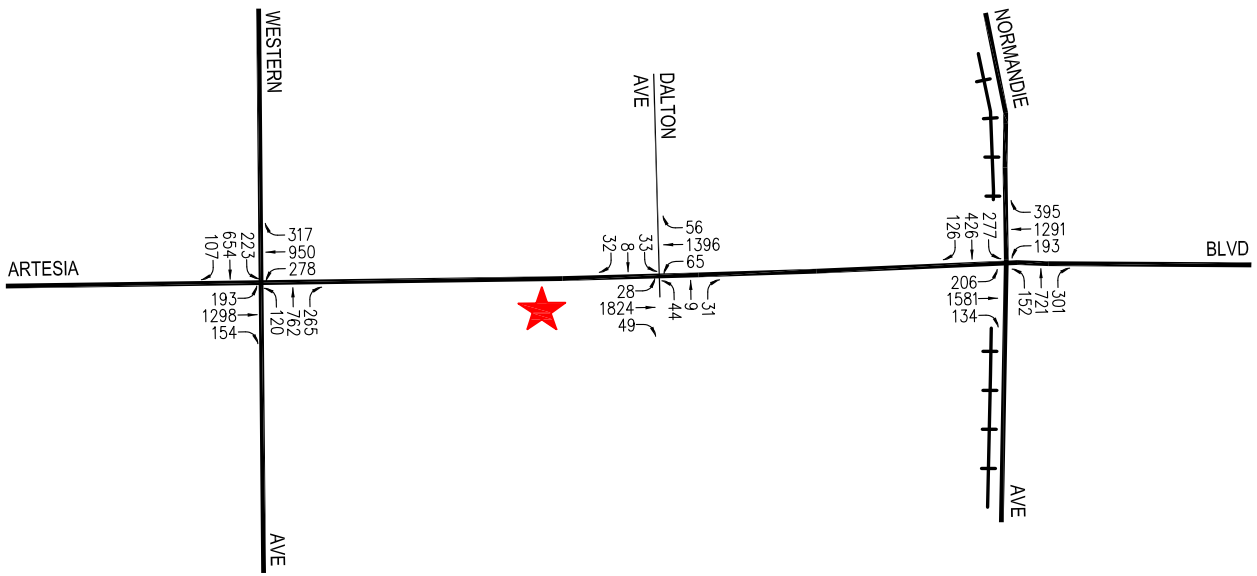
Project Site

Figure 3-5
Existing Traffic Volumes
Weekday AM Peak Hour
TPG 1610 Artesia Project



Project Site

Figure 3-6
Existing Traffic Volumes
Weekday PM Peak Hour
TPG 1610 Artesia Project

3.5.1 *Related Projects*

A forecast of on-street traffic conditions prior to occupancy of the proposed project was prepared by incorporating the potential trips associated with other known development projects (related projects) in the area (i.e., within an approximate 0.50-mile radius from the project site). With this information, the potential impact of the proposed project can be evaluated within the context of the cumulative impacts of all ongoing development. The related projects research was based on information on file with the City of Gardena and the City of Torrance. The list of related projects in the project site area is presented in ***Table 3-3***. The location of the related projects is shown in ***Figure 3-7***.

Traffic volumes expected to be generated by the related projects were calculated using rates provided in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*. The related projects' respective traffic generation for the weekday AM and PM peak hours, as well as on a daily basis for a typical weekday, is summarized in *Table 3-3*. The related projects traffic volumes were distributed and assigned to the street system based on the projects' locations in relation to the study intersections, their proximity to major traffic corridors, proposed land uses, nearby population and employment centers, etc. The assignment of the related projects traffic volumes to the study intersections during the weekday AM and PM peak hours are displayed in ***Figure 3-8*** and ***3-9***, respectively.

3.5.2 *Ambient Traffic Growth Factor*

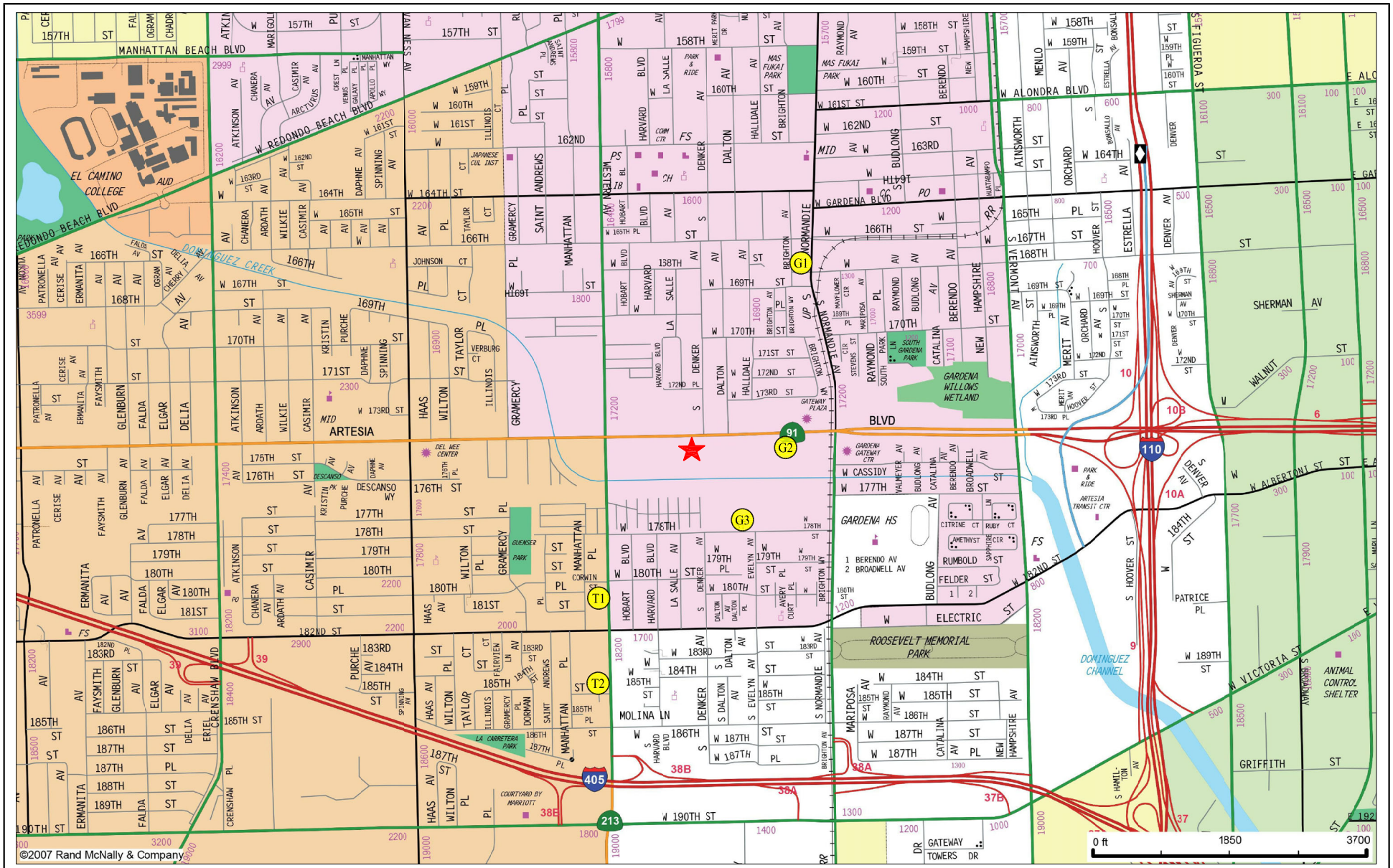
Horizon year background traffic growth estimates have been calculated using an ambient traffic growth factor. The ambient traffic growth factor is intended to include unknown related projects in the study area as well as account for typical growth in traffic volumes due to the development of projects outside the study area. Based on review of the general traffic growth factors provided in the Los Angeles County 2010 Congestion Management Program[6] (CMP) for the project study area (i.e., RSA 18, South Bay/LAX), it is anticipated that existing traffic volumes in the vicinity are expected to increase at an annual rate of 0.18% per year between the years 2020 and 2030. An annual growth rate of one percent (1.0%) until the year 2026 (i.e., the anticipated project build-out year) was selected for this analysis. Therefore, application of this one percent (1.0%) ambient growth factor in addition to the forecast traffic generated by the related projects allows for a conservative forecast of future traffic volumes in the project study area as incorporation of both (i.e., an ambient traffic growth rate and a detailed list of cumulative development projects) is expected to overstate potential future traffic volumes. The cumulative development projects should already be incorporated as part of the growth rate projection per the adopted, local and regional planning documents (i.e., which account for the future population, housing, and employment [socio-economic data] projections).

[6] Los Angeles County Metropolitan Transportation Authority (Metro) 2010 Congestion Management Program.

Table 3-3
RELATED PROJECTS LIST AND TRIP GENERATION [1]

MAP NO.	PROJECT STATUS	PROJECT NAME/NUMBER ADDRESS/LOCATION	LAND USE DATA		PROJECT DATA SOURCE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
			LAND-USE	SIZE			IN	OUT	TOTAL	IN	OUT	TOTAL
City of Gardena												
G1	Approved	Normandie Courtyard Project 1348 W. 168th Street	Single-Family Residential	9 DU	[3]	85	2	4	6	5	3	8
G2	Pending	1450 W. Artesia Boulevard	Self-Storage	268,000 GSF	[4]	458	35	11	46	13	35	48
G3	Completed 2023	Melia 178th Street Project 1515 W. 178th Street	Townhomes	114 DU	[5]	542	13	23	36	21	12	33
City of Torrance												
T1	Approved	18045 Western Avenue	Apartments Retail	32 DU 6,000 GLSF	[5] [6]	152 327	4 8	6 6	10 14	6 20	3 20	9 40
T2	Under Construction	Ennio Schiappa Homes 18419 Western Avenue	Apartments	15 DU	[5]	71	2	3	5	3	1	4
TOTAL						**1,635**	**64**	**53**	**117**	**68**	**74**	**142**

[1] Sources: City of Gardena and City of Torrance Community Development, except as noted below. The peak hour traffic volumes were forecast on trip data provided n the ITE "Trip Generation", 11th Edition, 2021.
[2] Trips are one-way traffic movements, entering or leaving.
[3] ITE Land Use Code 210 (Single-Family Detached Housing) trip generation average rates.
[4] ITE Land Use Code 150 (Warehouse) trip generation average rates.
[5] ITE Land Use Code 221 (Multifamily Housing (Mid-Rise) Close to Rail Transit) trip generation average rates.
[6] ITE Land Use Code 822 (Strip Retail Plaza (<40k) trip generation average rates.

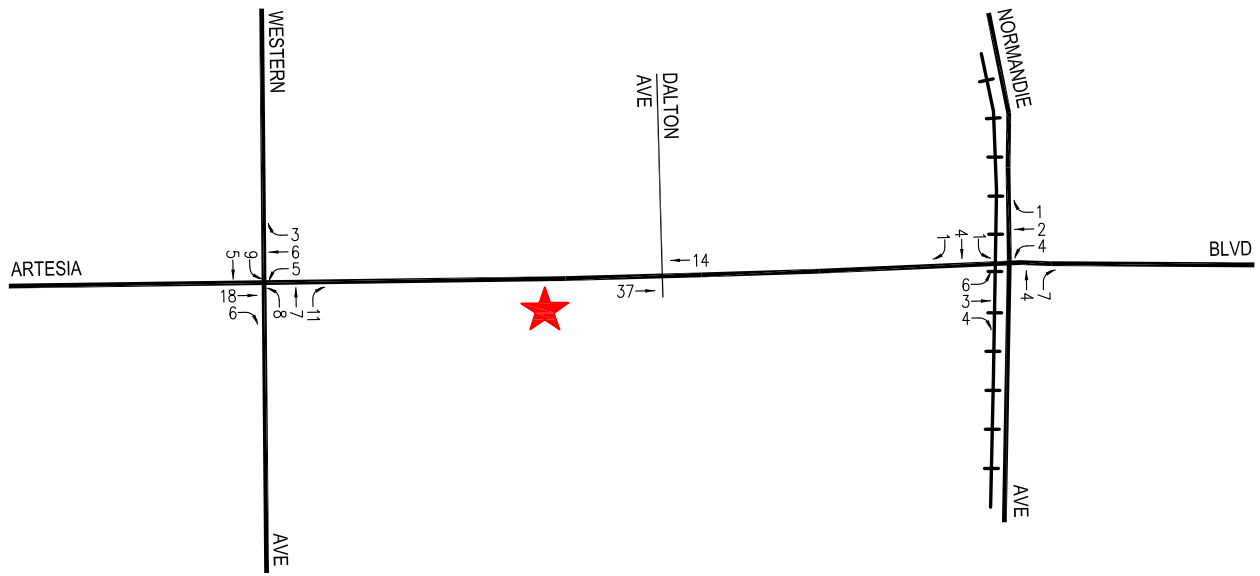


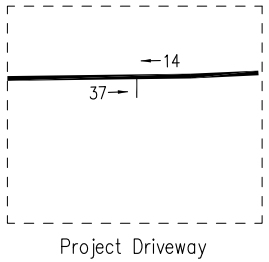
Project Site

G# City of Gardena Location of Related Project

T# City of Torrance Location of Related Project

Figure 3-7
Location of Related Projects





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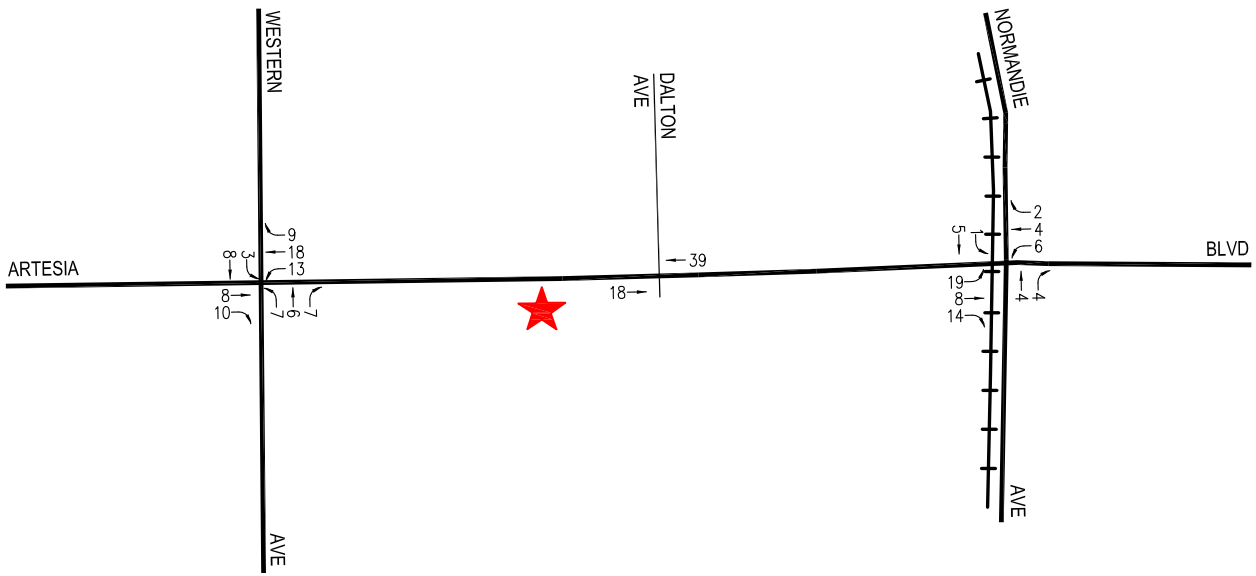
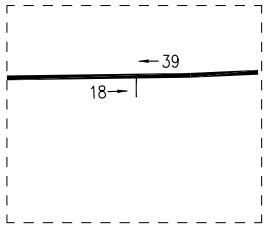
Project Site

Figure 3-8
Related Projects Traffic Volumes
Weekday AM Peak Hour
TPG 1610 Artesia Project





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Project Site

Figure 3-9
Related Projects Traffic Volumes
Weekday PM Peak Hour
TPG 1610 Artesia Project

4.0 INTERSECTION OPERATIONAL ANALYSIS

As part of the discretionary review and approval process, the City has the authority to require a LOS analysis in order to assess the proposed project's consistency with the City's General Plan LOS goals. Specifically, the City requires an operational analysis of intersections in the vicinity of a proposed project in order to evaluate site access and circulation constraints that may be caused or worsened by project-generated traffic. The following section presents the intersection operational (i.e., Level of Service) analyses prepared for the proposed project pursuant to the General Plan LOS standards and transportation infrastructure goals.

4.1 Analysis Methodology

In order to estimate the proposed project's effect on intersection operations, a multi-step process has been utilized. The first step is trip generation, which estimates the total arriving and departing traffic volumes on a peak hour and daily basis. The second step of the forecasting process is trip distribution, which identifies the origins and destinations of inbound and outbound project traffic volumes. These origins and destinations are typically based on demographics and existing/anticipated travel patterns in the study area. The third step is traffic assignment, which involves the allocation of project traffic to study area streets and intersections. Traffic distribution patterns are indicated by general percentage orientation, while traffic assignment allocates specific volume forecasts to individual roadway links and intersection turning movements throughout the study area. The proposed project's forecast trip generation, distribution, and assignment is presented in *Section 2.5* herein. With the forecasting process complete and project traffic assignments developed, the effect of the proposed project is isolated by comparing operational conditions at the selected study intersections using existing and expected future traffic volumes without and with forecast project traffic.

4.1.1 *City of Gardena Analysis Methodology*

As noted previously, two of the three study intersections are located within the City of Gardena. The remaining study intersection, Western Avenue/Artesia Boulevard, is located within the City of Torrance. The study intersection LOS for the City of Gardena intersections were analyzed using the Highway Capacity Manual[7] (HCM) method of analysis. The HCM methodology determines the average control delay (expressed in seconds per vehicle [s/veh]) at the intersection. Average control delay for any particular movement is a function of the capacity of the approach and the degree of saturation. The intersection delay is subsequently assigned a LOS value to describe intersection operations. Level of Service varies from LOS A (free flow conditions) to LOS F (jammed condition). The average control delay for signalized intersections represents the delay attributed to the traffic control facility as compared to a reference travel time in the absence of traffic control, geometric delay, incidents, and the influence of other vehicles. A detailed description of the HCM method and corresponding Level of Service for the signalized study intersections is provided in ***Appendix C***.

[7] *Highway Capacity Manual 6th Edition*, Transportation Research Board of the National Academies of Sciences-Engineering-Medicine, 2016.

The HCM method calculations were prepared using the *Synchro 11* software package which implements the HCM operational methodology. A *Synchro* network was created based on existing conditions field reviews at the study intersections. In addition, specifics such as traffic volume data, lane configurations, available vehicle storage lengths, crosswalk locations, posted speed limits, traffic signal timing and phasing, etc., were coded to complete the existing network. The parameters and assumptions utilized in the analysis were based on the direction provided by City staff.

4.1.2 *City of Torrance Analysis Methodology*

The City of Torrance study intersection, Western Avenue/Artesia Boulevard, was evaluated using the Intersection Capacity Utilization (ICU) method of analysis which determines Volume-to-Capacity (*v/c*) ratios on a critical lane basis. The ICU method is intended for signalized intersection analysis and determines the *v/c* ratios on a critical lane basis (i.e., based on the individual *v/c* ratios for key conflicting traffic movements). The ICU numerical value represents the percent signal (green) time, and thus capacity, required by existing and/or future traffic. It should be noted that the ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing. The overall intersection *v/c* ratio is subsequently assigned a Level of Service (LOS) value to describe intersection operations. Level of Service varies from LOS A (free flow) to LOS F (jammed condition). A description of the ICU method and corresponding Level of Service is provided in *Appendix C*.

4.2 Criteria for Intersection Operational Analysis

The relative effect of the added project traffic volumes to be generated by the proposed project during the weekday AM and PM peak hours was evaluated based on analysis of existing and future operating conditions at the study intersections, without and with the proposed project. The previously discussed capacity analysis procedures were utilized to evaluate the delay, v/c and service level characteristics at each study intersection. Each study intersection was evaluated for potential traffic impacts using the significant traffic impact criteria utilized in the jurisdiction of the intersection (e.g., study intersections in the City of Gardena were evaluated for potential traffic impacts using the criteria of the City of Gardena, etc.).

4.2.1 *City of Gardena Criteria*

The potential effects of project-generated traffic at the City of Gardena signalized study intersections were identified using criteria set forth in the City of Gardena's guidelines. As stated in the City's Guidelines, the City's analysis criteria for signalized intersections is presented below:

- To the extent feasible, maintain traffic flows at nonresidential, signalized intersections at LOS E during peak rush hours.

- To the extent feasible, maintain traffic flows at residential signalized intersections at LOS D during peak rush hours.

4.2.2 *City of Torrance Criteria*

The potential effects of project-generated traffic at the City of Torrance study intersection was identified using criteria set forth in the City of Torrance's Guidelines[8]. According to the City's Guidelines, the project has a negative effect in the City's traffic circulation based on the criteria presented in ***Table 4-1***.

Table 4-1
CITY OF TORRANCE
INTERSECTION ANALYSIS CRITERIA

Pre-Project *v/c*	Level of Service	Project Related Increase in *v/c*
≥ 0.71 - 0.80	C	equal to or greater than 0.04
≥ 0.81 - 0.90	D	equal to or greater than 0.02
≥ 0.91 or more	E/F	equal to or greater than 0.01

4.3 Analysis Scenarios

Pursuant to the City's Guidelines and in coordination with City staff, LOS calculations have been prepared for the following scenarios:

[a] Existing conditions.

[b] Condition [a] plus 1.0 percent (1.0 %) per year annual ambient traffic growth through year 2026 and with completion and occupancy of the related projects (i.e., future cumulative [opening year] without project conditions).

[c] Condition [b] with completion and occupancy of the proposed project.

[d] Condition [c] with implementation of intersection improvement measures, if necessary.

The weekday AM and PM peak hour LOS analysis prepared for the study intersections is summarized in ***Table 4-2***. The calculation data worksheets for the analyzed intersections are provided in *Appendix C*.

4.4 Year 2023 Existing Conditions

4.4.1 *Year 2023 Existing Conditions*

As indicated in column [1] of *Table 4-2*, all of the study intersections currently operate at LOS D or better during the weekday AM and PM peak hours. The existing traffic volumes at the study

[8] City of Torrance Traffic Impact Assessment Guidelines for Land Use Projects, January 2021, and *Traffic Circulation Analysis (TCA) Guidelines.*

Table 4-2
SUMMARY OF INTERSECTION OPERATIONAL ANALYSIS [a]
VOLUME TO CAPACITY RATIOS, DELAYS AND LEVELS OF SERVICE
WEEKDAY AM AND PM PEAK HOURS

				[1]		[2]		[3]		
NO.	INTERSECTION	TRAFFIC CONTROL	PEAK HOUR	YEAR 2023 EXISTING V/C or Delay	LOS [b]	YEAR 2026 FUTURE WITHOUT PROJECT V/C or Delay	LOS [b]	YEAR 2026 FUTURE WITH PROJECT V/C or Delay	LOS [b]	CHANGE in V/C or Delay [(3)-(2)]
1	Western Avenue/ Artesia Boulevard [c]	Signalized	AM	0.816	D	0.847	D	0.849	D	0.002
			PM	0.800	C	0.830	D	0.832	D	0.002
2	Dalton Avenue/ Artesia Boulevard [d]	Signalized	AM	21.9	C	21.9	C	21.6	C	-0.3
			PM	17.0	B	17.6	B	17.8	B	0.2
3	Normandie Avenue/ Artesia Boulevard [d]	Signalized	AM	52.6	D	55.6	E	55.9	E	0.3
			PM	53.4	D	57.6	E	58.1	E	0.5

[a] Intersection analysis based on the Highway Capacity Manual (HCM) and Intersection Capacity Utilization (ICU) analysis methodologies.

[b] Level of Service (LOS) is based on the reported ICU value for the City of Torrance intersection and the delay for City of Gardena intersections.

[c] City of Torrance intersection. According to the City of Torrance Guidelines, the project has a negative effect in the City's traffic circulation based on the criteria below:

Level of Service	Pre-Project ICU	Project-Related Increase in V/C
C	>= 0.71 - 0.80	equal to or greater than 0.040
D	>= 0.81 - 0.90	equal to or greater than 0.020
E/F	>= 0.91	equal to or greater than 0.010

[d] City of Gardena intersection. As stated in the City of Gardena's Guidelines, the City's analysis criteria for signalized intersections are shown below:
- To the extent feasible, maintain traffic flows at nonresidential, signalized intersections at LOS E during peak rush hours.
- To the extent feasible, maintain traffic flows at residential signalized intersections at LOS D during peak rush hours.

intersections during the weekday AM and PM peak hours are displayed in *Figures 3-5* and *3-6*, respectively.

4.5 Future Year 2026 Cumulative Conditions

4.5.1 *Future Year 2026 Cumulative Without Project Conditions*

The future year 2026 (opening year) cumulative baseline conditions were forecast based on the addition of traffic generated by the completion and occupancy of the related projects, as well as the growth in traffic due to the combined effects of continuing development, intensification of existing developments and other factors (i.e., ambient growth). The delays and v/c ratios at the study intersections are incrementally increased with the addition of ambient traffic and traffic generated by the related projects listed in *Table 3-3*.

As presented in column [2] of *Table 4-2*, two of the three study intersections are expected to operate at LOS D or better during the weekday AM and PM peak hours with the addition of growth in ambient traffic and related projects traffic under the future year 2026 without project conditions. The following study intersection is expected to operate at LOS E during the peak hour shown below:

- Int. No. 3: Normandie Avenue/Artesia Boulevard: Weekday AM Peak Hour
  Weekday PM Peak Hour

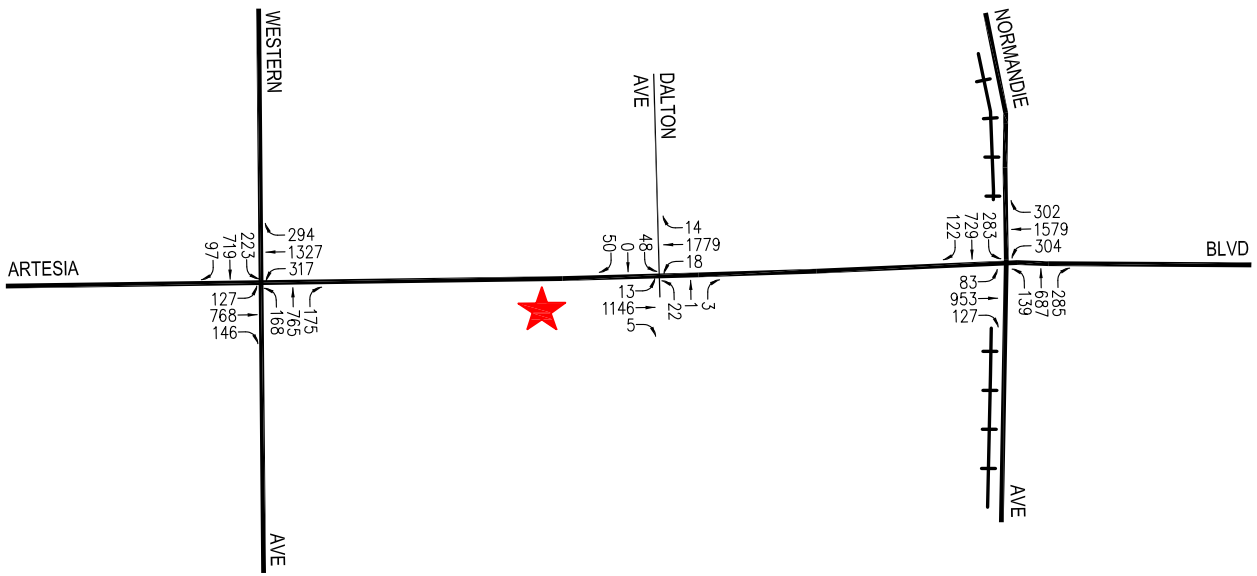
The future year 2026 without project (existing plus ambient growth and related projects) traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in ***Figures 4-1***and ***4-2***, respectively.

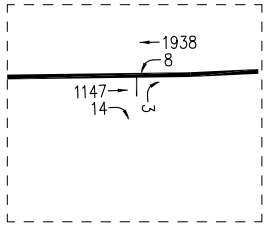
4.5.2 *Future Year 2026 Cumulative With Project Conditions*

As shown in column [3] of *Table 4-2*, application of the City's threshold criteria to the "Future Year 2026 With Project" scenario indicates that the project-related effects at the signalized study intersections are not expected to exceed the respective City's threshold criteria. Incremental delays and v/c increases, but not exceeding the respective City's criteria, are noted at the study intersections. The future year 2026 with project traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in ***Figures 4-3*** and ***4-4***, respectively.

4.6 Access and Circulation Review

The access and circulation have been evaluated for the project. The analysis of site driveway was prepared based on the HCM operational analysis methodology. The driveway analyses were prepared utilizing the *Synchro 11* software package, which implements the HCM operational methods. A *Synchro* network was created based on existing conditions field reviews at the site driveway. In addition, specifics such as traffic volume data, lane configurations, available vehicle storage lengths, crosswalk locations, posted speed limits, etc., were coded to complete the roadway network. Traffic volume data for existing conditions were obtained from manual counts conducted at the site driveways during the weekday morning and afternoon commute periods and are contained in *Appendix B*.





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Project Site

Figure 4-1
Future Year 2026 Without Project Traffic Volumes
Weekday AM Peak Hour
TPG 1610 Artesia Project

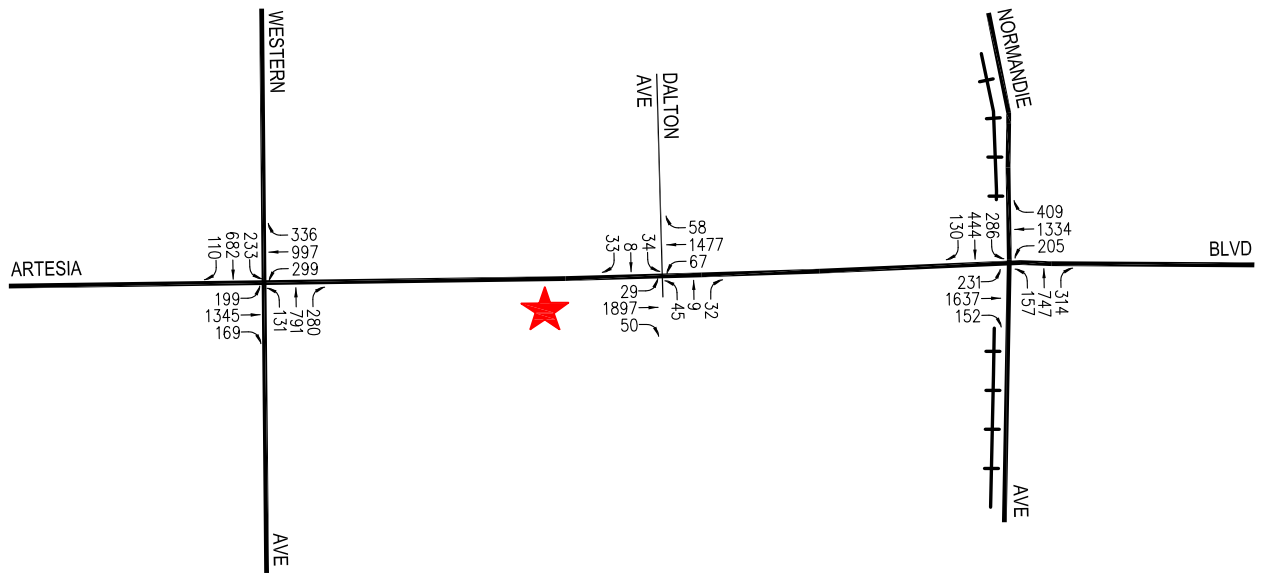

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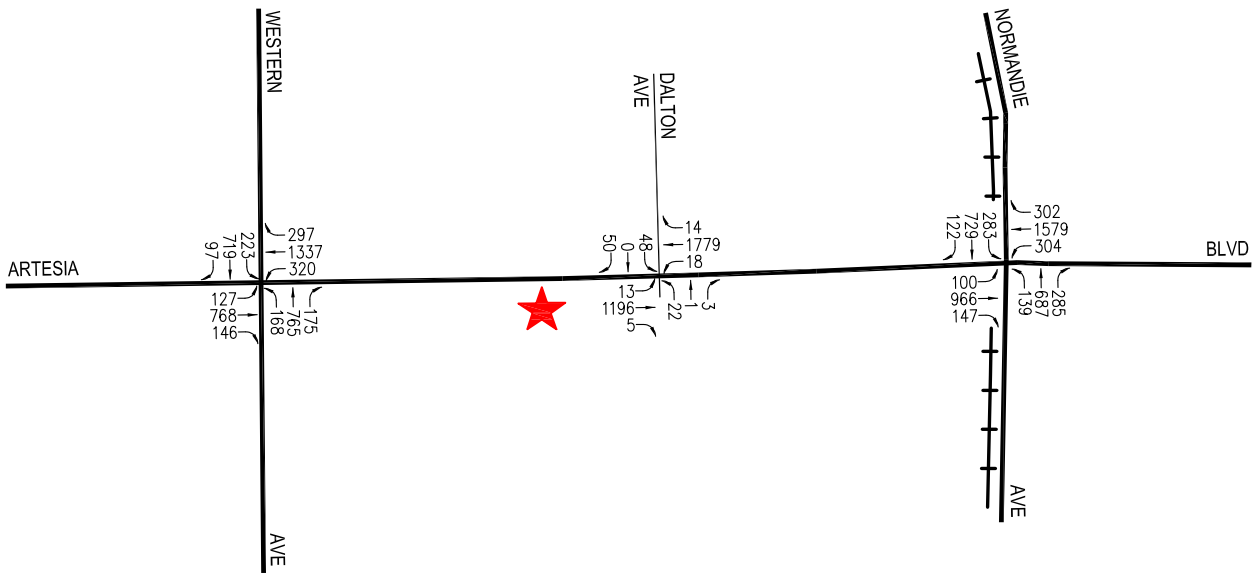
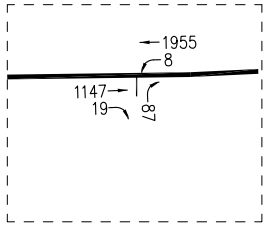
Figure 4-2

Future Year 2026 Without Project Traffic Volumes

Weekday PM Peak Hour

TPG 1610 Artesia Project





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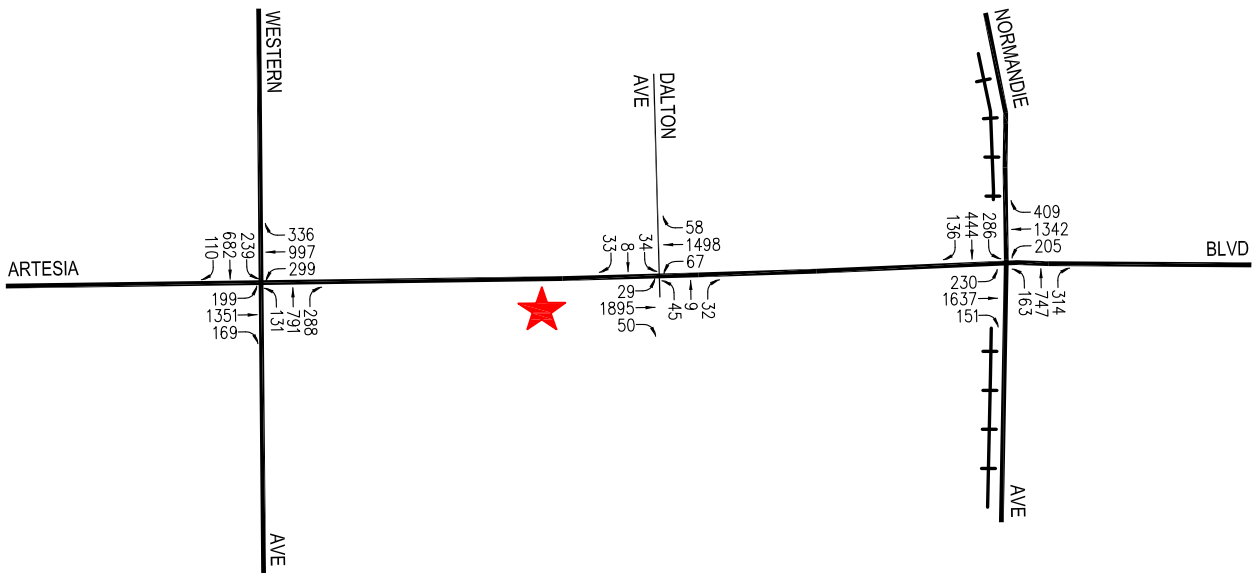
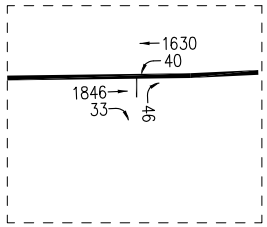
★ Project Site

Figure 4-3
Future Year 2026 With Project Traffic Volumes
Weekday AM Peak Hour
TPG 1610 Artesia Project





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★ Project Site

Figure 4-4
Future Year 2026 With Project Traffic Volumes
Weekday PM Peak Hour
TPG 1610 Artesia Project

The operational analysis of the site driveway was prepared for the following conditions:

[a] Existing conditions.

[b] Condition [a] plus 1.0 percent (1.0%) annual ambient traffic growth through year 2026 (i.e., project build-out) and with completion and occupancy of the related projects (i.e., future without project conditions).

[c] Condition [b] with completion and occupancy of the proposed project (i.e., future with project conditions).

The HCM methodology for unsignalized/two-way stop-controlled (TWSC) intersections was utilized for the analysis of the site driveway. The TWSC methodology estimates the average control delay for each minor-street movement (or shared movement) as well as major-street left-turns and determines the LOS for each constrained movement. The weekday AM and PM peak hour LOS analysis prepared for the site driveway is summarized in ***Table 4-3***. As shown in column [3] of *Table 4-3*, the westbound left-turn movement of the site driveway intersection is forecast to operate at LOS F during the PM peak hour under the future with project conditions.

The HCM methodology for unsignalized intersections was utilized to calculate vehicle queuing at the site driveway. The operational analysis reports the 95th percentile queues (in feet) for the minor street approaches for unsignalized intersections. The 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes. The HCM 6th Edition methodology worksheets report queues in number of vehicles. As such, an average vehicle length of 25 feet, which includes the length of the vehicle and spacing between vehicles, was assumed for analysis purposes. The reported queues therefore represent the calculated maximum back of queue in feet. The summary of the vehicle queuing analysis of the site driveway is provided in ***Table 4-4*****.** As presented in *Table 4-4*, it is concluded the proposed project weekday AM and PM peak hour traffic volumes will not cause or substantially extend vehicle queuing at the site driveway The HCM methodology worksheets for the site driveway are contained in *Appendix C.*

It is noted that the westbound left-turn pocket is approximately 75 feet long. The vehicle queue length associated with the westbound left-turn lane at the site driveway intersection under the Future With Project condition during the PM peak hour is forecast to be 38 feet and is not anticipated to extend beyond the existing pocket. In addition, the existing traffic signal located along Artesia Boulevard approximately 300 feet to the west provide gaps in the eastbound traffic flow for vehicles to turn left into the site driveway. As such, while the westbound left-turn movement at the site driveway is forecast to result in an increase in delay during the PM peak hour under the future with project conditions, vehicle queuing that extends back into the Artesia Boulevard travel lanes is not anticipated with the addition of the project. Accordingly, the westbound left-turn pocket was determined to be of adequate length to accommodate the proposed Project and further consideration of transportation improvement measures is not warranted or recommended.

Table 4-3
SUMMARY OF DRIVEWAY OPERATIONAL ANALYSIS [a]
DELAYS AND LEVELS OF SERVICE
WEEKDAY AM AND PM PEAK HOURS

				[1]		[2]		[3]		
NO.	DRIVEWAY	TRAFFIC CONTROL	PEAK HOUR	YEAR 2023 EXISTING Delay (sec)	LOS [b]	YEAR 2026 FUTURE WITHOUT PROJECT Delay (sec)	LOS [b]	YEAR 2026 FUTURE WITH PROJECT Delay (sec)	LOS [b]	CHANGE in V/C or Delay [(3)-(2)]
1	Project Driveway	Unsignalized	AM	16.6	C	17.7	C	17.8	C	0.1
	Artesia Boulevard [c]		PM	35.9	E	39.7	E	51.7	F	12.0

[a] Intersection analysis based on the Highway Capacity Manual (HCM) analysis methodology for unsignalized intersections.

[b] Level of Service (LOS) is based on the delay for unsignalized intersections.

[c] For two-way stop controlled intersections, the reported control delay values represent the delays associated with the most constrained movement of the intersection.

Table 4-4
SUMMARY OF VEHICLE QUEUING [1]
WEEKDAY AM AND PM PEAK HOURS

NO.	DRIVEWAY	TRAFFIC CONTROL	MOVEMENT	PEAK HOUR	95th PERCENTILE QUEUES (FEET PER LANE) [2]			
					EXISTING	YEAR 2026 FUTURE W/O PROJECT	YEAR 2026 FUTURE W/ PROJECT	CHANGE IN QUEUE [3]
1	Project Driveway/ Artesia Boulevard	Unsignalized	NB Right	AM	0	0	28	28
				PM	5	5	23	18
			WB Left	AM	3	3	3	0
				PM	13	13	38	25

[1] The Highway Capacity Manual (HCM) methodology for intersections was utilized to calculate vehicle queuing.
[2] The 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes. The HCM 6th Edition methodology worksheets report queues in number of vehicles per lane, however an average vehicle length of 25 feet was assumed for analysis purposes. The reported queues therefore represent the calculated maximum back of queue in feet per lane.
[3] Represents the change in calculated maximum back of queue (in feet per lane) due to the addition of project-related traffic.

5.0 SUMMARY AND CONCLUSIONS

- ***Project Description*** - The proposed project site is located at 1610 Artesia Boulevard in the City of Gardena. The proposed project consists of the development of a 6-story, podium apartment building comprised of 300 residential units including 283 market rate units and 17 affordable (very low income) units. The project build-out and occupancy year is anticipated by the year 2026.

- ***Project Site Access***– Vehicular access is planned to be provided via a single driveway on Artesia Boulevard. The project driveway is planned to accommodate left-turn and right-turn ingress and right-turn egress traffic movements.

- ***Project Parking –*** A total of 528 parking spaces is planned to be provided for the project, consisting of 487 residential spaces and 41 guest parking spaces.

- ***Project Trip Generation*** – The proposed project is expected to generate 67 net new vehicle trips (67 outbound trips) during the weekday AM peak hour. During the weekday PM peak hour, the proposed project is expected to generate 40 net new vehicle trips (42 inbound trips and 2 fewer outbound trips). Over a 24-hour period, the proposed project is forecast to generate 545 net new daily trip ends during a typical weekday (273 inbound trips and 273 outbound trips).

- ***Intersection Operational Analysis*** – Two intersections were reviewed for consistency with the City of Gardena's adopted Level of Service (LOS) standards. The remaining study intersection, Western Avenue/Artesia Boulevard, was evaluated per the City of Torrance guidelines and methodology. The study intersections were evaluated using the Highway Capacity Manual (HCM) and Intersection Capacity Utilization (ICU) methodologies to determine the LOS under existing and future year 2026 cumulative without and with project conditions. Based on application of the respective City's threshold criteria, the project-related effects at the study intersections are not expected to exceed the threshold criteria, and thus are consistent with the LOS goals and polices of the City's General Plan.

- ***Project Access and Circulation Review*** – A review of the project site driveway was conducted. It is concluded that the proposed project weekday AM and PM peak hour traffic volumes will not cause or substantially extend vehicle queuing at the site driveway.

APPENDIX A

SCOPING DOCUMENT

MEMORANDUM

To:	Amanda Acuna City of Gardena Planning Department	Date:	July 21, 2023
From:	Francesca S. Bravo Linscott, Law & Greenspan, Engineers	LLG Ref:	1-23-4536-1
Subject:	TPG 1610 Artesia Project – Transportation Assessment Scope of Work		

LINSCOTT LAW & GREENSPAN engineers

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Linscott, Law & Greenspan, Engineers (LLG) is pleased to submit the following Transportation Assessment Scope of Work for the TPG 1610 Artesia Project for your review and approval.

Transportation Assessment Scope of Work

A. Project Location: The 3.43-acre project site is located at 1610 West Artesia Boulevard situated along the south side of Artesia Boulevard, east of Western Avenue (APN 6106-013-049). The project site is currently occupied by two, one-story commercial buildings totaling approximately 39,510 square feet and a surface parking lot. Of the existing total square footage, approximately 31,010 is currently active and operational with auto repair stores while the remaining 8,500 square feet is vacant, which was formerly occupied by a car wash/detail center. All structures will be removed to accommodate the proposed project. See attached ***Figure 1-1, Vicinity Map***.

B. Project Description: The proposed project consists of the development of a 6-story, podium apartment building comprised of 300 residential units including 283 market rate units and 17 affordable (very low income) units. Vehicular access is planned to be provided via a single driveway on Artesia Boulevard. A total of 543 parking spaces is planned to be provided on-site. The project build-out and occupancy year is anticipated by the year 2026. See attached ***Figure 2-2 – Site Plan***.

C. Project Traffic Generation: In order to determine the existing site traffic generation, weekday manual peak hour turning movement traffic counts were conducted at the existing site. Through the conduct of these counts, the number of existing vehicle trips entering and exiting the site on a daily basis as well as during the peak hours can be determined. The traffic count data for the three site driveways was compiled, reviewed and analyzed to determine the highest daily and one hour period of traffic volume at the site during both the weekday morning and afternoon periods. The peak hour traffic generation associated with the existing uses are presented below:

- Daily: 822 vehicle trips (292 inbound trips and 530 outbound trips)
- AM peak hour: 51 vehicle trips (30 inbound trips and 21 outbound trips)
- PM peak hour: 80 vehicle trips (29 inbound trips and 51 outbound trips)

Traffic volumes to be generated by the proposed project were forecast for the weekday AM and PM peak hours, and over a 24-hour period. Trip generation rates provided in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*[1] were utilized to forecast project traffic generation for the proposed project. ITE Land Use Code 221 (Multi-Family Housing Mid-Rise]) and ITE Land Use Code 223 (Affordable Housing) trip generation rates were used to forecast the traffic volumes expected to be generated by the proposed residential units.

The trip generation forecast for the proposed project is summarized in ***Table 2-1***. As presented in *Table 2-1*, the proposed project is expected to generate 60 net new vehicle trips (4 fewer inbound trips and 64 outbound trips) during the weekday AM peak hour. During the weekday PM peak hour, the proposed project is expected to generate 38 net new vehicle trips (43 inbound trips and 5 fewer outbound trips). Over a 24-hour period, the proposed project is forecast to generate 545 net daily trip ends during a typical weekday (273 inbound trips and 273 outbound trips).

D. Project Trip Distribution Pattern: Project traffic volumes both entering and exiting the site will be distributed and assigned to the adjacent street system based on the site's proximity to major traffic corridors, existing intersection traffic volumes, and ingress/egress scheme planned for the proposed project. See attached ***Figure 7-1 – Project Trip Distribution***.

E. VMT Assessment: The State of California Governor's Office of Planning and Research (OPR) issued proposed updates to the CEQA guidelines in November 2017 and an accompanying technical advisory guidance finalized in December 2018 (*OPR Technical Advisory*) that amends the Appendix G question for transportation impacts to delete reference to vehicle delay and level of service and instead refer to Section 15064.3, subdivision (b)(1) of the CEQA Guidelines asking if the project will result in a substantial increase in vehicle miles traveled (VMT). The California Natural Resources Agency certified and adopted the CEQA Guidelines in December of 2018, and as of July 1, 2020 the provisions of the new section are in effect statewide. Concurrently, OPR developed the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018), which provides non-binding recommendations on the implementation of VMT methodology which has significantly informed the way VMT analyses are conducted in the State. Accordingly, for the purpose of environmental review under CEQA, the City of Gardena has established criteria for transportation impacts based on VMT for land use projects and plans which is generally consistent with the recommendations provided by OPR in the *Technical Advisory*.

Consistent with the recommendations provided by the Governor's Office of Planning and Research (OPR) in the "Technical Advisory on Evaluating

[1] Institute of Transportation Engineers *Trip Generation Manual*, 11th Edition, Washington, D.C., 2021.

Transportation Impacts in CEQA" (December 2018), the City's Guidelines recognize three screening criteria which may be applied to screen proposed projects out of detailed VMT analysis. The guidelines provide the following three (3) types of potential screening criteria that may be applied to screen projects from project-level assessment:

- Project Size Screening
- Low VMT Area Screening
- Transit Priority Area (TPA) Screening

Proposed projects are not required to satisfy all of the screening criteria in order to screen out of further VMT analysis; satisfaction of one criterion is sufficient for screening purposes. Projects, or project components, which are screened out of detailed VMT assessment based on these criteria are presumed to have less than significant transportation impacts.

Based on a review of the project's development program, size, and other pertinent factors, it was determined that the City's screening criteria may be applied to the proposed project. Specifically, the "Low VMT Area Screening" screening criterion is applicable to the proposed project.

Low VMT Area Screening Criteria

As outlined in the City's guidelines, residential and office development projects located within a low VMT-generating area may be presumed to have a less than significant impact absent any substantial evidence to the contrary. Other employment-related and mixed-use land use projects may also qualify for the screening if the project can reasonably be expected to generate VMT per resident, per worker or per service population that is similar to the existing land uses in the low VMT-generating area.

Low VMT areas for residential projects are defined as traffic analysis zones (TAZs) that generate VMT on a per capita basis that is at least 15% lower than the regional average. The SCAG travel demand model was used to establish VMT performance Citywide and for individual TAZs. The VMT metrics for the City of Gardena are then compared to the SCAG regional average. As noted in the City's Guidelines, the average Home-Based VMT per capita in the City is more than 20% below the regional average.

The City's low VMT area map for residential projects is contained in the ***Appendix***. As shown on the map, the Project is located in an area that is more than 15% below the baseline regional average. Thus, the Project satisfies the low VMT area screening criteria and therefore screens out of VMT analysis. A separate VMT screening memorandum will be prepared for the project for review and approval.

F. Local Transportation Assessment: The purpose of the Local Transportation Assessment is to provide an additional transportation-focused project review for the City of Gardena. The level of analysis and methodology required is dependent upon the project size and scope. As outlined in the City's Guidelines, all development projects requiring discretionary review/approval by the City require a memorandum summarizing project trip generation and assignment. The guidelines provide the following three (3) categories for determination of the level of analysis that may be required for the project:

- Projects Generating Less Than 20 Peak Hour Trips: Project Trip Generation and Assignment
- Projects Generating 20-49 Peak Hour Trips: Cumulative Projects Review
- Projects Generating 50+ Peak Hour Trips: Study Area

As shown in *Table 2-1*, the proposed project is expected to generate 60 net new vehicle trips (4 fewer inbound trips and 64 outbound trips) during the weekday AM peak hour. During the weekday PM peak hour, the proposed project is expected to generate 38 net new vehicle trips (43 inbound trips and 5 fewer outbound trips). The proposed project is expected to generate between 50+ peak hour trips and according to the City's Guidelines, a Local Transportation Assessment would be required for the project.

Intersection Analysis

The following three (3) locations have been identified for operational evaluation. See attached *Figure 1-1 –Vicinity Map.*

1. Western Avenue/Artesia Boulevard (City of Torrance)
2. Dalton Avenue/Artesia Boulevard (City of Gardena)
3. Normandie Avenue/Artesia Boulevard (City of Gardena)
4. Project Driveway/Artesia Boulevard (City of Gardena)

Level of Service calculations will be prepared for the study locations for the weekday AM and PM peak hour conditions for the following scenarios:

- Existing Conditions
- Future Cumulative Opening Year Without Project Conditions
- Future Cumulative Opening Year With Project Conditions

Utilize City approved capacity analysis methodologies (i.e., Highway Capacity Manual method, Intersection Capacity Utilization method, etc.) for the Level of Service calculations. Each study intersection will be evaluated for potential

effects using the intersection criteria utilized in the jurisdiction of the intersection (e.g., study intersections in the City of Gardena will be evaluated using the criteria of the City of Gardena, etc.).

City of Gardena's Intersection Analysis Criteria:

- To the extent feasible, maintain traffic flows at nonresidential, signalized intersections at LOS E during peak rush hours.
- To the extent feasible, maintain traffic flows at residential signalized intersections at LOS D during peak rush hours.

CITY OF TORRANCE INTERSECTION ANALYSIS CRITERIA		
Pre-Project *v/c*	**Level of Service**	**Project Related Increase in *v/c***
≥ 0.71 - 0.80	C	equal to or greater than 0.04
≥ 0.81 - 0.90	D	equal to or greater than 0.02
≥ 0.91 or more	E/F	equal to or greater than 0.01

Left-Turn Queuing Analysis

In addition, westbound left-turn queuing during the peak hours will be reviewed at the Project Driveway/Artesia Boulevard intersection.

Pending your review of the above information, we will proceed with the transportation assessment. Please feel free to contact us at 626.796.2322 if you have any questions, comments, or suggested revisions regarding the above. Thank you.

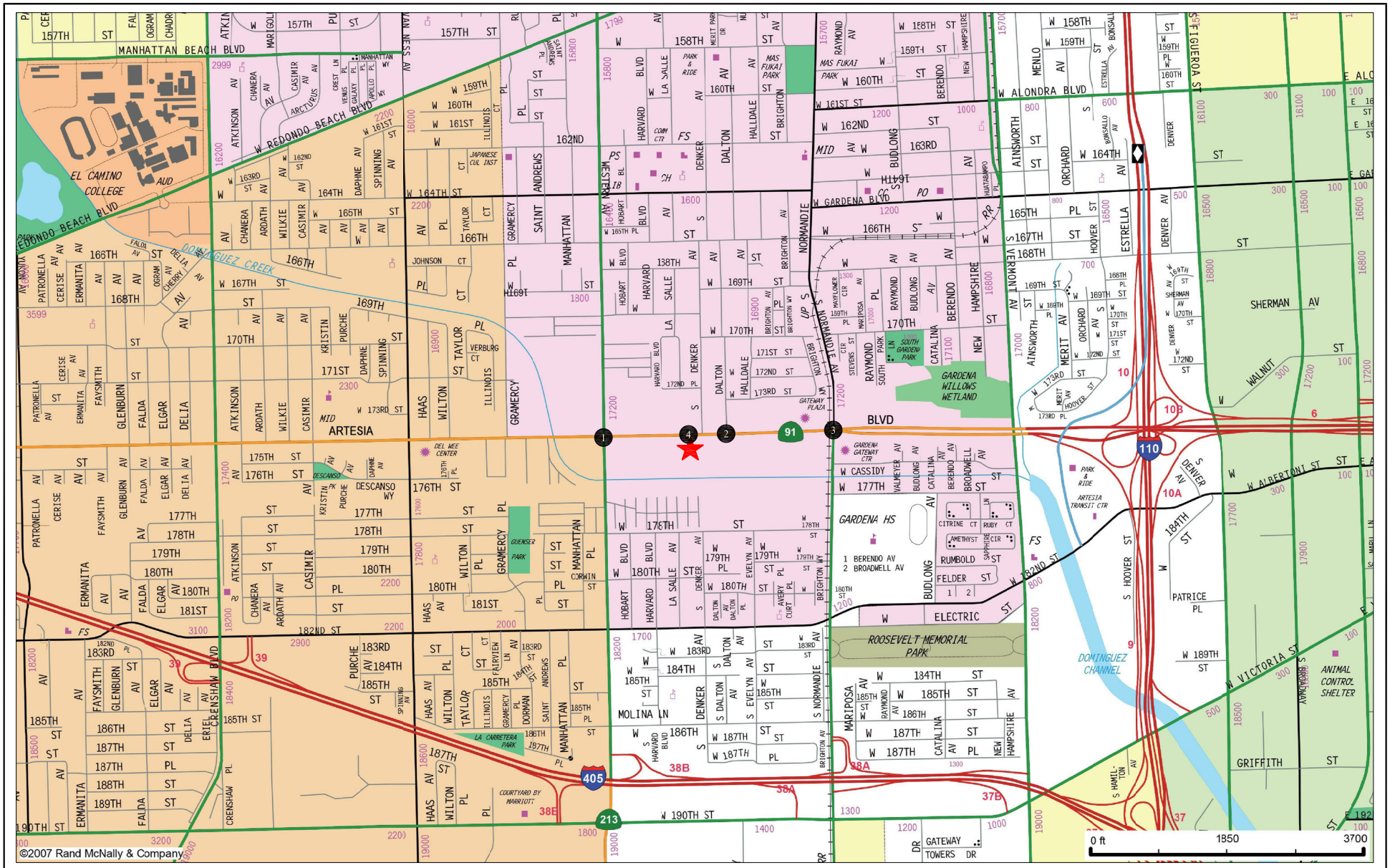
Approved by:

_____ _____

City of Gardena Date

Attachments

c: File



MAP SOURCE: RAND MCNALLY & COMPANY

Project Site

Study Locations

Figure 1-1
Vicinity Map

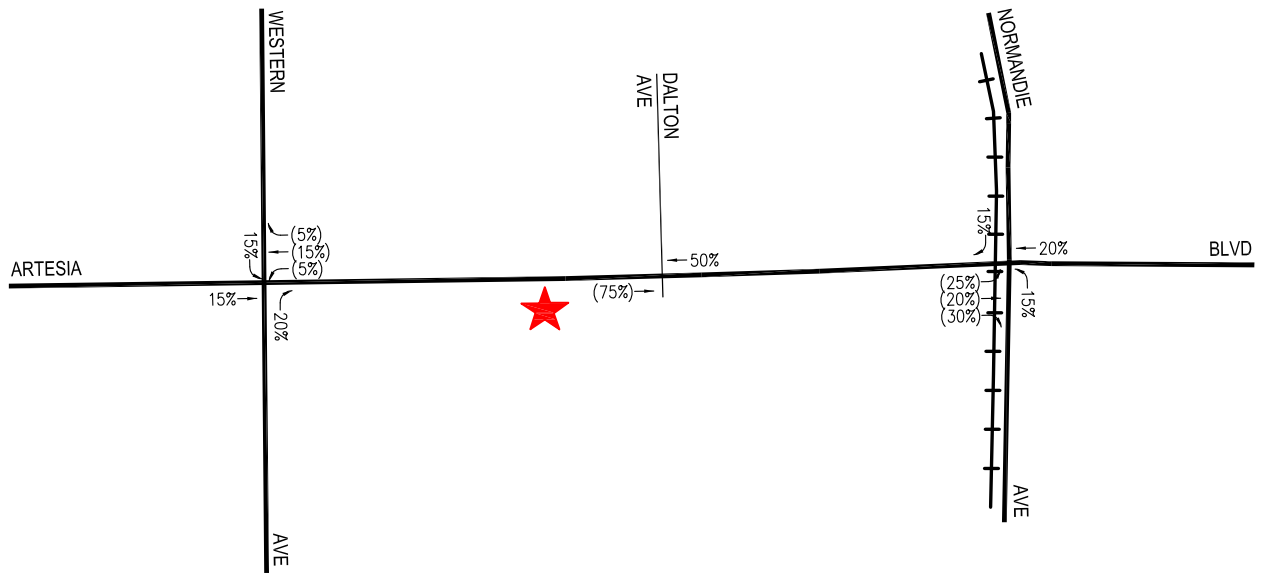
TPG 1610 Artesia Project

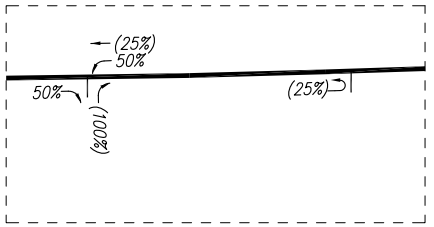
N

o:\job_file\4536\dwg\f2-2.dwg 03/23/2023 15:58:45 rodriquez

MAP SOURCE: TCA ARCHITECT

Figure 2-2
Conceptual Site Plan





N

Project Site

XX = Inbound Percentage

(XX) = Outbound Percentage

Figure 7-1
Project Trip Distribution

TPG 1610 Artesia Project

Table 2-1
PROJECT TRIP GENERATION FORECAST

TRIP GENERATION RATES [1]									
	ITE LAND USE		WEEKDAY	WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
ITE LAND USE CATEGORY	CODE	VARIABLE	DAILY	IN (%)	OUT (%)	TOTAL	IN (%)	OUT (%)	TOTAL
Multifamily Housing (Mid Rise) Not Close to Rail Transit	221	Per Dwelling Unit	4.54	23%	77%	0.37	61%	39%	0.39
Affordable Housing - Income Limits	223	Per Dwelling Unit	4.81	29%	71%	0.36	59%	41%	0.46

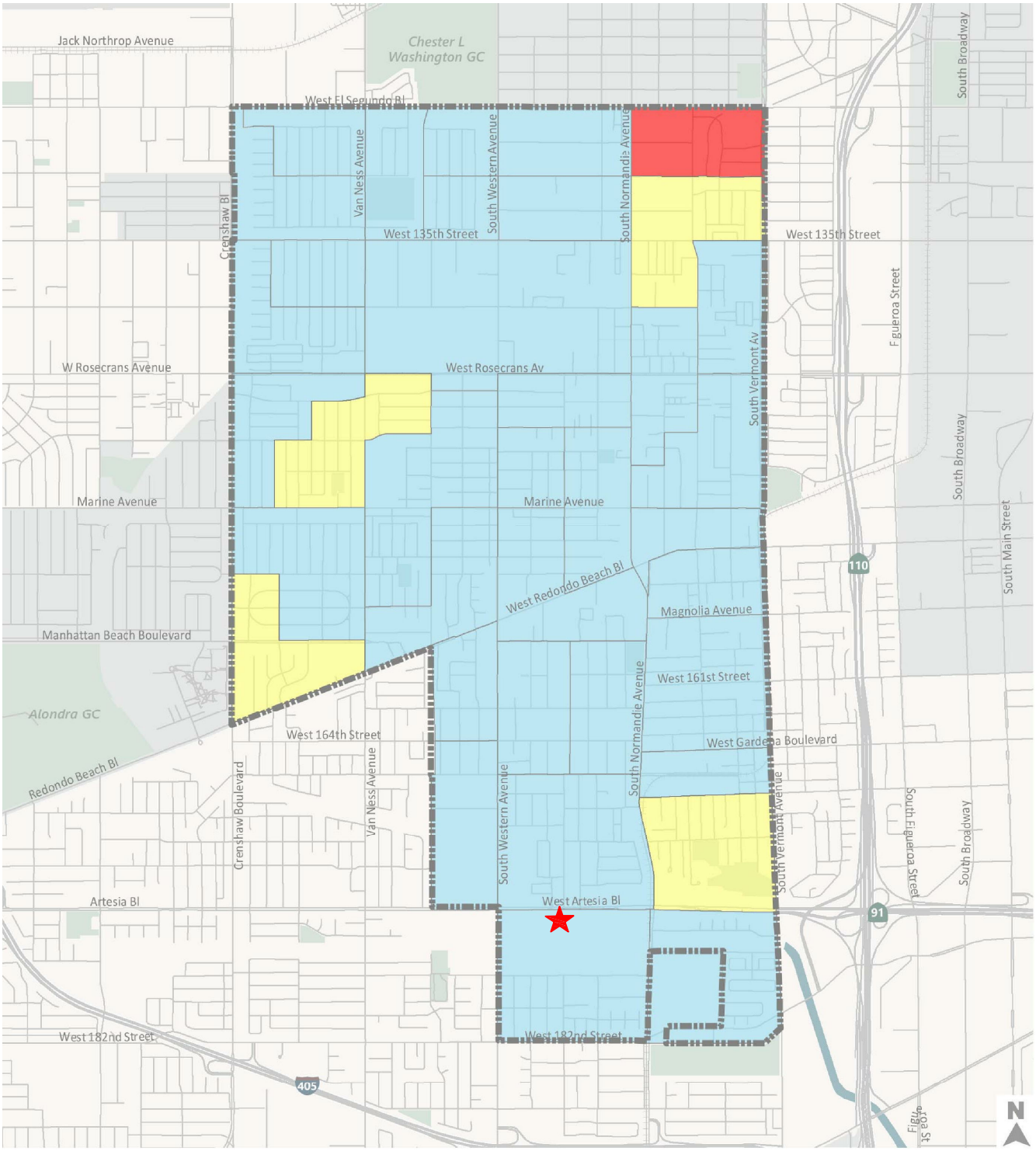
PROJECT TRIP GENERATION FORECAST									
	ITE LAND USE		DAILY TRIP ENDS [2]	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
LAND USE	CODE	SIZE	VOLUMES	IN	OUT	TOTAL	IN	OUT	TOTAL
Proposed Project									
Apartment	221	283 DU	1,285	24	81	105	67	43	110
Affordable Housing	223	17 DU	82	2	4	6	5	3	8
Subtotal Proposed Project			***1,367***	***26***	***85***	***111***	***72***	***46***	***118***
Existing Uses									
Automobile Care Center [3]	942	(31,510) GSF	(822)	(30)	(21)	(51)	(29)	(51)	(80)
Subtotal Existing Uses			***(822)***	***(30)***	***(21)***	***(51)***	***(29)***	***(51)***	***(80)***
NET NEW PROJECT TRIPS			***545***	***(4)***	***64***	***60***	***43***	***(5)***	***38***

[1] Source: ITE "Trip Generation Manual", 11th Edition, 2021.
[2] Trips are one-way traffic movements, entering or leaving.
[3] Based on traffic counts conducted at the existing site driveways on May 2023.

APPENDIX

CITY OF GARDENA LOW VMT AREA MAP

TRAFFIC COUNT DATA



LINSCOTT LAW & GREENSPAN engineers

Project Site

Appendix Figure
SCAG Model (2012)
Daily Residential Home Based VMT per Capita Residential Projects

TPG 1610 Artesia Project

CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

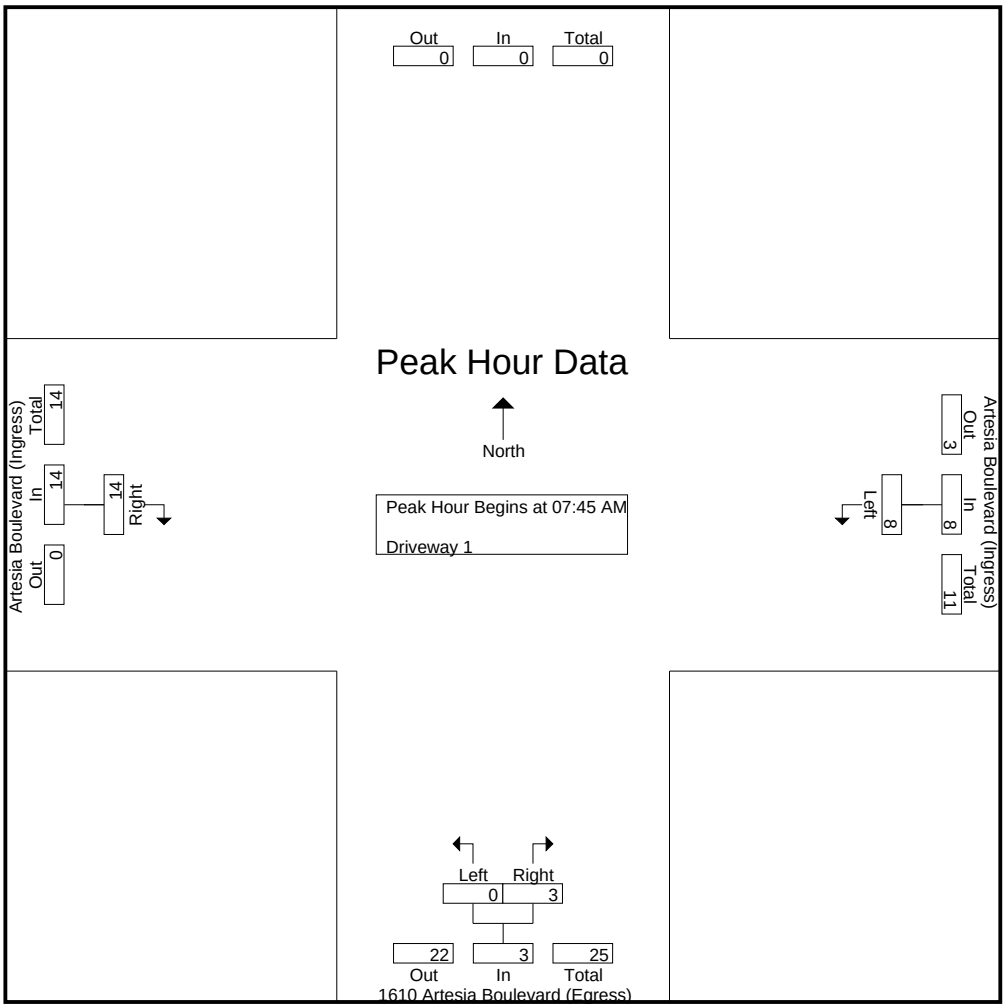
File Name : 1610ArtesiaBlvd_Driveway1
Site Code : 00000000
Start Date : 5/25/2023

Groups Printed- Driveway 1

	Artesia Boulevard (Ingress) Westbound	1610 Artesia Boulevard (Egress) Northbound		Artesia Boulevard (Ingress) Eastbound	
Start Time	Left	Left	Right	Right	Int. Total
07:00 AM	5	0	1	0	6
07:15 AM	3	0	1	0	4
07:30 AM	0	0	0	1	1
07:45 AM	2	0	1	5	8
Total	10	0	3	6	19
08:00 AM	2	0	0	2	4
08:15 AM	2	0	0	4	6
08:30 AM	2	0	2	3	7
08:45 AM	3	0	0	3	6
Total	9	0	2	12	23
04:00 PM	4	0	1	1	6
04:15 PM	4	0	1	1	6
04:30 PM	3	0	5	1	9
04:45 PM	3	0	2	2	7
Total	14	0	9	5	28
05:00 PM	9	0	2	1	12
05:15 PM	2	0	2	3	7
05:30 PM	2	0	1	0	3
05:45 PM	0	0	0	2	2
Total	13	0	5	6	24
Grand Total	46	0	19	29	94
Apprch %	100	0	100	100	
Total %	48.9	0	20.2	30.9	

File Name : 1610ArtesiaBlvd_Driveway1
Site Code : 00000000
Start Date : 5/25/2023
Page No : 2

	Southbound	Artesia Boulevard (Ingress) Westbound		1610 Artesia Boulevard (Egress) Northbound			Artesia Boulevard (Ingress) Eastbound		
Start Time	App. Total	Left	App. Total	Left	Right	App. Total	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1									
Peak Hour for Entire Intersection Begins at 07:45 AM									
07:45 AM	0	**2**	**2**	0	1	1	**5**	**5**	**8**
08:00 AM	0	2	2	0	0	0	2	2	4
08:15 AM	0	2	2	0	0	0	4	4	6
08:30 AM	0	2	2	0	**2**	**2**	3	3	7
Total Volume	0	8	8	0	3	3	14	14	25
% App. Total		100		0	100		100		
PHF	.000	1.00	1.00	.000	.375	.375	.700	.700	.781

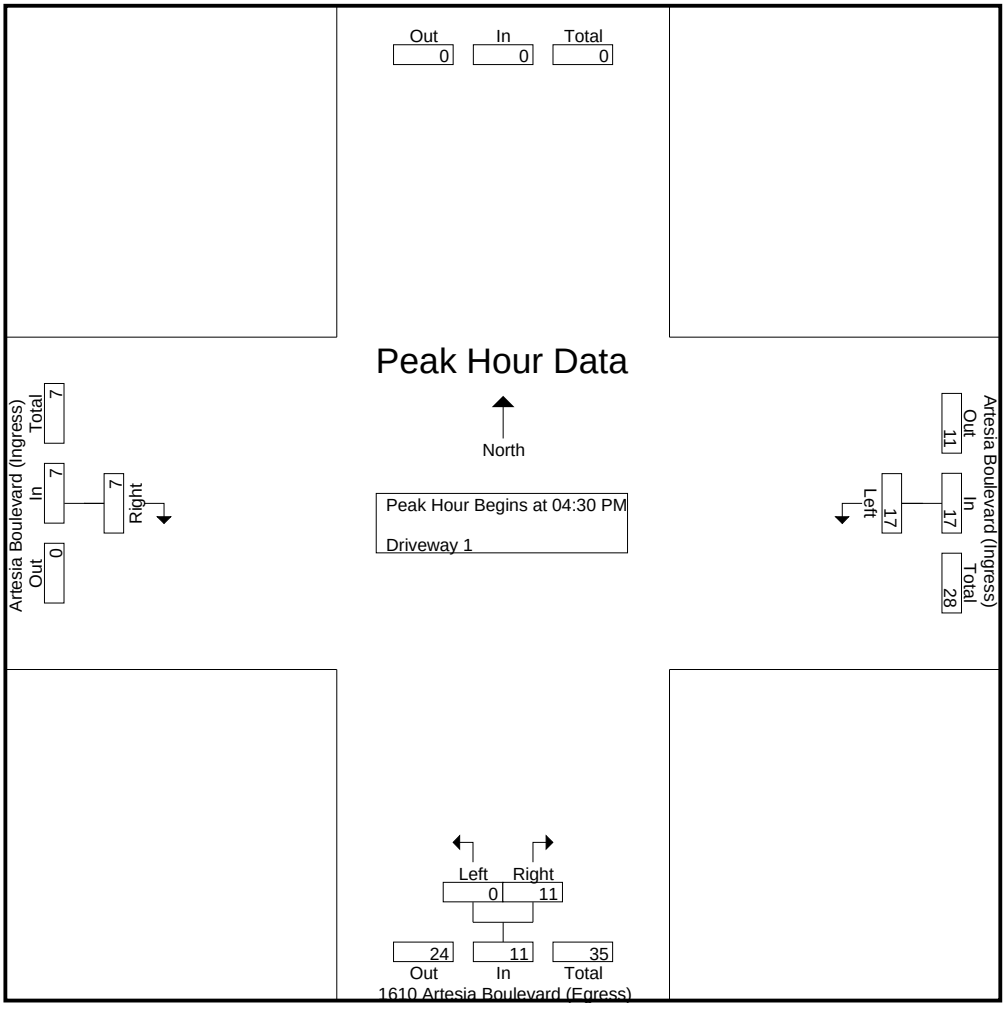


CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : 1610ArtesiaBlvd_Driveway1
Site Code : 00000000
Start Date : 5/25/2023
Page No : 3

	Southbound	Artesia Boulevard (Ingress) Westbound		1610 Artesia Boulevard (Egress) Northbound			Artesia Boulevard (Ingress) Eastbound		
Start Time	App. Total	Left	App. Total	Left	Right	App. Total	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1									
Peak Hour for Entire Intersection Begins at 04:30 PM									
04:30 PM	0	3	3	0	**5**	**5**	1	1	9
04:45 PM	0	3	3	0	2	2	2	2	7
05:00 PM	0	**9**	**9**	0	2	2	1	1	**12**
05:15 PM	0	2	2	0	2	2	**3**	**3**	7
Total Volume	0	17	17	0	11	11	7	7	35
% App. Total		100		0	100		100		
PHF	.000	.472	.472	.000	.550	.550	.583	.583	.729



CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : 1610ArtesiaBlvd_Driveway2
Site Code : 00000000
Start Date : 5/25/2023
Page No : 1

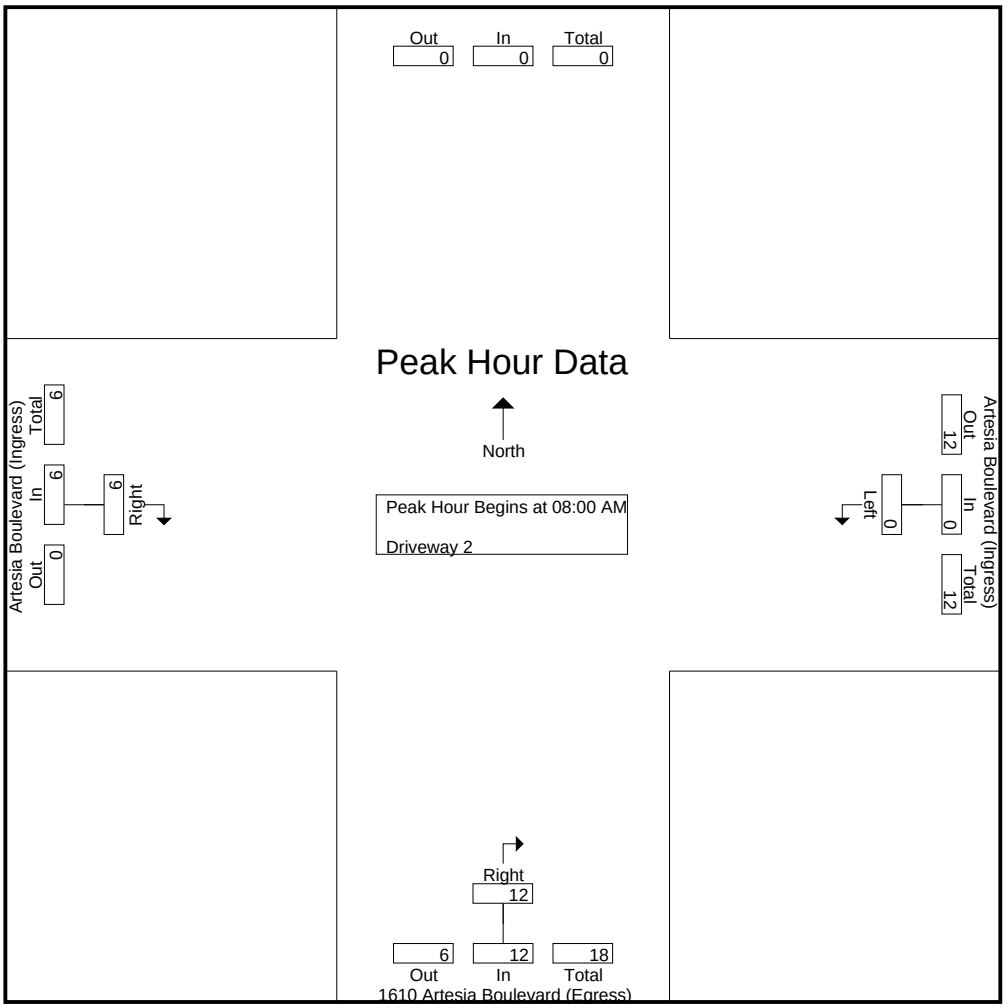
Groups Printed- Driveway 2

	Artesia Boulevard (Ingress) Westbound	1610 Artesia Boulevard (Egress) Northbound	Artesia Boulevard (Ingress) Eastbound	
Start Time	Left	Right	Right	Int. Total
07:30 AM	0	0	1	1
07:45 AM	0	2	0	2
Total	0	2	1	3
08:00 AM	0	0	2	2
08:15 AM	0	3	1	4
08:30 AM	0	3	2	5
08:45 AM	0	6	1	7
Total	0	12	6	18
04:00 PM	0	8	3	11
04:15 PM	0	5	3	8
04:30 PM	0	5	2	7
04:45 PM	0	2	2	4
Total	0	20	10	30
05:00 PM	0	11	0	11
05:15 PM	0	8	1	9
05:30 PM	0	5	0	5
05:45 PM	0	7	0	7
Total	0	31	1	32
Grand Total	0	65	18	83
Apprch %	0	100	100	
Total %	0	78.3	21.7	

CITY TRAFFIC COUNTERS
WWW.CTCOUNTERS.COM

File Name : 1610ArtesiaBlvd_Driveway2
Site Code : 00000000
Start Date : 5/25/2023
Page No : 2

	Southbound	Artesia Boulevard (Ingress) Westbound		1610 Artesia Boulevard (Egress) Northbound		Artesia Boulevard (Ingress) Eastbound		
Start Time	App. Total	Left	App. Total	Right	App. Total	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 08:00 AM								
08:00 AM	0	0	0	0	0	**2**	**2**	2
08:15 AM	0	0	0	3	3	1	1	4
08:30 AM	0	0	0	3	3	2	2	5
08:45 AM	0	0	0	**6**	**6**	1	1	**7**
Total Volume	0	0	0	12	12	6	6	18
% App. Total		0		100		100		
PHF	.000	.000	.000	.500	.500	.750	.750	.643

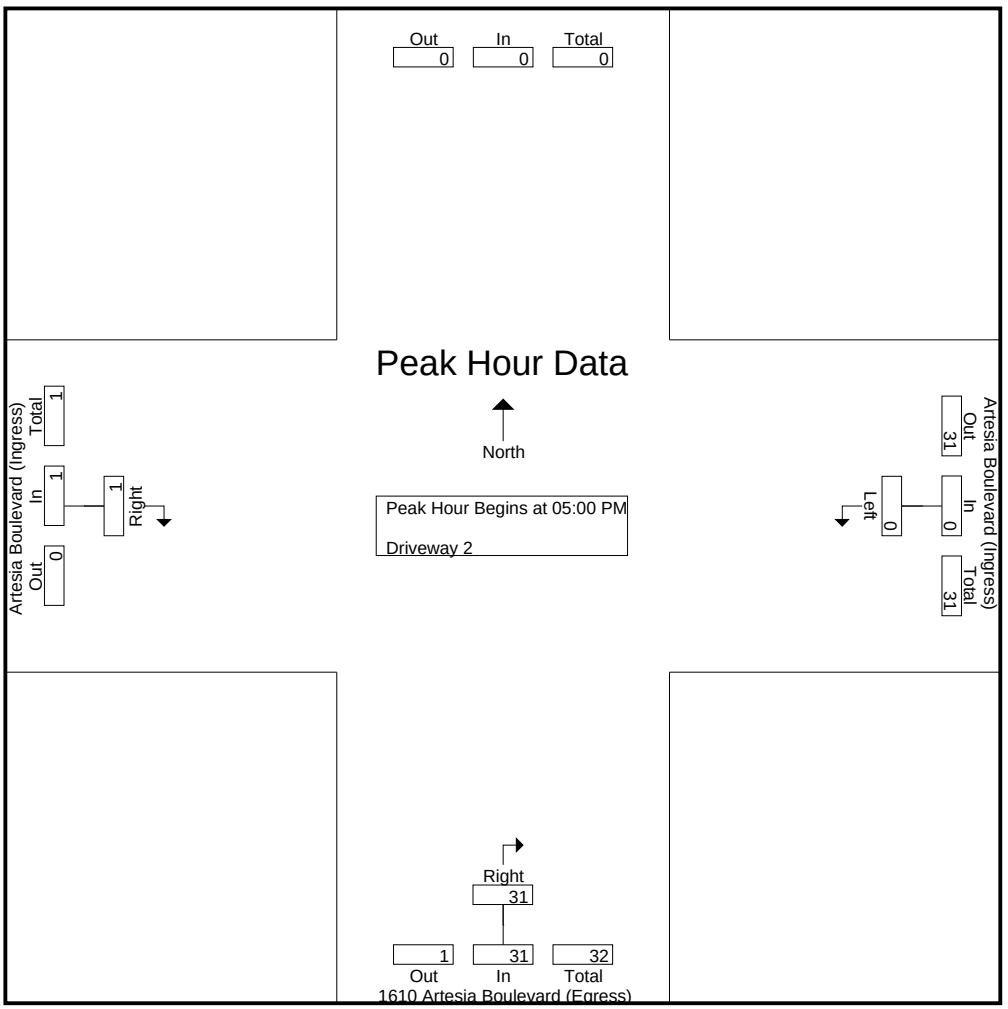


CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : 1610ArtesiaBlvd_Driveway2
Site Code : 00000000
Start Date : 5/25/2023
Page No : 3

	Southbound	Artesia Boulevard (Ingress) Westbound		1610 Artesia Boulevard (Egress) Northbound		Artesia Boulevard (Ingress) Eastbound		
Start Time	App. Total	Left	App. Total	Right	App. Total	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 05:00 PM								
05:00 PM	0	0	0	**11**	**11**	0	0	**11**
05:15 PM	0	0	0	8	8	**1**	**1**	9
05:30 PM	0	0	0	5	5	0	0	5
05:45 PM	0	0	0	7	7	0	0	7
Total Volume	0	0	0	31	31	1	1	32
% App. Total		0		100		100		
PHF	.000	.000	.000	.705	.705	.250	.250	.727



CITY TRAFFIC COUNTERS

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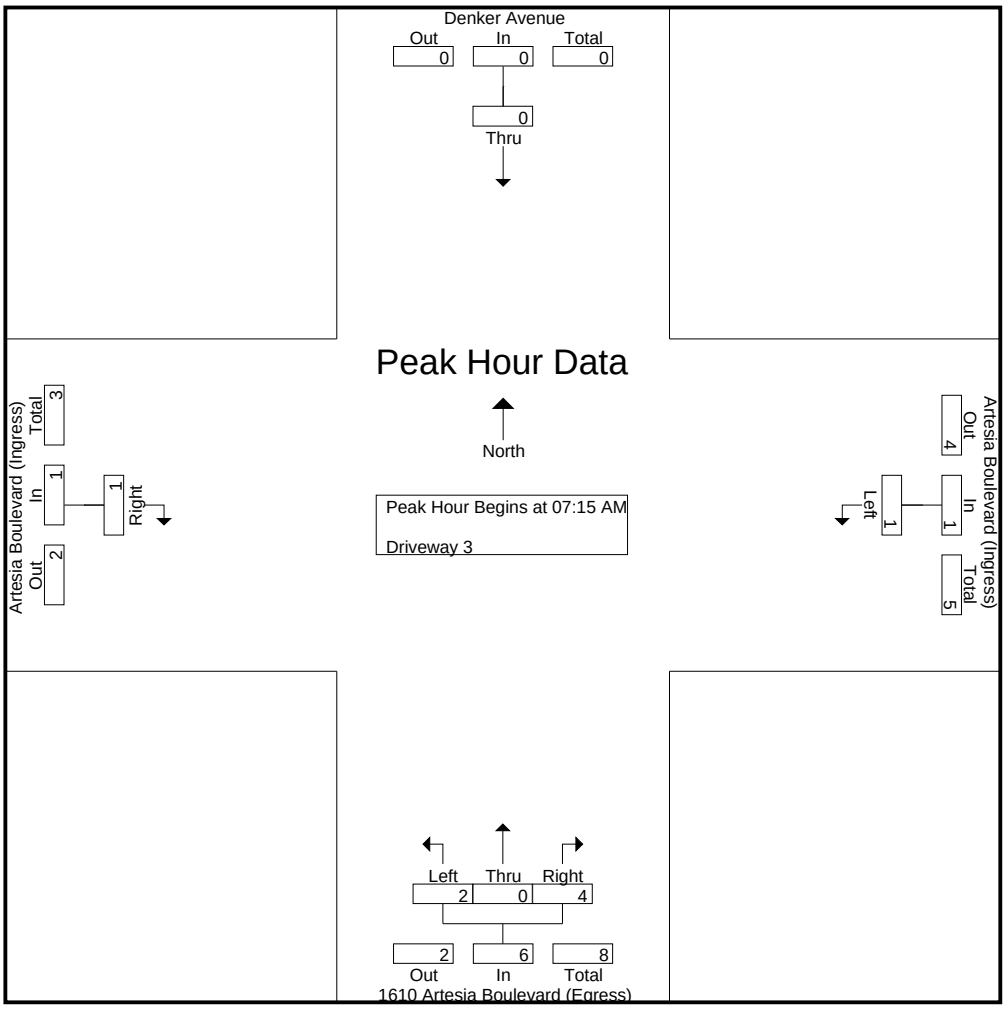
File Name : 1610ArtesiaBlvd_Driveway3
Site Code : 00000000
Start Date : 5/25/2023
Page No : 1

Groups Printed- Driveway 3

	Denker Avenue Southbound	Artesia Boulevard (Ingress) Westbound	1610 Artesia Boulevard (Egress) Northbound			Artesia Boulevard (Ingress) Eastbound	
Start Time	Thru	Left	Left	Thru	Right	Right	Int. Total
07:00 AM	0	1	0	0	0	0	1
07:15 AM	0	1	0	0	2	0	3
07:30 AM	0	0	0	0	1	0	1
07:45 AM	0	0	0	0	0	1	1
Total	0	2	0	0	3	1	6
08:00 AM	0	0	2	0	1	0	3
08:15 AM	0	0	0	0	1	0	1
08:30 AM	0	0	0	0	1	0	1
08:45 AM	0	0	0	0	1	0	1
Total	0	0	2	0	4	0	6
04:00 PM	0	2	0	0	1	0	3
04:15 PM	0	0	1	0	1	1	3
04:30 PM	0	0	0	0	3	0	3
04:45 PM	0	1	0	0	3	0	4
Total	0	3	1	0	8	1	13
05:00 PM	0	0	1	0	2	0	3
05:15 PM	0	0	0	0	2	0	2
05:30 PM	0	0	0	0	1	1	2
05:45 PM	0	0	0	0	3	1	4
Total	0	0	1	0	8	2	11
Grand Total	0	5	4	0	23	4	36
Apprch %	0	100	14.8	0	85.2	100	
Total %	0	13.9	11.1	0	63.9	11.1	

File Name : 1610ArtesiaBlvd_Driveway3
Site Code : 00000000
Start Date : 5/25/2023
Page No : 2

	Denker Avenue Southbound		Artesia Boulevard (Ingress) Westbound		1610 Artesia Boulevard (Egress) Northbound				Artesia Boulevard (Ingress) Eastbound		
Start Time	Thru	App. Total	Left	App. Total	Left	Thru	Right	App. Total	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 07:15 AM											
07:15 AM	0	0	**1**	**1**	0	0	**2**	2	0	0	**3**
07:30 AM	0	0	0	0	0	0	1	1	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	**1**	**1**	1
08:00 AM	0	0	0	0	**2**	0	1	**3**	0	0	3
Total Volume	0	0	1	1	2	0	4	6	1	1	8
% App. Total	0		100		33.3	0	66.7		100		
PHF	.000	.000	.250	.250	.250	.000	.500	.500	.250	.250	.667



CITY TRAFFIC COUNTERS

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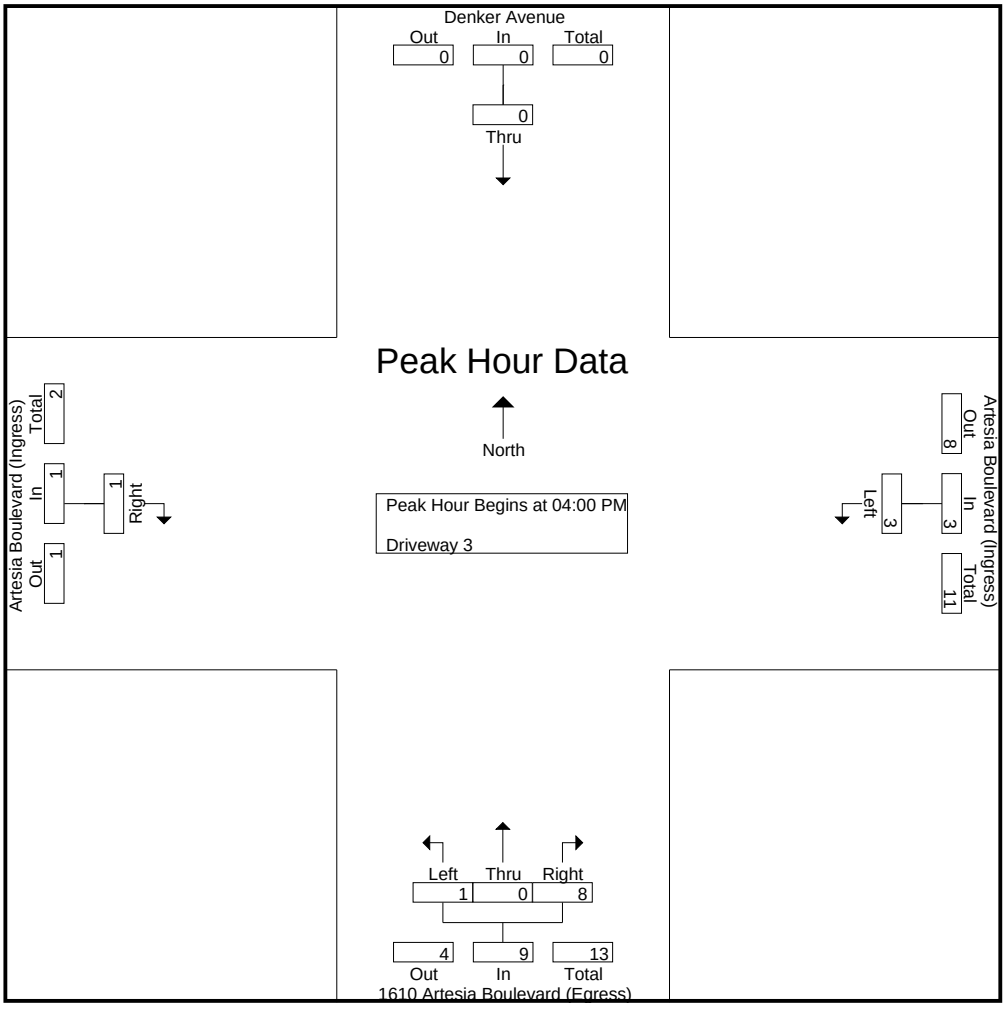
File Name : 1610ArtesiaBlvd_Driveway3
Site Code : 00000000
Start Date : 5/25/2023
Page No : 3

	Denker Avenue Southbound		Artesia Boulevard (Ingress) Westbound		1610 Artesia Boulevard (Egress) Northbound				Artesia Boulevard (Ingress) Eastbound		
Start Time	Thru	App. Total	Left	App. Total	Left	Thru	Right	App. Total	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 04:00 PM											
04:00 PM	0	0	**2**	**2**	0	0	1	1	0	0	3
04:15 PM	0	0	0	0	**1**	0	1	2	**1**	**1**	3
04:30 PM	0	0	0	0	0	0	**3**	**3**	0	0	3
04:45 PM	0	0	1	1	0	0	3	3	0	0	**4**
Total Volume	0	0	3	3	1	0	8	9	1	1	13
% App. Total	0		100		11.1	0	88.9		100		
PHF	.000	.000	.375	.375	.250	.000	.667	.750	.250	.250	.813



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1610 Artesia Boulevard
Driveway 1

Start Time	24-May-23 Wed	Ingress Morning	Ingress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Egress Morning	Egress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	2			0	0				
12:15		0	10			0	2				
12:30		2	6			0	1				
12:45		0	4	5	22	0	0	0	3	5	25
01:00		1	6			0	3				
01:15		0	8			0	3				
01:30		0	9			0	1				
01:45		1	10	2	33	0	1	0	8	2	41
02:00		0	4			0	2				
02:15		0	5			0	2				
02:30		0	7			0	4				
02:45		0	3	0	19	0	1	0	9	0	28
03:00		0	6			0	2				
03:15		1	5			0	2				
03:30		0	4			0	0				
03:45		0	8	1	23	0	2	0	6	1	29
04:00		0	2			0	3				
04:15		0	8			0	0				
04:30		0	1			0	2				
04:45		0	6	0	17	0	2	0	7	0	24
05:00		0	3			0	1				
05:15		0	1			0	1				
05:30		0	3			0	1				
05:45		1	2	1	9	0	1	0	4	1	13
06:00		1	4			0	0				
06:15		0	0			0	2				
06:30		0	1			0	0				
06:45		1	1	2	6	0	0	0	2	2	8
07:00		1	1			0	0				
07:15		2	2			0	0				
07:30		2	0			0	0				
07:45		4	3	9	6	0	0	0	0	9	6
08:00		5	1			1	0				
08:15		5	0			0	0				
08:30		8	1			0	1				
08:45		6	0	24	2	0	0	1	1	25	3
09:00		12	2			1	1				
09:15		9	0			1	0				
09:30		9	0			1	0				
09:45		5	0	35	2	2	0	5	1	40	3
10:00		4	1			2	0				
10:15		6	0			1	0				
10:30		12	2			2	0				
10:45		5	2	27	5	2	0	7	0	34	5
11:00		8	2			5	0				
11:15		7	1			4	0				
11:30		3	0			3	0				
11:45		8	0	26	3	0	0	12	0	38	3
Total		132	147			25	41			157	188
Percent		47.3%	52.7%			37.9%	62.1%			45.5%	54.5%
Grand Total		132	147			25	41			157	188
Percent		47.3%	52.7%			37.9%	62.1%			45.5%	54.5%
ADT		ADT 345		AADT 345							

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1610 Artesia Boulevard
Driveway 2

Start Time	24-May-23 Wed	Ingress Morning	Ingress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Egress Morning	Egress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	1			0	6				
12:15		0	1			0	6				
12:30		0	1			0	4				
12:45		0	0	0	3	0	3	0	19	0	22
01:00		0	1			0	8				
01:15		0	0			0	3				
01:30		0	5			0	9				
01:45		1	5	1	11	0	6	0	26	1	37
02:00		0	2			0	6				
02:15		0	1			0	5				
02:30		0	1			0	7				
02:45		0	1	0	5	0	4	0	22	0	27
03:00		0	3			0	2				
03:15		0	2			0	6				
03:30		0	5			0	7				
03:45		0	4	0	14	0	7	0	22	0	36
04:00		0	1			0	5				
04:15		0	1			0	8				
04:30		0	0			0	4				
04:45		0	1	0	3	0	2	0	19	0	22
05:00		0	2			0	7				
05:15		0	1			0	3				
05:30		0	1			0	7				
05:45		0	2	0	6	0	3	0	20	0	26
06:00		0	0			0	5				
06:15		0	1			1	3				
06:30		0	1			0	1				
06:45		0	0	0	2	1	3	2	12	2	14
07:00		1	0			1	1				
07:15		0	0			1	2				
07:30		1	0			0	2				
07:45		0	0	2	0	0	1	2	6	4	6
08:00		3	0			0	0				
08:15		0	0			0	0				
08:30		1	1			1	2				
08:45		1	0	5	1	3	0	4	2	9	3
09:00		5	1			4	0				
09:15		1	0			6	0				
09:30		3	0			6	1				
09:45		1	2	10	3	6	0	22	1	32	4
10:00		1	0			7	0				
10:15		3	0			4	0				
10:30		2	1			8	1				
10:45		4	0	10	1	4	1	23	2	33	3
11:00		1	0			5	0				
11:15		1	0			4	1				
11:30		3	0			5	0				
11:45		0	0	5	0	7	0	21	1	26	1
Total		33	49			74	152			107	201
Percent		40.2%	59.8%			32.7%	67.3%			34.7%	65.3%
Grand Total		33	49			74	152			107	201
Percent		40.2%	59.8%			32.7%	67.3%			34.7%	65.3%
ADT		ADT 308		AADT 308							

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1610 Artesia Boulevard
Driveway 3

Start Time	24-May-23 Wed	Ingress Morning	Ingress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Egress Morning	Egress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	2			2	2				
12:15		0	1			1	5				
12:30		0	0			0	3				
12:45		2	2	2	5	3	1	6	11	8	16
01:00		0	2			0	3				
01:15		0	0			1	1				
01:30		0	2			1	3				
01:45		0	0	0	4	2	3	4	10	4	14
02:00		0	0			0	1				
02:15		1	1			0	1				
02:30		0	2			1	2				
02:45		0	1	1	4	0	0	1	4	2	8
03:00		0	0			0	3				
03:15		0	0			1	6				
03:30		0	0			0	1				
03:45		0	1	0	1	0	3	1	13	1	14
04:00		0	1			0	0				
04:15		0	0			0	3				
04:30		0	0			0	3				
04:45		0	0	0	1	0	0	0	6	0	7
05:00		0	0			0	1				
05:15		0	2			0	1				
05:30		0	0			0	5				
05:45		0	0	0	2	0	2	0	9	0	11
06:00		0	0			0	1				
06:15		1	1			0	2				
06:30		0	0			0	3				
06:45		0	1	1	2	0	0	0	6	1	8
07:00		0	1			0	1				
07:15		1	1			0	2				
07:30		0	1			0	1				
07:45		0	0	1	3	0	2	0	6	1	9
08:00		0	0			0	1				
08:15		0	1			3	2				
08:30		0	0			0	0				
08:45		0	0	0	1	0	1	3	4	3	5
09:00		1	1			1	2				
09:15		0	1			1	2				
09:30		0	1			2	1				
09:45		1	0	2	3	0	0	4	5	6	8
10:00		1	0			0	1				
10:15		0	0			2	1				
10:30		0	1			4	3				
10:45		0	1	1	2	3	5	9	10	10	12
11:00		0	0			0	1				
11:15		1	1			2	2				
11:30		0	0			4	0				
11:45		0	0	1	1	3	0	9	3	10	4
Total		9	29			37	87			46	116
Percent		23.7%	76.3%			29.8%	70.2%			28.4%	71.6%
Grand Total		9	29			37	87			46	116
Percent		23.7%	76.3%			29.8%	70.2%			28.4%	71.6%
ADT		ADT 162		AADT 162							

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1610 Artesia Boulevard
Driveway 1

Start Time	25-May-23 Thu	Ingress Morning	Ingress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Egress Morning	Egress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	5			0	2				
12:15		2	7			0	0				
12:30		0	8			0	0				
12:45		0	10	4	30	0	3	0	5	4	35
01:00		0	5			0	1				
01:15		1	8			0	2				
01:30		0	3			0	1				
01:45		0	6	1	22	0	0	0	4	1	26
02:00		0	10			0	0				
02:15		0	7			0	3				
02:30		0	5			0	3				
02:45		0	5	0	27	0	2	0	8	0	35
03:00		0	11			0	1				
03:15		0	1			0	2				
03:30		0	4			0	2				
03:45		0	8	0	24	0	1	0	6	0	30
04:00		0	4			0	1				
04:15		0	3			0	1				
04:30		0	5			0	5				
04:45		0	6	0	18	0	2	0	9	0	27
05:00		0	9			0	2				
05:15		0	4			0	3				
05:30		0	3			0	1				
05:45		1	4	1	20	0	0	0	6	1	26
06:00		2	5			0	2				
06:15		0	0			0	0				
06:30		1	1			0	0				
06:45		3	1	6	7	0	0	0	2	6	9
07:00		5	1			0	2				
07:15		3	3			2	0				
07:30		2	2			0	0				
07:45		7	1	17	7	1	1	3	3	20	10
08:00		4	0			0	0				
08:15		5	3			0	1				
08:30		6	3			2	0				
08:45		8	0	23	6	0	0	2	1	25	7
09:00		7	0			2	0				
09:15		4	0			2	0				
09:30		6	0			0	0				
09:45		8	1	25	1	1	0	5	0	30	1
10:00		5	1			0	1				
10:15		5	1			0	0				
10:30		10	1			0	0				
10:45		6	1	26	4	3	0	3	1	29	5
11:00		5	2			2	0				
11:15		0	2			1	1				
11:30		9	0			2	0				
11:45		6	0	20	4	1	0	6	1	26	5
Total		123	170			19	46			142	216
Percent		42.0%	58.0%			29.2%	70.8%			39.7%	60.3%
Grand Total		123	170			19	46			142	216
Percent		42.0%	58.0%			29.2%	70.8%			39.7%	60.3%
ADT		ADT 358		AADT 358							

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1610 Artesia Boulevard
Driveway 2

Start Time	25-May-23 Thu	Ingress Morning	Ingress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Egress Morning	Egress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	1			0	4				
12:15		0	1			0	6				
12:30		0	1			0	8				
12:45		0	1	0	4	0	3	0	21	0	25
01:00		0	2			0	6				
01:15		0	1			1	5				
01:30		0	0			0	2				
01:45		0	2	0	5	0	4	1	17	1	22
02:00		0	1			0	8				
02:15		0	2			0	5				
02:30		0	3			0	4				
02:45		0	2	0	8	0	4	0	21	0	29
03:00		0	0			0	5				
03:15		0	2			0	3				
03:30		0	3			0	2				
03:45		0	2	0	7	0	6	0	16	0	23
04:00		0	3			0	8				
04:15		0	3			0	5				
04:30		0	2			0	5				
04:45		0	2	0	10	0	2	0	20	0	30
05:00		0	0			0	11				
05:15		0	1			0	8				
05:30		0	0			0	5				
05:45		0	0	0	1	0	7	0	31	0	32
06:00		1	3			0	6				
06:15		0	1			1	7				
06:30		0	3			0	3				
06:45		0	0	1	7	1	2	2	18	3	25
07:00		0	1			0	2				
07:15		0	0			0	0				
07:30		1	0			0	0				
07:45		0	0	1	1	2	0	2	2	3	3
08:00		2	1			1	0				
08:15		1	0			2	0				
08:30		2	1			3	0				
08:45		1	0	6	2	5	1	11	1	17	3
09:00		2	0			3	1				
09:15		2	0			8	0				
09:30		3	0			5	0				
09:45		6	0	13	0	5	0	21	1	34	1
10:00		2	0			4	1				
10:15		0	1			3	0				
10:30		3	0			5	0				
10:45		2	0	7	1	3	0	15	1	22	2
11:00		1	0			3	0				
11:15		1	0			4	0				
11:30		4	0			4	0				
11:45		1	0	7	0	2	0	13	0	20	0
Total		35	46			65	149			100	195
Percent		43.2%	56.8%			30.4%	69.6%			33.9%	66.1%
Grand Total		35	46			65	149			100	195
Percent		43.2%	56.8%			30.4%	69.6%			33.9%	66.1%
ADT		ADT 295		AADT 295							

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1610 Artesia Boulevard
Driveway 3

Start Time	25-May-23 Thu	Ingress Morning	Ingress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Egress Morning	Egress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	3			1	4				
12:15		0	2			1	5				
12:30		0	0			1	2				
12:45		1	0	1	5	1	3	4	14	5	19
01:00		0	0			0	3				
01:15		0	0			0	4				
01:30		0	0			2	1				
01:45		0	1	0	1	0	3	2	11	2	12
02:00		0	0			0	1				
02:15		0	1			0	1				
02:30		0	0			0	2				
02:45		0	0	0	1	0	3	0	7	0	8
03:00		0	2			0	2				
03:15		0	0			0	0				
03:30		0	0			0	1				
03:45		0	0	0	2	0	3	0	6	0	8
04:00		0	2			0	1				
04:15		0	1			0	2				
04:30		0	0			0	3				
04:45		0	1	0	4	0	3	0	9	0	13
05:00		0	0			0	3				
05:15		0	0			0	2				
05:30		0	1			0	1				
05:45		0	1	0	2	0	3	0	9	0	11
06:00		0	0			0	0				
06:15		0	1			0	1				
06:30		0	0			0	0				
06:45		1	0	1	1	0	1	0	2	1	3
07:00		1	0			0	2				
07:15		1	0			2	2				
07:30		0	0			1	1				
07:45		1	2	3	2	0	5	3	10	6	12
08:00		0	1			3	5				
08:15		0	0			1	0				
08:30		0	0			1	2				
08:45		0	0	0	1	1	1	6	8	6	9
09:00		2	1			2	1				
09:15		1	0			0	1				
09:30		0	0			1	0				
09:45		1	1	4	2	1	0	4	2	8	4
10:00		0	0			3	1				
10:15		3	1			1	3				
10:30		1	0			2	1				
10:45		1	0	5	1	4	3	10	8	15	9
11:00		0	1			0	3				
11:15		0	0			3	1				
11:30		0	3			0	2				
11:45		1	0	1	4	3	1	6	7	7	11
Total		15	26			35	93			50	119
Percent		36.6%	63.4%			27.3%	72.7%			29.6%	70.4%
Grand Total		15	26			35	93			50	119
Percent		36.6%	63.4%			27.3%	72.7%			29.6%	70.4%
ADT		ADT 169		AADT 169							

APPENDIX B

TRAFFIC COUNT DATA

CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

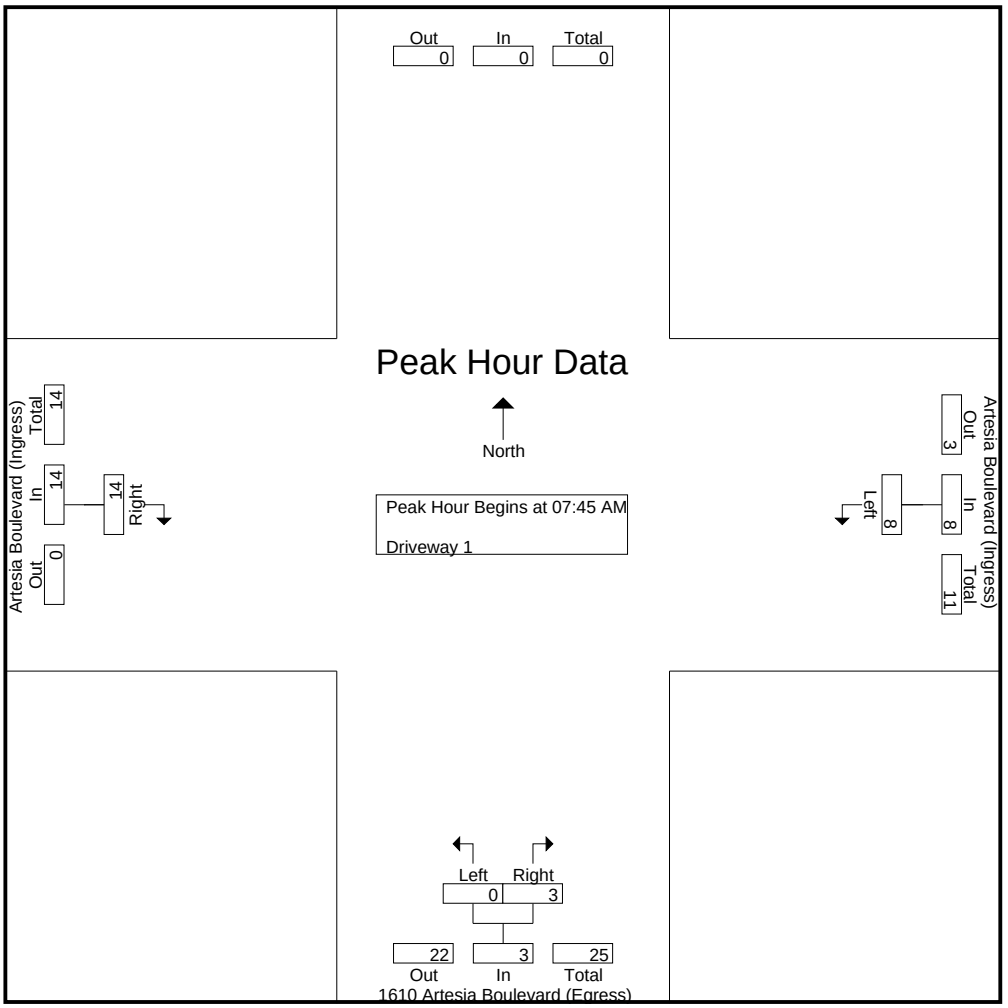
File Name : 1610ArtesiaBlvd_Driveway1
Site Code : 00000000
Start Date : 5/25/2023

Groups Printed- Driveway 1

	Artesia Boulevard (Ingress) Westbound	1610 Artesia Boulevard (Egress) Northbound		Artesia Boulevard (Ingress) Eastbound	
Start Time	Left	Left	Right	Right	Int. Total
07:00 AM	5	0	1	0	6
07:15 AM	3	0	1	0	4
07:30 AM	0	0	0	1	1
07:45 AM	2	0	1	5	8
Total	10	0	3	6	19
08:00 AM	2	0	0	2	4
08:15 AM	2	0	0	4	6
08:30 AM	2	0	2	3	7
08:45 AM	3	0	0	3	6
Total	9	0	2	12	23
04:00 PM	4	0	1	1	6
04:15 PM	4	0	1	1	6
04:30 PM	3	0	5	1	9
04:45 PM	3	0	2	2	7
Total	14	0	9	5	28
05:00 PM	9	0	2	1	12
05:15 PM	2	0	2	3	7
05:30 PM	2	0	1	0	3
05:45 PM	0	0	0	2	2
Total	13	0	5	6	24
Grand Total	46	0	19	29	94
Apprch %	100	0	100	100	
Total %	48.9	0	20.2	30.9	

File Name : 1610ArtesiaBlvd_Driveway1
Site Code : 00000000
Start Date : 5/25/2023
Page No : 2

	Southbound	Artesia Boulevard (Ingress) Westbound		1610 Artesia Boulevard (Egress) Northbound			Artesia Boulevard (Ingress) Eastbound		
Start Time	App. Total	Left	App. Total	Left	Right	App. Total	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1									
Peak Hour for Entire Intersection Begins at 07:45 AM									
07:45 AM	0	**2**	**2**	0	1	1	**5**	**5**	**8**
08:00 AM	0	2	2	0	0	0	2	2	4
08:15 AM	0	2	2	0	0	0	4	4	6
08:30 AM	0	2	2	0	**2**	**2**	3	3	7
Total Volume	0	8	8	0	3	3	14	14	25
% App. Total		100		0	100		100		
PHF	.000	1.00	1.00	.000	.375	.375	.700	.700	.781

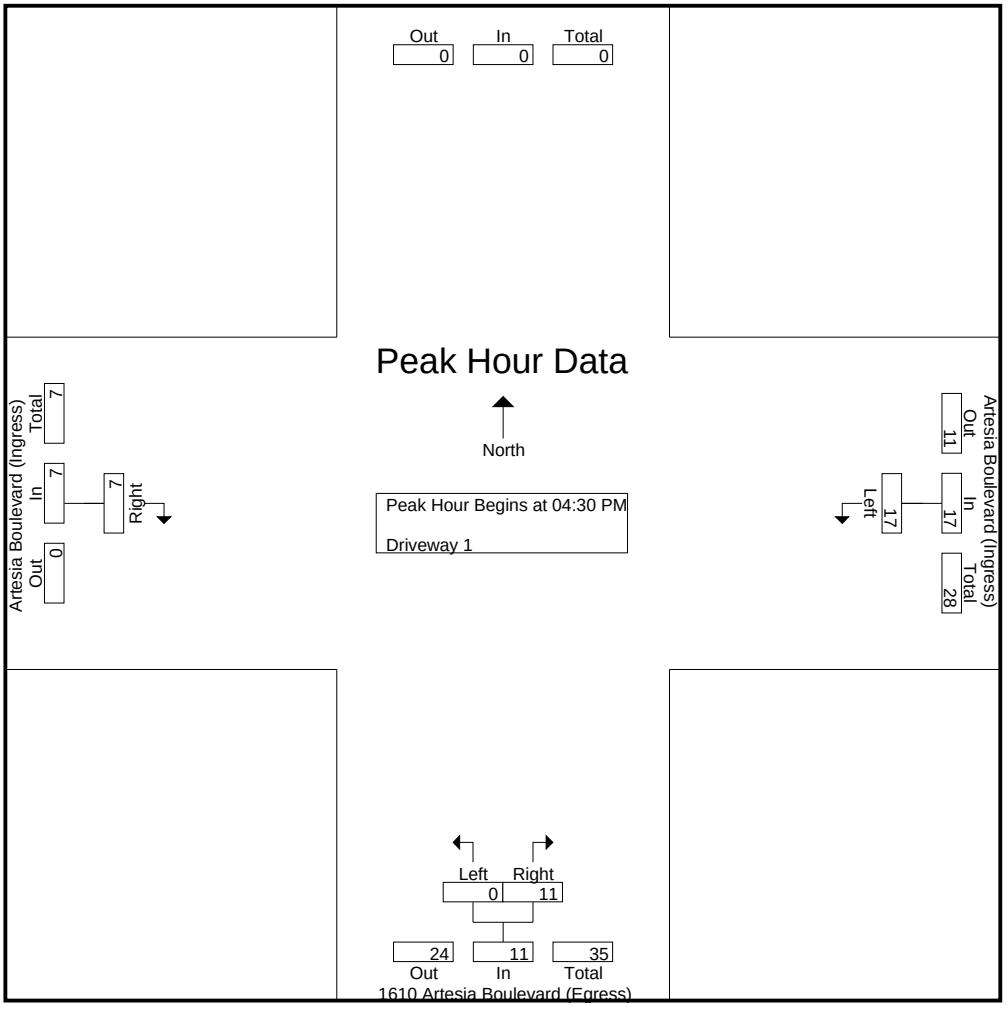


CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : 1610ArtesiaBlvd_Driveway1
Site Code : 00000000
Start Date : 5/25/2023
Page No : 3

	Southbound	Artesia Boulevard (Ingress) Westbound		1610 Artesia Boulevard (Egress) Northbound			Artesia Boulevard (Ingress) Eastbound		
Start Time	App. Total	Left	App. Total	Left	Right	App. Total	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1									
Peak Hour for Entire Intersection Begins at 04:30 PM									
04:30 PM	0	3	3	0	**5**	**5**	1	1	9
04:45 PM	0	3	3	0	2	2	2	2	7
05:00 PM	0	**9**	**9**	0	2	2	1	1	**12**
05:15 PM	0	2	2	0	2	2	**3**	**3**	7
Total Volume	0	17	17	0	11	11	7	7	35
% App. Total		100		0	100		100		
PHF	.000	.472	.472	.000	.550	.550	.583	.583	.729



CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : 1610ArtesiaBlvd_Driveway2
Site Code : 00000000
Start Date : 5/25/2023
Page No : 1

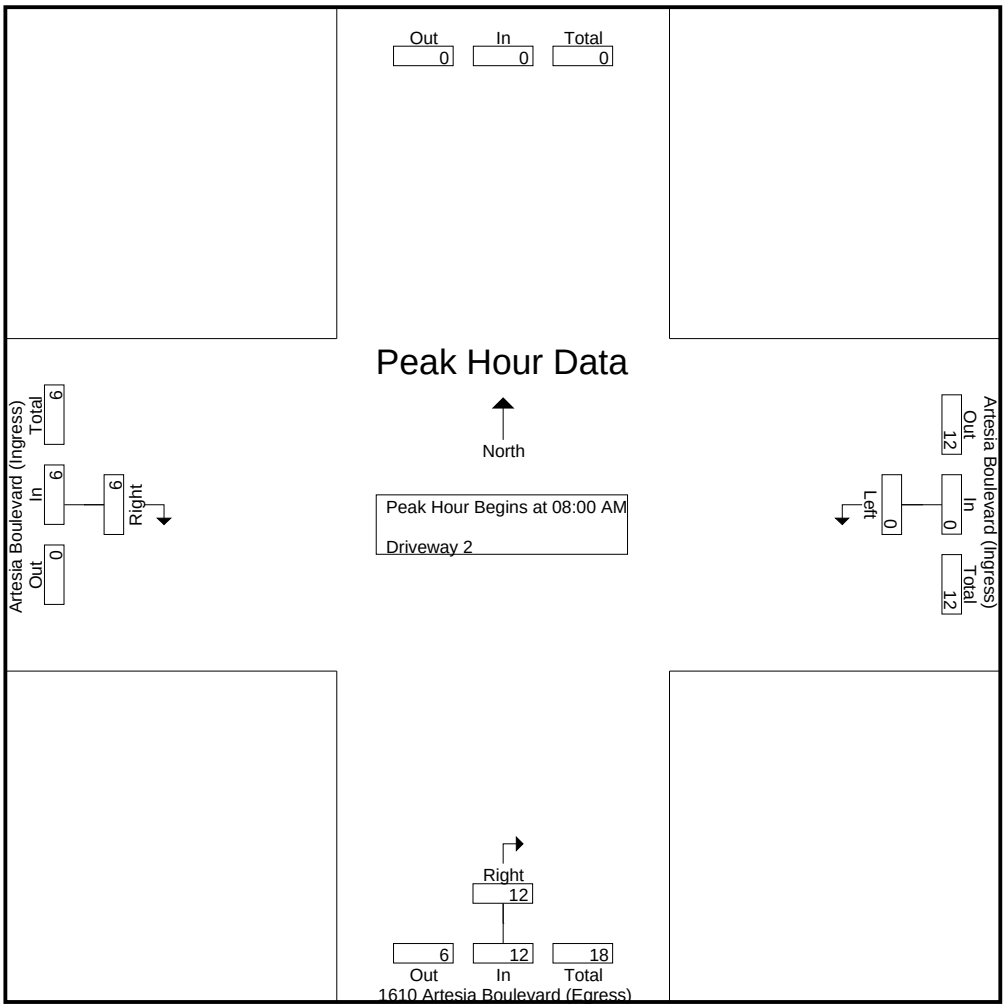
Groups Printed- Driveway 2

	Artesia Boulevard (Ingress) Westbound	1610 Artesia Boulevard (Egress) Northbound	Artesia Boulevard (Ingress) Eastbound	
Start Time	Left	Right	Right	Int. Total
07:30 AM	0	0	1	1
07:45 AM	0	2	0	2
Total	0	2	1	3
08:00 AM	0	0	2	2
08:15 AM	0	3	1	4
08:30 AM	0	3	2	5
08:45 AM	0	6	1	7
Total	0	12	6	18
04:00 PM	0	8	3	11
04:15 PM	0	5	3	8
04:30 PM	0	5	2	7
04:45 PM	0	2	2	4
Total	0	20	10	30
05:00 PM	0	11	0	11
05:15 PM	0	8	1	9
05:30 PM	0	5	0	5
05:45 PM	0	7	0	7
Total	0	31	1	32
Grand Total	0	65	18	83
Apprch %	0	100	100	
Total %	0	78.3	21.7	

CITY TRAFFIC COUNTERS
WWW.CTCOUNTERS.COM

File Name : 1610ArtesiaBlvd_Driveway2
Site Code : 00000000
Start Date : 5/25/2023
Page No : 2

	Southbound	Artesia Boulevard (Ingress) Westbound		1610 Artesia Boulevard (Egress) Northbound		Artesia Boulevard (Ingress) Eastbound		
Start Time	App. Total	Left	App. Total	Right	App. Total	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 08:00 AM								
08:00 AM	0	0	0	0	0	**2**	**2**	2
08:15 AM	0	0	0	3	3	1	1	4
08:30 AM	0	0	0	3	3	2	2	5
08:45 AM	0	0	0	**6**	**6**	1	1	**7**
Total Volume	0	0	0	12	12	6	6	18
% App. Total		0		100		100		
PHF	.000	.000	.000	.500	.500	.750	.750	.643

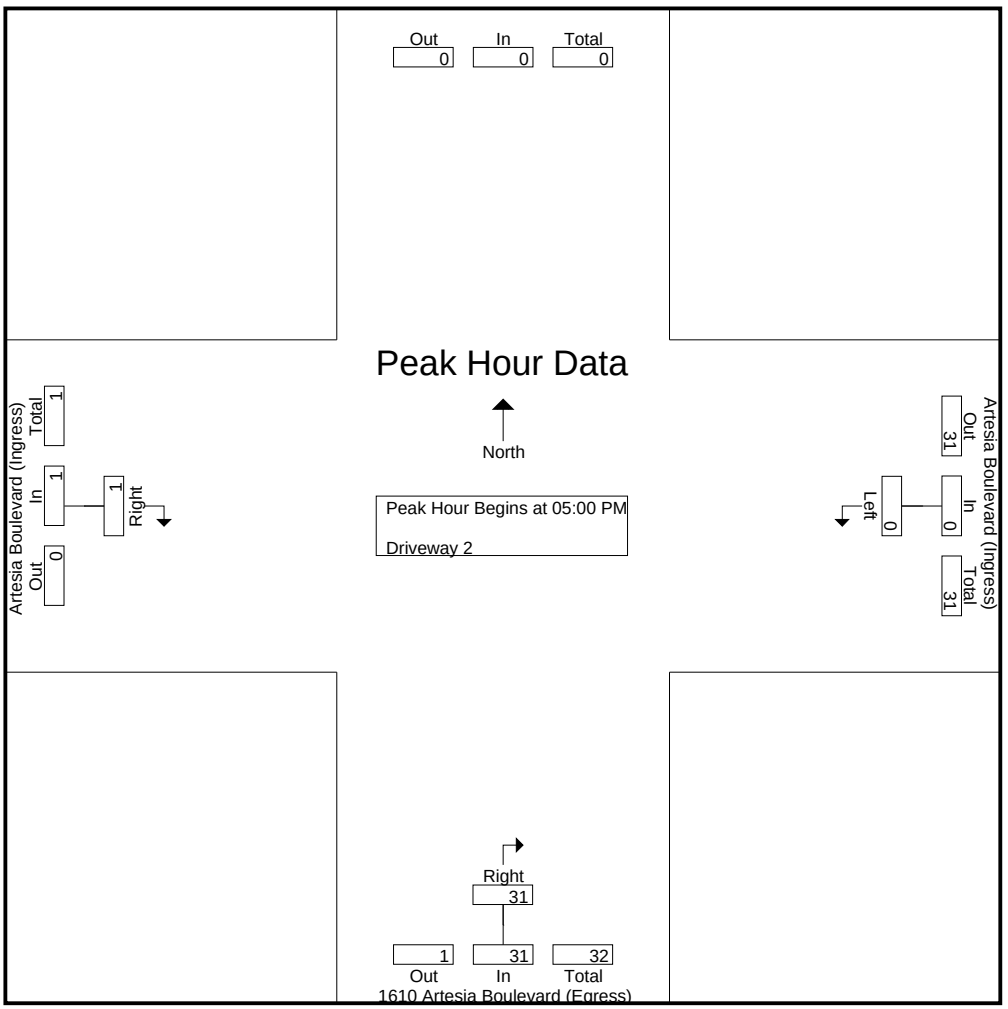


CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

File Name : 1610ArtesiaBlvd_Driveway2
Site Code : 00000000
Start Date : 5/25/2023
Page No : 3

	Southbound	Artesia Boulevard (Ingress) Westbound		1610 Artesia Boulevard (Egress) Northbound		Artesia Boulevard (Ingress) Eastbound		
Start Time	App. Total	Left	App. Total	Right	App. Total	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 05:00 PM								
05:00 PM	0	0	0	**11**	**11**	0	0	**11**
05:15 PM	0	0	0	8	8	**1**	**1**	9
05:30 PM	0	0	0	5	5	0	0	5
05:45 PM	0	0	0	7	7	0	0	7
Total Volume	0	0	0	31	31	1	1	32
% App. Total		0		100		100		
PHF	.000	.000	.000	.705	.705	.250	.250	.727



CITY TRAFFIC COUNTERS

WWW.CTCOUNTERS.COM

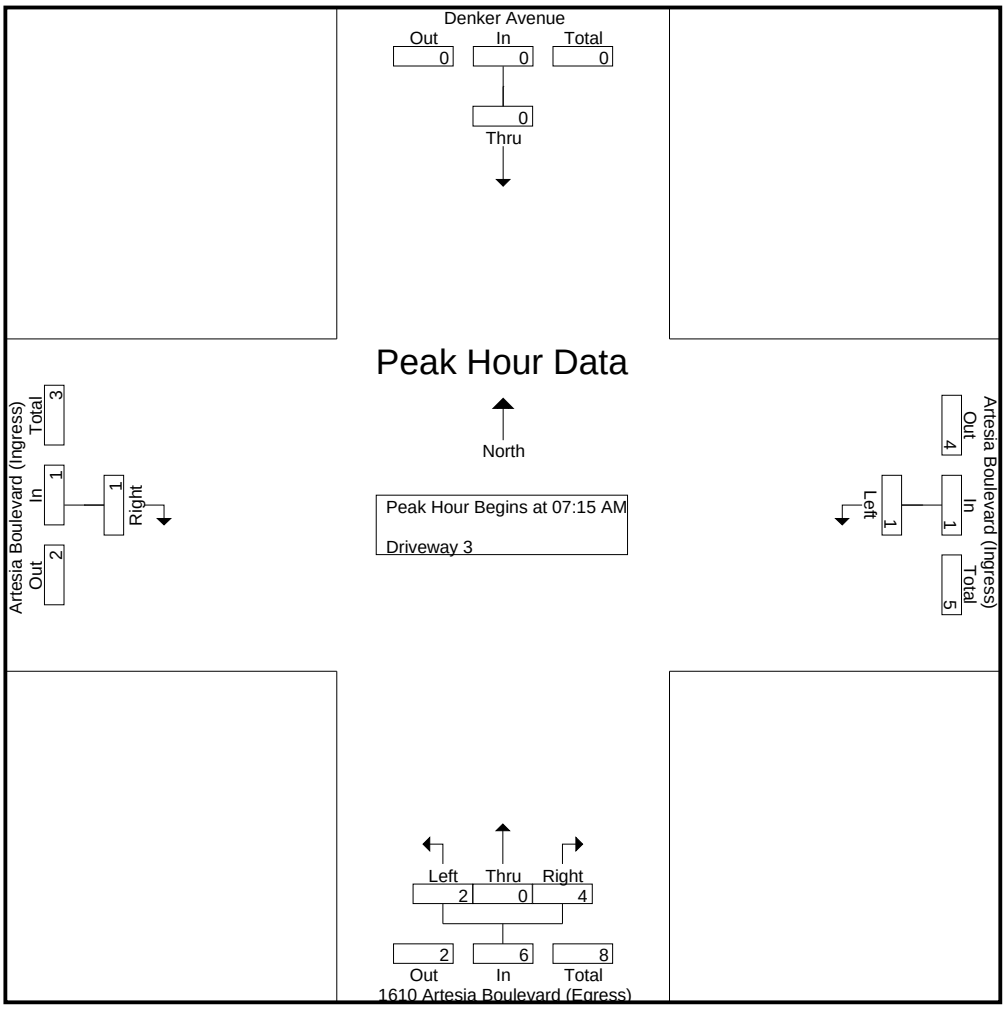
File Name : 1610ArtesiaBlvd_Driveway3
Site Code : 00000000
Start Date : 5/25/2023
Page No : 1

Groups Printed- Driveway 3

	Denker Avenue Southbound	Artesia Boulevard (Ingress) Westbound	1610 Artesia Boulevard (Egress) Northbound			Artesia Boulevard (Ingress) Eastbound	
Start Time	Thru	Left	Left	Thru	Right	Right	Int. Total
07:00 AM	0	1	0	0	0	0	1
07:15 AM	0	1	0	0	2	0	3
07:30 AM	0	0	0	0	1	0	1
07:45 AM	0	0	0	0	0	1	1
Total	0	2	0	0	3	1	6
08:00 AM	0	0	2	0	1	0	3
08:15 AM	0	0	0	0	1	0	1
08:30 AM	0	0	0	0	1	0	1
08:45 AM	0	0	0	0	1	0	1
Total	0	0	2	0	4	0	6
04:00 PM	0	2	0	0	1	0	3
04:15 PM	0	0	1	0	1	1	3
04:30 PM	0	0	0	0	3	0	3
04:45 PM	0	1	0	0	3	0	4
Total	0	3	1	0	8	1	13
05:00 PM	0	0	1	0	2	0	3
05:15 PM	0	0	0	0	2	0	2
05:30 PM	0	0	0	0	1	1	2
05:45 PM	0	0	0	0	3	1	4
Total	0	0	1	0	8	2	11
Grand Total	0	5	4	0	23	4	36
Apprch %	0	100	14.8	0	85.2	100	
Total %	0	13.9	11.1	0	63.9	11.1	

File Name : 1610ArtesiaBlvd_Driveway3
Site Code : 00000000
Start Date : 5/25/2023
Page No : 2

	Denker Avenue Southbound		Artesia Boulevard (Ingress) Westbound		1610 Artesia Boulevard (Egress) Northbound				Artesia Boulevard (Ingress) Eastbound		
Start Time	Thru	App. Total	Left	App. Total	Left	Thru	Right	App. Total	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 07:15 AM											
07:15 AM	0	0	**1**	**1**	0	0	**2**	2	0	0	**3**
07:30 AM	0	0	0	0	0	0	1	1	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	**1**	**1**	1
08:00 AM	0	0	0	0	**2**	0	1	**3**	0	0	3
Total Volume	0	0	1	1	2	0	4	6	1	1	8
% App. Total	0		100		33.3	0	66.7		100		
PHF	.000	.000	.250	.250	.250	.000	.500	.500	.250	.250	.667



CITY TRAFFIC COUNTERS

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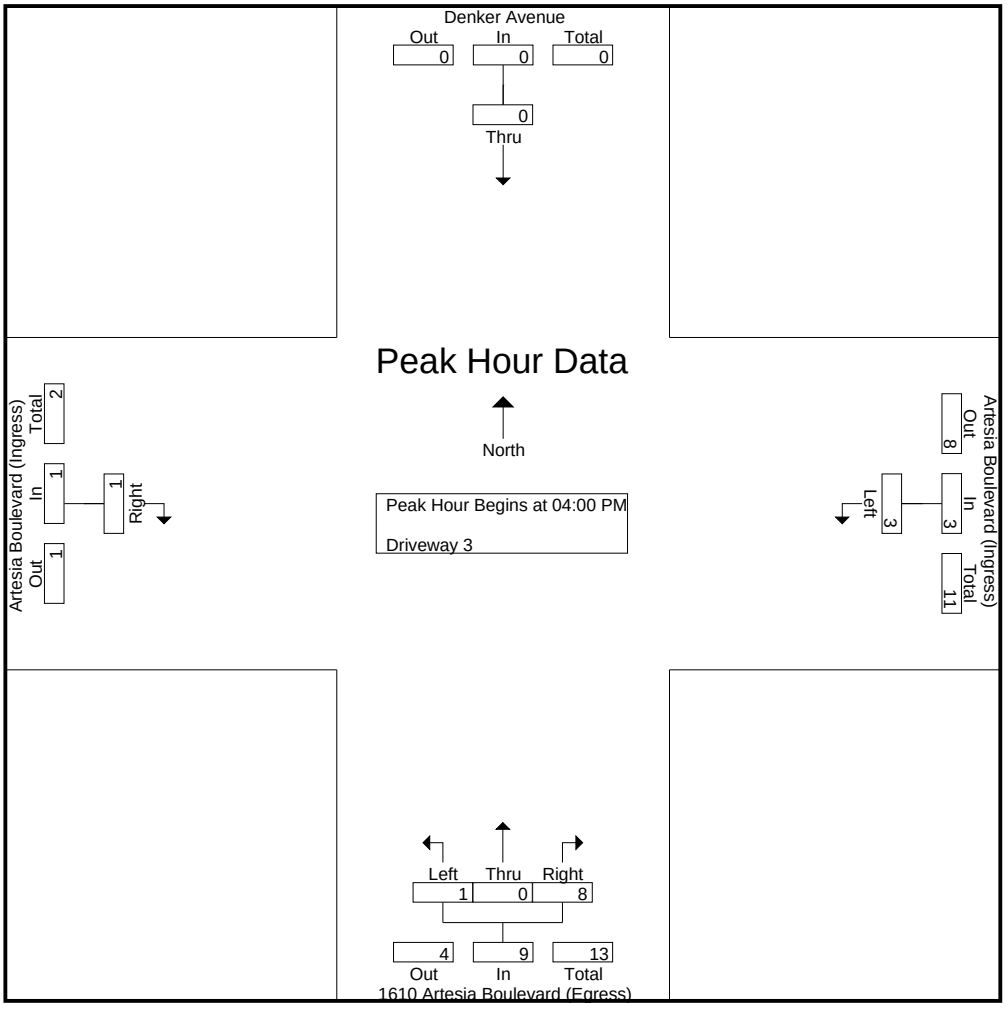
File Name : 1610ArtesiaBlvd_Driveway3
Site Code : 00000000
Start Date : 5/25/2023
Page No : 3

	Denker Avenue Southbound		Artesia Boulevard (Ingress) Westbound		1610 Artesia Boulevard (Egress) Northbound				Artesia Boulevard (Ingress) Eastbound		
Start Time	Thru	App. Total	Left	App. Total	Left	Thru	Right	App. Total	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 04:00 PM											
04:00 PM	0	0	**2**	**2**	0	0	1	1	0	0	3
04:15 PM	0	0	0	0	**1**	0	1	2	**1**	**1**	3
04:30 PM	0	0	0	0	0	0	**3**	**3**	0	0	3
04:45 PM	0	0	1	1	0	0	3	3	0	0	**4**
Total Volume	0	0	3	3	1	0	8	9	1	1	13
% App. Total	0		100		11.1	0	88.9		100		
PHF	.000	.000	.375	.375	.250	.000	.667	.750	.250	.250	.813



City Traffic Counters
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1610 Artesia Boulevard
Driveway 1

Start Time	24-May-23 Wed	Ingress Morning	Ingress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Egress Morning	Egress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	2			0	0				
12:15		0	10			0	2				
12:30		2	6			0	1				
12:45		0	4	5	22	0	0	0	3	5	25
01:00		1	6			0	3				
01:15		0	8			0	3				
01:30		0	9			0	1				
01:45		1	10	2	33	0	1	0	8	2	41
02:00		0	4			0	2				
02:15		0	5			0	2				
02:30		0	7			0	4				
02:45		0	3	0	19	0	1	0	9	0	28
03:00		0	6			0	2				
03:15		1	5			0	2				
03:30		0	4			0	0				
03:45		0	8	1	23	0	2	0	6	1	29
04:00		0	2			0	3				
04:15		0	8			0	0				
04:30		0	1			0	2				
04:45		0	6	0	17	0	2	0	7	0	24
05:00		0	3			0	1				
05:15		0	1			0	1				
05:30		0	3			0	1				
05:45		1	2	1	9	0	1	0	4	1	13
06:00		1	4			0	0				
06:15		0	0			0	2				
06:30		0	1			0	0				
06:45		1	1	2	6	0	0	0	2	2	8
07:00		1	1			0	0				
07:15		2	2			0	0				
07:30		2	0			0	0				
07:45		4	3	9	6	0	0	0	0	9	6
08:00		5	1			1	0				
08:15		5	0			0	0				
08:30		8	1			0	1				
08:45		6	0	24	2	0	0	1	1	25	3
09:00		12	2			1	1				
09:15		9	0			1	0				
09:30		9	0			1	0				
09:45		5	0	35	2	2	0	5	1	40	3
10:00		4	1			2	0				
10:15		6	0			1	0				
10:30		12	2			2	0				
10:45		5	2	27	5	2	0	7	0	34	5
11:00		8	2			5	0				
11:15		7	1			4	0				
11:30		3	0			3	0				
11:45		8	0	26	3	0	0	12	0	38	3
Total		132	147			25	41			157	188
Percent		47.3%	52.7%			37.9%	62.1%			45.5%	54.5%
Grand Total		132	147			25	41			157	188
Percent		47.3%	52.7%			37.9%	62.1%			45.5%	54.5%
ADT		ADT 345		AADT 345							

City Traffic Counters
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1610 Artesia Boulevard
Driveway 2

Start Time	24-May-23 Wed	Ingress Morning	Ingress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Egress Morning	Egress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	1			0	6				
12:15		0	1			0	6				
12:30		0	1			0	4				
12:45		0	0	0	3	0	3	0	19	0	22
01:00		0	1			0	8				
01:15		0	0			0	3				
01:30		0	5			0	9				
01:45		1	5	1	11	0	6	0	26	1	37
02:00		0	2			0	6				
02:15		0	1			0	5				
02:30		0	1			0	7				
02:45		0	1	0	5	0	4	0	22	0	27
03:00		0	3			0	2				
03:15		0	2			0	6				
03:30		0	5			0	7				
03:45		0	4	0	14	0	7	0	22	0	36
04:00		0	1			0	5				
04:15		0	1			0	8				
04:30		0	0			0	4				
04:45		0	1	0	3	0	2	0	19	0	22
05:00		0	2			0	7				
05:15		0	1			0	3				
05:30		0	1			0	7				
05:45		0	2	0	6	0	3	0	20	0	26
06:00		0	0			0	5				
06:15		0	1			1	3				
06:30		0	1			0	1				
06:45		0	0	0	2	1	3	2	12	2	14
07:00		1	0			1	1				
07:15		0	0			1	2				
07:30		1	0			0	2				
07:45		0	0	2	0	0	1	2	6	4	6
08:00		3	0			0	0				
08:15		0	0			0	0				
08:30		1	1			1	2				
08:45		1	0	5	1	3	0	4	2	9	3
09:00		5	1			4	0				
09:15		1	0			6	0				
09:30		3	0			6	1				
09:45		1	2	10	3	6	0	22	1	32	4
10:00		1	0			7	0				
10:15		3	0			4	0				
10:30		2	1			8	1				
10:45		4	0	10	1	4	1	23	2	33	3
11:00		1	0			5	0				
11:15		1	0			4	1				
11:30		3	0			5	0				
11:45		0	0	5	0	7	0	21	1	26	1
Total		33	49			74	152			107	201
Percent		40.2%	59.8%			32.7%	67.3%			34.7%	65.3%
Grand Total		33	49			74	152			107	201
Percent		40.2%	59.8%			32.7%	67.3%			34.7%	65.3%
ADT		ADT 308		AADT 308							

City Traffic Counters
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1610 Artesia Boulevard
Driveway 3

Start Time	24-May-23 Wed	Ingress Morning	Ingress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Egress Morning	Egress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	2			2	2				
12:15		0	1			1	5				
12:30		0	0			0	3				
12:45		2	2	2	5	3	1	6	11	8	16
01:00		0	2			0	3				
01:15		0	0			1	1				
01:30		0	2			1	3				
01:45		0	0	0	4	2	3	4	10	4	14
02:00		0	0			0	1				
02:15		1	1			0	1				
02:30		0	2			1	2				
02:45		0	1	1	4	0	0	1	4	2	8
03:00		0	0			0	3				
03:15		0	0			1	6				
03:30		0	0			0	1				
03:45		0	1	0	1	0	3	1	13	1	14
04:00		0	1			0	0				
04:15		0	0			0	3				
04:30		0	0			0	3				
04:45		0	0	0	1	0	0	0	6	0	7
05:00		0	0			0	1				
05:15		0	2			0	1				
05:30		0	0			0	5				
05:45		0	0	0	2	0	2	0	9	0	11
06:00		0	0			0	1				
06:15		1	1			0	2				
06:30		0	0			0	3				
06:45		0	1	1	2	0	0	0	6	1	8
07:00		0	1			0	1				
07:15		1	1			0	2				
07:30		0	1			0	1				
07:45		0	0	1	3	0	2	0	6	1	9
08:00		0	0			0	1				
08:15		0	1			3	2				
08:30		0	0			0	0				
08:45		0	0	0	1	0	1	3	4	3	5
09:00		1	1			1	2				
09:15		0	1			1	2				
09:30		0	1			2	1				
09:45		1	0	2	3	0	0	4	5	6	8
10:00		1	0			0	1				
10:15		0	0			2	1				
10:30		0	1			4	3				
10:45		0	1	1	2	3	5	9	10	10	12
11:00		0	0			0	1				
11:15		1	1			2	2				
11:30		0	0			4	0				
11:45		0	0	1	1	3	0	9	3	10	4
Total		9	29			37	87			46	116
Percent		23.7%	76.3%			29.8%	70.2%			28.4%	71.6%
Grand Total		9	29			37	87			46	116
Percent		23.7%	76.3%			29.8%	70.2%			28.4%	71.6%
ADT		ADT 162		AADT 162							

City Traffic Counters
www.ctcounters.com

1610 Artesia Boulevard
Driveway 1

Start Time	25-May-23 Thu	Ingress Morning	Ingress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Egress Morning	Egress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	5			0	2				
12:15		2	7			0	0				
12:30		0	8			0	0				
12:45		0	10	4	30	0	3	0	5	4	35
01:00		0	5			0	1				
01:15		1	8			0	2				
01:30		0	3			0	1				
01:45		0	6	1	22	0	0	0	4	1	26
02:00		0	10			0	0				
02:15		0	7			0	3				
02:30		0	5			0	3				
02:45		0	5	0	27	0	2	0	8	0	35
03:00		0	11			0	1				
03:15		0	1			0	2				
03:30		0	4			0	2				
03:45		0	8	0	24	0	1	0	6	0	30
04:00		0	4			0	1				
04:15		0	3			0	1				
04:30		0	5			0	5				
04:45		0	6	0	18	0	2	0	9	0	27
05:00		0	9			0	2				
05:15		0	4			0	3				
05:30		0	3			0	1				
05:45		1	4	1	20	0	0	0	6	1	26
06:00		2	5			0	2				
06:15		0	0			0	0				
06:30		1	1			0	0				
06:45		3	1	6	7	0	0	0	2	6	9
07:00		5	1			0	2				
07:15		3	3			2	0				
07:30		2	2			0	0				
07:45		7	1	17	7	1	1	3	3	20	10
08:00		4	0			0	0				
08:15		5	3			0	1				
08:30		6	3			2	0				
08:45		8	0	23	6	0	0	2	1	25	7
09:00		7	0			2	0				
09:15		4	0			2	0				
09:30		6	0			0	0				
09:45		8	1	25	1	1	0	5	0	30	1
10:00		5	1			0	1				
10:15		5	1			0	0				
10:30		10	1			0	0				
10:45		6	1	26	4	3	0	3	1	29	5
11:00		5	2			2	0				
11:15		0	2			1	1				
11:30		9	0			2	0				
11:45		6	0	20	4	1	0	6	1	26	5
Total		123	170			19	46			142	216
Percent		42.0%	58.0%			29.2%	70.8%			39.7%	60.3%
Grand Total		123	170			19	46			142	216
Percent		42.0%	58.0%			29.2%	70.8%			39.7%	60.3%
ADT		ADT 358		AADT 358							

City Traffic Counters
www.ctcounters.com

1610 Artesia Boulevard
Driveway 2

Start Time	25-May-23 Thu	Ingress Morning	Ingress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Egress Morning	Egress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	1			0	4				
12:15		0	1			0	6				
12:30		0	1			0	8				
12:45		0	1	0	4	0	3	0	21	0	25
01:00		0	2			0	6				
01:15		0	1			1	5				
01:30		0	0			0	2				
01:45		0	2	0	5	0	4	1	17	1	22
02:00		0	1			0	8				
02:15		0	2			0	5				
02:30		0	3			0	4				
02:45		0	2	0	8	0	4	0	21	0	29
03:00		0	0			0	5				
03:15		0	2			0	3				
03:30		0	3			0	2				
03:45		0	2	0	7	0	6	0	16	0	23
04:00		0	3			0	8				
04:15		0	3			0	5				
04:30		0	2			0	5				
04:45		0	2	0	10	0	2	0	20	0	30
05:00		0	0			0	11				
05:15		0	1			0	8				
05:30		0	0			0	5				
05:45		0	0	0	1	0	7	0	31	0	32
06:00		1	3			0	6				
06:15		0	1			1	7				
06:30		0	3			0	3				
06:45		0	0	1	7	1	2	2	18	3	25
07:00		0	1			0	2				
07:15		0	0			0	0				
07:30		1	0			0	0				
07:45		0	0	1	1	2	0	2	2	3	3
08:00		2	1			1	0				
08:15		1	0			2	0				
08:30		2	1			3	0				
08:45		1	0	6	2	5	1	11	1	17	3
09:00		2	0			3	1				
09:15		2	0			8	0				
09:30		3	0			5	0				
09:45		6	0	13	0	5	0	21	1	34	1
10:00		2	0			4	1				
10:15		0	1			3	0				
10:30		3	0			5	0				
10:45		2	0	7	1	3	0	15	1	22	2
11:00		1	0			3	0				
11:15		1	0			4	0				
11:30		4	0			4	0				
11:45		1	0	7	0	2	0	13	0	20	0
Total		35	46			65	149			100	195
Percent		43.2%	56.8%			30.4%	69.6%			33.9%	66.1%
Grand Total		35	46			65	149			100	195
Percent		43.2%	56.8%			30.4%	69.6%			33.9%	66.1%
ADT		ADT 295		AADT 295							

City Traffic Counters
www.ctcounters.com

1610 Artesia Boulevard
Driveway 3

Start Time	25-May-23 Thu	Ingress Morning	Ingress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Egress Morning	Egress Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	3			1	4				
12:15		0	2			1	5				
12:30		0	0			1	2				
12:45		1	0	1	5	1	3	4	14	5	19
01:00		0	0			0	3				
01:15		0	0			0	4				
01:30		0	0			2	1				
01:45		0	1	0	1	0	3	2	11	2	12
02:00		0	0			0	1				
02:15		0	1			0	1				
02:30		0	0			0	2				
02:45		0	0	0	1	0	3	0	7	0	8
03:00		0	2			0	2				
03:15		0	0			0	0				
03:30		0	0			0	1				
03:45		0	0	0	2	0	3	0	6	0	8
04:00		0	2			0	1				
04:15		0	1			0	2				
04:30		0	0			0	3				
04:45		0	1	0	4	0	3	0	9	0	13
05:00		0	0			0	3				
05:15		0	0			0	2				
05:30		0	1			0	1				
05:45		0	1	0	2	0	3	0	9	0	11
06:00		0	0			0	0				
06:15		0	1			0	1				
06:30		0	0			0	0				
06:45		1	0	1	1	0	1	0	2	1	3
07:00		1	0			0	2				
07:15		1	0			2	2				
07:30		0	0			1	1				
07:45		1	2	3	2	0	5	3	10	6	12
08:00		0	1			3	5				
08:15		0	0			1	0				
08:30		0	0			1	2				
08:45		0	0	0	1	1	1	6	8	6	9
09:00		2	1			2	1				
09:15		1	0			0	1				
09:30		0	0			1	0				
09:45		1	1	4	2	1	0	4	2	8	4
10:00		0	0			3	1				
10:15		3	1			1	3				
10:30		1	0			2	1				
10:45		1	0	5	1	4	3	10	8	15	9
11:00		0	1			0	3				
11:15		0	0			3	1				
11:30		0	3			0	2				
11:45		1	0	1	4	3	1	6	7	7	11
Total		15	26			35	93			50	119
Percent		36.6%	63.4%			27.3%	72.7%			29.6%	70.4%
Grand Total		15	26			35	93			50	119
Percent		36.6%	63.4%			27.3%	72.7%			29.6%	70.4%
ADT		ADT 169		AADT 169							

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, Aug 30, 22

LOCATION: Gardena
NORTH & SOUTH: Western
EAST & WEST: Artesia

PROJECT #: SC3402
LOCATION #: 4
CONTROL: SIGNAL

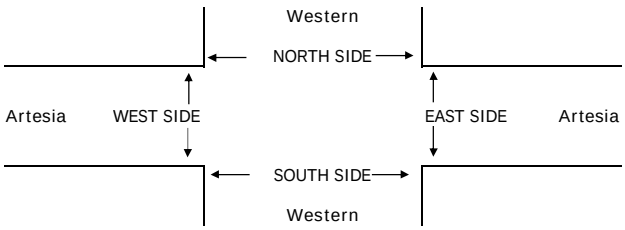
NOTES: Queue EB PM

AM / PM / MD / OTHER / OTHER

N S E W

Add U-Turns to Left Turns

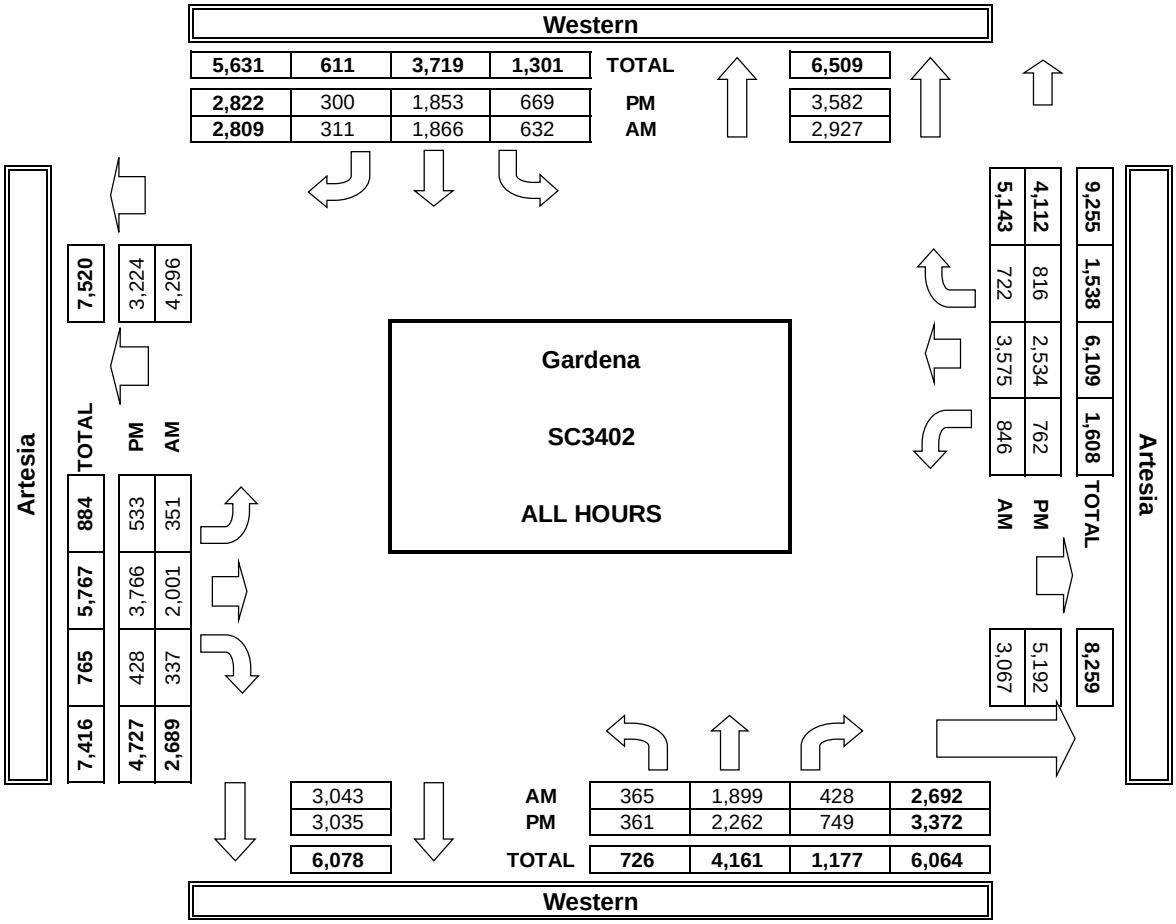
		NORTHBOUND Western			SOUTHBOUND Western			EASTBOUND Artesia			WESTBOUND Artesia				U-TURNS				
	LANES:	NL 1	NT 2	NR 1	SL 2	ST 2	SR 1	EL 1	ET 3	ER 1	WL 2	WT 3	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	12	109	24	46	132	18	10	116	9	48	346	28	898	0	0	1	0	1
	7:15 AM	19	119	29	51	129	14	25	179	11	46	382	45	1,049	0	0	2	0	2
	7:30 AM	32	188	34	52	185	17	21	152	20	48	317	72	1,138	0	0	4	0	4
	7:45 AM	34	146	35	55	177	23	29	184	22	78	315	61	1,159	0	0	2	1	3
	8:00 AM	33	155	55	81	182	24	16	195	29	64	346	63	1,243	0	0	2	0	2
	8:15 AM	42	210	33	55	209	23	26	172	30	75	270	66	1,211	0	0	1	0	1
	8:30 AM	38	194	33	37	148	26	35	186	36	80	333	67	1,213	0	0	9	0	9
	8:45 AM	40	170	36	33	147	20	45	168	40	81	320	83	1,183	0	0	8	0	8
	9:00 AM	33	149	38	62	144	47	35	187	32	82	295	74	1,178	0	0	6	1	7
	9:15 AM	19	190	42	54	154	41	47	162	46	73	192	56	1,076	0	0	3	2	5
	9:30 AM	33	122	29	56	134	38	33	156	31	104	200	47	983	0	0	3	2	5
	9:45 AM	30	147	40	50	125	20	29	144	31	67	259	60	1,002	0	0	4	0	4
	VOLUMES	365	1,899	428	632	1,866	311	351	2,001	337	846	3,575	722	13,333	0	0	45	6	51
	APPROACH %	14%	71%	16%	22%	66%	11%	13%	74%	13%	16%	70%	14%						
	APP/DEPART	2,692	/	2,927	2,809	/	3,043	2,689	/	3,067	5,143	/	4,296	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	153	729	157	206	686	93	122	721	135	300	1,269	279	4,850					
	APPROACH %	15%	70%	15%	21%	70%	9%	12%	74%	14%	16%	69%	15%						
	PEAK HR FACTOR		0.911			0.858			0.951			0.955		0.975					
	APP/DEPART	1,039	/	1,110	985	/	1,121	978	/	1,084	1,848	/	1,535	0					
PM	3:00 PM	28	192	70	70	148	26	43	235	27	61	145	31	1,076	0	0	0	0	0
	3:15 PM	35	183	45	48	136	20	38	273	44	69	215	63	1,169	0	0	2	1	3
	3:30 PM	26	160	60	70	164	16	48	306	41	63	184	66	1,204	0	0	2	0	2
	3:45 PM	27	236	70	50	152	28	51	353	31	42	175	67	1,282	0	0	3	0	3
	4:00 PM	21	191	69	50	143	29	40	304	33	73	211	71	1,235	0	0	1	1	2
	4:15 PM	38	196	74	57	154	27	51	338	39	53	236	74	1,337	0	0	6	1	7
	4:30 PM	31	176	48	44	151	28	29	363	31	69	209	72	1,251	0	0	3	0	3
	4:45 PM	36	174	51	59	157	20	42	309	30	57	218	58	1,211	0	0	1	2	3
	5:00 PM	27	184	64	38	175	32	49	294	45	63	250	66	1,287	0	0	4	0	4
	5:15 PM	23	188	60	51	154	19	48	307	42	71	223	97	1,283	0	0	1	1	2
	5:30 PM	34	183	66	71	137	26	39	349	35	68	224	73	1,305	0	0	3	2	5
	5:45 PM	35	199	72	61	182	29	55	335	30	73	244	78	1,393	0	0	3	0	3
	VOLUMES	361	2,262	749	669	1,853	300	533	3,766	428	762	2,534	816	15,033	0	0	29	8	37
	APPROACH %	11%	67%	22%	24%	66%	11%	11%	80%	9%	19%	62%	20%						
	APP/DEPART	3,372	/	3,582	2,822	/	3,035	4,727	/	5,192	4,112	/	3,224	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	119	754	262	221	648	106	191	1,285	152	275	941	314	5,268					
	APPROACH %	10%	66%	23%	23%	66%	11%	12%	79%	9%	18%	62%	21%						
	PEAK HR FACTOR		0.927			0.896			0.962			0.968		0.945					
	APP/DEPART	1,135	/	1,248	975	/	1,072	1,628	/	1,771	1,530	/	1,177	0					

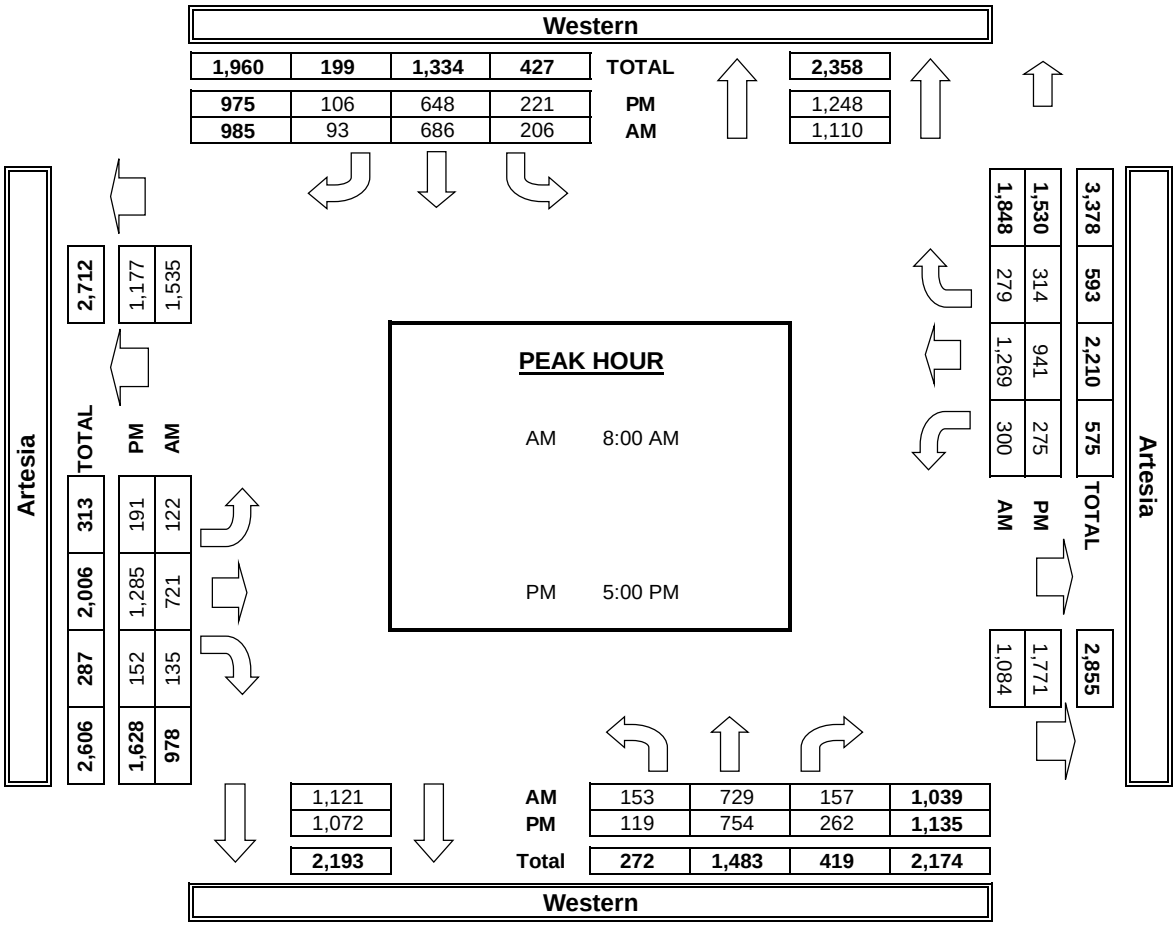


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	5	3	3	6	17	5	2	2	6	15	0	1	1	0	2
	7:15 AM	2	6	1	7	16	2	4	1	5	12	0	2	0	2	4
	7:30 AM	1	1	1	1	4	1	0	0	1	2	0	1	1	0	2
	7:45 AM	8	2	6	2	18	8	1	5	2	16	0	1	1	0	2
	8:00 AM	5	0	1	2	8	4	0	1	1	6	1	0	0	1	2
	8:15 AM	2	0	7	2	11	2	0	5	2	9	0	0	2	0	2
	8:30 AM	2	0	5	1	8	1	0	3	1	5	1	0	2	0	3
	8:45 AM	2	1	1	1	5	2	1	1	1	5	0	0	0	0	0
	9:00 AM	2	0	1	1	4	2	0	1	1	4	0	0	0	0	0
	9:15 AM	0	3	7	0	10	0	3	7	0	10	0	0	0	0	0
	9:30 AM	2	0	4	0	6	1	0	3	0	4	1	0	1	0	2
	9:45 AM	2	2	2	0	6	2	2	2	0	6	0	0	0	0	0
	TOTAL	33	18	39	23	113	30	13	31	20	94	3	5	8	3	19
	AM BEGIN PEAK HR			8:00 AM			9	1	10	5	25	2	0	4	1	7
PM	3:00 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	3:15 PM	3	2	3	3	11	3	2	2	3	10	0	0	1	0	1
	3:30 PM	2	3	0	4	9	2	2	0	3	7	0	1	0	1	2
	3:45 PM	0	1	7	2	10	0	1	6	1	8	0	0	1	1	2
	4:00 PM	4	3	8	3	18	4	2	7	1	14	0	1	1	2	4
	4:15 PM	2	5	1	3	11	1	5	1	2	9	1	0	0	1	2
	4:30 PM	1	5	3	1	10	0	3	3	0	6	1	2	0	1	4
	4:45 PM	4	0	2	4	10	4	0	2	4	10	0	0	0	0	0
	5:00 PM	7	2	6	4	19	7	0	4	4	15	0	2	2	0	4
	5:15 PM	5	2	2	6	15	5	0	0	5	10	0	2	2	1	5
	5:30 PM	2	0	5	2	9	1	0	5	1	7	1	0	0	1	2
	5:45 PM	1	3	4	8	16	1	2	4	6	13	0	1	0	2	3
	TOTAL	32	26	41	40	139	29	17	34	30	110	3	9	7	10	29
	PM BEGIN PEAK HR			5:00 PM			14	2	13	16	45	1	5	4	4	14

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, May 3, 22

LOCATION: Gardena
NORTH & SOUTH: Dalton
EAST & WEST: Artesia

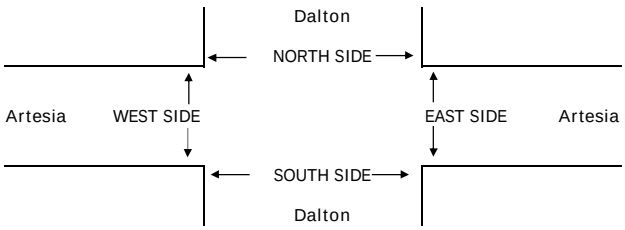
PROJECT #: SC3402
LOCATION #: 1
CONTROL: SIGNAL

NOTES: Queue WB AM

AM PM MD OTHER OTHER — ▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Dalton			SOUTHBOUND Dalton			EASTBOUND Artesia			WESTBOUND Artesia				U-TURNS				
	LANES:	NL 1	NT 0	NR 1	SL 0	ST 1	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	4	0	1	11	0	3	1	175	0	3	396	6	600	0	0	0	0	0
	7:15 AM	3	0	0	15	0	8	1	235	0	2	374	3	641	0	0	0	0	0
	7:30 AM	4	0	0	9	0	8	3	243	1	1	417	4	690	0	0	1	0	1
	7:45 AM	6	1	1	13	1	7	3	257	1	2	422	2	716	0	0	0	0	0
	8:00 AM	3	0	1	13	2	12	5	261	1	5	414	4	721	0	0	0	1	1
	8:15 AM	5	0	0	15	0	14	3	248	1	6	381	3	676	0	0	0	1	1
	8:30 AM	4	0	1	12	0	13	4	268	1	3	457	4	767	0	0	0	0	0
	8:45 AM	8	1	1	14	0	14	4	280	2	7	413	4	748	0	0	0	1	1
	9:00 AM	5	0	1	12	0	10	3	254	1	4	408	2	700	0	0	0	0	0
	9:15 AM	4	0	0	9	0	12	2	263	1	3	418	4	716	0	0	0	1	1
	9:30 AM	3	0	1	10	0	8	3	242	0	3	425	2	697	0	0	0	0	0
	9:45 AM	4	0	0	9	0	6	1	226	1	2	394	3	646	0	0	0	0	0
	VOLUMES	53	2	7	142	3	115	33	2,952	10	41	4,919	41	8,318	0	0	1	4	5
	APPROACH %	85%	3%	11%	55%	1%	44%	1%	99%	0%	1%	98%	1%						
	APP/DEPART	62	/	75	260	/	50	2,995	/	3,105	5,001	/	5,088	0					
	BEGIN PEAK HR		8:30 AM																
	VOLUMES	21	1	3	47	0	49	13	1,065	5	17	1,696	14	2,931					
	APPROACH %	84%	4%	12%	49%	0%	51%	1%	98%	0%	1%	98%	1%						
	PEAK HR FACTOR		0.625			0.857			0.947			0.930		0.955					
	APP/DEPART	25	/	28	96	/	20	1,083	/	1,117	1,727	/	1,766	0					
PM	3:00 PM	9	1	4	5	1	7	5	419	5	10	281	12	759	0	0	0	0	0
	3:15 PM	11	1	5	9	0	6	2	429	11	9	304	10	797	0	0	0	1	1
	3:30 PM	8	1	6	8	1	5	3	446	9	11	286	14	798	0	0	0	2	2
	3:45 PM	12	2	8	5	2	8	4	425	7	12	297	11	793	0	0	0	1	1
	4:00 PM	14	1	9	7	0	6	2	400	6	7	324	12	788	0	0	0	0	0
	4:15 PM	7	1	4	7	1	6	7	428	10	17	312	13	813	0	0	0	1	1
	4:30 PM	13	2	3	6	1	9	6	431	4	13	323	9	820	0	0	0	3	3
	4:45 PM	12	1	8	5	0	8	5	472	14	13	357	16	911	0	0	0	2	2
	5:00 PM	12	3	8	12	3	8	8	438	13	17	328	15	865	0	0	1	3	4
	5:15 PM	8	1	7	6	4	8	3	411	12	17	330	12	819	0	0	0	4	4
	5:30 PM	12	4	8	10	1	8	12	485	10	17	367	12	946	0	0	0	3	3
	5:45 PM	8	0	5	13	1	9	11	437	7	12	318	12	833	0	0	0	1	1
	VOLUMES	126	18	75	93	15	88	68	5,221	108	155	3,827	148	9,942	0	0	1	21	22
	APPROACH %	58%	8%	34%	47%	8%	45%	1%	97%	2%	4%	93%	4%						
	APP/DEPART	219	/	233	196	/	257	5,397	/	5,410	4,130	/	4,042	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	44	9	31	33	8	32	28	1,806	49	64	1,382	55	3,541					
	APPROACH %	52%	11%	37%	45%	11%	44%	1%	96%	3%	4%	92%	4%						
	PEAK HR FACTOR		0.875			0.793			0.929			0.948		0.936					
	APP/DEPART	84	/	91	73	/	109	1,883	/	1,882	1,501	/	1,459	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	7:15 AM	1	2	0	0	3	1	0	0	0	1	0	2	0	0	2
	7:30 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	7:45 AM	2	0	1	0	3	1	0	1	0	2	1	0	0	0	1
	8:00 AM	4	1	0	0	5	3	0	0	0	3	1	1	0	0	2
	8:15 AM	3	2	2	0	7	3	1	2	0	6	0	1	0	0	1
	8:30 AM	1	3	1	4	9	1	3	1	4	9	0	0	0	0	0
	8:45 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	9:00 AM	1	1	1	0	3	0	1	1	0	2	1	0	0	0	1
	9:15 AM	1	0	1	0	2	1	0	1	0	2	0	0	0	0	0
	9:30 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	9:45 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	TOTAL	16	10	6	5	37	13	5	6	5	29	3	5	0	0	8
	AM BEGIN PEAK HR	8:30 AM					3	4	3	4	14	1	0	0	0	1
PM	3:00 PM	1	0	0	1	2	1	0	0	1	2	0	0	0	0	0
	3:15 PM	2	1	0	1	4	2	1	0	1	4	0	0	0	0	0
	3:30 PM	1	1	1	2	5	1	1	1	2	5	0	0	0	0	0
	3:45 PM	2	1	1	0	4	2	0	1	0	3	0	1	0	0	1
	4:00 PM	1	0	0	2	3	1	0	0	1	2	0	0	0	1	1
	4:15 PM	4	1	1	2	8	3	1	1	2	7	1	0	0	0	1
	4:30 PM	1	0	1	2	4	1	0	1	2	4	0	0	0	0	0
	4:45 PM	4	1	0	4	9	4	1	0	4	9	0	0	0	0	0
	5:00 PM	3	4	3	1	11	3	2	3	1	9	0	2	0	0	2
	5:15 PM	3	1	2	0	6	3	0	2	0	5	0	1	0	0	1
	5:30 PM	0	3	3	0	6	0	2	3	0	5	0	1	0	0	1
	5:45 PM	3	1	0	2	6	2	1	0	2	5	1	0	0	0	1
	TOTAL	25	14	12	17	68	23	9	12	16	60	2	5	0	1	8
	PM BEGIN PEAK HR	4:45 PM					10	5	8	5	28	0	4	0	0	4

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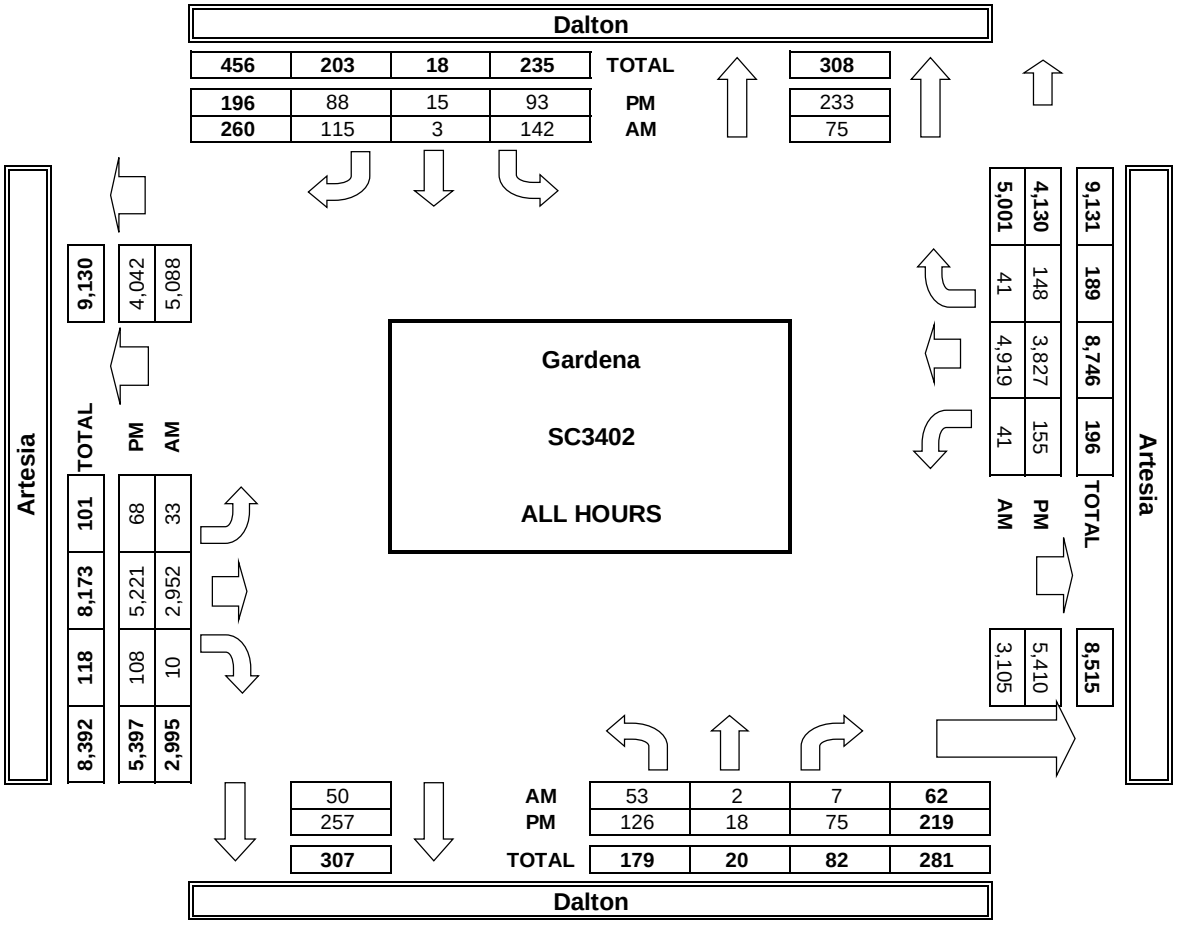
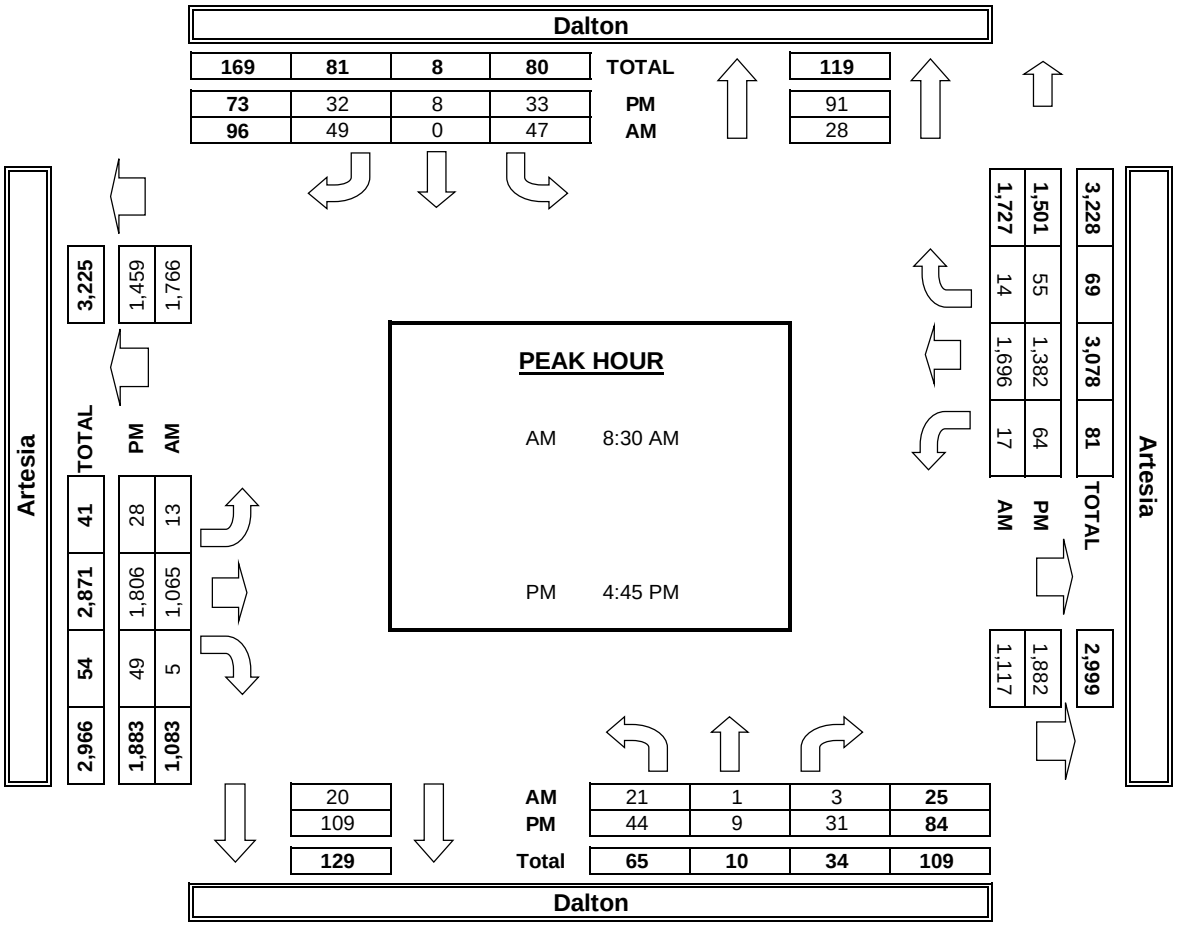
TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T218

DATE: Tue, May 3, 22

LOCATION: Gardena
NORTH & SOUTH: Normandie
EAST & WEST: Artesia

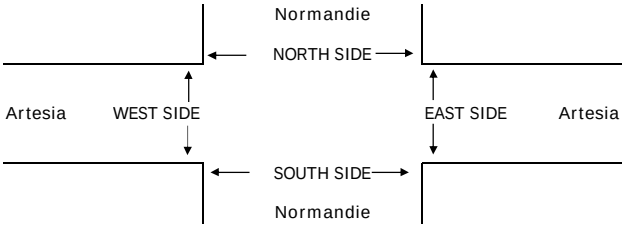
PROJECT #: SC3403
LOCATION #: 3
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

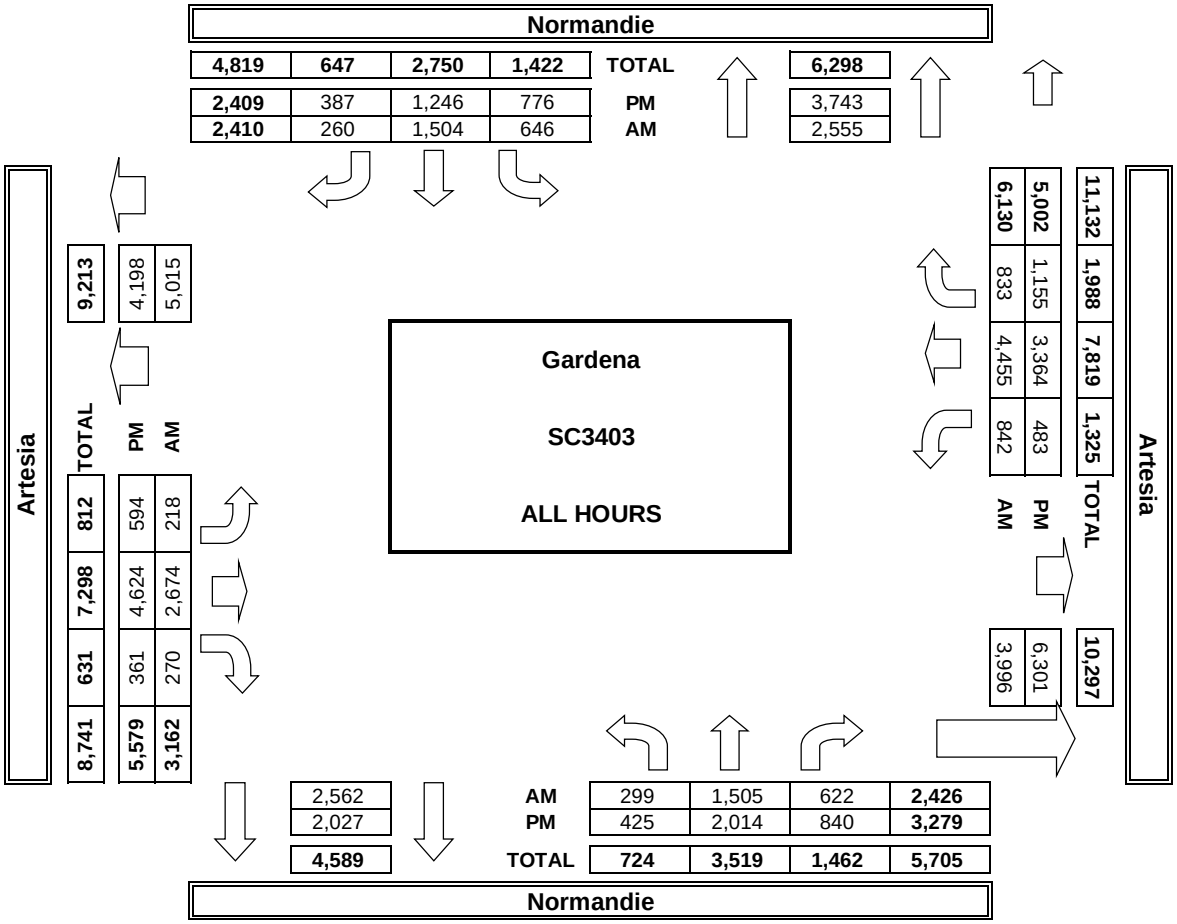
		NORTHBOUND (Normandie)			SOUTHBOUND (Normandie)			EASTBOUND (Artesia)			WESTBOUND (Artesia)				U-TURNS				
	LANES:	NL 1	NT 2	NR 1	SL 2	ST 2	SR 0	EL 2	ET 4	ER 0	WL 2	WT 4	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	13	76	31	42	78	16	9	179	8	96	317	68	933	0	0	1	5	6
	7:15 AM	21	77	53	41	101	14	12	232	13	76	385	115	1,140	0	0	0	3	3
	7:30 AM	24	115	47	60	142	10	14	201	18	96	367	66	1,160	0	0	0	5	5
	7:45 AM	28	141	55	71	193	27	10	230	23	76	368	91	1,313	0	0	0	9	9
	8:00 AM	34	167	69	95	185	29	19	236	33	56	383	77	1,383	0	0	0	4	4
	8:15 AM	41	195	84	54	182	30	25	222	38	66	352	52	1,341	0	0	0	6	6
	8:30 AM	31	153	59	51	137	30	20	225	24	90	413	69	1,302	0	0	0	7	7
	8:45 AM	23	124	47	54	102	28	32	246	30	55	381	73	1,195	0	0	0	4	4
	9:00 AM	26	131	52	45	110	23	21	221	27	67	378	64	1,165	0	0	0	3	3
	9:15 AM	22	118	45	50	98	18	26	226	22	55	370	59	1,109	0	0	0	2	2
	9:30 AM	17	106	39	40	85	20	17	233	15	52	388	52	1,064	0	0	0	4	4
	9:45 AM	19	102	41	43	91	15	13	223	19	57	353	47	1,023	0	0	0	2	2
	VOLUMES	299	1,505	622	646	1,504	260	218	2,674	270	842	4,455	833	14,128	0	0	1	54	55
	APPROACH %	12%	62%	26%	27%	62%	11%	7%	85%	9%	14%	73%	14%						
	APP/DEPART	2,426	/	2,555	2,410	/	2,562	3,162	/	3,996	6,130	/	5,015	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	134	656	267	271	697	116	74	913	118	288	1,516	289	5,339					
	APPROACH %	13%	62%	25%	25%	64%	11%	7%	83%	11%	14%	72%	14%						
	PEAK HR FACTOR		0.826			0.877			0.959			0.915		0.965					
	APP/DEPART	1,057	/	1,019	1,084	/	1,077	1,105	/	1,477	2,093	/	1,766	0					
PM	3:00 PM	32	153	66	58	94	26	38	379	23	30	257	97	1,253	0	0	1	3	4
	3:15 PM	28	164	61	68	99	33	50	390	29	38	261	83	1,304	0	0	2	4	6
	3:30 PM	35	158	65	57	103	28	54	384	25	38	241	101	1,289	0	0	2	3	5
	3:45 PM	26	162	72	65	96	35	43	371	30	35	248	88	1,271	0	0	1	6	7
	4:00 PM	31	168	69	74	101	29	51	364	24	26	260	110	1,307	0	0	1	2	3
	4:15 PM	39	160	69	59	112	37	48	416	28	50	279	81	1,378	0	0	3	7	10
	4:30 PM	39	174	69	69	106	40	57	377	25	40	253	100	1,349	0	0	2	7	9
	4:45 PM	24	159	78	69	102	35	54	417	27	51	374	92	1,482	0	0	1	7	8
	5:00 PM	42	196	78	76	106	24	38	340	41	32	291	85	1,349	0	1	3	6	10
	5:15 PM	46	187	74	67	117	34	60	403	29	58	283	104	1,462	0	1	3	7	11
	5:30 PM	38	172	68	62	97	32	52	405	36	50	330	110	1,452	0	0	2	7	9
	5:45 PM	45	161	71	52	113	34	49	378	44	35	287	104	1,373	0	0	1	4	5
	VOLUMES	425	2,014	840	776	1,246	387	594	4,624	361	483	3,364	1,155	16,269	0	2	22	63	87
	APPROACH %	13%	61%	26%	32%	52%	16%	11%	83%	6%	10%	67%	23%						
	APP/DEPART	3,279	/	3,743	2,409	/	2,027	5,579	/	6,301	5,002	/	4,198	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	150	714	298	274	422	125	204	1,565	133	191	1,278	391	5,745					
	APPROACH %	13%	61%	26%	33%	51%	15%	11%	82%	7%	10%	69%	21%						
	PEAK HR FACTOR		0.919			0.942			0.955			0.899		0.969					
	APP/DEPART	1,162	/	1,302	821	/	719	1,902	/	2,162	1,860	/	1,562	0					

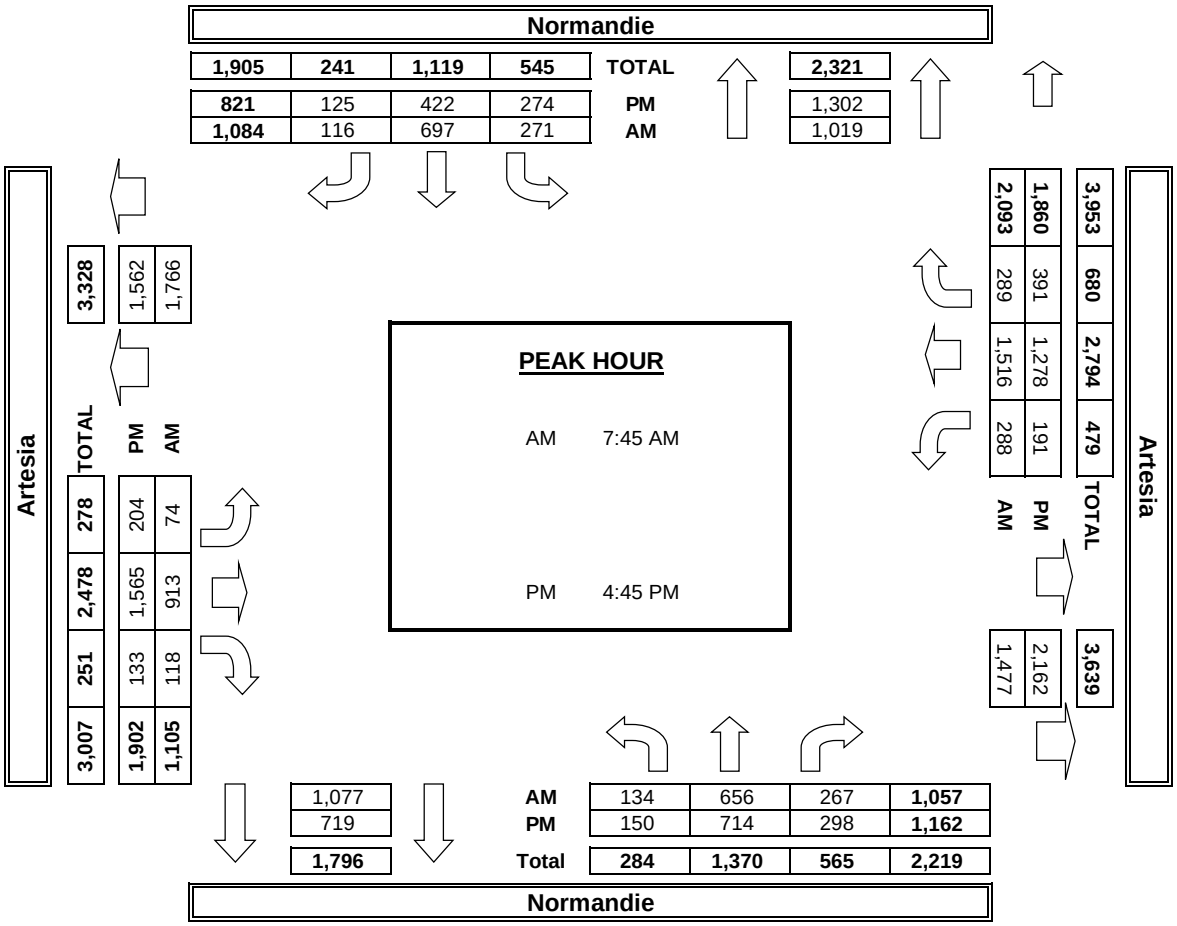


		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	2	2	1	0	5	2	1	0	0	3	0	1	1	0	2
	7:15 AM	0	2	4	0	6	0	0	3	0	3	0	2	1	0	3
	7:30 AM	2	1	3	1	7	2	0	3	0	5	0	1	0	1	2
	7:45 AM	3	0	5	0	8	3	0	5	0	8	0	0	0	0	0
	8:00 AM	4	3	9	1	17	4	2	8	1	15	0	1	1	0	2
	8:15 AM	1	1	13	0	15	1	1	11	0	13	0	0	2	0	2
	8:30 AM	4	3	2	0	9	3	2	2	0	7	1	1	0	0	2
	8:45 AM	1	4	5	1	11	1	3	3	1	8	0	1	2	0	3
	9:00 AM	1	2	4	0	7	1	2	4	0	7	0	0	0	0	0
	9:15 AM	2	1	1	1	5	2	0	1	1	4	0	1	0	0	1
	9:30 AM	1	1	3	0	5	1	1	2	0	4	0	0	1	0	1
	9:45 AM	1	1	2	0	4	1	1	2	0	4	0	0	0	0	0
	TOTAL	22	21	52	4	99	21	13	44	3	81	1	8	8	1	18
	AM BEGIN PEAK HR	7:45 AM					11	5	26	1	43	1	2	3	0	6
PM	3:00 PM	1	1	3	0	5	1	1	3	0	5	0	0	0	0	0
	3:15 PM	2	0	4	1	7	2	0	4	1	7	0	0	0	0	0
	3:30 PM	3	2	7	0	12	3	1	7	0	11	0	1	0	0	1
	3:45 PM	1	2	5	0	8	1	2	5	0	8	0	0	0	0	0
	4:00 PM	2	1	6	0	9	2	1	6	0	9	0	0	0	0	0
	4:15 PM	2	3	9	2	16	2	3	9	2	16	0	0	0	0	0
	4:30 PM	2	4	7	0	13	2	4	7	0	13	0	0	0	0	0
	4:45 PM	2	2	5	0	9	2	2	4	0	8	0	0	1	0	1
	5:00 PM	7	1	11	1	20	7	0	10	1	18	0	1	1	0	2
	5:15 PM	4	3	6	0	13	4	1	5	0	10	0	2	1	0	3
	5:30 PM	2	1	2	0	5	2	0	2	0	4	0	1	0	0	1
	5:45 PM	2	1	6	1	10	1	1	2	1	5	1	0	4	0	5
	TOTAL	30	21	71	5	127	29	16	64	5	114	1	5	7	0	13
	PM BEGIN PEAK HR	4:45 PM					15	3	21	1	40	0	4	3	0	7

AimTD LLC

TURNING MOVEMENT COUNTS





APPENDIX C

HCM LEVELS OF SERVICE EXPLANATION
ICU LEVELS OF SERVICE EXPLANATION

HCM AND ICU DATA WORKSHEETS
WEEKDAY AM AND PM PEAK HOURS

INTERSECTION CAPACITY UTILIZATION (ICU) DESCRIPTION

Level of Service is a term used to describe prevailing conditions and their effect on traffic. Broadly interpreted, the Levels of Service concept denotes any one of a number of differing combinations of operating conditions which may occur as a roadway is accommodating various traffic volumes. Level of Service is a qualitative measure of the effect of such factors as travel speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience.

Six Levels of Service, A through F, have been defined in the 1965 *Highway Capacity Manual*, published by the Transportation Research Board. Level of Service A describes a condition of free flow, with low traffic volumes and relatively high speeds, while Level of Service F describes forced traffic flow at low speeds with jammed conditions and queues which cannot clear during the green phases.

The Intersection Capacity Utilization (ICU) method of intersection capacity analysis has been used in our studies. It directly relates traffic demand and available capacity for key intersection movements, regardless of present signal timing, The capacity per hour of green time for each approach is calculated based on the methods of the *Highway Capacity Manual*. The proportion of total signal time needed by each key movement is determined and compared to the total time available (100 percent of the hour). The result of summing the requirements of the conflicting key movements plus an allowance for clearance times is expressed as a decimal fraction. Conflicting key traffic movements are those opposing movements whose combined green time requirements are greatest.

The resulting ICU represents the proportion of the total hour required to accommodate intersection demand volumes if the key conflicting traffic movements are operating at capacity. Other movements may be operating near capacity, or may be operating at significantly better levels. The ICU may be translated to a Level of Service as tabulated below.

The Levels of Service (abbreviated from the *Highway Capacity Manual*) are listed here with their corresponding ICU and Load Factor equivalents. Load Factor is that proportion of the signal cycles during the peak hour which are fully loaded; i.e. when all of the vehicles waiting at the beginning of green are not able to clear on that green phase.

Intersection Capacity Utilization Characteristics

Level of Service	Load Factor	Equivalent ICU
A	0.0	0.00 - 0.60
B	0.0 - 0.1	0.61 - 0.70
C	0.1 - 0.3	0.71 - 0.80
D	0.3 - 0.7	0.81 - 0.90
E	0.7 - 1.0	0.91 - 1.00
F	Not Applicable	Not Applicable

SERVICE LEVEL A
There are no loaded cycles and few are even close to loaded at this service level. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.

SERVICE LEVEL B
This level represents stable operation where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.

SERVICE LEVEL C
At this level stable operation continues. Loading is still intermittent but more frequent than at Level B. Occasionally drivers may have to wait through more than one red signal indication and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.

SERVICE LEVEL D
This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak hour, but enough cycles with lower demand occur to permit periodic clearance of queues, thus preventing excessive backups. Drivers frequently have to wait through more than one red signal. This level is the lower limit of acceptable operation to most drivers.

SERVICE LEVEL E
This represents near capacity and capacity operation. At capacity (ICU = 1.0) it represents the most vehicles that the particular intersection can accommodate. However, full utilization of every signal cycle is seldom attained no matter how great the demand. At this level all drivers wait through more than one red signal, and frequently through several.

SERVICE LEVEL F
Jammed conditions. Traffic backed up from a downstream location on one of the street restricts or prevents movement of traffic through the intersection under consideration.

LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS

In the *Highway Capacity Manual (HCM)*, published by the Transportation Research Board, level of service for signalized intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, geometrics, traffic, and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions: in the absence of traffic control, in the absence of geometric delay, in the absence of incidents, and when there are no other vehicles on the road. Only the portion of total delay attributed to the control facility is quantified. This delay is called *control delay*. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay.

Level of Service criteria for traffic signals are stated in terms of the average control delay per vehicle. Delay is a complex measure and is dependent on a number of variables, including the quality of progression, the cycle length, the green ratio, and the *v/c* ratio for the lane group in question.

Level of Service Criteria for Signalized Intersections

Level of Service	Control Delay (Sec/Veh)
A	≤ 10
B	> 10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80

Level of Service (LOS) values are used to describe intersection operations with service levels varying from LOS A (free flow) to LOS F (jammed condition). The following descriptions summarize *HCM* criteria for each level of service:

LOS A describes operations with very low control delay, up to 10 seconds per vehicle. This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay values.

LOS B describes operations with control delay greater than 10 and up to 20 seconds per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of delay.

LOS C describes operations with control delay greater than 20 and up to 35 seconds per vehicle. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

LOS D describes operations with control delay greater than 35 and up to 55 seconds per vehicle. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high *v/c* ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

LOS E describes operations with control delay greater than 55 and up to 80 seconds per vehicle. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high *v/c* ratios. Individual cycle failures are frequent occurrences.

LOS F describes operations with control delay in excess of 80 seconds per vehicle. This level, considered to be unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the lane groups. It may also occur at high *v/c* ratios with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors to such delay levels.

LEVEL OF SERVICE FOR UNSIGNALIZED INTERSECTIONS

In the *Highway Capacity Manual (HCM)*, published by the Transportation Research Board, 2000, level of service for unsignalized intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, geometrics, traffic, and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, in the absence of incidents, control, traffic, or geometric delay. Only the portion of total delay attributed to the traffic control measures, either traffic signals or stop signs, is quantified. This delay is called *control delay*. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay.

Level of Service criteria for unsignalized intersections are stated in terms of the average control delay per vehicle. The level of service is determined by the computed or measured control delay and is defined for each minor movement. Average control delay for any particular minor movement is a function of the service time for the approach and the degree of utilization. (Level of service is not defined for the intersection as a whole for two-way stop controlled intersections.)

Level of Service Criteria for TWSC/AWSC Intersections

Level of Service	Average Control Delay (Sec/Veh)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Level of Service (LOS) values are used to describe intersection operations with service levels varying from LOS A (free flow) to LOS F (jammed condition). The following descriptions summarize *HCM* criteria for each level of service:

LOS A describes operations with very low control delay, up to 10 seconds per vehicle.

LOS B describes operations with control delay greater than 10 and up to 15 seconds per vehicle.

LOS C describes operations with control delay greater than 15 and up to 25 seconds per vehicle.

LOS D describes operations with control delay greater than 25 and up to 35 seconds per vehicle.

LOS E describes operations with control delay greater than 35 and up to 50 seconds per vehicle.

LOS F describes operations with control delay in excess of 50 seconds per vehicle. For two-way stop controlled intersections, LOS F exists when there are insufficient gaps of suitable size to allow side-street demand to safely cross through a major-street traffic stream. This level of service is generally evident from extremely long control delays experienced by side-street traffic and by queuing on the minor-street approaches.

LINSCOTT, LAW & GREENSPAN, ENGINEERS
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INTERSECTION CAPACITY UTILIZATION

Western Avenue @ Artesia Boulevard

		Peak hr:	AM		
N-S St:	Western Avenue	Annual Growth:	1.00%	Date:	10/12/2023
E-W St:	Artesia Boulevard	Applied Growth:	3.03%	Existing Year:	2023
Project:	TPG 1610 Artesia Project/1-23-4536-1			Projection Year:	2026
File:	ICU1				

	2023 EXISTING TRAFFIC			2026 FUTURE PRE-PROJECT					2026 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	155	1600	0.097 *	5	8	168	1600	0.105 *	0	168	1600	0.105 *
NB Thru	736	3200	0.230	22	7	765	3200	0.239	0	765	3200	0.239
NB Right	159	1600	0.099	5	11	175	1600	0.109	0	175	1600	0.109
SB Left	208	2880	0.072	6	9	223	2880	0.077	0	223	2880	0.077
SB Thru	693	3200	0.217 *	21	5	719	3200	0.225 *	0	719	3200	0.225 *
SB Right	94	1600	0.059	3	0	97	1600	0.061	0	97	1600	0.061
EB Left	123	1600	0.077 *	4	0	127	1600	0.079 *	0	127	1600	0.079 *
EB Thru	728	4800	0.152	22	18	768	4800	0.160	0	768	4800	0.160
EB Right	136	1600	0.085	4	6	146	1600	0.091	0	146	1600	0.091
WB Left	303	2880	0.105	9	5	317	2880	0.110	3	320	2880	0.111
WB Thru	1282	4800	0.326 *	39	6	1327	4800	0.338 *	10	1337	4800	0.340 *
WB Right	282	0	0.000	9	3	294	0	0.000	3	297	0	0.000
Yellow Allowance			0.100 *					0.100 *				0.100 *
ICU			0.816					0.847				0.849
LOS			D					D				D

** Key conflicting movement as a part of ICU*
1 Counts conducted by: AimTD LLC.
2 Capacity expressed in veh/hour of green

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INTERSECTION CAPACITY UTILIZATION

Western Avenue @ Artesia Boulevard
Peak hr: PM

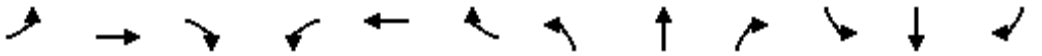
N-S St: Western Avenue
E-W St: Artesia Boulevard
Project: TPG 1610 Artesia Project/1-23-45
File: ICU1

Annual Growth: 1.00%
Applied Growth: 3.03%

Date: 10/12/2023
Existing Year: 2023
Projection Year: 2026

	2023 EXISTING TRAFFIC			2026 FUTURE PRE-PROJECT					2026 FUTURE WITH PROJECT			
Movement	1 Volume	2 Capacity	V/C Ratio	Added Amb. Grow. Volume	Added Rel. Proj. Volume	Total Volume	2 Capacity	V/C Ratio	Added Volume	Total Volume	2 Capacity	V/C Ratio
NB Left	120	1600	0.075	4	7	131	1600	0.082	0	131	1600	0.082
NB Thru	762	3200	0.238 *	23	6	791	3200	0.247 *	0	791	3200	0.247 *
NB Right	265	1600	0.166	8	7	280	1600	0.175	8	288	1600	0.180
SB Left	223	2880	0.077 *	7	3	233	2880	0.081 *	6	239	2880	0.083 *
SB Thru	654	3200	0.204	20	8	682	3200	0.213	0	682	3200	0.213
SB Right	107	1600	0.067	3	0	110	1600	0.069	0	110	1600	0.069
EB Left	193	1600	0.121 *	6	0	199	1600	0.124 *	0	199	1600	0.124 *
EB Thru	1298	4800	0.270	39	8	1345	4800	0.280	6	1351	4800	0.281
EB Right	154	1600	0.096	5	10	169	1600	0.106	0	169	1600	0.106
WB Left	278	2880	0.097	8	13	299	2880	0.104	0	299	2880	0.104
WB Thru	950	4800	0.264 *	29	18	997	4800	0.278 *	0	997	4800	0.278 *
WB Right	317	0	0.000	10	9	336	0	0.000	0	336	0	0.000
Yellow Allowance			0.100 *					0.100 *				0.100 *
ICU			0.800					0.830				0.832
LOS			C					D				D

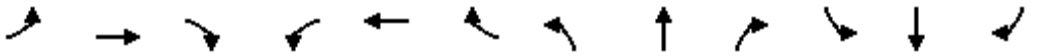
** Key conflicting movement as a part of ICU*
1 Counts conducted by: AimTD LLC.
2 Capacity expressed in veh/hour of green



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	728	136	303	1282	282	155	736	159	208	693	94
Future Volume (veh/h)	123	728	136	303	1282	282	155	736	159	208	693	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	134	791	148	329	1393	307	168	800	173	226	753	102
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	160	1760	546	393	1541	339	193	1007	444	317	948	420
Arrive On Green	0.09	0.34	0.34	0.04	0.12	0.12	0.11	0.28	0.28	0.09	0.27	0.27
Sat Flow, veh/h	1781	5106	1584	3456	4181	920	1781	3554	1568	3456	3554	1576
Grp Volume(v), veh/h	134	791	148	329	1134	566	168	800	173	226	753	102
Grp Sat Flow(s),veh/h/ln	1781	1702	1584	1728	1702	1697	1781	1777	1568	1728	1777	1576
Q Serve(g_s), s	8.9	14.4	8.1	11.4	39.4	39.5	11.1	25.0	10.7	7.6	23.7	6.1
Cycle Q Clear(g_c), s	8.9	14.4	8.1	11.4	39.4	39.5	11.1	25.0	10.7	7.6	23.7	6.1
Prop In Lane	1.00		1.00	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	160	1760	546	393	1255	626	193	1007	444	317	948	420
V/C Ratio(X)	0.84	0.45	0.27	0.84	0.90	0.91	0.87	0.79	0.39	0.71	0.79	0.24
Avail Cap(c_a), veh/h	163	1760	546	518	1255	626	193	1007	444	317	948	420
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	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	53.8	30.5	28.4	56.7	50.6	50.6	52.7	39.8	34.6	53.0	40.9	34.5
Incr Delay (d2), s/veh	29.8	0.8	1.2	7.1	10.7	19.1	31.1	6.5	2.6	12.9	6.8	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.9	9.8	5.8	9.4	27.1	28.8	10.8	17.1	7.7	6.9	16.4	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.6	31.3	29.6	63.7	61.3	69.7	83.8	46.2	37.2	65.8	47.8	35.9
LnGrp LOS	F	C	C	E	E	E	F	D	D	E	D	D
Approach Vol, veh/h		1073			2029			1141			1081	
Approach Delay, s/veh		37.6			64.1			50.4			50.4	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.6	47.4	17.0	38.0	14.8	50.2	15.0	40.0
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	18.0	37.0	13.0	32.0	11.0	44.0	11.0	34.0
Max Q Clear Time (g_c+I1), s	13.4	16.4	13.1	25.7	10.9	41.5	9.6	27.0
Green Ext Time (p_c), s	0.3	9.7	0.0	3.9	0.0	2.3	0.1	4.7

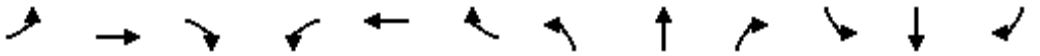
Intersection Summary	
HCM 6th Ctrl Delay	53.0
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	1298	154	278	950	317	120	762	265	223	654	107
Future Volume (veh/h)	193	1298	154	278	950	317	120	762	265	223	654	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	210	1411	167	302	1033	345	130	828	288	242	711	116
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	238	1839	570	357	1245	416	156	983	434	323	1003	445
Arrive On Green	0.13	0.36	0.36	0.14	0.44	0.44	0.09	0.28	0.28	0.09	0.28	0.28
Sat Flow, veh/h	1781	5106	1584	3456	3775	1260	1781	3554	1568	3456	3554	1577
Grp Volume(v), veh/h	210	1411	167	302	931	447	130	828	288	242	711	116
Grp Sat Flow(s),veh/h/ln	1781	1702	1584	1728	1702	1631	1781	1777	1568	1728	1777	1577
Q Serve(g_s), s	13.9	29.3	9.1	10.2	29.0	29.0	8.6	26.4	19.5	8.2	21.5	6.8
Cycle Q Clear(g_c), s	13.9	29.3	9.1	10.2	29.0	29.0	8.6	26.4	19.5	8.2	21.5	6.8
Prop In Lane	1.00		1.00	1.00		0.77	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	238	1839	570	357	1122	538	156	983	434	323	1003	445
V/C Ratio(X)	0.88	0.77	0.29	0.85	0.83	0.83	0.83	0.84	0.66	0.75	0.71	0.26
Avail Cap(c_a), veh/h	278	1839	570	392	1122	538	184	983	434	323	1003	445
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	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	51.1	33.9	27.5	50.8	30.7	30.7	53.9	40.9	38.5	53.0	38.6	33.4
Incr Delay (d2), s/veh	24.1	3.1	1.3	14.7	7.2	13.8	23.5	8.7	7.8	14.8	4.2	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.1	17.8	6.4	8.5	16.9	17.5	8.4	18.2	13.0	7.5	14.9	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.2	37.1	28.8	65.5	37.9	44.6	77.3	49.6	46.3	67.9	42.9	34.8
LnGrp LOS	E	D	C	E	D	D	E	D	D	E	D	C
Approach Vol, veh/h		1788			1680			1246			1069	
Approach Delay, s/veh		40.8			44.6			51.7			47.6	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.4	49.2	14.5	39.9	20.0	45.6	15.2	39.2
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	13.6	42.0	12.4	32.0	18.7	36.9	11.2	33.2
Max Q Clear Time (g_c+I1), s	12.2	31.3	10.6	23.5	15.9	31.0	10.2	28.4
Green Ext Time (p_c), s	0.2	6.7	0.0	3.2	0.1	3.9	0.1	2.7

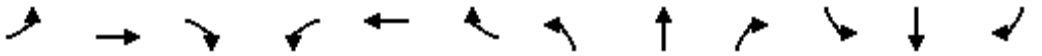
Intersection Summary	
HCM 6th Ctrl Delay	45.5
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	768	146	317	1327	294	168	765	175	223	719	97
Future Volume (veh/h)	127	768	146	317	1327	294	168	765	175	223	719	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	138	835	159	345	1442	320	183	832	190	242	782	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	1894	587	331	1564	346	171	962	425	331	962	427
Arrive On Green	0.09	0.37	0.37	0.19	0.75	0.75	0.10	0.27	0.27	0.10	0.27	0.27
Sat Flow, veh/h	1781	5106	1584	3456	4176	924	1781	3554	1567	3456	3554	1576
Grp Volume(v), veh/h	138	835	159	345	1174	588	183	832	190	242	782	105
Grp Sat Flow(s),veh/h/ln	1781	1702	1584	1728	1702	1696	1781	1777	1567	1728	1777	1576
Q Serve(g_s), s	9.1	14.8	8.4	11.5	33.5	33.9	11.5	26.7	12.1	8.2	24.7	6.2
Cycle Q Clear(g_c), s	9.1	14.8	8.4	11.5	33.5	33.9	11.5	26.7	12.1	8.2	24.7	6.2
Prop In Lane	1.00		1.00	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	1894	587	331	1275	635	171	962	425	331	962	427
V/C Ratio(X)	0.84	0.44	0.27	1.04	0.92	0.92	1.07	0.86	0.45	0.73	0.81	0.25
Avail Cap(c_a), veh/h	171	1894	587	331	1275	635	171	962	425	331	962	427
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.6	28.4	26.4	48.5	13.6	13.7	54.3	41.7	36.3	52.7	40.9	34.2
Incr Delay (d2), s/veh	29.0	0.7	1.1	60.7	12.2	21.3	89.3	10.2	3.4	13.3	7.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.1	9.9	5.9	11.6	11.2	13.3	14.7	18.6	8.6	7.4	17.1	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.6	29.1	27.5	109.2	25.9	35.0	143.6	51.9	39.7	66.0	48.3	35.5
LnGrp LOS	F	C	C	F	C	D	F	D	D	E	D	D
Approach Vol, veh/h		1132			2107			1205			1129	
Approach Delay, s/veh		35.4			42.1			63.9			50.9	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	50.0	16.0	38.0	15.5	50.5	16.0	38.0
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	11.5	44.5	11.5	32.5	11.5	44.5	11.5	32.5
Max Q Clear Time (g_c+I1), s	13.5	16.8	13.5	26.7	11.1	35.9	10.2	28.7
Green Ext Time (p_c), s	0.0	6.4	0.0	2.6	0.0	6.3	0.1	2.0

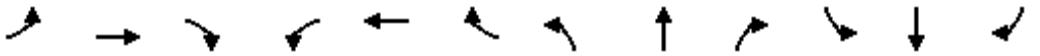
Intersection Summary	
HCM 6th Ctrl Delay	47.2
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	199	1345	169	299	997	336	131	791	280	233	682	110
Future Volume (veh/h)	199	1345	169	299	997	336	131	791	280	233	682	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	216	1462	184	325	1084	365	142	860	304	253	741	120
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	1894	587	331	1397	470	168	962	425	331	968	429
Arrive On Green	0.10	0.37	0.37	0.19	0.74	0.74	0.09	0.27	0.27	0.10	0.27	0.27
Sat Flow, veh/h	1781	5106	1584	3456	3767	1268	1781	3554	1567	3456	3554	1576
Grp Volume(v), veh/h	216	1462	184	325	980	469	142	860	304	253	741	120
Grp Sat Flow(s),veh/h/ln	1781	1702	1584	1728	1702	1631	1781	1777	1567	1728	1777	1576
Q Serve(g_s), s	11.5	30.3	9.9	11.2	21.0	21.0	9.4	27.9	21.1	8.6	23.0	7.2
Cycle Q Clear(g_c), s	11.5	30.3	9.9	11.2	21.0	21.0	9.4	27.9	21.1	8.6	23.0	7.2
Prop In Lane	1.00		1.00	1.00		0.78	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	171	1894	587	331	1262	605	168	962	425	331	968	429
V/C Ratio(X)	1.27	0.77	0.31	0.98	0.78	0.78	0.85	0.89	0.72	0.76	0.77	0.28
Avail Cap(c_a), veh/h	171	1894	587	331	1262	605	171	962	425	331	968	429
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.3	33.3	26.9	48.4	12.5	12.5	53.5	42.1	39.6	52.9	40.1	34.4
Incr Delay (d2), s/veh	157.5	3.1	1.4	44.3	4.7	9.4	30.1	12.5	9.9	15.4	5.8	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	19.9	18.2	7.0	10.3	8.4	9.2	9.4	19.6	14.0	7.8	15.9	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	211.8	36.4	28.3	92.7	17.2	21.9	83.6	54.5	49.5	68.3	45.9	36.0
LnGrp LOS	F	D	C	F	B	C	F	D	D	E	D	D
Approach Vol, veh/h		1862			1774			1306			1114	
Approach Delay, s/veh		55.9			32.3			56.5			49.9	
Approach LOS		E			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	50.0	15.8	38.2	16.0	50.0	16.0	38.0
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	11.5	44.5	11.5	32.5	11.5	44.5	11.5	32.5
Max Q Clear Time (g_c+I1), s	13.2	32.3	11.4	25.0	13.5	23.0	10.6	29.9
Green Ext Time (p_c), s	0.0	7.7	0.0	3.0	0.0	9.9	0.1	1.6

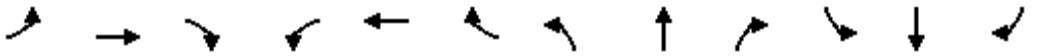
Intersection Summary	
HCM 6th Ctrl Delay	48.0
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	768	146	320	1337	297	168	765	175	223	719	97
Future Volume (veh/h)	127	768	146	320	1337	297	168	765	175	223	719	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	138	835	159	348	1453	323	183	832	190	242	782	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	1894	587	331	1564	346	171	962	425	331	962	427
Arrive On Green	0.09	0.37	0.37	0.19	0.75	0.75	0.10	0.27	0.27	0.10	0.27	0.27
Sat Flow, veh/h	1781	5106	1584	3456	4175	925	1781	3554	1567	3456	3554	1576
Grp Volume(v), veh/h	138	835	159	348	1184	592	183	832	190	242	782	105
Grp Sat Flow(s),veh/h/ln	1781	1702	1584	1728	1702	1696	1781	1777	1567	1728	1777	1576
Q Serve(g_s), s	9.1	14.8	8.4	11.5	34.4	34.9	11.5	26.7	12.1	8.2	24.7	6.2
Cycle Q Clear(g_c), s	9.1	14.8	8.4	11.5	34.4	34.9	11.5	26.7	12.1	8.2	24.7	6.2
Prop In Lane	1.00		1.00	1.00		0.55	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	1894	587	331	1275	635	171	962	425	331	962	427
V/C Ratio(X)	0.84	0.44	0.27	1.05	0.93	0.93	1.07	0.86	0.45	0.73	0.81	0.25
Avail Cap(c_a), veh/h	171	1894	587	331	1275	635	171	962	425	331	962	427
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.6	28.4	26.4	48.5	13.7	13.8	54.3	41.7	36.3	52.7	40.9	34.2
Incr Delay (d2), s/veh	29.0	0.7	1.1	63.4	13.0	22.5	89.3	10.2	3.4	13.3	7.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.1	9.9	5.9	11.8	11.4	13.6	14.7	18.6	8.6	7.4	17.1	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.6	29.1	27.5	111.9	26.7	36.3	143.6	51.9	39.7	66.0	48.3	35.5
LnGrp LOS	F	C	C	F	C	D	F	D	D	E	D	D
Approach Vol, veh/h		1132			2124			1205			1129	
Approach Delay, s/veh		35.4			43.3			63.9			50.9	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	50.0	16.0	38.0	15.5	50.5	16.0	38.0
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	11.5	44.5	11.5	32.5	11.5	44.5	11.5	32.5
Max Q Clear Time (g_c+I1), s	13.5	16.8	13.5	26.7	11.1	36.9	10.2	28.7
Green Ext Time (p_c), s	0.0	6.4	0.0	2.6	0.0	5.7	0.1	2.0

Intersection Summary	
HCM 6th Ctrl Delay	47.7
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	199	1351	169	299	997	336	131	791	288	239	682	110
Future Volume (veh/h)	199	1351	169	299	997	336	131	791	288	239	682	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	216	1468	184	325	1084	365	142	860	313	260	741	120
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	1894	587	331	1397	470	168	962	425	331	968	429
Arrive On Green	0.10	0.37	0.37	0.19	0.74	0.74	0.09	0.27	0.27	0.10	0.27	0.27
Sat Flow, veh/h	1781	5106	1584	3456	3767	1268	1781	3554	1567	3456	3554	1576
Grp Volume(v), veh/h	216	1468	184	325	980	469	142	860	313	260	741	120
Grp Sat Flow(s),veh/h/ln	1781	1702	1584	1728	1702	1631	1781	1777	1567	1728	1777	1576
Q Serve(g_s), s	11.5	30.5	9.9	11.2	21.0	21.0	9.4	27.9	21.8	8.8	23.0	7.2
Cycle Q Clear(g_c), s	11.5	30.5	9.9	11.2	21.0	21.0	9.4	27.9	21.8	8.8	23.0	7.2
Prop In Lane	1.00		1.00	1.00		0.78	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	171	1894	587	331	1262	605	168	962	425	331	968	429
V/C Ratio(X)	1.27	0.78	0.31	0.98	0.78	0.78	0.85	0.89	0.74	0.79	0.77	0.28
Avail Cap(c_a), veh/h	171	1894	587	331	1262	605	171	962	425	331	968	429
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.3	33.3	26.9	48.4	12.5	12.5	53.5	42.1	39.9	53.0	40.1	34.4
Incr Delay (d2), s/veh	157.5	3.2	1.4	44.3	4.7	9.4	30.1	12.5	10.9	16.9	5.8	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	19.9	18.3	7.0	10.3	8.4	9.2	9.4	19.6	14.5	8.0	15.9	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	211.8	36.5	28.3	92.7	17.2	21.9	83.6	54.5	50.8	69.9	45.9	36.0
LnGrp LOS	F	D	C	F	B	C	F	D	D	E	D	D
Approach Vol, veh/h		1868			1774			1315			1121	
Approach Delay, s/veh		56.0			32.3			56.8			50.4	
Approach LOS		E			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	50.0	15.8	38.2	16.0	50.0	16.0	38.0
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	11.5	44.5	11.5	32.5	11.5	44.5	11.5	32.5
Max Q Clear Time (g_c+I1), s	13.2	32.5	11.4	25.0	13.5	23.0	10.8	29.9
Green Ext Time (p_c), s	0.0	7.6	0.0	3.0	0.0	9.9	0.1	1.6

Intersection Summary	
HCM 6th Ctrl Delay	48.2
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	1076	5	17	1713	14	21	1	3	47	0	49
Future Volume (veh/h)	13	1076	5	17	1713	14	21	1	3	47	0	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	1170	5	18	1862	15	23	1	3	51	0	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	22	3288	14	27	3288	26	366	15	375	205	15	182
Arrive On Green	0.02	1.00	1.00	0.00	0.21	0.21	0.24	0.24	0.24	0.24	0.00	0.24
Sat Flow, veh/h	1781	5248	22	1781	5225	42	1292	62	1579	677	61	767
Grp Volume(v), veh/h	14	759	416	18	1213	664	24	0	3	104	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1866	1781	1702	1863	1354	0	1579	1505	0	0
Q Serve(g_s), s	0.9	0.0	0.0	1.2	38.4	38.4	0.0	0.0	0.2	4.5	0.0	0.0
Cycle Q Clear(g_c), s	0.9	0.0	0.0	1.2	38.4	38.4	1.7	0.0	0.2	6.5	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.02	0.96		1.00	0.49		0.51
Lane Grp Cap(c), veh/h	22	2133	1169	27	2142	1172	380	0	375	402	0	0
V/C Ratio(X)	0.63	0.36	0.36	0.67	0.57	0.57	0.06	0.00	0.01	0.26	0.00	0.00
Avail Cap(c_a), veh/h	156	2133	1169	156	2142	1172	380	0	375	402	0	0
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.33	0.33	0.33	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	58.2	0.0	0.0	59.4	32.8	32.8	35.5	0.0	35.0	37.3	0.0	0.0
Incr Delay (d2), s/veh	10.5	0.5	0.8	3.5	0.4	0.7	0.3	0.0	0.0	1.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	0.2	0.5	1.0	21.4	23.3	1.1	0.0	0.1	4.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.8	0.5	0.8	63.0	33.2	33.5	35.8	0.0	35.0	38.9	0.0	0.0
LnGrp LOS	E	A	A	E	C	C	D	A	C	D	A	A
Approach Vol, veh/h		1189			1895			27			104	
Approach Delay, s/veh		1.4			33.6			35.7			38.9	
Approach LOS		A			C			D			D	

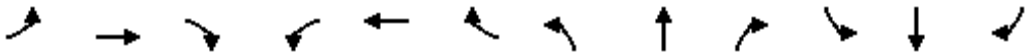
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	80.7		33.0	6.0	81.0		33.0				
Change Period (Y+Rc), s	4.5	5.5		4.5	4.5	5.5		4.5				
Max Green Setting (Gmax), s	10.5	66.5		28.5	10.5	66.5		28.5				
Max Q Clear Time (g_c+I1), s	3.2	2.0		8.5	2.9	40.4		3.7				
Green Ext Time (p_c), s	0.0	14.7		0.5	0.0	18.8		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		21.9
HCM 6th LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	1824	49	65	1396	56	44	9	31	33	8	32
Future Volume (veh/h)	28	1824	49	65	1396	56	44	9	31	33	8	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	1983	53	71	1517	61	48	10	34	36	9	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	38	3019	81	91	3124	126	331	64	375	182	55	150
Arrive On Green	0.04	1.00	1.00	0.02	0.20	0.20	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1781	5113	136	1781	5035	202	1163	270	1579	585	230	634
Grp Volume(v), veh/h	30	1319	717	71	1026	552	58	0	34	80	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1845	1781	1702	1833	1433	0	1579	1448	0	0
Q Serve(g_s), s	2.0	0.0	0.0	4.8	31.9	31.9	0.0	0.0	2.0	2.4	0.0	0.0
Cycle Q Clear(g_c), s	2.0	0.0	0.0	4.8	31.9	31.9	3.7	0.0	2.0	6.1	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.11	0.83		1.00	0.45		0.44
Lane Grp Cap(c), veh/h	38	2010	1090	91	2112	1138	395	0	375	387	0	0
V/C Ratio(X)	0.80	0.66	0.66	0.78	0.49	0.49	0.15	0.00	0.09	0.21	0.00	0.00
Avail Cap(c_a), veh/h	156	2010	1090	156	2112	1138	395	0	375	387	0	0
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.25	0.25	0.25	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	57.2	0.0	0.0	58.3	30.8	30.8	36.3	0.0	35.7	37.1	0.0	0.0
Incr Delay (d2), s/veh	13.2	1.7	3.1	1.4	0.2	0.4	0.8	0.0	0.5	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	0.9	1.7	3.4	17.6	18.9	2.6	0.0	1.5	3.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.4	1.7	3.1	59.7	31.0	31.2	37.0	0.0	36.1	38.3	0.0	0.0
LnGrp LOS	E	A	A	E	C	C	D	A	D	D	A	A
Approach Vol, veh/h		2066			1649			92			80	
Approach Delay, s/veh		3.2			32.3			36.7			38.3	
Approach LOS		A			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.6	76.4		33.0	7.0	80.0		33.0				
Change Period (Y+Rc), s	4.5	5.5		4.5	4.5	5.5		4.5				
Max Green Setting (Gmax), s	10.5	66.5		28.5	10.5	66.5		28.5				
Max Q Clear Time (g_c+I1), s	6.8	2.0		8.1	4.0	33.9		5.7				
Green Ext Time (p_c), s	0.0	37.7		0.4	0.0	18.1		0.4				

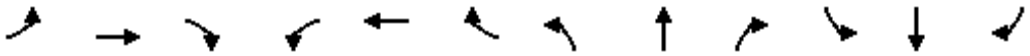
Intersection Summary		
HCM 6th Ctrl Delay		17.0
HCM 6th LOS		B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	1146	5	18	1779	14	22	1	3	48	0	50
Future Volume (veh/h)	13	1146	5	18	1779	14	22	1	3	48	0	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	1246	5	20	1934	15	24	1	3	52	0	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	22	3283	13	29	3289	25	365	14	375	206	15	182
Arrive On Green	0.02	1.00	1.00	0.01	0.21	0.21	0.24	0.24	0.24	0.24	0.00	0.24
Sat Flow, veh/h	1781	5249	21	1781	5226	41	1289	59	1579	677	61	767
Grp Volume(v), veh/h	14	808	443	20	1259	690	25	0	3	106	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1866	1781	1702	1863	1349	0	1579	1505	0	0
Q Serve(g_s), s	0.9	0.0	0.0	1.3	40.1	40.1	0.0	0.0	0.2	4.6	0.0	0.0
Cycle Q Clear(g_c), s	0.9	0.0	0.0	1.3	40.1	40.1	1.8	0.0	0.2	6.7	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.02	0.96		1.00	0.49		0.51
Lane Grp Cap(c), veh/h	22	2129	1167	29	2142	1172	379	0	375	402	0	0
V/C Ratio(X)	0.63	0.38	0.38	0.69	0.59	0.59	0.07	0.00	0.01	0.26	0.00	0.00
Avail Cap(c_a), veh/h	156	2129	1167	156	2142	1172	379	0	375	402	0	0
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.14	0.14	0.14	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	58.2	0.0	0.0	59.4	33.5	33.5	35.5	0.0	35.0	37.4	0.0	0.0
Incr Delay (d2), s/veh	10.5	0.5	0.9	1.6	0.2	0.3	0.3	0.0	0.0	1.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	0.3	0.5	1.1	20.8	22.7	1.1	0.0	0.1	5.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.8	0.5	0.9	60.9	33.7	33.8	35.9	0.0	35.0	38.9	0.0	0.0
LnGrp LOS	E	A	A	E	C	C	D	A	C	D	A	A
Approach Vol, veh/h		1265			1969			28			106	
Approach Delay, s/veh		1.4			34.0			35.8			38.9	
Approach LOS		A			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	80.6		33.0	6.0	81.0		33.0				
Change Period (Y+Rc), s	4.5	5.5		4.5	4.5	5.5		4.5				
Max Green Setting (Gmax), s	10.5	66.5		28.5	10.5	66.5		28.5				
Max Q Clear Time (g_c+I1), s	3.3	2.0		8.7	2.9	42.1		3.8				
Green Ext Time (p_c), s	0.0	16.3		0.5	0.0	18.5		0.1				

Intersection Summary												
HCM 6th Ctrl Delay			21.9									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	1897	50	67	1477	58	45	9	32	34	8	33
Future Volume (veh/h)	29	1897	50	67	1477	58	45	9	32	34	8	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	2062	54	73	1605	63	49	10	35	37	9	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	40	3014	79	94	3120	122	330	63	375	182	53	150
Arrive On Green	0.05	1.00	1.00	0.02	0.20	0.20	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1781	5116	134	1781	5040	198	1159	263	1579	581	224	631
Grp Volume(v), veh/h	32	1371	745	73	1084	584	59	0	35	82	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1846	1781	1702	1834	1422	0	1579	1436	0	0
Q Serve(g_s), s	2.1	0.0	0.0	4.9	34.0	34.0	0.0	0.0	2.1	2.6	0.0	0.0
Cycle Q Clear(g_c), s	2.1	0.0	0.0	4.9	34.0	34.0	3.9	0.0	2.1	6.5	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.11	0.83		1.00	0.45		0.44
Lane Grp Cap(c), veh/h	40	2005	1087	94	2107	1135	393	0	375	385	0	0
V/C Ratio(X)	0.79	0.68	0.69	0.78	0.51	0.51	0.15	0.00	0.09	0.21	0.00	0.00
Avail Cap(c_a), veh/h	156	2005	1087	156	2107	1135	393	0	375	385	0	0
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.17	0.17	0.17	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	57.0	0.0	0.0	58.3	31.7	31.7	36.3	0.0	35.7	37.2	0.0	0.0
Incr Delay (d2), s/veh	12.2	1.9	3.5	0.9	0.2	0.3	0.8	0.0	0.5	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.9	1.0	1.9	3.3	18.1	19.4	2.7	0.0	1.6	3.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.2	1.9	3.5	59.2	31.9	32.0	37.1	0.0	36.2	38.5	0.0	0.0
LnGrp LOS	E	A	A	E	C	C	D	A	D	D	A	A
Approach Vol, veh/h		2148			1741			94			82	
Approach Delay, s/veh		3.5			33.0			36.8			38.5	
Approach LOS		A			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.8	76.2		33.0	7.2	79.8		33.0				
Change Period (Y+Rc), s	4.5	5.5		4.5	4.5	5.5		4.5				
Max Green Setting (Gmax), s	10.5	66.5		28.5	10.5	66.5		28.5				
Max Q Clear Time (g_c+I1), s	6.9	2.0		8.5	4.1	36.0		5.9				
Green Ext Time (p_c), s	0.0	40.0		0.4	0.0	18.6		0.4				

Intersection Summary	
HCM 6th Ctrl Delay	17.6
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	1196	5	18	1779	14	22	1	3	48	0	50
Future Volume (veh/h)	13	1196	5	18	1779	14	22	1	3	48	0	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	1300	5	20	1934	15	24	1	3	52	0	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	22	3284	13	29	3289	25	365	14	375	206	15	182
Arrive On Green	0.02	1.00	1.00	0.01	0.21	0.21	0.24	0.24	0.24	0.24	0.00	0.24
Sat Flow, veh/h	1781	5251	20	1781	5226	41	1289	59	1579	677	61	767
Grp Volume(v), veh/h	14	843	462	20	1259	690	25	0	3	106	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1867	1781	1702	1863	1349	0	1579	1505	0	0
Q Serve(g_s), s	0.9	0.0	0.0	1.3	40.1	40.1	0.0	0.0	0.2	4.6	0.0	0.0
Cycle Q Clear(g_c), s	0.9	0.0	0.0	1.3	40.1	40.1	1.8	0.0	0.2	6.7	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.02	0.96		1.00	0.49		0.51
Lane Grp Cap(c), veh/h	22	2129	1167	29	2142	1172	379	0	375	402	0	0
V/C Ratio(X)	0.63	0.40	0.40	0.69	0.59	0.59	0.07	0.00	0.01	0.26	0.00	0.00
Avail Cap(c_a), veh/h	156	2129	1167	156	2142	1172	379	0	375	402	0	0
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.13	0.13	0.13	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	58.2	0.0	0.0	59.4	33.5	33.5	35.5	0.0	35.0	37.4	0.0	0.0
Incr Delay (d2), s/veh	10.5	0.6	1.0	1.4	0.2	0.3	0.3	0.0	0.0	1.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	0.3	0.6	1.1	20.7	22.6	1.1	0.0	0.1	5.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.8	0.6	1.0	60.8	33.7	33.8	35.9	0.0	35.0	38.9	0.0	0.0
LnGrp LOS	E	A	A	E	C	C	D	A	C	D	A	A
Approach Vol, veh/h		1319			1969			28			106	
Approach Delay, s/veh		1.4			34.0			35.8			38.9	
Approach LOS		A			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	80.6		33.0	6.0	81.0		33.0				
Change Period (Y+Rc), s	4.5	5.5		4.5	4.5	5.5		4.5				
Max Green Setting (Gmax), s	10.5	66.5		28.5	10.5	66.5		28.5				
Max Q Clear Time (g_c+I1), s	3.3	2.0		8.7	2.9	42.1		3.8				
Green Ext Time (p_c), s	0.0	17.5		0.5	0.0	18.5		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		21.6
HCM 6th LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	1895	50	67	1498	58	45	9	32	34	8	33
Future Volume (veh/h)	29	1895	50	67	1498	58	45	9	32	34	8	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	32	2060	54	73	1628	63	49	10	35	37	9	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	40	3014	79	94	3122	121	330	63	375	182	53	150
Arrive On Green	0.05	1.00	1.00	0.02	0.20	0.20	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1781	5116	134	1781	5044	195	1159	263	1579	581	224	631
Grp Volume(v), veh/h	32	1369	745	73	1099	592	59	0	35	82	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1846	1781	1702	1835	1422	0	1579	1436	0	0
Q Serve(g_s), s	2.1	0.0	0.0	4.9	34.5	34.5	0.0	0.0	2.1	2.6	0.0	0.0
Cycle Q Clear(g_c), s	2.1	0.0	0.0	4.9	34.5	34.5	3.9	0.0	2.1	6.5	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.11	0.83		1.00	0.45		0.44
Lane Grp Cap(c), veh/h	40	2005	1087	94	2107	1136	393	0	375	385	0	0
V/C Ratio(X)	0.79	0.68	0.68	0.78	0.52	0.52	0.15	0.00	0.09	0.21	0.00	0.00
Avail Cap(c_a), veh/h	156	2005	1087	156	2107	1136	393	0	375	385	0	0
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.15	0.15	0.15	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	57.0	0.0	0.0	58.3	31.9	31.9	36.3	0.0	35.7	37.2	0.0	0.0
Incr Delay (d2), s/veh	12.2	1.9	3.5	0.8	0.1	0.3	0.8	0.0	0.5	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.9	1.0	1.9	3.2	18.2	19.5	2.7	0.0	1.6	3.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.2	1.9	3.5	59.1	32.0	32.2	37.1	0.0	36.2	38.5	0.0	0.0
LnGrp LOS	E	A	A	E	C	C	D	A	D	D	A	A
Approach Vol, veh/h		2146			1764			94			82	
Approach Delay, s/veh		3.5			33.2			36.8			38.5	
Approach LOS		A			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.8	76.2		33.0	7.2	79.8		33.0				
Change Period (Y+Rc), s	4.5	5.5		4.5	4.5	5.5		4.5				
Max Green Setting (Gmax), s	10.5	66.5		28.5	10.5	66.5		28.5				
Max Q Clear Time (g_c+I1), s	6.9	2.0		8.5	4.1	36.5		5.9				
Green Ext Time (p_c), s	0.0	40.0		0.4	0.0	18.7		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		17.8	
HCM 6th LOS		B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	922	119	291	1531	292	135	663	270	274	704	117
Future Volume (veh/h)	75	922	119	291	1531	292	135	663	270	274	704	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	1002	129	316	1664	317	147	721	293	298	765	127
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	215	1818	232	302	1843	351	171	1170	509	331	1004	167
Arrive On Green	0.02	0.10	0.10	0.09	0.34	0.34	0.10	0.33	0.33	0.10	0.33	0.33
Sat Flow, veh/h	3456	5817	741	3456	5457	1040	1781	3554	1547	3456	3050	506
Grp Volume(v), veh/h	82	829	302	316	1471	510	147	721	293	298	446	446
Grp Sat Flow(s),veh/h/ln	1728	1609	1733	1728	1609	1671	1781	1777	1547	1728	1777	1779
Q Serve(g_s), s	2.8	19.6	19.9	10.5	34.9	34.9	9.8	20.5	18.8	10.2	26.9	27.0
Cycle Q Clear(g_c), s	2.8	19.6	19.9	10.5	34.9	34.9	9.8	20.5	18.8	10.2	26.9	27.0
Prop In Lane	1.00		0.43	1.00		0.62	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	215	1508	541	302	1629	564	171	1170	509	331	585	586
V/C Ratio(X)	0.38	0.55	0.56	1.05	0.90	0.90	0.86	0.62	0.58	0.90	0.76	0.76
Avail Cap(c_a), veh/h	302	1508	541	302	1629	564	171	1170	509	331	585	586
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.5	45.8	45.9	54.8	37.9	37.9	53.5	33.9	33.3	53.7	36.0	36.0
Incr Delay (d2), s/veh	0.4	1.4	3.9	64.0	8.6	20.3	32.1	2.4	4.7	25.5	9.1	9.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.2	13.3	14.7	11.7	20.6	23.5	9.8	14.0	12.1	9.4	18.8	18.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.9	47.2	49.8	118.8	46.5	58.2	85.6	36.3	38.0	79.1	45.1	45.1
LnGrp LOS	E	D	D	F	D	E	F	D	D	E	D	D
Approach Vol, veh/h		1213			2297			1161			1190	
Approach Delay, s/veh		48.5			59.0			43.0			53.6	
Approach LOS		D			E			D			D	

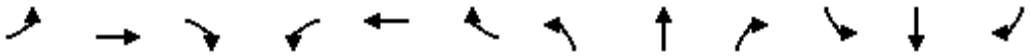
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	43.0	16.0	45.0	13.0	46.0	16.0	45.0
Change Period (Y+Rc), s	5.5	5.5	4.5	5.5	5.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	10.5	37.5	11.5	39.5	10.5	37.5	11.5	39.5
Max Q Clear Time (g_c+I1), s	12.5	21.9	11.8	29.0	4.8	36.9	12.2	22.5
Green Ext Time (p_c), s	0.0	9.1	0.0	5.8	0.0	0.6	0.0	8.5

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	206	1581	134	193	1291	395	152	721	301	277	426	126
Future Volume (veh/h)	206	1581	134	193	1291	395	152	721	301	277	426	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	224	1718	146	210	1403	429	165	784	327	301	463	137
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	281	1966	167	265	1564	478	171	1170	509	331	892	262
Arrive On Green	0.03	0.11	0.11	0.08	0.32	0.32	0.10	0.33	0.33	0.10	0.33	0.33
Sat Flow, veh/h	3456	6083	517	3456	4908	1500	1781	3554	1547	3456	2708	796
Grp Volume(v), veh/h	224	1363	501	210	1380	452	165	784	327	301	303	297
Grp Sat Flow(s),veh/h/ln	1728	1609	1774	1728	1609	1582	1781	1777	1547	1728	1777	1727
Q Serve(g_s), s	7.7	33.4	33.4	7.2	32.7	32.8	11.1	22.8	21.6	10.4	16.5	16.7
Cycle Q Clear(g_c), s	7.7	33.4	33.4	7.2	32.7	32.8	11.1	22.8	21.6	10.4	16.5	16.7
Prop In Lane	1.00		0.29	1.00		0.95	1.00		1.00	1.00		0.46
Lane Grp Cap(c), veh/h	281	1560	574	265	1538	504	171	1170	509	331	585	569
V/C Ratio(X)	0.80	0.87	0.87	0.79	0.90	0.90	0.97	0.67	0.64	0.91	0.52	0.52
Avail Cap(c_a), veh/h	302	1560	574	302	1538	504	171	1170	509	331	585	569
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.68	0.68	0.68	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.4	51.2	51.2	54.5	39.0	39.0	54.1	34.6	34.2	53.7	32.5	32.6
Incr Delay (d2), s/veh	8.2	5.0	12.2	10.2	8.6	21.4	58.5	3.1	6.1	27.2	3.2	3.4
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	6.4	20.3	23.5	6.1	19.6	21.5	12.2	15.4	13.7	9.6	12.1	11.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.6	56.2	63.4	64.6	47.6	60.4	112.6	37.7	40.3	80.9	35.8	36.0
LnGrp LOS	E	E	E	E	D	E	F	D	D	F	D	D
Approach Vol, veh/h		2088			2042			1276			901	
Approach Delay, s/veh		58.9			52.2			48.1			50.9	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.7	44.3	16.0	45.0	15.3	43.7	16.0	45.0
Change Period (Y+Rc), s	5.5	5.5	4.5	5.5	5.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	10.5	37.5	11.5	39.5	10.5	37.5	11.5	39.5
Max Q Clear Time (g_c+I1), s	9.2	35.4	13.1	18.7	9.7	34.8	12.4	24.8
Green Ext Time (p_c), s	0.1	2.0	0.0	5.8	0.0	2.5	0.0	8.4

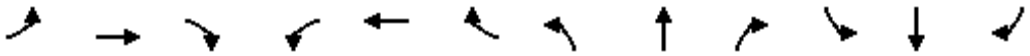
Intersection Summary	
HCM 6th Ctrl Delay	53.4
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	953	127	304	1579	302	139	687	285	283	729	122
Future Volume (veh/h)	83	953	127	304	1579	302	139	687	285	283	729	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	90	1036	138	330	1716	328	151	747	310	308	792	133
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	219	1810	239	302	1836	351	171	1170	509	331	1002	168
Arrive On Green	0.02	0.10	0.10	0.09	0.34	0.34	0.10	0.33	0.33	0.10	0.33	0.33
Sat Flow, veh/h	3456	5790	764	3456	5454	1042	1781	3554	1547	3456	3044	511
Grp Volume(v), veh/h	90	862	312	330	1518	526	151	747	310	308	462	463
Grp Sat Flow(s),veh/h/ln	1728	1609	1729	1728	1609	1671	1781	1777	1547	1728	1777	1778
Q Serve(g_s), s	3.1	20.4	20.7	10.5	36.5	36.6	10.0	21.4	20.2	10.6	28.3	28.3
Cycle Q Clear(g_c), s	3.1	20.4	20.7	10.5	36.5	36.6	10.0	21.4	20.2	10.6	28.3	28.3
Prop In Lane	1.00		0.44	1.00		0.62	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	219	1508	540	302	1625	562	171	1170	509	331	585	585
V/C Ratio(X)	0.41	0.57	0.58	1.09	0.93	0.93	0.88	0.64	0.61	0.93	0.79	0.79
Avail Cap(c_a), veh/h	302	1508	540	302	1625	562	171	1170	509	331	585	585
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.5	46.2	46.3	54.8	38.5	38.5	53.6	34.2	33.8	53.9	36.5	36.5
Incr Delay (d2), s/veh	0.4	1.5	4.2	78.4	11.4	24.9	37.1	2.7	5.3	31.5	10.4	10.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	13.7	15.2	12.7	21.9	25.1	10.3	14.6	12.9	10.0	19.8	19.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.0	47.6	50.4	133.2	49.9	63.4	90.7	36.9	39.1	85.3	46.9	46.9
LnGrp LOS	E	D	D	F	D	E	F	D	D	F	D	D
Approach Vol, veh/h		1264			2374			1208			1233	
Approach Delay, s/veh		49.0			64.5			44.2			56.5	
Approach LOS		D			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	43.0	16.0	45.0	13.1	45.9	16.0	45.0
Change Period (Y+Rc), s	5.5	5.5	4.5	5.5	5.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	10.5	37.5	11.5	39.5	10.5	37.5	11.5	39.5
Max Q Clear Time (g_c+I1), s	12.5	22.7	12.0	30.3	5.1	38.6	12.6	23.4
Green Ext Time (p_c), s	0.0	9.0	0.0	5.4	0.0	0.0	0.0	8.5

Intersection Summary	
HCM 6th Ctrl Delay	55.6
HCM 6th LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	1637	152	205	1334	409	157	747	314	286	444	130
Future Volume (veh/h)	231	1637	152	205	1334	409	157	747	314	286	444	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	251	1779	165	223	1450	445	171	812	341	311	483	141
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	302	1928	179	278	1532	470	171	1170	509	331	894	259
Arrive On Green	0.03	0.11	0.11	0.08	0.31	0.31	0.10	0.33	0.33	0.10	0.33	0.33
Sat Flow, veh/h	3456	6033	560	3456	4902	1504	1781	3554	1547	3456	2717	788
Grp Volume(v), veh/h	251	1423	521	223	1427	468	171	812	341	311	315	309
Grp Sat Flow(s),veh/h/ln	1728	1609	1767	1728	1609	1581	1781	1777	1547	1728	1777	1728
Q Serve(g_s), s	8.7	35.1	35.1	7.6	34.7	34.7	11.5	23.8	22.8	10.7	17.3	17.5
Cycle Q Clear(g_c), s	8.7	35.1	35.1	7.6	34.7	34.7	11.5	23.8	22.8	10.7	17.3	17.5
Prop In Lane	1.00		0.32	1.00		0.95	1.00		1.00	1.00		0.46
Lane Grp Cap(c), veh/h	302	1542	565	278	1508	494	171	1170	509	331	585	569
V/C Ratio(X)	0.83	0.92	0.92	0.80	0.95	0.95	1.00	0.69	0.67	0.94	0.54	0.54
Avail Cap(c_a), veh/h	302	1542	565	302	1508	494	171	1170	509	331	585	569
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	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	57.4	52.2	52.2	54.2	40.3	40.3	54.3	35.0	34.6	53.9	32.8	32.9
Incr Delay (d2), s/veh	11.3	7.5	16.7	12.0	13.5	29.2	69.3	3.4	6.8	33.5	3.5	3.7
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	7.1	21.4	24.9	6.6	21.3	23.6	13.1	16.0	14.4	10.2	12.6	12.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.7	59.7	68.9	66.3	53.8	69.5	123.6	38.4	41.5	87.4	36.3	36.6
LnGrp LOS	E	E	E	E	D	E	F	D	D	F	D	D
Approach Vol, veh/h		2195			2118			1324			935	
Approach Delay, s/veh		62.9			58.6			50.2			53.4	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	43.9	16.0	45.0	16.0	43.0	16.0	45.0
Change Period (Y+Rc), s	5.5	5.5	4.5	5.5	5.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	10.5	37.5	11.5	39.5	10.5	37.5	11.5	39.5
Max Q Clear Time (g_c+I1), s	9.6	37.1	13.5	19.5	10.7	36.7	12.7	25.8
Green Ext Time (p_c), s	0.0	0.4	0.0	5.9	0.0	0.8	0.0	8.2

Intersection Summary	
HCM 6th Ctrl Delay	57.6
HCM 6th LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	966	147	304	1579	302	139	687	285	283	729	122
Future Volume (veh/h)	100	966	147	304	1579	302	139	687	285	283	729	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	1050	160	330	1716	328	151	747	310	308	792	133
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	1775	268	302	1828	349	171	1170	509	331	1002	168
Arrive On Green	0.02	0.10	0.10	0.09	0.34	0.34	0.10	0.33	0.33	0.10	0.33	0.33
Sat Flow, veh/h	3456	5680	857	3456	5454	1042	1781	3554	1547	3456	3044	511
Grp Volume(v), veh/h	109	890	320	330	1518	526	151	747	310	308	462	463
Grp Sat Flow(s),veh/h/ln	1728	1609	1711	1728	1609	1671	1781	1777	1547	1728	1777	1778
Q Serve(g_s), s	3.7	21.1	21.4	10.5	36.6	36.6	10.0	21.4	20.2	10.6	28.3	28.3
Cycle Q Clear(g_c), s	3.7	21.1	21.4	10.5	36.6	36.6	10.0	21.4	20.2	10.6	28.3	28.3
Prop In Lane	1.00		0.50	1.00		0.62	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	224	1508	535	302	1617	560	171	1170	509	331	585	585
V/C Ratio(X)	0.49	0.59	0.60	1.09	0.94	0.94	0.88	0.64	0.61	0.93	0.79	0.79
Avail Cap(c_a), veh/h	302	1508	535	302	1617	560	171	1170	509	331	585	585
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.7	46.5	46.6	54.8	38.7	38.7	53.6	34.2	33.8	53.9	36.5	36.5
Incr Delay (d2), s/veh	0.6	1.6	4.5	78.4	11.9	25.6	37.1	2.7	5.3	31.5	10.4	10.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	14.1	15.5	12.7	22.0	25.2	10.3	14.6	12.9	10.0	19.8	19.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.3	48.0	51.1	133.2	50.6	64.3	90.7	36.9	39.1	85.3	46.9	46.9
LnGrp LOS	E	D	D	F	D	E	F	D	D	F	D	D
Approach Vol, veh/h		1319			2374			1208			1233	
Approach Delay, s/veh		49.5			65.1			44.2			56.5	
Approach LOS		D			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	43.0	16.0	45.0	13.3	45.7	16.0	45.0
Change Period (Y+Rc), s	5.5	5.5	4.5	5.5	5.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	10.5	37.5	11.5	39.5	10.5	37.5	11.5	39.5
Max Q Clear Time (g_c+I1), s	12.5	23.4	12.0	30.3	5.7	38.6	12.6	23.4
Green Ext Time (p_c), s	0.0	8.9	0.0	5.4	0.1	0.0	0.0	8.5

Intersection Summary	
HCM 6th Ctrl Delay	55.9
HCM 6th LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	1637	151	205	1342	409	163	747	314	286	444	136
Future Volume (veh/h)	230	1637	151	205	1342	409	163	747	314	286	444	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	250	1779	164	223	1459	445	177	812	341	311	483	148
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	302	1929	178	278	1534	468	171	1170	509	331	883	269
Arrive On Green	0.03	0.11	0.11	0.08	0.31	0.31	0.10	0.33	0.33	0.10	0.33	0.33
Sat Flow, veh/h	3456	6036	556	3456	4910	1497	1781	3554	1547	3456	2683	817
Grp Volume(v), veh/h	250	1422	521	223	1434	470	177	812	341	311	319	312
Grp Sat Flow(s),veh/h/ln	1728	1609	1767	1728	1609	1582	1781	1777	1547	1728	1777	1723
Q Serve(g_s), s	8.6	35.0	35.0	7.6	34.9	34.9	11.5	23.8	22.8	10.7	17.6	17.8
Cycle Q Clear(g_c), s	8.6	35.0	35.0	7.6	34.9	34.9	11.5	23.8	22.8	10.7	17.6	17.8
Prop In Lane	1.00		0.31	1.00		0.95	1.00		1.00	1.00		0.47
Lane Grp Cap(c), veh/h	302	1542	565	278	1508	494	171	1170	509	331	585	567
V/C Ratio(X)	0.83	0.92	0.92	0.80	0.95	0.95	1.04	0.69	0.67	0.94	0.55	0.55
Avail Cap(c_a), veh/h	302	1542	565	302	1508	494	171	1170	509	331	585	567
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	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	57.4	52.2	52.2	54.2	40.3	40.4	54.3	35.0	34.6	53.9	32.9	33.0
Incr Delay (d2), s/veh	11.0	7.4	16.6	12.0	14.1	29.9	78.9	3.4	6.8	33.5	3.6	3.8
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	7.1	21.4	24.9	6.6	21.5	23.8	13.9	16.0	14.4	10.2	12.7	12.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.4	59.6	68.8	66.3	54.5	70.3	133.2	38.4	41.5	87.4	36.5	36.8
LnGrp LOS	E	E	E	E	D	E	F	D	D	F	D	D
Approach Vol, veh/h		2193			2127			1330			942	
Approach Delay, s/veh		62.8			59.2			51.8			53.4	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	43.9	16.0	45.0	16.0	43.0	16.0	45.0
Change Period (Y+Rc), s	5.5	5.5	4.5	5.5	5.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	10.5	37.5	11.5	39.5	10.5	37.5	11.5	39.5
Max Q Clear Time (g_c+I1), s	9.6	37.0	13.5	19.8	10.6	36.9	12.7	25.8
Green Ext Time (p_c), s	0.0	0.4	0.0	6.0	0.0	0.6	0.0	8.2

Intersection Summary	
HCM 6th Ctrl Delay	58.1
HCM 6th LOS	E

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1077	14	8	1867	0	3
Future Vol, veh/h	1077	14	8	1867	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	-	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	1171	15	9	2029	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1186	0	-	593
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	5.34	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.12	-	-	3.92
Pot Cap-1 Maneuver	-	-	318	-	0	385
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	318	-	-	385
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	14.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	385	-	-	318	-
HCM Lane V/C Ratio	0.008	-	-	0.027	-
HCM Control Delay (s)	14.4	-	-	16.6	-
HCM Lane LOS	B	-	-	C	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1774	7	17	1545	0	11
Future Vol, veh/h	1774	7	17	1545	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	-	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	1928	8	18	1679	0	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1936	0	-	968
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	5.34	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.12	-	-	3.92
Pot Cap-1 Maneuver	-	-	135	-	0	218
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	135	-	-	218
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	22.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	218	-	-	135	-
HCM Lane V/C Ratio	0.055	-	-	0.137	-
HCM Control Delay (s)	22.5	-	-	35.9	-
HCM Lane LOS	C	-	-	E	-
HCM 95th %tile Q(veh)	0.2	-	-	0.5	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1147	14	8	1938	0	3
Future Vol, veh/h	1147	14	8	1938	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	-	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	1247	15	9	2107	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1262	0	-	631
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	5.34	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.12	-	-	3.92
Pot Cap-1 Maneuver	-	-	292	-	0	363
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	292	-	-	363
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	15
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	363	-	-	292	-
HCM Lane V/C Ratio	0.009	-	-	0.03	-
HCM Control Delay (s)	15	-	-	17.7	-
HCM Lane LOS	C	-	-	C	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1846	7	18	1631	0	11
Future Vol, veh/h	1846	7	18	1631	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	-	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	2007	8	20	1773	0	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2015	0	-	1008
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	5.34	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.12	-	-	3.92
Pot Cap-1 Maneuver	-	-	123	-	0	205
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	123	-	-	205
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	23.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	205	-	-	123	-
HCM Lane V/C Ratio	0.058	-	-	0.159	-
HCM Control Delay (s)	23.6	-	-	39.7	-
HCM Lane LOS	C	-	-	E	-
HCM 95th %tile Q(veh)	0.2	-	-	0.5	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1147	19	8	1955	0	87
Future Vol, veh/h	1147	19	8	1955	0	87
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	-	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	1247	21	9	2125	0	95

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1268	0	-	634
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	5.34	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.12	-	-	3.92
Pot Cap-1 Maneuver	-	-	290	-	0	362
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	290	-	-	362
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	18.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	362	-	-	290	-
HCM Lane V/C Ratio	0.261	-	-	0.03	-
HCM Control Delay (s)	18.4	-	-	17.8	-
HCM Lane LOS	C	-	-	C	-
HCM 95th %tile Q(veh)	1	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1846	33	40	1630	0	46
Future Vol, veh/h	1846	33	40	1630	0	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	-	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	2007	36	43	1772	0	50

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2043	0	-	1022
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	5.34	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.12	-	-	3.92
Pot Cap-1 Maneuver	-	-	119	-	0	201
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	119	-	-	201
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	28.7
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	201	-	-	119	-
HCM Lane V/C Ratio	0.249	-	-	0.365	-
HCM Control Delay (s)	28.7	-	-	51.7	-
HCM Lane LOS	D	-	-	F	-
HCM 95th %tile Q(veh)	0.9	-	-	1.5	-