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TRAFFIC IMPACT STUDY

8618-8630 HASKELL AVENUE CHARTER SCHOOL PROJECT

City of Los Angeles, California
December 20, 2018

Prepared for:

Bright Star Schools
600 S. La Fayette Park Place
Los Angeles, CA 90057

LLG Ref. 5-18-0424-1

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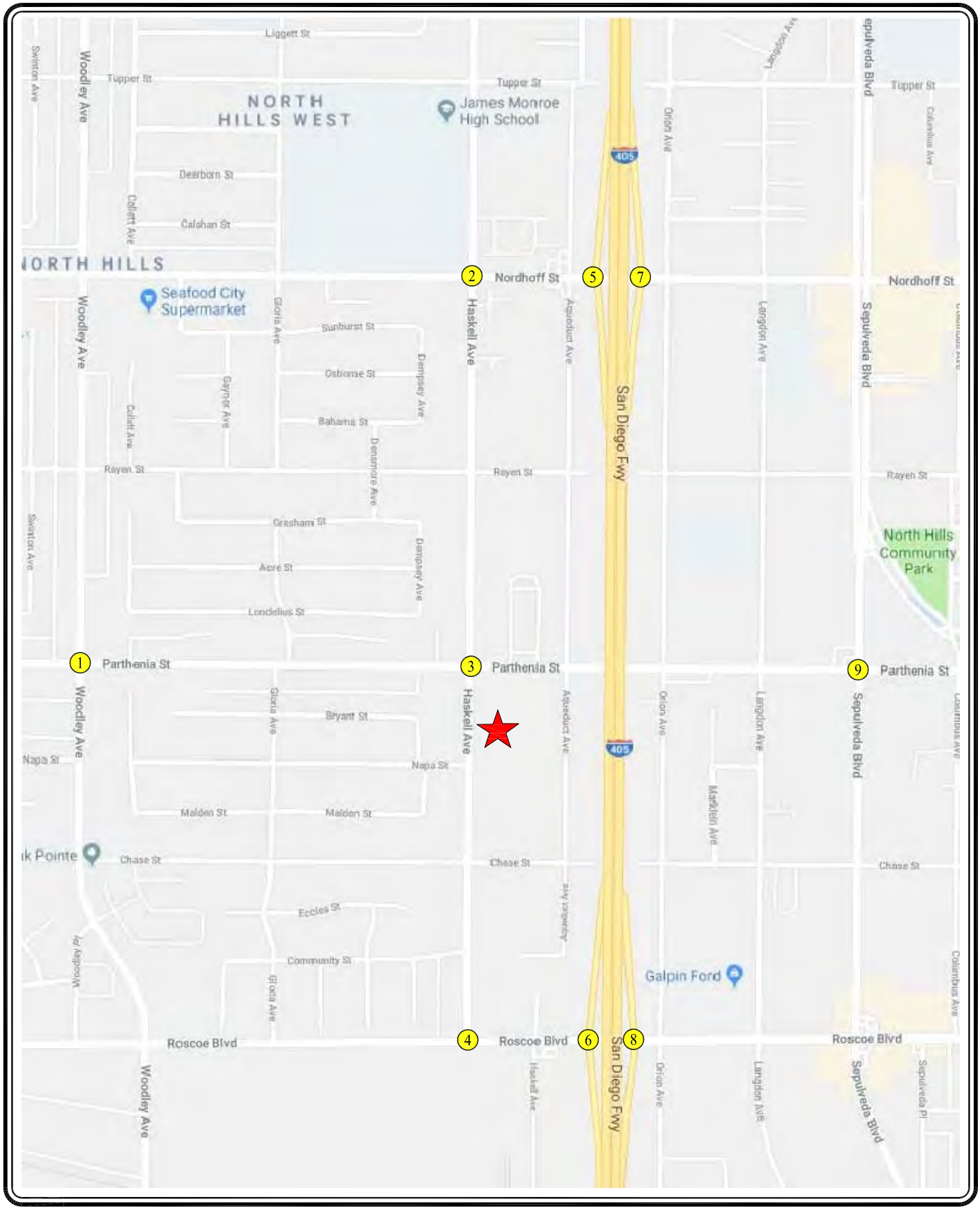
1.0 INTRODUCTION

This traffic analysis has been conducted to identify and evaluate the potential traffic impacts generated by the proposed 8618-8630 Haskell Avenue Charter School project (the "Project"). The Project site is located at 8618-8630 Haskell Avenue located in the North Hills area of the City of Los Angeles. The Project proposes the construction of a charter elementary school (grades K-4) with a maximum enrollment of 458 students. The Project site is bounded by an existing multi-family residential building to the north, existing single-family residential dwelling units to the south and east, and Haskell Avenue to the west. The Project site location and general vicinity are shown in ***Figure 1–1***.

The traffic analysis follows City of Los Angeles traffic study guidelines[1] and is consistent with traffic impact assessment guidelines set forth in the Los Angeles County Congestion Management Program[2]. This traffic analysis evaluates potential Project-related impacts at nine (9) key intersections in the vicinity of the Project site. The study intersections were determined in consultation with City of Los Angeles Department of Transportation (LADOT) staff. The Critical Movement Analysis method was used to determine Volume-to-Capacity ratios and corresponding Levels of Service for all nine signalized study intersections. A review also was conducted of Los Angeles County Metropolitan Transportation Authority freeway and intersection monitoring stations to determine if a Congestion Management Program transportation impact assessment analysis is required for the proposed Project.

This study (i) presents existing traffic volumes, (ii) includes existing traffic volumes with the forecast net new traffic volumes from the proposed Project, (iii) recommends mitigation measures, where necessary, (iv) forecasts future cumulative baseline traffic volumes, (v) forecasts future traffic volumes with the proposed Project, (vi) determines future forecast with Project-related impacts, and (vii) recommends mitigation measures, where necessary.

[1] *Transportation Impact Study Guidelines*, City of Los Angeles Department of Transportation, December 2016.
[2] *2010 Congestion Management Program for Los Angeles County*, Los Angeles County Metropolitan Transportation Authority, 2010.



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MAP SOURCE: GOOGLE MAPS
PROJECT SITE
XX STUDY INTERSECTION

FIGURE 1-1
VICINITY MAP

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1.1 Study Area

Upon coordination with LADOT staff, nine study intersections have been identified for evaluation during the weekday morning and afternoon peak hours. The nine study intersections provide local access to the study area and define the extent of the boundaries for this traffic impact analysis. Further discussion of the existing street system and study area is provided in Section 4.0.

The general location of the Project in relation to the study locations and surrounding street system is presented in *Figure 1–1*. The traffic analysis study area is generally comprised of those locations which have the greatest potential to experience significant traffic impacts due to the proposed Project as defined by the Lead Agency. In the traffic engineering practice, the study area generally includes those intersections that are:

a. Immediately adjacent or in close proximity to the Project site;

b. In the vicinity of the Project site that are documented to have current or Projected future adverse operational issues; and

c. In the vicinity of the Project site that are forecast to experience a relatively greater percentage of Project-related vehicular turning movements (e.g., at freeway ramp intersections).

The locations selected for analysis were based on the above criteria, proposed Project peak hour vehicle trip generation, the anticipated distribution of Project vehicular trips, and existing intersection/corridor operations.

2.0 PROJECT DESCRIPTION

2.1 Site Location

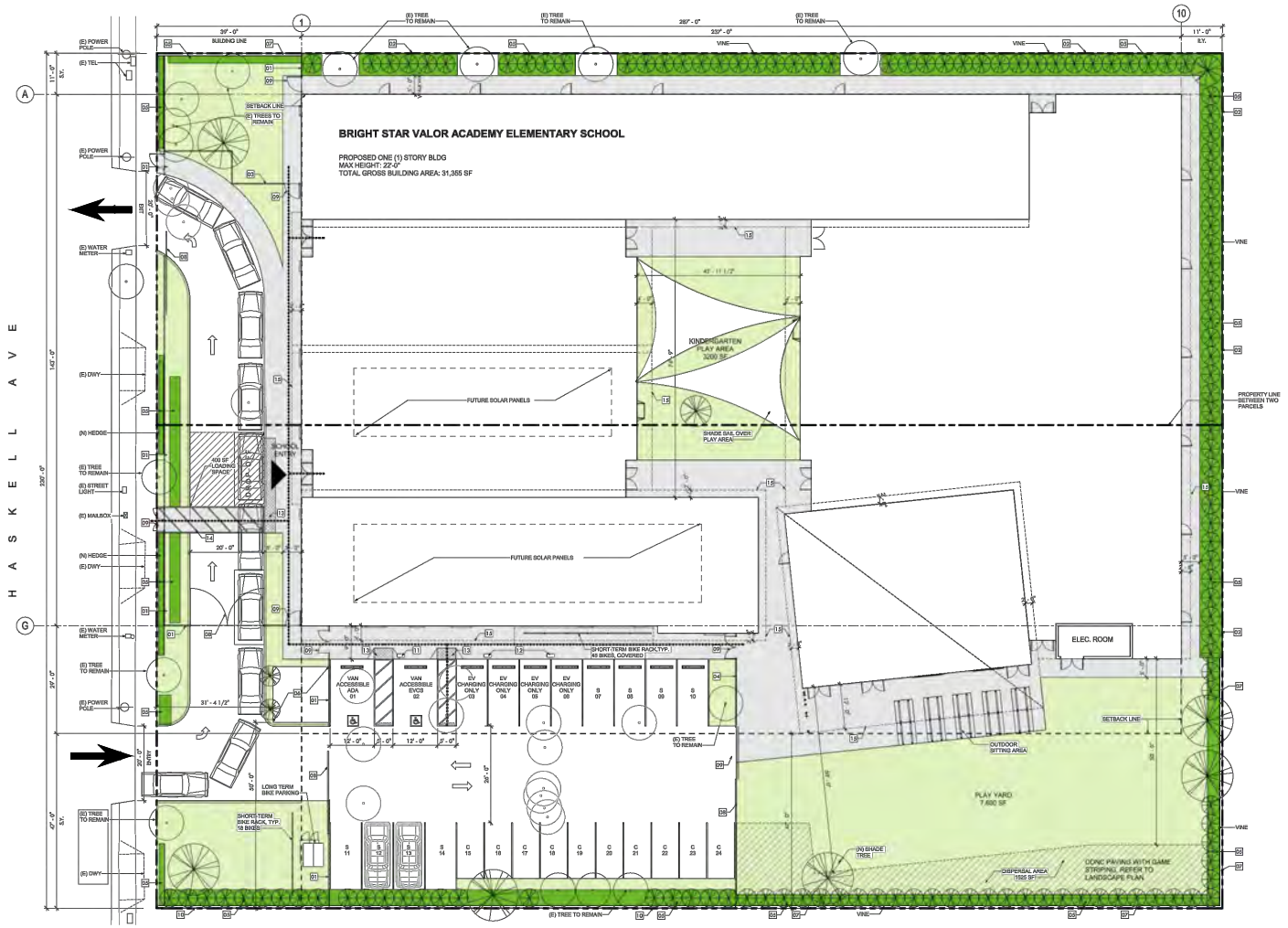
The proposed Project site is located at 8618-8630 Haskell Avenue in the North Hills area of the City of Los Angeles. The Project site is generally bounded by an existing multi-family residential building to the north, existing single-family residential dwelling units to the south and east, and Haskell Avenue to the west. The Project site location and general vicinity are shown in *Figure 1–1*.

2.2 Existing Project Site

The Project site is currently occupied by a single-family residential dwelling unit. Vehicular access to the Project site is provided via two driveways along the east side of Haskell Avenue.

2.3 Proposed Project Description

The Project applicant proposes to construct a charter elementary school (Grades K-4) to accommodate enrollment of up to 458 students. Vehicular access will be provided via one inbound driveway along the east side of Haskell Avenue, at the southerly end of the Project site, as well as one outbound driveway at the northerly end of the site. Construction and occupancy of the proposed Project is planned to be completed by year 2020. The site plan for the proposed Project is illustrated in ***Figure 2–1***. Further discussion of the proposed Project site access and circulation scheme is provided in Section 3.0.



MAP SOURCE: BERLINER ARCHITECTS

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FIGURE 2-1
PROJECT SITE PLAN

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3.0 SITE ACCESS AND CIRCULATION

The proposed site access scheme for the Project is displayed in *Figure 2–1*. A description of the proposed site access and circulation scheme is provided in the following subsections.

3.1 Existing Vehicular Site Access

Vehicular access to the existing Project site is currently provided via two driveways along the east side of Haskell Avenue.

3.2 Vehicular Project Site Access

Vehicular access to the Project site will be provided via the existing driveway located along the east side of Haskell Avenue, at the southerly end of the Project site. Traffic will enter the southerly driveway, travel northbound within the site in the proposed drop-off/pick-up lane, and will exit onto Haskell Avenue via the northerly site driveway. Student pick-up and drop-off operations will be conducted on the Project site.

3.3 Proposed Student Drop-Off and Pick-Up Operations

The proposed student drop-off/pick-up area is shown in *Figure 2–1*. Vehicles destined to the Project to drop-off or pick-up students will enter the site via southerly Haskell Avenue driveway, circulate northbound through the drop-off/pick-up lane located on the west end of the Project site, complete the student drop-off or pick-up, and then exit via the northerly driveway onto Haskell Avenue. The proposed drop-off/pick-up lane can accommodate approximately ten vehicles queued within the Project site. As shown, the proposed on-site drop-off/pick-up area lane is approximately 20 feet in width, which is sufficient to accommodate one lane of queued vehicles, plus a bypass lane to allow vehicles to bypass the queue should there be delay related to the passenger loading/unloading of one or more of the queued vehicles.

3.3.1 *Estimated Peak Vehicle Queue*

Private vehicles are the main component that contributes to the vehicle queuing analysis during the peak student drop-off and pick-up periods. The analysis focuses on the morning student drop-off period as the pick-up of students tends to be dispersed on a relative basis throughout the afternoon, particularly as students are involved with after-school activities.

The proposed Project is forecast to generate 223 inbound trips and 143 outbound trips during the AM peak hour (refer to Section 7.0, Traffic Forecasting Methodology, for a discussion of the Project's trip generation forecasts). While the ITE trip rates do not distinguish between trips related to staff arrivals and student drop-offs in the morning, it can be generally assumed that the 143 outbound trips during the AM peak hour would correlate with at least 143 inbound trips during this period related to student drop-off operations. The remaining inbound vehicle trips during the AM peak hour are likely due to administrative staff, visitors, etc., at the campus. Therefore, for this queuing analysis, it has been assumed that approximately 143 vehicles would utilize the on-site vehicle queue area as part of the student drop-off operations.

While the ITE forecasts are made for a peak one hour (i.e., 60-minute) period, it has been observed that student drop-offs are typically concentrated in shorter timeframes leading up to the start of classes for the day. Thus, for this analysis it has been conservatively (i.e., worst case) assumed that the 143 vehicles would arrive in a 30-minute period, which is equivalent to approximately five vehicles per minute. Multiplying this average arrival by two to approximate the 95th percentile confidence level of a Poisson distribution (which is typically used by traffic engineers in planning the lengths of left and right-turn pockets at intersections) results in an estimated maximum of ten vehicles per minute. As previously noted, the on-site vehicle queue area can accommodate ten queued vehicles. Project-related trips are not expected to queue onto Haskell Avenue. Therefore, it is concluded that the planned on-site vehicle queue area can adequately accommodate the forecast peak demand of ten queued vehicles during the morning student drop-off operation.

4.0 EXISTING STREET SYSTEM

4.1 Regional Highway System

Regional access to the Project site is provided by the I-405 (San Diego) Freeway as shown in *Figure 1–1*. A brief description of the I-405 is provided in the following paragraph:

I-405 (San Diego) Freeway is a north-south freeway that extends from the San Fernando area of the City of Los Angeles to the north and the San Diego area to the south. In the Project vicinity, five mainline freeway lanes (four mixed flow lanes and one carpool lane) are generally provided in each direction. Northbound and southbound ramps are provided on the I-405 Freeway at Nordhoff Street and Roscoe Boulevard in the Project vicinity.

4.2 Local Roadway System

Immediate access to the Project site is provided via Haskell Avenue. The following study intersections were selected in consultation with LADOT staff for analysis of potential impacts due to the proposed Project:

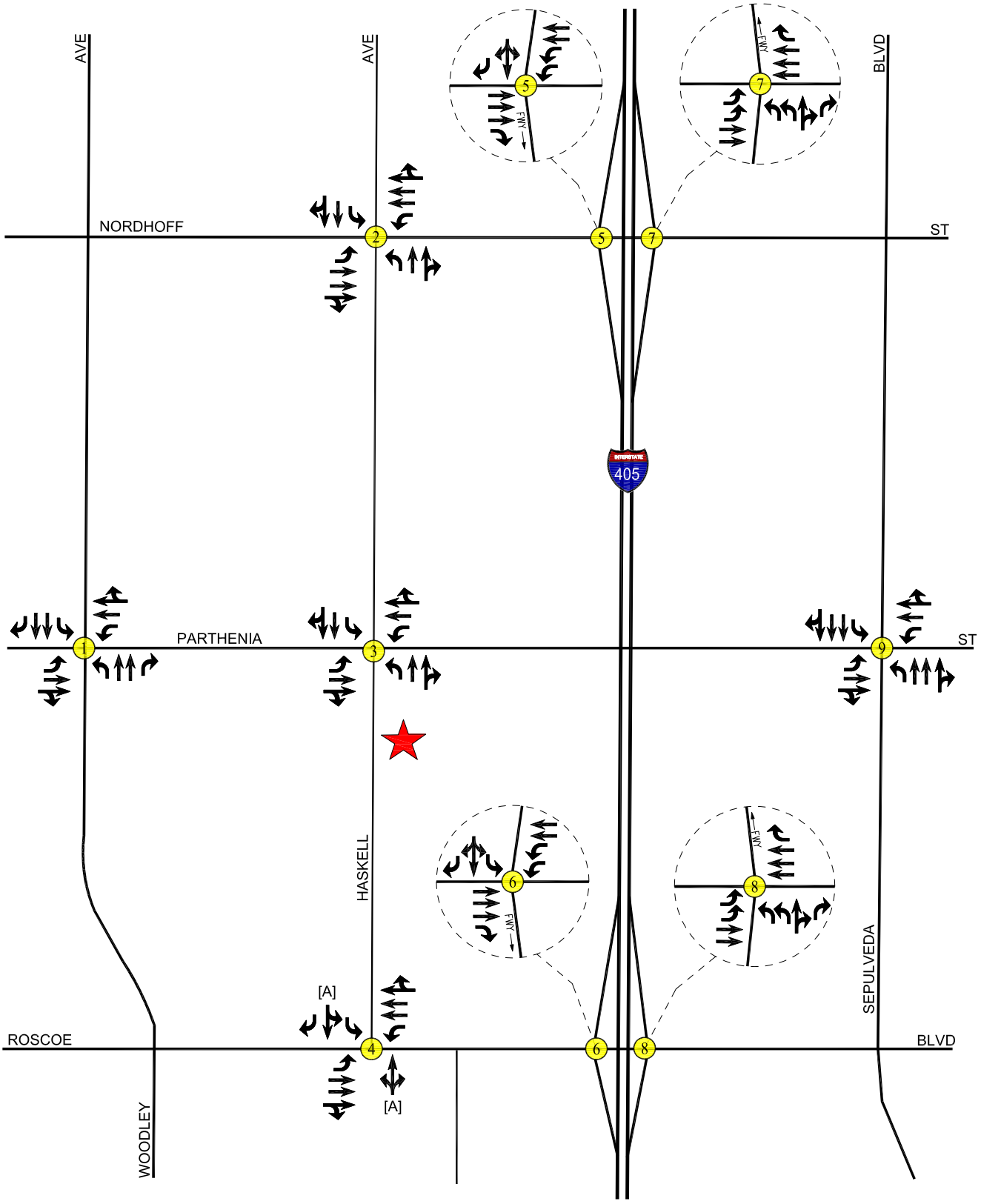
1. Woodley Avenue / Parthenia Street
2. Haskell Avenue / Nordhoff Street
3. Haskell Avenue / Parthenia Street
4. Haskell Avenue / Roscoe Boulevard
5. I-405 Southbound Ramps / Nordhoff Street
6. I-405 Southbound Ramps / Roscoe Boulevard
7. I-405 Northbound Ramps / Nordhoff Street
8. I-405 Northbound Ramps / Roscoe Boulevard
9. Sepulveda Boulevard / Parthenia Street

All nine study intersections selected for analysis are presently controlled by traffic signals. The existing lane configurations at the study intersections are displayed in ***Figure 4–1***.

4.3 Roadway Descriptions

A brief description of the important roadways in the Project vicinity is provided in the following paragraphs.

Woodley Avenue is a north-south oriented roadway located west of the Project site. Within the Project study area, Woodley Avenue is designated as an Avenue II by the City of Los Angeles. Two through travel lanes are provided in each direction on Woodley Avenue within the Project study area. Separate exclusive left-turn lanes are provided on Woodley Avenue at major



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PROJECT SITE
XX STUDY INTERSECTION
[A] SPLIT PHASING

FIGURE 4-1
EXISTING LANE CONFIGURATIONS

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intersections. Woodley Avenue is posted for a speed limit of 40 miles per hour within the Project study area.

Haskell Avenue is a north-south oriented roadway that borders the Project site to the west. Within the Project study area, Haskell Avenue is designated as an Avenue II by the City of Los Angeles. North of Chase Street, two through travel lanes are provided in each direction on Haskell Avenue within the Project study area. South of Chase Street, one through travel lane is provided in each direction on Haskell Avenue in the Project study area. Separate exclusive left-turn lanes are provided on Haskell Avenue at major intersections. Haskell Avenue is posted for a speed limit of 40 miles per hour within the Project study area.

Sepulveda Boulevard is a north-south oriented roadway located east of the Project site. Within the Project study area, Sepulveda Boulevard is designated as a Boulevard II by the City of Los Angeles. Three through travel lanes are provided in each direction on Sepulveda Boulevard within the Project study area. Separate exclusive left-turn lanes are provided on Sepulveda Boulevard at major intersections. Sepulveda Boulevard is posted for a speed limit of 40 miles per hour within the Project study area.

Nordhoff Street is an east-west oriented roadway located north of the Project site. Within the Project study area, Nordhoff Street is designated as a Boulevard II by the City of Los Angeles. West of the I-405 Freeway, three through travel lanes are provided in each direction on Nordhoff Street within the Project study area. East of the I-405 Freeway, two through travel lanes are provided in each direction on Nordhoff Street in the Project study area. Separate exclusive left-turn lanes are provided on Nordhoff Street at major intersections. Nordhoff Street is posted for a speed limit of 35 miles per hour within the Project study area.

Parthenia Street is an east-west oriented roadway located north of the Project site. Within the Project study area, Parthenia Street is designated as an Avenue II by the City of Los Angeles. Two through travel lanes are provided in each direction on Parthenia Street in the Project study area. Separate exclusive left-turn lanes are provided on Nordhoff Street at major intersections. West of Woodley Avenue, Parthenia Street is posted for a speed limit of 45 miles per hour within the Project study area. Parthenia Street is posted for a speed limit of 40 miles per hour within the Project study area between Woodley Avenue and Sepulveda Boulevard within the Project study area. East of Sepulveda Boulevard, Parthenia Street is posted for a speed limit of 35 miles per hour within the Project study area.

Roscoe Boulevard is an east-west oriented roadway located south of the Project site. Within the Project study area, Roscoe Boulevard is designated as a Boulevard II by the City of Los Angeles. Three through travel lanes are provided in each direction on Roscoe Boulevard within the Project study area. Separate exclusive left-turn lanes are provided on Roscoe Boulevard at major intersections. West of Haskell Avenue, Roscoe Boulevard is posted for a speed limit of 40 miles per hour within the Project study area. East of Haskell Avenue, Roscoe Boulevard is posted for a speed limit of 35 miles per hour within the Project study area.

4.4 Public Transit Services

Public transit service within the Project study area is currently provided by Los Angeles County Metropolitan Transit Authority (Metro) and LADOT Transit DASH. A summary of the existing transit service, including the transit route, destinations and peak hour headways is presented in ***Table 4–1***. The existing public transit routes in the Project site vicinity are illustrated in ***Figure 4–2***.

Table 4-1
EXISTING PUBLIC TRANSIT ROUTES [1]

16-Oct-18

ROUTE	DESTINATIONS	ROADWAY(S) NEAR SITE	NO. OF BUSES/TRAINS DURING PEAK HOUR		
			DIR	AM	PM
Metro 152/353	Woodland Hills to North Hollywood (via Fallbrook Avenue, Roscoe Boulevard & Vineland Avenue)	Roscoe Boulevard	EB WB	12 18	18 17
Metro 166/364	Chatsworth to Sun Valley (via Nordhoff Street & Osborne Street)	Nordhoff Street	EB WB	8 17	20 10
Metro 234	Sylmar Station to Westwood (via Sepulveda Boulevard)	Sepulveda Boulevard	NB SB	7 11	11 8
Metro 237	Mission Hills to Hollywood (via Woodley Avenue, Chandler Boulevard & Cahuenga Boulevard)	Woodley Avenue	NB SB	4 4	3 5
Metro Rapid 734	Sylmar Station to West Los Angeles (via Sepulveda Boulevard)	Sepulveda Boulevard	NB SB	9 9	10 10
DASH Panorama City/ Van Nuys	Roundtrip from Van Nuys Metrolink Station (via Van Nuys Boulevard, Parthenia Street & Sepulveda Boulevard)	Sepulveda Boulevard	CW CCW	7 8	11 11
			Total	**114**	**134**

[1] Sources: Los Angeles County Metropolitan Transportation Authority (Metro) website, 2018.
Los Angeles Department of Transportation (DASH) website, 2018.

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MAP SOURCE: METROPOLITAN TRANSIT AUTHORITY

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FIGURE 4-2
EXISTING PUBLIC TRANSIT ROUTES

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5.0 TRAFFIC COUNTS

Manual traffic counts of vehicular turning movements were conducted on Thursday, September 27, 2018 at each of the study intersections during the weekday morning and afternoon commuter periods to determine the peak hour traffic volumes. The manual traffic counts at the study intersections were conducted from 7:00 AM to 10:00 AM and 3:00 PM to 6:00 PM to determine the respective peak commuter hours. In addition to vehicle traffic, the data collection included counts of pedestrians and bicycles at the study intersections.

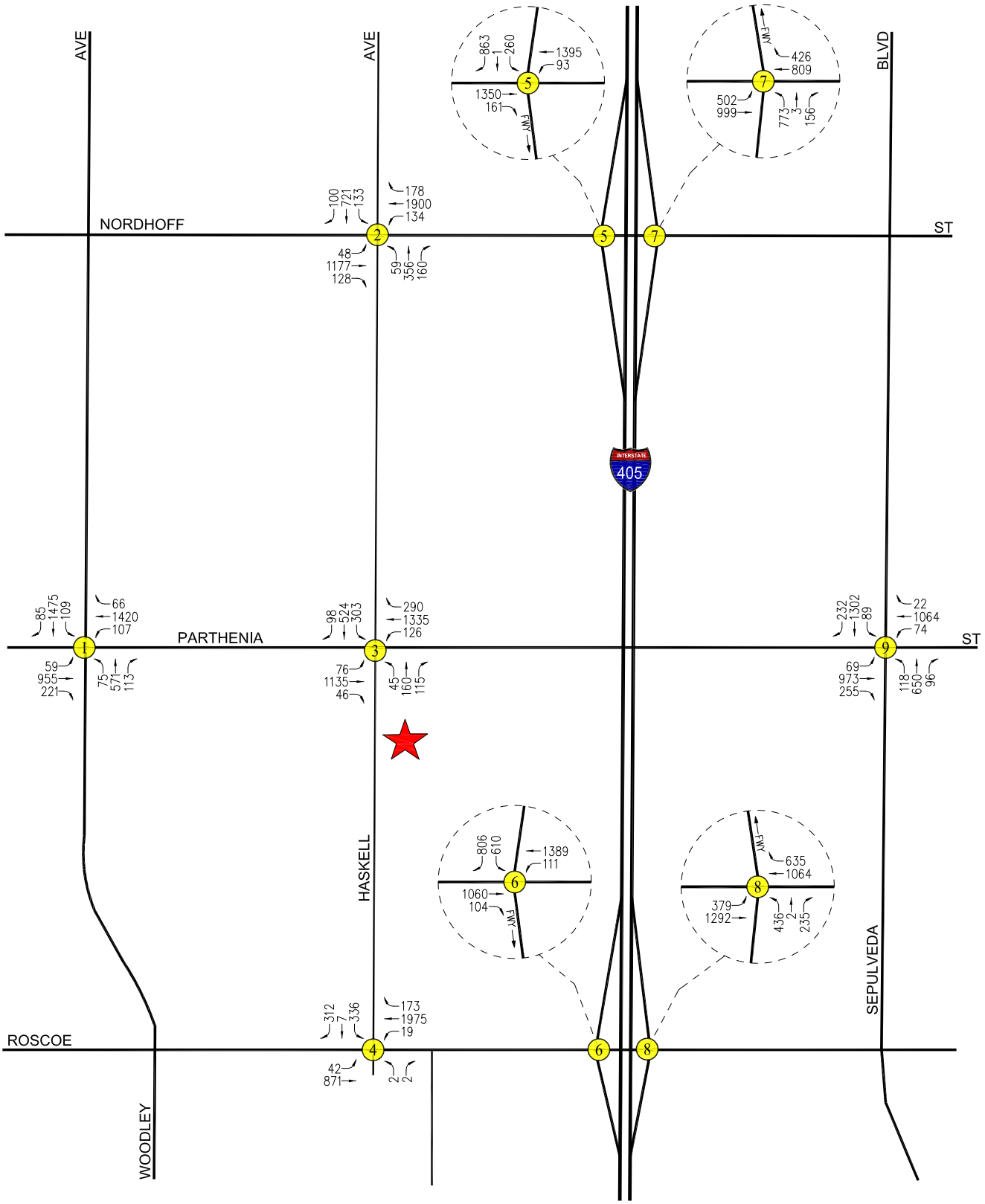
The weekday AM and PM peak period manual counts of vehicle movements at the study intersections are summarized in ***Table 5–1***. The existing traffic volumes at the study intersections during the weekday AM and PM peak hours are shown in ***Figures 5–1*** and ***5–2***, respectively. Summary data worksheets of the manual traffic counts at the study intersections are contained in ***Appendix A***.

Table 5-1
EXISTING TRAFFIC VOLUMES [1]

20-Dec-18

NO.	INTERSECTION	DATE	DIR	AM PEAK HOUR		PM PEAK HOUR	
				BEGAN	VOLUME	BEGAN	VOLUME
1	Woodley Avenue / Parthenia Street	09/27/2018	NB	7:15	759	5:00	1,773
			SB		1,669		674
			EB		1,235		1,339
			WB		1,593		1,057
2	Haskell Avenue / Nordhoff Street	09/27/2018	NB	7:30	575	5:00	746
			SB		954		409
			EB		1,353		1,676
			WB		2,212		1,835
3	Haskell Avenue / Parthenia Street	09/27/2018	NB	7:15	320	4:45	699
			SB		925		414
			EB		1,257		1,400
			WB		1,751		1,099
4	Haskell Avenue / Roscoe Boulevard	09/27/2018	NB	7:30	4	5:00	42
			SB		655		241
			EB		913		1,533
			WB		2,167		1,720
5	I-405 Southbound Ramps / Nordhoff Street	09/27/2018	NB	7:45	0	3:30	0
			SB		1,124		1,194
			EB		1,511		1,822
			WB		1,488		1,305
6	I-405 Southbound Ramps / Roscoe Boulevard	09/27/2018	NB	7:15	0	4:45	0
			SB		1,416		984
			EB		1,164		1,552
			WB		1,500		1,379
7	I-405 Northbound Ramps / Nordhoff Street	09/27/2018	NB	7:15	932	4:15	815
			SB		0		0
			EB		1,501		1,679
			WB		1,235		1,345
8	I-405 Northbound Ramps / Roscoe Boulevard	09/27/2018	NB	7:15	673	4:15	580
			SB		0		0
			EB		1,671		1,520
			WB		1,699		1,773
9	Sepulveda Boulevard / Parthenia Street	09/27/2018	NB	7:30	864	5:00	1,634
			SB		1,623		949
			EB		1,297		1,360
			WB		1,360		941

[1] National Data & Surveying Services



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PROJECT SITE

XX STUDY INTERSECTION

FIGURE 5-1
EXISTING TRAFFIC VOLUMES

WEEKDAY AM PEAK HOUR
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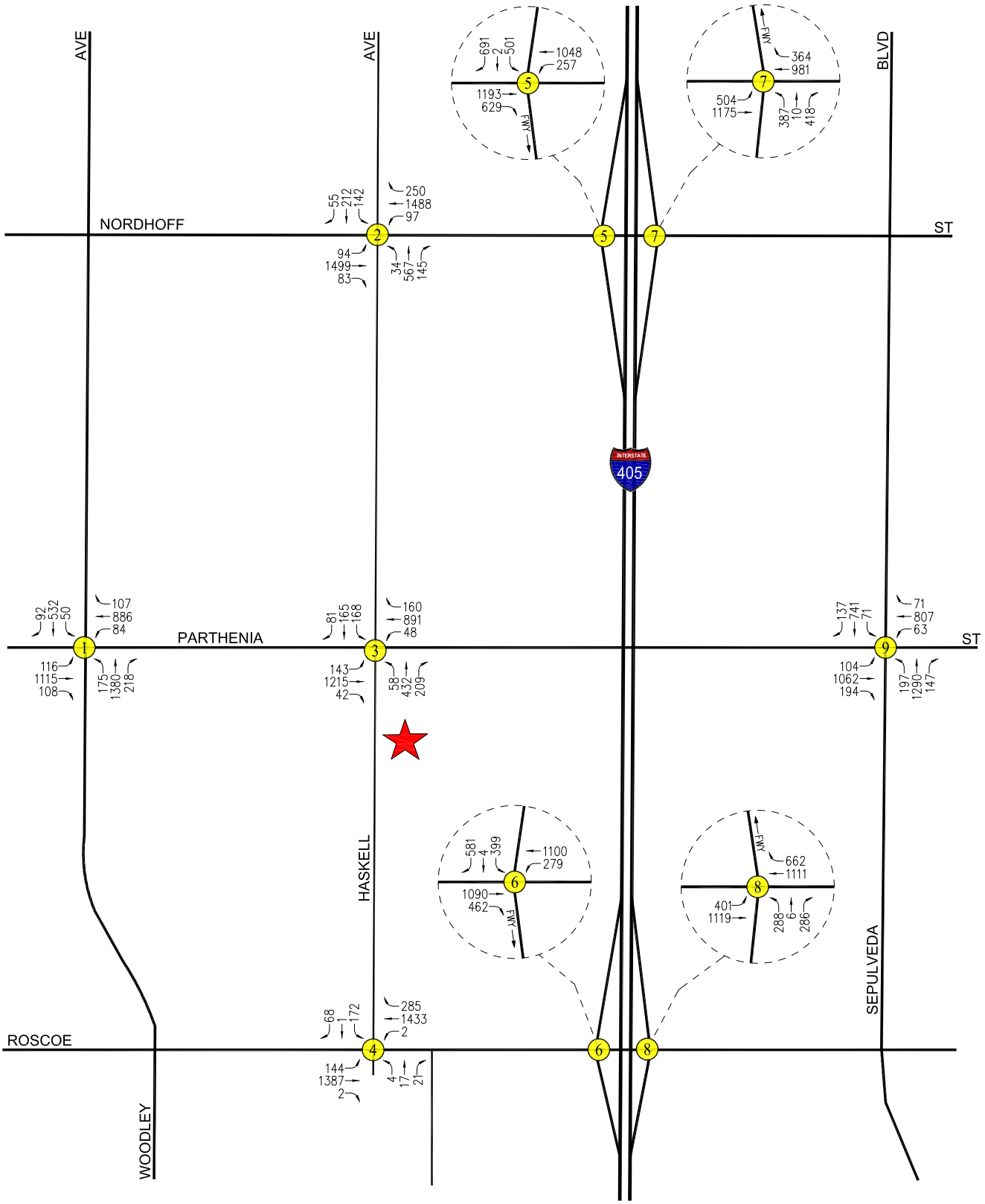

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(XX) STUDY INTERSECTION

FIGURE 5-2
EXISTING TRAFFIC VOLUMES

WEEKDAY PM PEAK HOUR
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6.0 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 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."

Accordingly, the traffic analysis provides a highly conservative estimate of future pre-Project traffic volumes as it incorporates both the "A" and "B" options outlined in CEQA Guidelines for purposes of developing the forecast.

6.1 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. With this information, the potential impact of the proposed Project can be evaluated within the context of the cumulative impact of all ongoing development. The related projects research was based on information on file at LADOT. The list of related projects in the Project site area is presented in ***Table 6–1***. The location of the related projects is shown in ***Figure 6–1***.

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[3]. 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 6–1*. The distribution of the related projects traffic volumes to the study intersections during the weekday AM and PM peak hours are displayed in ***Figure 6–2*** and ***6–3***, respectively.

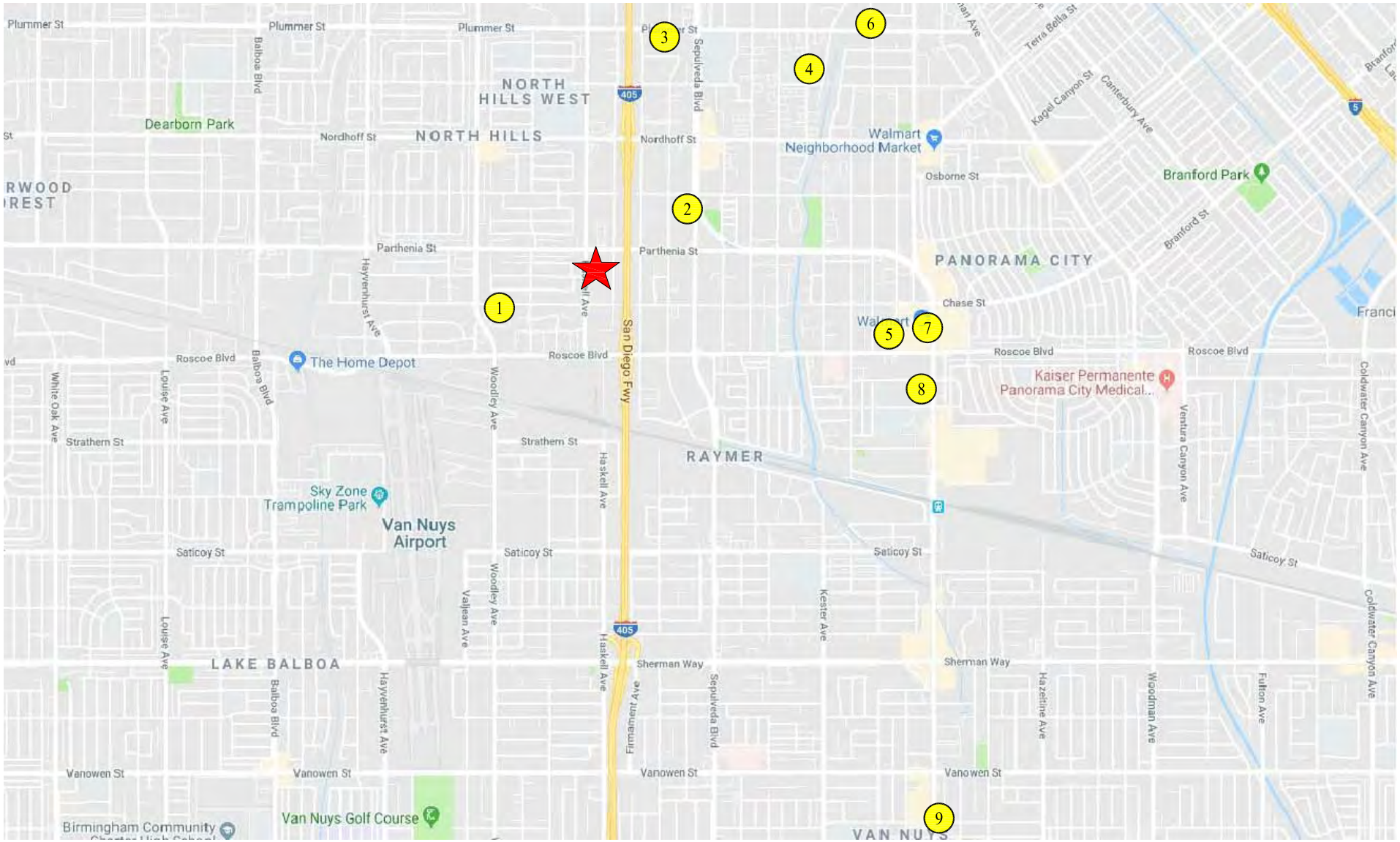
[3] Institute of Transportation Engineers *Trip Generation* manual, 10th Edition, Washington, D.C., 2017.

Table 6-1
RELATED PROJECTS LIST AND TRIP GENERATION [1]

16-Oct-18

MAP NO.	PROJECT NAME/NUMBER ADDRESS/LOCATION	PROJECT STATUS	LAND USE DATA		PROJECT DATA SOURCE	DAILY TRIP ENDS [2]	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
			LAND-USE	SIZE		VOLUMES	IN	OUT	TOTAL	IN	OUT	TOTAL
1	16110 Chase Street	Under Construction	Single Family Homes	74 DU		695	14	41	55	46	27	73
2	8845 Sepulveda Boulevard	Proposed	Apartments	395 DU		1,408	19	138	157	96	26	122
3	15508 Plummer Street	Proposed	Condominiums	90 DU		513	7	32	39	30	16	46
4	Valor Charter High School 9334 Lemona Avenue	Under Construction	School	500 Students	[3]	1,211	246	157	403	35	47	82
5	The Icon of Panorama 14665 W. Roscoe Boulevard	Proposed	Apartments Restaurant Gym Theater Shopping Center Market	425 DU 15,000 GSF 35,000 GSF 1,200 GSF 80,000 GSF 20,000 GSF		7,996	185	277	462	365	297	662
6	14709 Plummer Street	Proposed	Apartments	28 DU		248	5	14	19	16	10	26
7	Panorama Mall Expansion 8401 Van Nuys Boulevard	Proposed	Commercial	266,000 GSF	[4]	10,042	155	95	250	120	130	250
8	8155 Van Nuys Boulevard	Under Construction	Apartments Retail Shopping Center	180 DU 11,000 GLSF 49,500 GLSF		2,482	68	120	188	138	112	250
9	6600 Van Nuys Boulevard	Proposed	Apartments Retail	54 DU 3,160 GLSF		0	26	52	78	52	27	79
						24,595	**725**	**926**	**1,651**	**898**	**692**	**1,590**

[1] Source: City of Los Angeles Department of Transportation, unless otherwise noted in the Project Data Source column.
[2] Trips are one-way traffic movements, entering or leaving.
[3] Source: Traffic Impact Study for the Valor Charter High School Project, prepared by LLG Engineers, December 2015.
[4] ITE Land Use Code 820 (Shopping Center) trip generation average rates.



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MAP SOURCE: GOOGLE MAPS

PROJECT SITE

(XX) RELATED PROJECT

FIGURE 6-1
LOCATION OF RELATED PROJECTS

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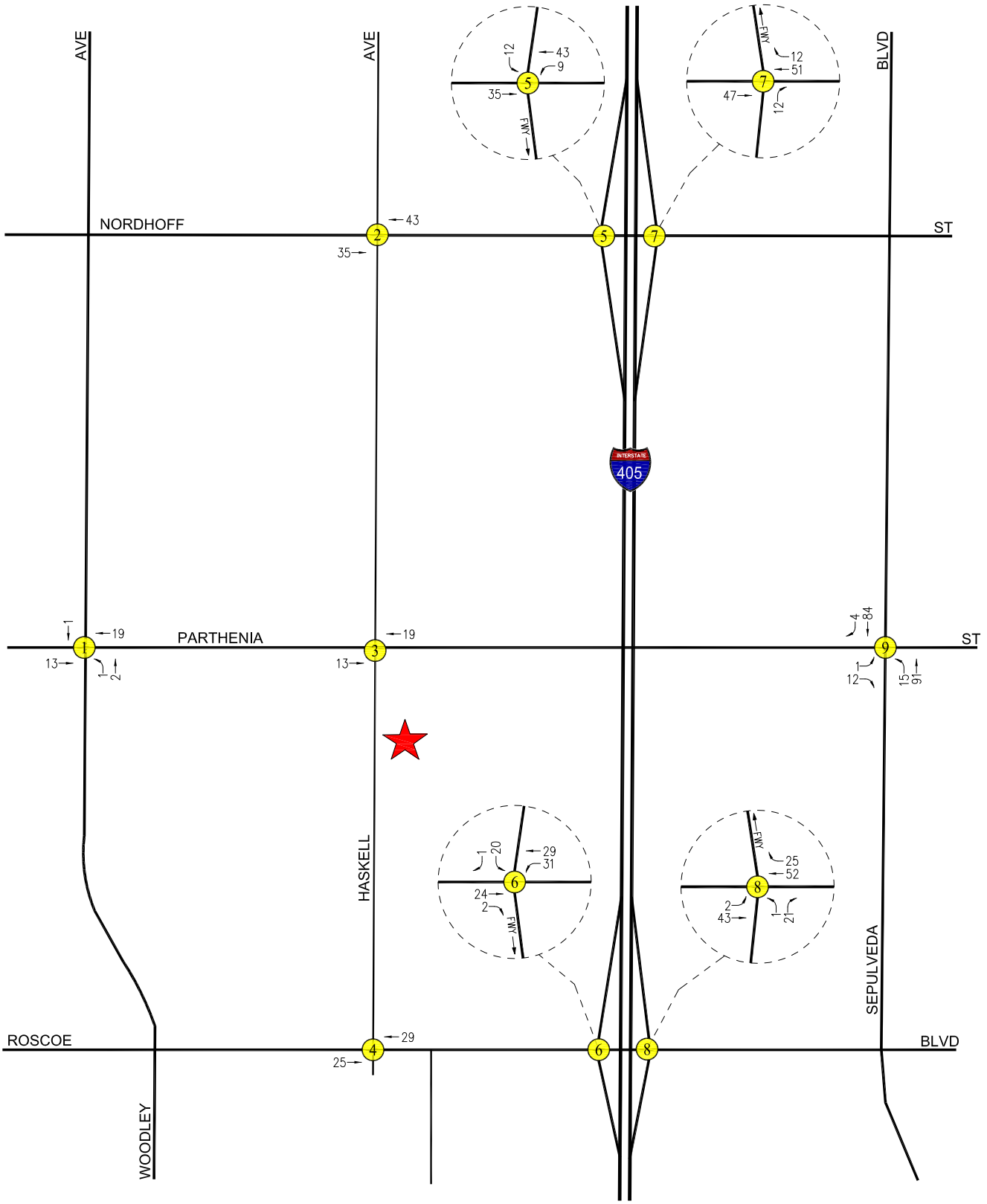

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(XX) STUDY INTERSECTION

FIGURE 6-2
RELATED PROJECTS TRAFFIC VOLUMES

WEEKDAY AM PEAK HOUR

8618-8630 HASKELL AVENUE CHARTER SCHOOL PROJECT

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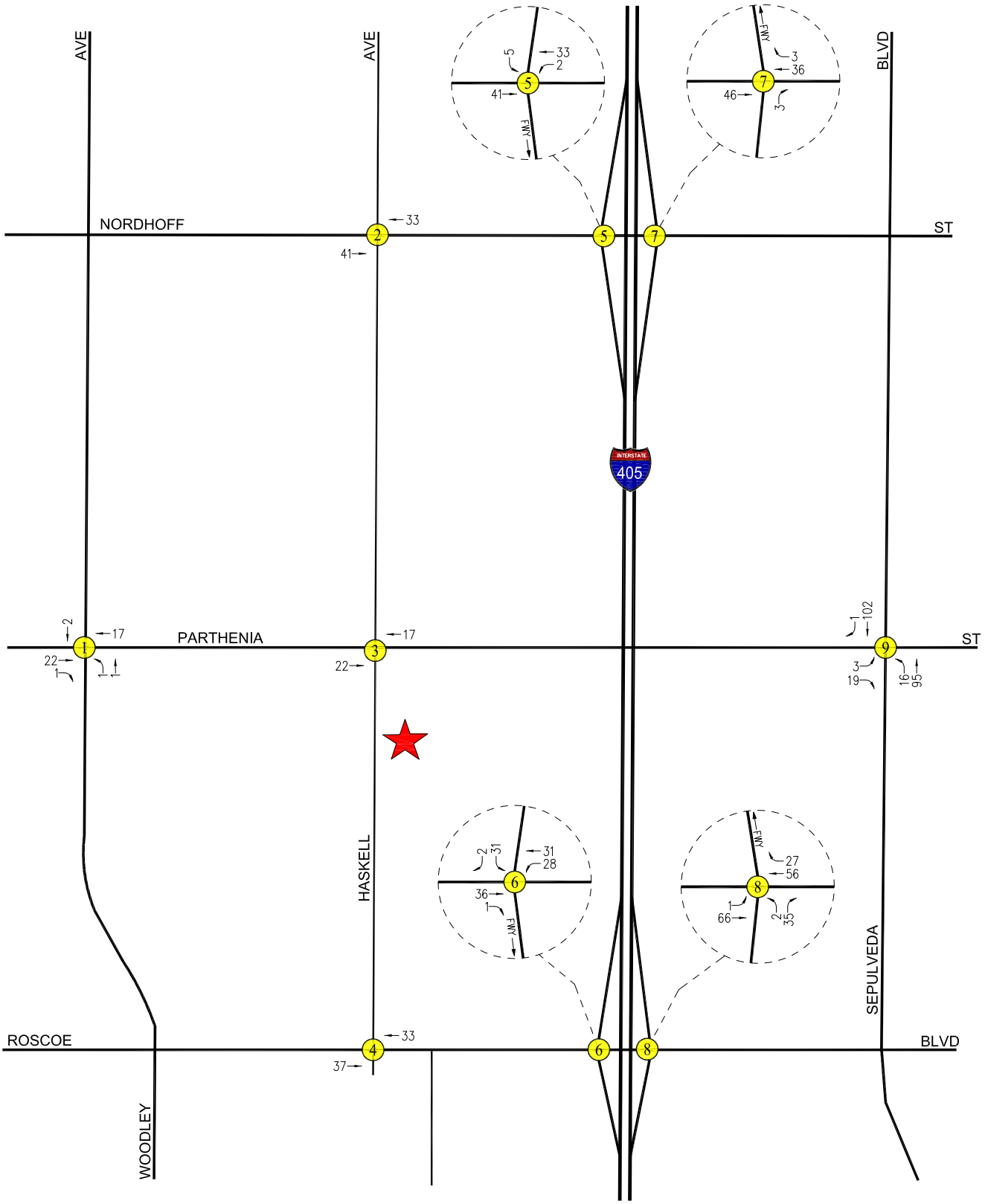

FIGURE 6-3
RELATED PROJECTS TRAFFIC VOLUMES

WEEKDAY PM PEAK HOUR
8618-8630 HASKELL AVENUE CHARTER SCHOOL PROJECT

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6.2 Ambient Traffic Growth Factor

In order to account for unknown related projects not included in this analysis, the existing traffic volumes were increased at an annual rate of 1.0 percent (1.0%) per year to the year 2020 (i.e., the anticipated year of Project build-out). The ambient growth factor was based on general traffic growth factors provided in the *2010 Congestion Management Program for Los Angeles County* (the "CMP manual") and determined in consultation with LADOT staff. It is noted that based on review of the general traffic growth factors provided in the CMP manual for the West San Fernando Valley, it is anticipated that the existing traffic volumes are expected to increase at an annual rate of less than 0.54% per year between the years 2015 and 2020. Thus, application of an annual growth factor of 1.0% allows for a conservative, worst case forecast of future traffic volumes in the area. Further, it is noted that the CMP manual's traffic growth rate is intended to anticipate future traffic generated by development projects in the Project vicinity. Thus, the inclusion in this traffic analysis of both a forecast of traffic generated by known related projects plus the use of an ambient growth traffic factor based on CMP traffic model data results in a conservative estimate of future traffic volumes at the study intersections.

7.0 TRAFFIC FORECASTING METHODOLOGY

In order to estimate the traffic impact characteristics of the proposed Project, 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 traffic generation potential is forecast by applying the appropriate vehicle trip generation equations or rates to the Project development tabulation.

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 assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds. 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.

With the forecasting process complete and Project traffic assignments developed, the impact of the proposed Project is isolated by comparing operational (i.e., Levels of Service) conditions at the selected key intersections using existing and expected future traffic volumes without and with forecast Project traffic. The need for site-specific and/or cumulative local area traffic improvements can then be evaluated and the significance of the Project's impacts identified.

7.1 Project Traffic Generation

Traffic volumes expected to be generated by the proposed elementary school Project during the weekday AM and PM peak hours, as well as on a daily basis, were estimated using rates published in the ITE *Trip Generation* manual.

Traffic volumes expected to be generated by the proposed Project were based upon rates per number of students. The following trip generation rate was used to forecast the traffic volumes expected to be generated by the Project land use components:

- Private School K-12: ITE Land Use Code 536 (Private School K-12) trip generation average rates were used to forecast the traffic volumes expected to be generated by the proposed Project.

The trip generation forecast for the proposed Project was submitted for review and approval by LADOT staff. As shown in ***Table 7–1***, the proposed Project is expected to generate 366 net new vehicle trips (223 inbound trips and 143 outbound trips) during the AM peak hour. During the PM peak hour, the proposed Project is expected to generate 78 net new vehicle trips (34 inbound trips and 44 outbound trips). Over a 24-hour period, the proposed Project is forecast to generate a net increase of 1,136 daily trip ends (568 inbound trips and 568 outbound trips) during a typical weekday.

Table 7-1
PROJECT TRIP GENERATION [1]

20-Dec-18

LAND USE	SIZE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
			IN	OUT	TOTAL	IN	OUT	TOTAL
Proposed Project								
Charter Elementary School [3]	458 Students	1,136	223	143	366	34	44	78
NET INCREASE DRIVEWAY TRIPS		**1,136**	**223**	**143**	**366**	**34**	**44**	**78**

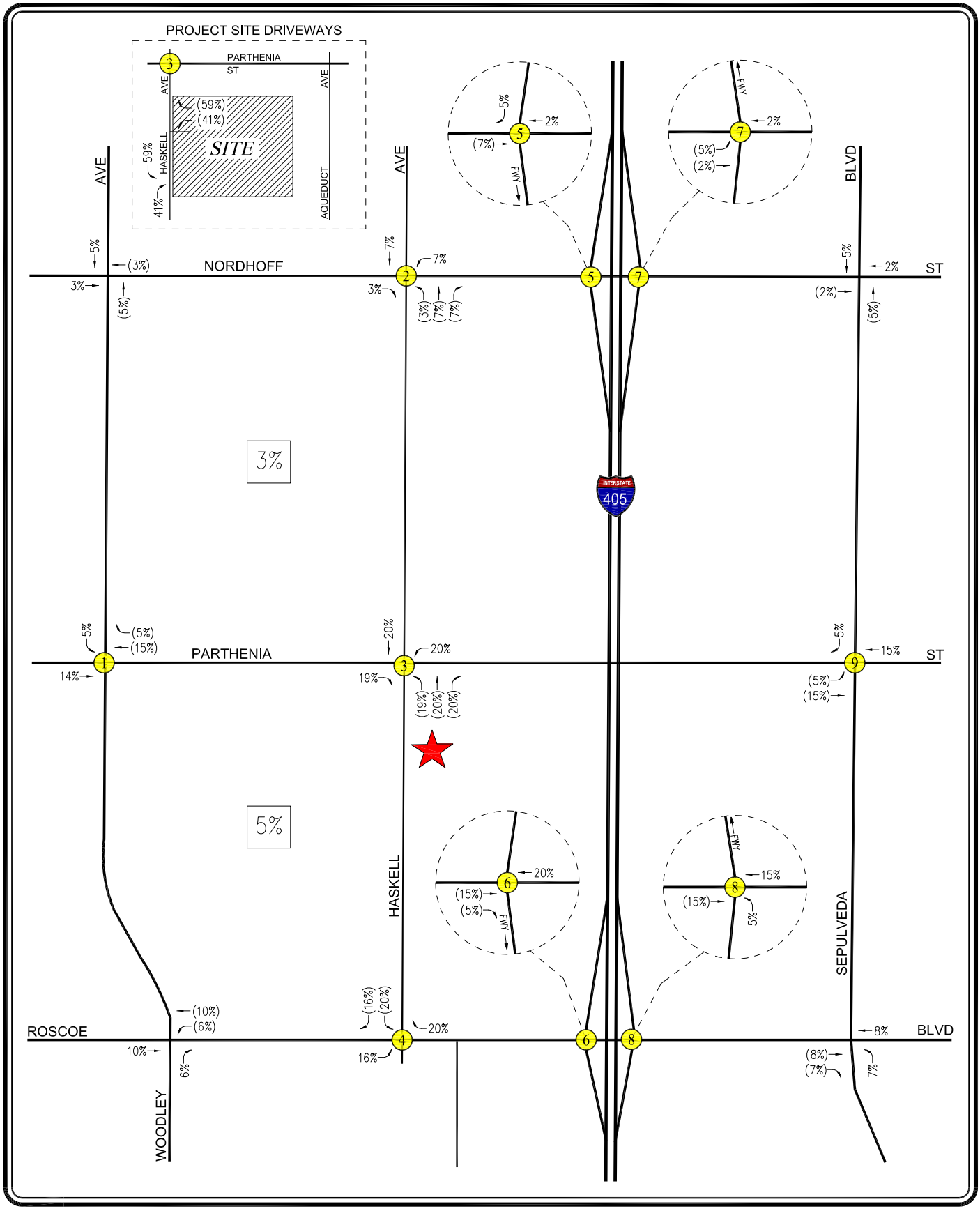
[1] Source: ITE "Trip Generation Manual", 10th Edition, 2017.
[2] Trips are one-way traffic movements, entering or leaving.
[3] ITE Land Use Code 536 (Private School K-12) trip generation average rates per number of students.
- Daily Trip Rate: 2.48 trips/student; 50% inbound and 50% outbound
- AM Peak Hour Trip Rate: 0.80 trips/student; 61% inbound/39% outbound
- PM Peak Hour Trip Rate: 0.17 trips/student; 43% inbound/57% outbound

7.2 Project Traffic 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., Haskell Avenue, Parthenia Street, Roscoe Boulevard, I-405 Freeway, etc.);
- Expected localized traffic flow patterns based on adjacent roadway channelization and presence of traffic signals;
- Existing intersection traffic volumes;
- Ingress/egress availability at the Project site assuming the site access and circulation scheme described in Section 3.0;
- Nearby population and employment centers as well as adjacent residential neighborhoods;
- Input from LADOT staff.

The general, directional traffic distribution patterns for direct access to the proposed Project are presented in ***Figure 7–1***. The forecast net new weekday AM and PM peak hour Project traffic volumes at the study intersections associated with the proposed Project are presented in ***Figures 7–2*** and ***7–3***, respectively. The traffic volume assignments presented in *Figures 7–2* and *7–3* reflect the traffic distribution characteristics shown in *Figure 7–1*, and the Project traffic generation forecast presented in *Table 7–1*.



NOT TO SCALE

★ PROJECT SITE
(XX) STUDY INTERSECTION
= INBOUND PERCENTAGES
(##) = OUTBOUND PERCENTAGES
5% = LOCAL ORIGIN / DESTINATION

LINSCOTT, LAW & GREENSPAN, engineers

FIGURE 7-1
PROJECT TRIP DISTRIBUTION

8618-8630 HASKELL AVENUE CHARTER SCHOOL PROJECT

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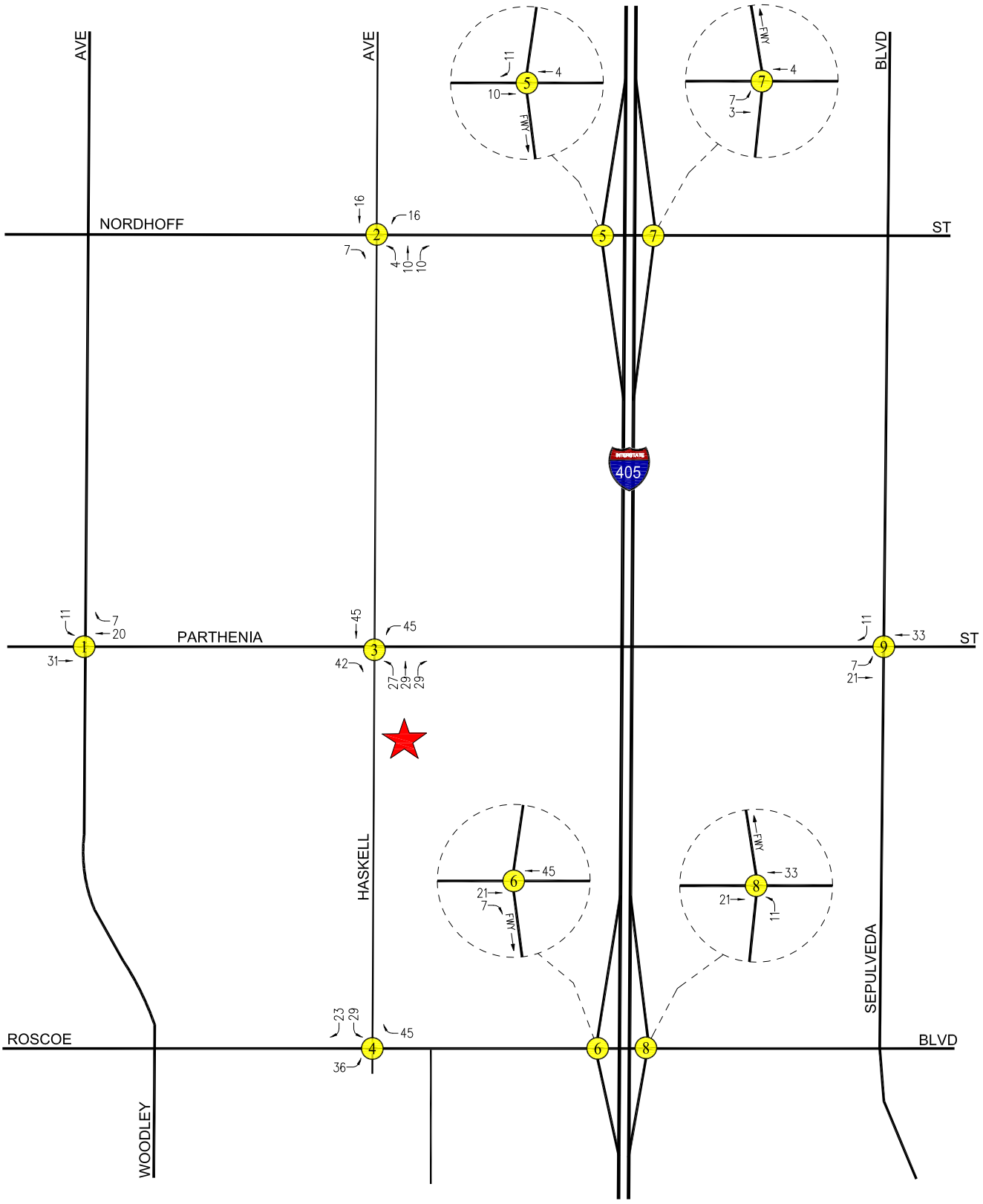

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★ PROJECT SITE

(XX) STUDY INTERSECTION

FIGURE 7-2
NET NEW PROJECT TRAFFIC VOLUMES

WEEKDAY AM PEAK HOUR

8618-8630 HASKELL AVENUE CHARTER SCHOOL PROJECT

LINSCOTT, LAW & GREENSPAN, engineers

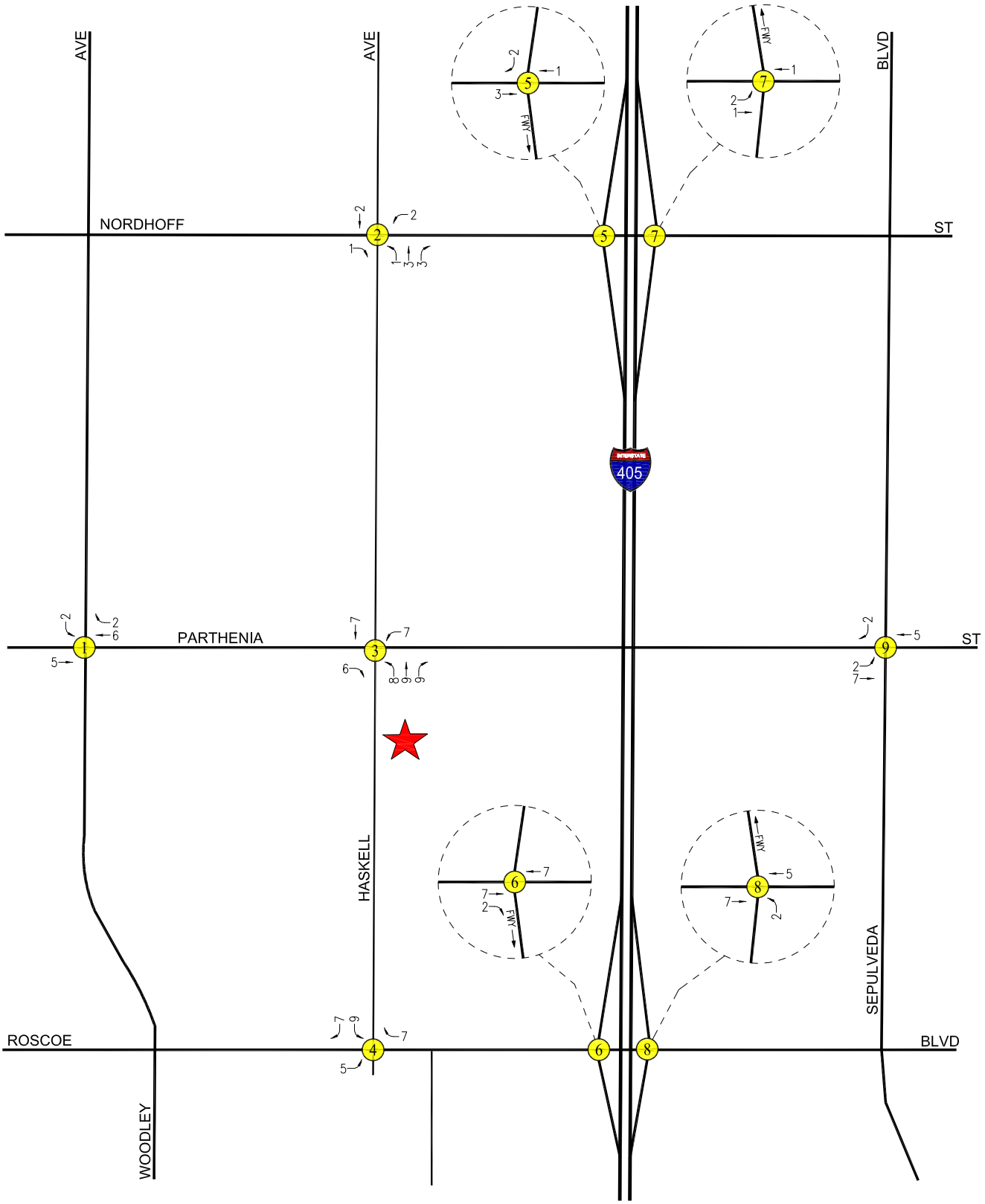

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FIGURE 7-3
NET NEW PROJECT TRAFFIC VOLUMES

WEEKDAY PM PEAK HOUR
8618-8630 HASKELL AVENUE CHARTER SCHOOL PROJECT

LINSCOTT, LAW & GREENSPAN, engineers

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8.0 TRAFFIC IMPACT ANALYSIS METHODOLOGY

The study intersections were evaluated using the Critical Movement Analysis (CMA) method of analysis that determines Volume-to-Capacity (*v/c*) ratios on a critical lane basis. 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 CMA method and corresponding Level of Service is provided in ***Appendix B***.

8.1 Impact Criteria and Thresholds

The relative impact of the added Project traffic volumes to be generated by the proposed Project during the AM and PM peak hours was evaluated based on analysis of future operating conditions at the study intersections, without and with the proposed Project. The previously discussed capacity analysis procedures were utilized to evaluate the future *v/c* relationships and service level characteristics at each study intersection.

The significance of the potential impacts of Project generated traffic was identified using the traffic impact criteria set forth in LADOT's *Transportation Impact Study Guidelines*, December 2016. According to the City's published traffic study guidelines, the impact is considered significant if the Project-related increase in the *v/c* ratio is equal to or exceeds the thresholds presented in ***Table 8–1***.

Table 8-1
CITY OF LOS ANGELES
INTERSECTION IMPACT THRESHOLD CRITERIA

Final *v/c*	**Level of Service**	**Project Related Increase in *v/c***
> 0.701 - 0.800	C	equal to or greater than 0.040
> 0.801 - 0.900	D	equal to or greater than 0.020
> 0.901	E or F	equal to or greater than 0.010

The City's Sliding Scale Method requires mitigation of Project traffic impacts whenever traffic generated by the proposed development causes an increase of the analyzed intersection *v/c* ratio by an amount equal to or greater than the values shown above.

8.2 LADOT ATSAC/ATCS

The City of Los Angeles Automated Traffic Surveillance and Control (ATSAC) and Adaptive Traffic Control System (ATCS) provides computer control of traffic signals allowing automatic adjustment of signal timing plans to reflect changing traffic conditions, identification of unusual traffic conditions caused by accidents, the ability to centrally implement special purpose short term traffic timing changes in response to incidents, and the ability to quickly identify signal equipment malfunctions. ATCS provides real time control of traffic signals and includes additional loop detectors, closed-circuit television, an upgrade in the communications links and a

new generation of traffic control software. LADOT estimates that the ATSAC system reduces the critical *v/c* ratios by seven percent (0.07). The ATCS system upgrade further reduces the critical *v/c* ratios by three percent (0.03) for a total of 10 percent (0.10). According to the City of Los Angeles, ATSAC/ATCS system upgrades for all nine signalized study intersections have been implemented. As such, the Level of Service calculations reflect a 0.10 adjustment for all analysis scenarios evaluated.

8.3 Traffic Impact Analysis Scenarios

Pursuant to LADOT's traffic study, Level of Service calculations have been prepared for the following scenarios for the study intersections:

(a) Existing (2018) conditions.

(b) Condition (a) with completion and occupancy of the Project.

(c) Condition (b) with implementation of Project mitigation measures where necessary.

(d) Condition (a) plus one percent (1.0%) annual ambient traffic growth through year 2020 and with completion and occupancy of the related projects (i.e., future cumulative baseline).

(e) Condition (d) with completion and occupancy of the Project.

(f) Condition (e) with implementation of Project mitigation measures where necessary.

The traffic volumes for each new condition were added to the volumes in the prior condition to determine the change in capacity utilization at the study intersections.

9.0 TRAFFIC ANALYSIS

The traffic impact analysis prepared for the study intersections using the CMA methodology and application of the City of Los Angeles significant traffic impact criteria is summarized in ***Table 9–1***. The CMA data worksheets for the analyzed intersections are contained in *Appendix B.*

9.1 Existing Conditions

9.1.1 *Existing Conditions*

As indicated in column [1] *Table 9–1*, eight of the nine study intersections are presently operating at LOS D or better during the weekday AM and PM peak hours under existing conditions. The following intersection is presently operating at LOS E or worse during the peak hours shown below under existing conditions:

- Int. No. 1: Woodley Avenue / Parthenia Street — AM Peak Hour: *v/c* = 0.977, LOS F

The existing traffic volumes at the study intersections during the weekday AM and PM peak hours are displayed in *Figures 5–1* and *5–2*, respectively.

9.1.2 *Existing With Project Conditions*

As shown in column [2] of *Table 9–1,* application of the City's threshold criteria to the "Existing With Project" scenario indicates that the proposed Project is not expected to create significant impacts at any of the nine signalized intersections. Incremental, but not significant, impacts are noted at the study intersections. Because there are no significant impacts, no traffic mitigation measures are required or recommended for the study intersections under the "Existing With Project" conditions. The existing with Project traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in ***Figures 9–1*** and ***9–2***, respectively.

9.2 Future Conditions

9.2.1 *Future Cumulative Baseline Conditions*

The future cumulative baseline conditions were forecast based on the addition of traffic generated by the completion and occupancy of 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 *v/c* ratios at all of the study intersections are incrementally increased with the addition of ambient traffic and traffic generated by the related projects listed in *Table 6–1*.

As presented in column [3] of *Table 9–1*, the following intersection is expected to operate at LOS E or worse during the weekday AM and PM peak hour with the addition of growth in ambient traffic and related project traffic under the future cumulative baseline conditions:

- Int. No. 1: Woodley Avenue / Parthenia Street — AM Peak Hour: *v/c* = 1.006, LOS F

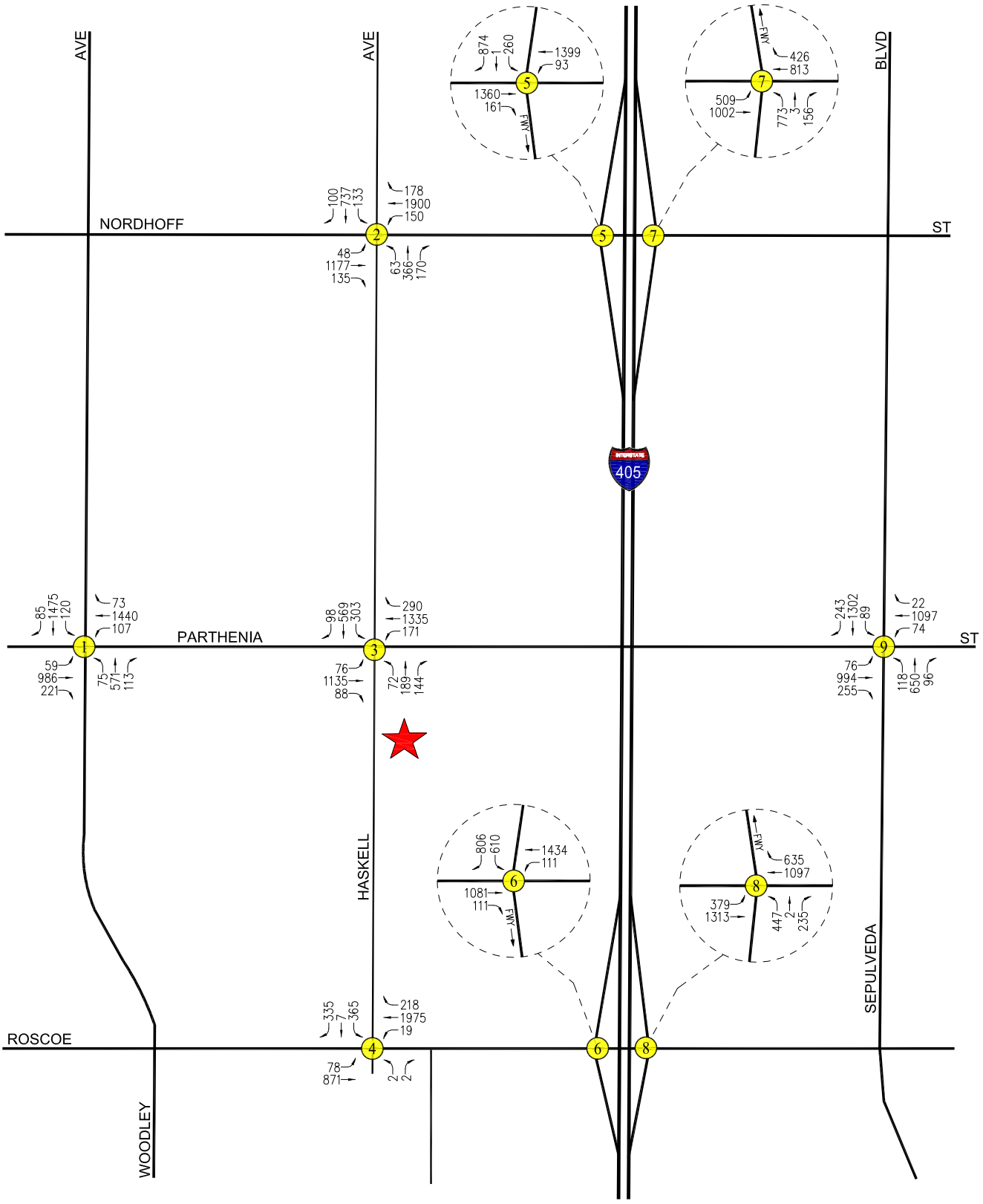
Table 9-1
SUMMARY OF VOLUME TO CAPACITY RATIOS
AND LEVELS OF SERVICE
CITY OF LOS ANGELES INTERSECTIONS

20-Dec-18

NO.	INTERSECTION	PEAK HOUR	[1] YEAR 2018 EXISTING V/C	LOS	[2] YEAR 2018 EXISTING W/ PROJECT V/C	LOS	CHANGE V/C [(2)-(1)]	SIGNIF. IMPACT [a]	[3] YEAR 2020 FUTURE PRE-PROJECT V/C	LOS	[4] YEAR 2020 FUTURE W/ PROJECT V/C	LOS	CHANGE V/C [(4)-(3)]	SIGNIF. IMPACT [a]
1	Woodley Avenue / Parthenia Street	AM	0.977	E	0.986	E	0.009	NO	1.006	F	1.015	F	0.009	NO
		PM	0.857	D	0.860	D	0.003	NO	0.885	D	0.888	D	0.003	NO
2	Haskell Avenue / Nordhoff Street	AM	0.707	C	0.715	C	0.008	NO	0.733	C	0.741	C	0.008	NO
		PM	0.681	B	0.683	B	0.002	NO	0.704	C	0.706	C	0.002	NO
3	Haskell Avenue / Parthenia Street	AM	0.787	C	0.806	D	0.019	NO	0.811	D	0.830	D	0.019	NO
		PM	0.677	B	0.690	B	0.013	NO	0.699	B	0.712	C	0.013	NO
4	Haskell Avenue / Roscoe Boulevard	AM	0.639	B	0.678	B	0.039	NO	0.661	B	0.700	C	0.039	NO
		PM	0.494	A	0.501	A	0.007	NO	0.512	A	0.521	A	0.009	NO
5	I-405 Southbound Ramps / Nordhoff Street	AM	0.784	C	0.789	C	0.005	NO	0.821	D	0.826	D	0.005	NO
		PM	0.860	D	0.860	D	0.000	NO	0.881	D	0.882	D	0.001	NO
6	I-405 Southbound Ramps / Roscoe Boulevard	AM	0.719	C	0.734	C	0.015	NO	0.750	C	0.766	C	0.016	NO
		PM	0.562	A	0.563	A	0.001	NO	0.595	A	0.596	A	0.001	NO
7	I-405 Northbound Ramps / Nordhoff Street	AM	0.691	B	0.694	B	0.003	NO	0.716	C	0.718	C	0.002	NO
		PM	0.500	A	0.501	A	0.001	NO	0.515	A	0.516	A	0.001	NO
8	I-405 Northbound Ramps / Roscoe Boulevard	AM	0.660	B	0.664	B	0.004	NO	0.694	B	0.699	B	0.005	NO
		PM	0.631	B	0.632	B	0.001	NO	0.668	B	0.668	B	0.000	NO
9	Sepulveda Boulevard / Parthenia Street	AM	0.778	C	0.788	C	0.010	NO	0.829	D	0.839	D	0.010	NO
		PM	0.727	C	0.730	C	0.003	NO	0.771	C	0.773	C	0.002	NO

[a] According to LADOT's "Transportation Impact Study Guidelines", December 2016, a transportation impact on an intersection shall be deemed significant in accordance with the following table:

Final v/c	LOS	Project Related Increase in v/c
0.701 - 0.800	C	equal to or greater than 0.040
0.801 - 0.900	D	equal to or greater than 0.020
> 0.901	E, F	equal to or greater than 0.010



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XX STUDY INTERSECTION

FIGURE 9-1
EXISTING WITH PROJECT TRAFFIC VOLUMES

WEEKDAY AM PEAK HOUR
8618-8630 HASKELL AVENUE CHARTER SCHOOL PROJECT

LINSCOTT, LAW & GREENSPAN, engineers

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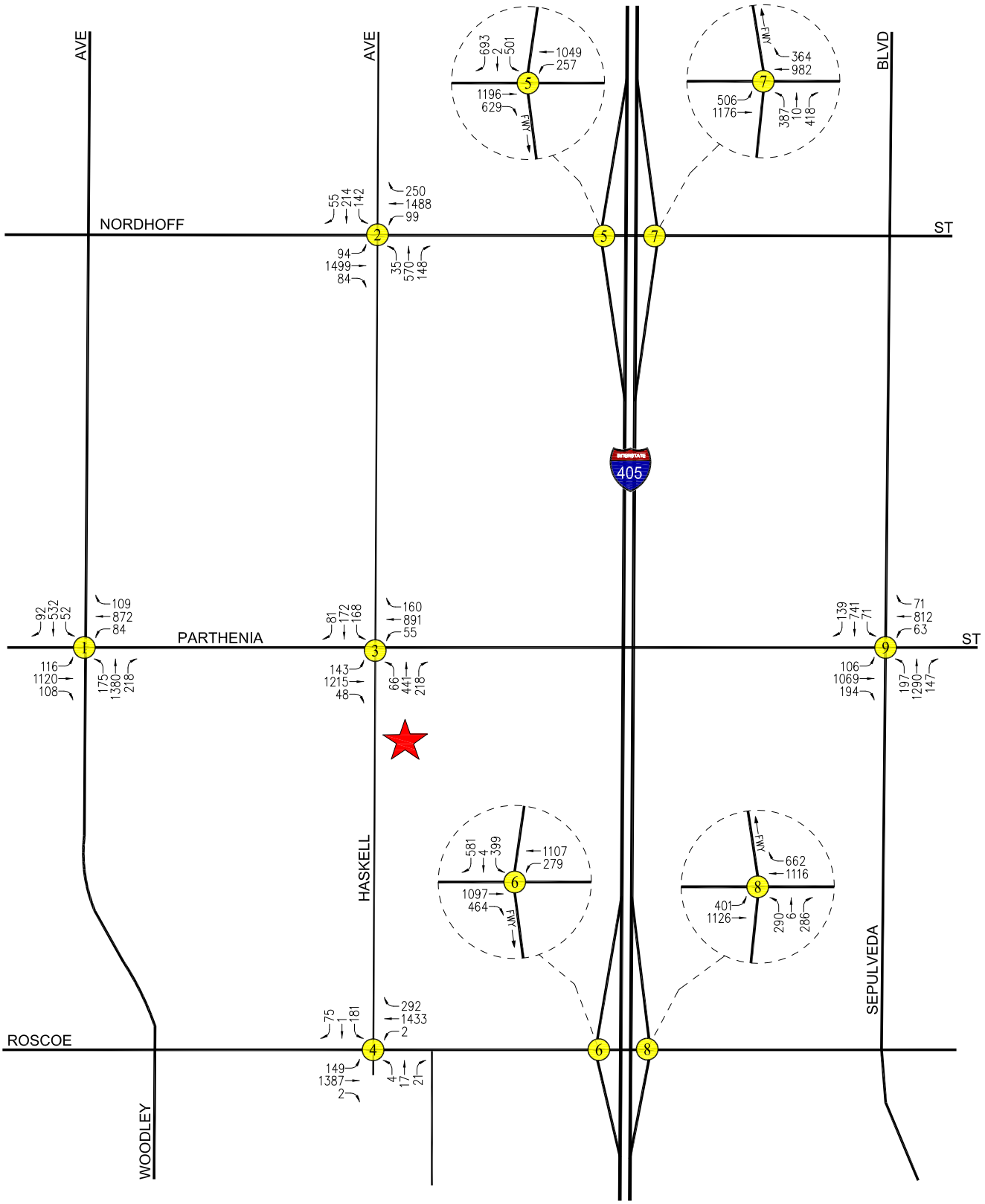

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FIGURE 9-2
EXISTING WITH PROJECT TRAFFIC VOLUMES

WEEKDAY PM PEAK HOUR

8618-8630 HASKELL AVENUE CHARTER SCHOOL PROJECT

LINSCOTT, LAW & GREENSPAN, engineers

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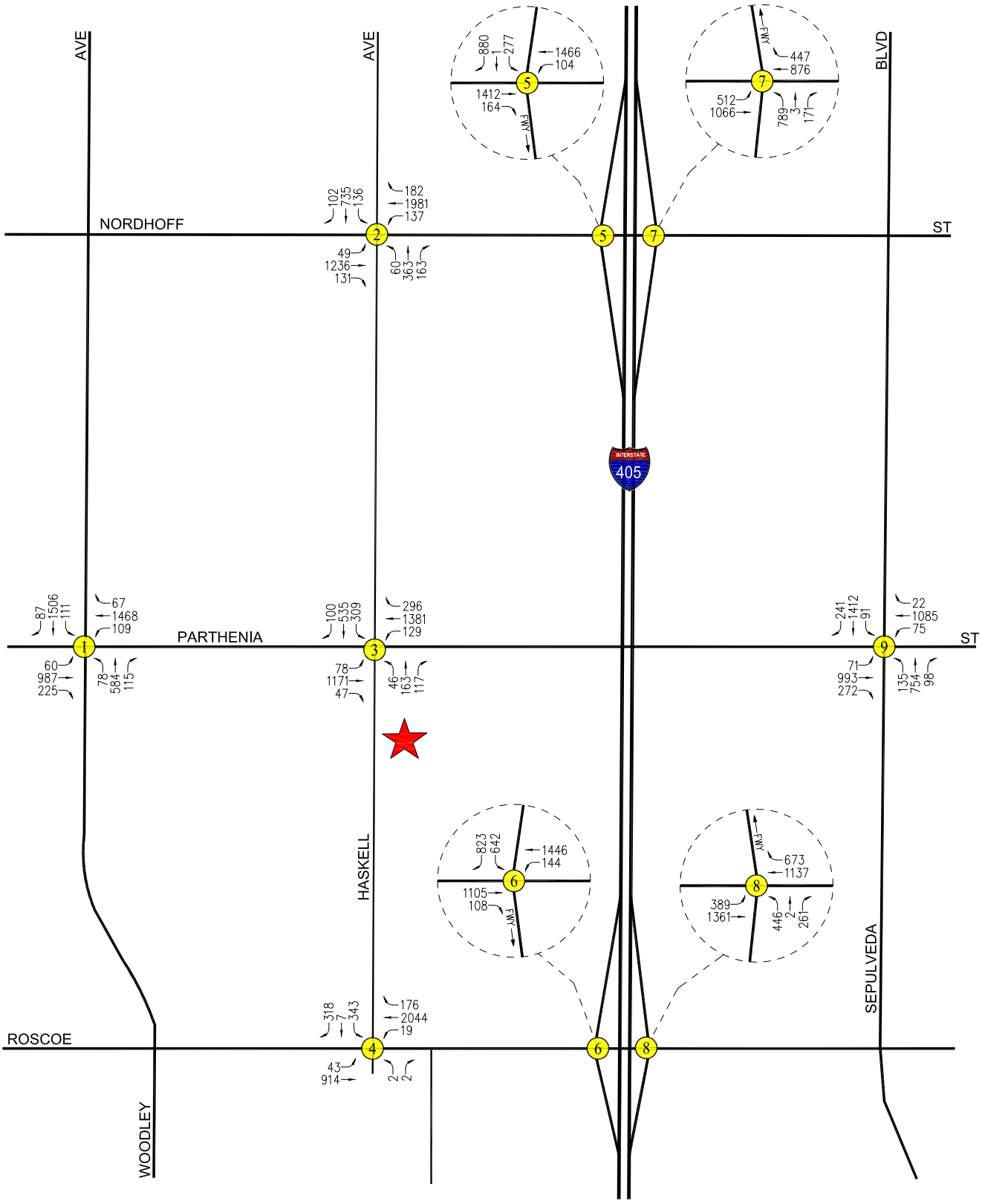
The future cumulative baseline (existing, ambient growth and related projects) traffic volumes at the study intersections during the weekday AM and PM peak hours are presented in ***Figures 9–3*** and ***9–4***, respectively.

9.2.2 *Future Cumulative With Project Conditions*

As shown in column [4] of *Table 9–1,* application of the City's threshold criteria to the "Future With Project" scenario indicates that the proposed Project is not expected to create significant impacts at any of the nine signalized study intersections. Incremental, but not significant, impacts are noted at the study intersections. Because there are no significant impacts, no traffic mitigation measures are required or recommended for the study intersections under the "Future With Project" conditions. The future cumulative with Project (existing, ambient growth, related projects and Project) traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in ***Figures 9–5*** and ***9–6***, respectively.



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(XX) STUDY INTERSECTION

FIGURE 9-3
FUTURE CUMULATIVE BASELINE TRAFFIC VOLUMES

WEEKDAY AM PEAK HOUR

8618-8630 HASKELL AVENUE CHARTER SCHOOL PROJECT

LINSCOTT, LAW & GREENSPAN, engineers

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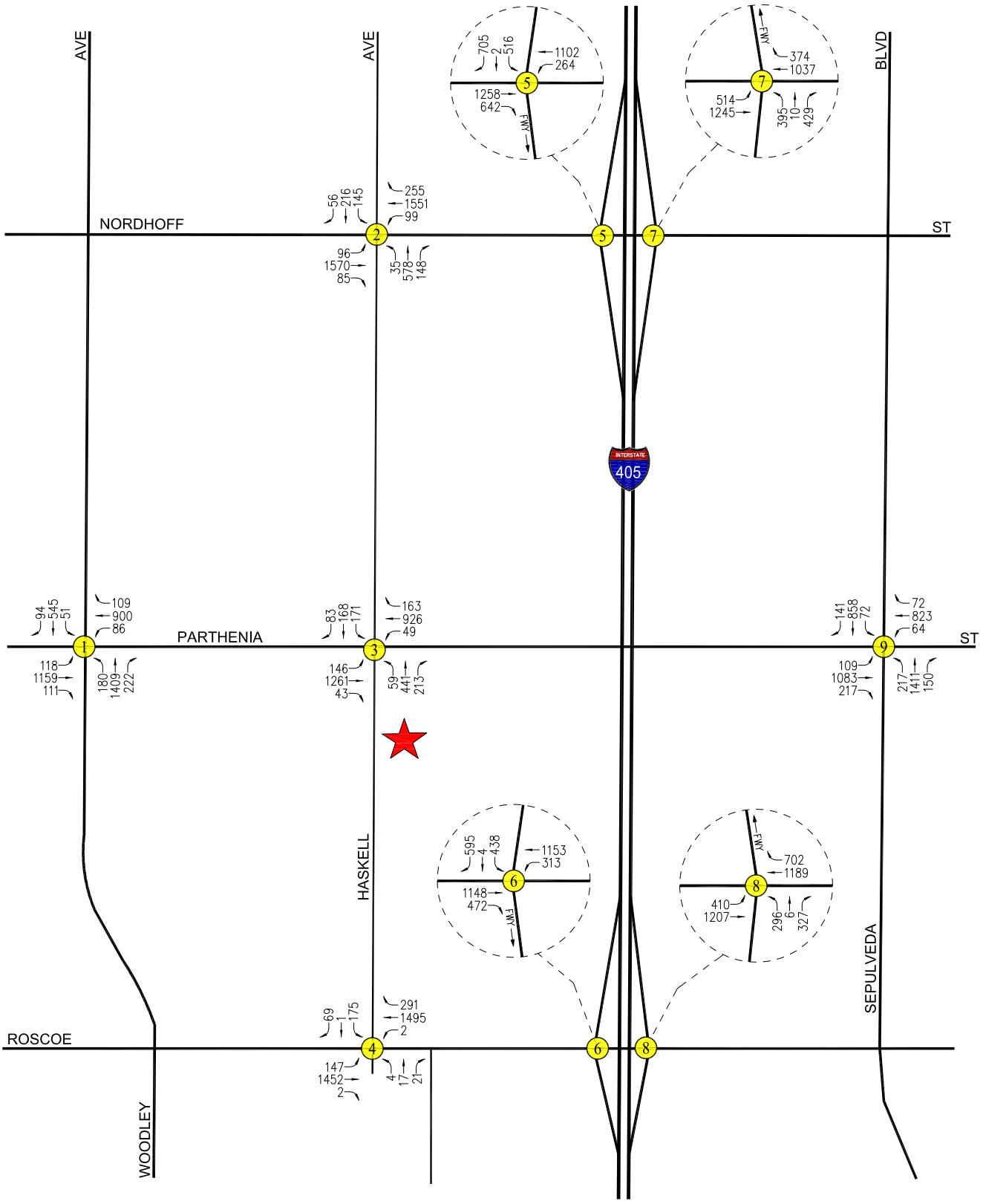

FIGURE 9-4
FUTURE CUMULATIVE BASELINE TRAFFIC VOLUMES

WEEKDAY PM PEAK HOUR

8618-8630 HASKELL AVENUE CHARTER SCHOOL PROJECT

LINSCOTT, LAW & GREENSPAN, engineers

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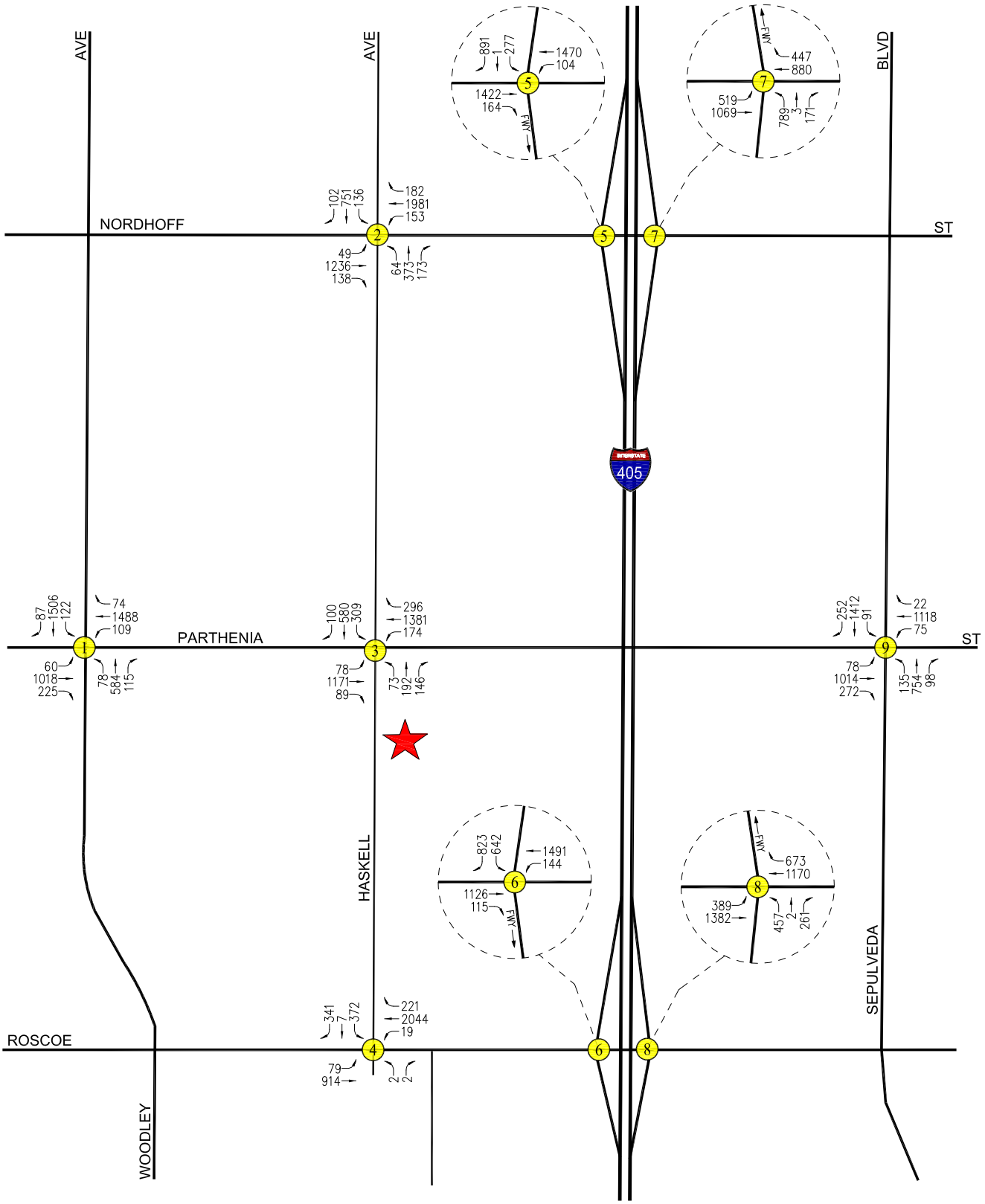

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(XX) STUDY INTERSECTION

FIGURE 9-5
FUTURE CUMULATIVE WITH PROJECT TRAFFIC VOLUMES

WEEKDAY AM PEAK HOUR

8618-8630 HASKELL AVENUE CHARTER SCHOOL PROJECT

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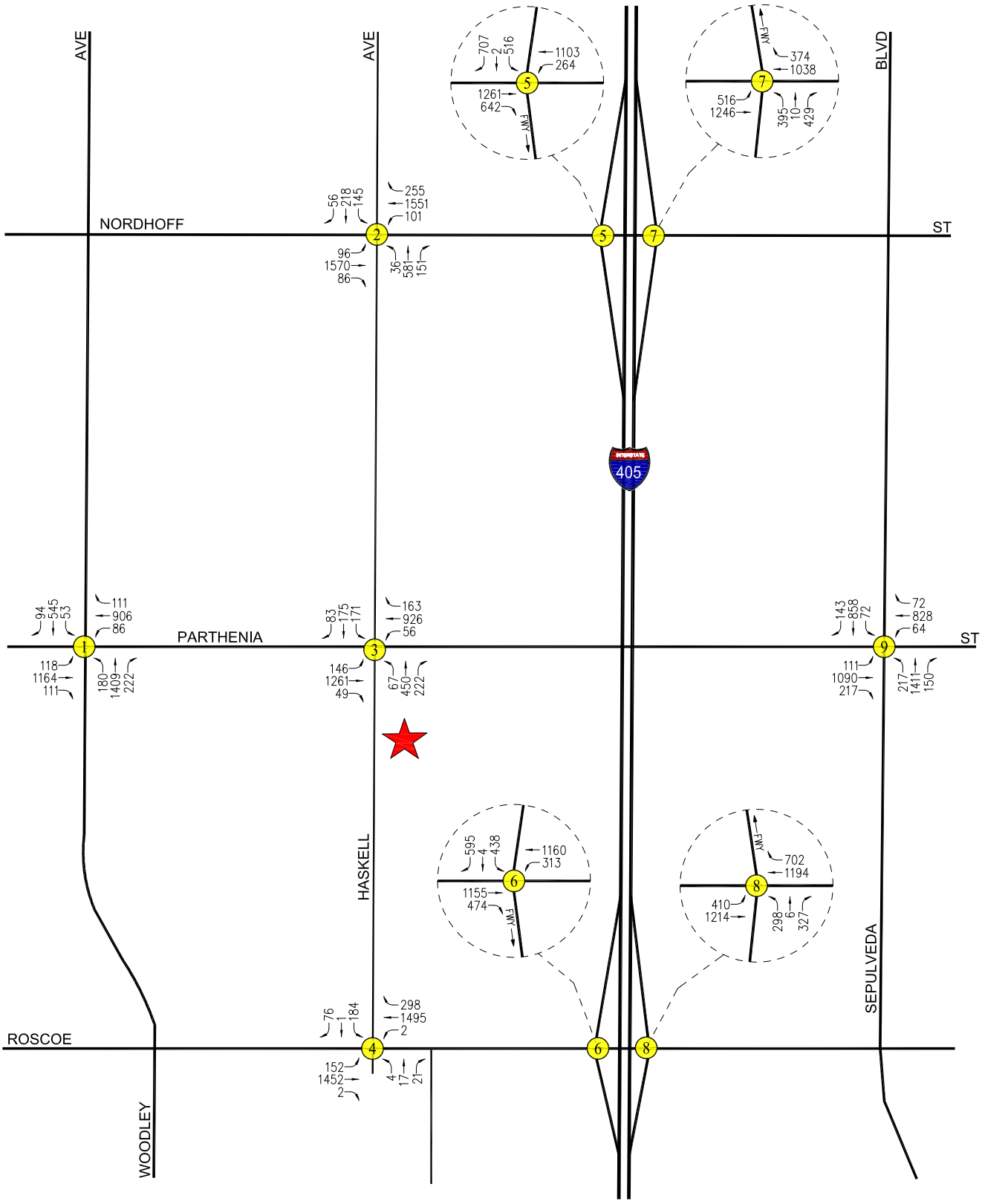

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(XX) STUDY INTERSECTION

FIGURE 9-6
FUTURE CUMULATIVE WITH PROJECT TRAFFIC VOLUMES

WEEKDAY PM PEAK HOUR

8618-8630 HASKELL AVENUE CHARTER SCHOOL PROJECT

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10.0 CONGESTION MANAGEMENT PROGRAM TRAFFIC IMPACT ASSESSMENT

The Congestion Management Program (CMP) is a state-mandated program that was enacted by the California State Legislature with the passage of Proposition 111 in 1990. The program is intended to address the impact of local growth on the regional transportation system.

As required by the 2010 Congestion Management Program for Los Angeles County, a Traffic Impact Assessment (TIA) has been prepared to determine the potential impacts on designated monitoring locations on the CMP highway system. The analysis has been prepared in accordance with procedures outlined in the *2010 Congestion Management Program for Los Angeles County*, County of Los Angeles Metropolitan Transportation Authority, 2010.

According to Section D.9.1 (Appendix D, page D-6) of the 2010 CMP manual, the criteria for determining a significant transportation impact is listed below:

> "A significant transportation impact occurs when the proposed Project increases traffic demand on a CMP facility by 2% of capacity (V/C $\geq$ 0.02), causing or worsening LOS F (V/C > 1.00)."

The CMP impact criteria apply for analysis of both intersection and freeway monitoring locations.

10.1 Intersections

The following CMP intersection monitoring locations in the Project vicinity have been identified:

CMP Station	Intersection
No. 79	Balboa Boulevard / Victory Boulevard
No. 81	Sepulveda Boulevard / Victory Boulevard

The CMP TIA guidelines require that intersection monitoring locations must be examined if the proposed Project will add 50 or more trips during either the AM or PM weekday peak hours. As shown in *Figures 7–2* and *7–3*, the proposed Project will not add 50 or more trips during either the AM or PM weekday peak hours (i.e., of adjacent street traffic) at the CMP monitoring intersections in the Project vicinity, which is stated in the CMP manual as the threshold criteria for a traffic impact assessment. Therefore, no further review of potential impacts to intersection monitoring locations that are part of the CMP highway system is required.

10.2 Freeways

The following CMP freeway monitoring location has been identified in the Project vicinity:

- CMP Station — Location

  No. 1072 — I-405 Freeway north of Roscoe Boulevard

The CMP TIA guidelines require that freeway monitoring locations must be examined if the proposed Project will add 150 or more trips (in either direction) during either the AM or PM weekday peak periods. The proposed Project will not add 150 or more trips (in either direction) during either the AM or PM weekday peak hours to CMP freeway monitoring locations which is the threshold for preparing a traffic impact assessment, as stated in the CMP manual. Therefore, no further review of potential impacts to freeway monitoring locations that are part of the CMP highway system is required.

10.3 Transit Impact Review

As required by the *2010 Congestion Management Program for Los Angeles County*, a review has been made of the potential impacts of the Project on transit service. As discussed in Subsection 4.4 herein, existing transit service is provided in the vicinity of the proposed Project.

The Project trip generation, as shown in *Table 7–1*, was adjusted by values set forth in the CMP (i.e., person trips equal 1.4 times vehicle trips, and transit trips equal 3.5 percent of the total person trips) to estimate transit trip generation. Pursuant to the CMP guidelines, the proposed Project is forecast to generate demand for 18 transit trips during the AM peak hour and 4 transit trips during the PM peak hour. Over a 24-hour period, the proposed Project is forecast to generate demand for 56 daily transit trips. Therefore, the calculations are as follows:

- AM Peak Hour = $366 \times 1.4 \times 0.035 = 18$ Transit Trips
- PM Peak Hour = $78 \times 1.4 \times 0.035 = 4$ Transit Trips
- Daily Trips = $1{,}136 \times 1.4 \times 0.035 = 56$ Transit Trips

As shown in *Table 4–1*, six transit lines and routes are provided adjacent to or in close proximity the Project site. As outlined in *Table 4–1*, under the "No. of Buses/Trains During Peak Hour" column, these six transit lines provide services for an average of (i.e., average of the directional number of transit vehicles during the peak hours) generally 114 transit vehicles during the AM peak hour and 134 transit vehicles during the PM peak hour. Therefore, based on the above calculated AM and PM peak hour trips, this would correspond to no more than one additional transit rider per transit vehicle. It is anticipated that the existing transit service in the Project area will adequately accommodate the increase of Project-generated transit trips. Thus, given the low number of Project-generated transit trips per transit vehicle, no Project impacts on existing or future transit services in the Project area are expected to occur as a result of the proposed Project.

11.0 CONCLUSIONS

This traffic impact analysis has been prepared to evaluate the potential impacts to the local street system due to the proposed charter school project located at 8618-8630 Haskell Avenue in the North Hills area of the City of Los Angeles. Nine intersections were identified and analyzed in order to determine changes in operations following construction and occupancy of the proposed Project. Application of the impact threshold criteria from the City of Los Angeles indicates that none of the nine study intersections would be significantly impacted by the forecast Project traffic. Incremental, but not significant, impacts are noted at the study intersections evaluated in this analysis. As no significant impacts are expected due to the proposed Project, no traffic mitigation measures are required or recommended for the study intersections.

APPENDIX A

MANUAL TRAFFIC COUNT DATA

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Woodley Ave

East/West Parthenia St

Day: Thursday Date: 09/27/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: Yes I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	163	184	148	131
BIKES	13	8	17	29
BUSES	7	8	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	224	7.45	438	7.45	346	8.15	423	7.30
PM PK 15 MIN	469	17.15	209	15.15	342	17.00	274	17.45
AM PK HOUR	765	7.30	1705	7.45	1321	7.30	1632	7.00
PM PK HOUR	1792	16.45	779	15.15	1339	17.00	1057	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	76	552	93	721
8-9	82	455	134	671
9-10	130	352	65	547
15-16	147	907	134	1188
16-17	171	1315	211	1697
17-18	175	1380	218	1773
TOTAL	781	4961	855	6597

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	96	1415	88	1599
8-9	86	1456	104	1646
9-10	48	874	93	1015
15-16	69	575	115	759
16-17	67	548	84	699
17-18	50	532	92	674
TOTAL	416	5400	576	6392

TOTAL	XING S/L		XING N/L	
N-S	Ped	Sch	Ped	Sch
2320	6	0	13	3
2317	4	0	11	0
1562	9	0	5	0
1947	3	0	12	0
2396	13	0	8	0
2447	4	0	6	0
12989	39	0	55	3

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	64	816	213	1093
8-9	73	981	180	1234
9-10	108	566	125	799
15-16	123	923	167	1213
16-17	117	1040	102	1259
17-18	116	1115	108	1339
TOTAL	601	5441	895	6937

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	130	1439	63	1632
8-9	93	1075	43	1211
9-10	108	747	49	904
15-16	82	723	92	897
16-17	82	739	125	946
17-18	84	866	107	1057
TOTAL	579	5589	479	6647

TOTAL	XING W/L		XING E/L	
E-W	Ped	Sch	Ped	Sch
2725	3	1	6	2
2445	10	0	3	0
1703	9	0	4	0
2110	8	0	5	9
2205	11	0	2	2
2396	10	0	6	0
13584	51	1	26	13

Prepared by National Data & Surveying Services

Woodley Ave & Parthenia St

Peak Hour Turning Movement Count

ID: 18-05640-001
City: North Hills

Day: Thursday
Date: 09/27/2018

PEAK HOURS

AM	07:15 AM - 08:15 AM
NOON	NONE
PM	05:00 PM - 06:00 PM

COUNT PERIODS

AM	07:00 AM - 10:00 AM
NOON	NONE
PM	03:00 PM - 06:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	5256	0	4843
PHF	0.94		0.99

Woodley Ave — SOUTHBOUND

AM	85	1475	109	0	696	AM
NOON	0	0	0	0	0	NOON
PM	92	532	50	0	1603	PM
	0	3	1	0		

Parthenia St — EASTBOUND

AM	NOON	PM	
1580	0	1133	
0	0	0	0
59	0	116	1
955	0	1115	2
221	0	108	0
AM	NOON	PM	

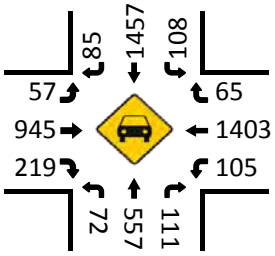
Parthenia St — WESTBOUND

PM	NOON	AM	
107	0	66	0
866	0	1420	2
84	0	107	1
0	0	0	0
1383	0	1177	
PM	NOON	AM	

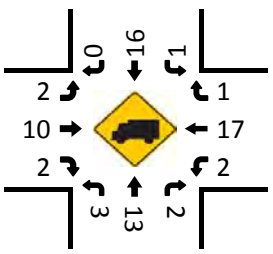
Woodley Ave — NORTHBOUND

	0	1	3	0		
PM	724	0	175	1380	218	PM
NOON	0	0	0	0	0	NOON
AM	1803	0	75	571	113	AM

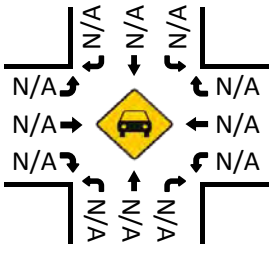
Cars (AM)



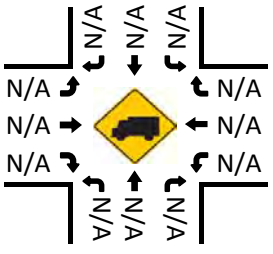
HT (AM)



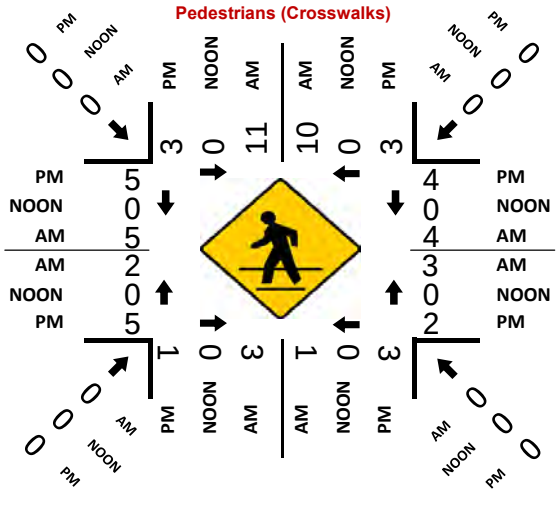
Cars (NOON)



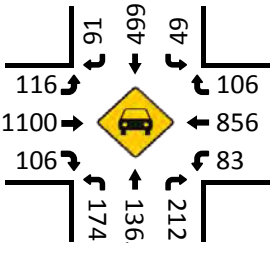
HT (NOON)



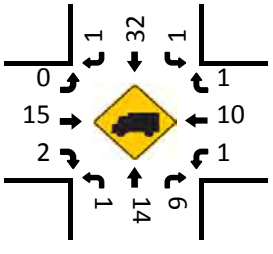
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Woodley Ave & Parthenia St
City: North Hills
Control: Signalized

Project ID: 18-05640-001
Date: 9/27/2018

Total

NS/EW Streets:	Woodley Ave				Woodley Ave				Parthenia St				Parthenia St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	19	97	15	0	14	310	27	0	19	129	36	0	47	326	7	0	1046
7:15 AM	18	126	18	0	22	361	14	0	16	192	52	0	33	367	16	0	1235
7:30 AM	20	161	23	0	21	375	17	0	14	243	73	0	24	379	20	0	1370
7:45 AM	19	168	37	0	39	369	30	0	15	252	52	0	26	367	20	0	1394
8:00 AM	18	116	35	0	27	370	24	0	14	268	44	0	24	307	10	0	1257
8:15 AM	16	114	38	0	23	386	20	0	19	279	48	0	20	262	7	0	1232
8:30 AM	23	108	37	0	21	358	38	0	21	220	43	0	27	255	13	0	1164
8:45 AM	25	117	24	0	15	342	22	0	19	214	45	0	22	251	13	0	1109
9:00 AM	35	99	22	0	14	262	18	0	27	168	37	0	29	229	17	0	957
9:15 AM	33	97	17	0	9	239	27	0	23	156	29	0	34	200	16	0	880
9:30 AM	31	70	12	0	10	204	27	0	33	116	33	0	27	170	4	0	737
9:45 AM	31	86	14	0	15	169	21	0	25	126	26	0	18	148	12	0	691
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	288	1359	292	0	230	3745	285	0	245	2363	518	0	331	3261	155	0	13072
APPROACH %'s :	14.85%	70.09%	15.06%	0.00%	5.40%	87.91%	6.69%	0.00%	7.84%	75.59%	16.57%	0.00%	8.83%	87.03%	4.14%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	75	571	113	0	109	1475	85	0	59	955	221	0	107	1420	66	0	5256
PEAK HR FACTOR :	0.938	0.850	0.764	0.000	0.699	0.983	0.708	0.000	0.922	0.891	0.757	0.000	0.811	0.937	0.825	0.000	0.943
	0.847				0.953				0.936				0.941				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	29	193	32	1	11	111	32	0	34	198	32	0	19	184	24	0	900
3:15 PM	30	223	26	0	27	154	28	0	35	252	40	0	22	193	18	0	1048
3:30 PM	41	222	39	0	14	150	25	0	20	254	50	0	20	173	17	0	1025
3:45 PM	46	269	37	0	16	160	30	1	34	219	45	0	21	173	33	0	1084
4:00 PM	43	319	50	0	18	138	18	0	36	266	25	0	19	163	32	0	1127
4:15 PM	38	317	52	0	16	125	23	0	33	241	27	0	22	184	27	0	1105
4:30 PM	48	320	61	0	17	148	17	0	22	262	27	0	19	181	31	0	1153
4:45 PM	42	359	48	0	16	137	26	0	26	271	23	0	22	211	35	0	1216
5:00 PM	40	346	47	0	12	135	21	0	30	282	30	0	20	212	29	0	1204
5:15 PM	46	363	60	0	7	122	29	0	30	264	29	0	23	211	30	0	1214
5:30 PM	40	341	60	0	16	142	16	0	23	281	29	0	21	210	27	0	1206
5:45 PM	49	330	51	0	15	133	26	0	33	288	20	0	20	233	21	0	1219
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	492	3602	563	1	185	1655	291	1	356	3078	377	0	248	2328	324	0	13501
APPROACH %'s :	10.56%	77.33%	12.09%	0.02%	8.68%	77.63%	13.65%	0.05%	9.34%	80.77%	9.89%	0.00%	8.55%	80.28%	11.17%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	175	1380	218	0	50	532	92	0	116	1115	108	0	84	866	107	0	4843
PEAK HR FACTOR :	0.893	0.950	0.908	0.000	0.781	0.937	0.793	0.000	0.879	0.968	0.900	0.000	0.913	0.929	0.892	0.000	0.993
	0.945				0.968				0.979				0.964				

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Haskell Ave

East/West Nordhoff St

Day: Thursday Date: 09/27/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: Yes I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	55	56	179	192
BIKES	2	7	20	31
BUSES	0	0	26	27

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	208	7.30	260	8.00	367	8.15	587	8.45
PM PK 15 MIN	205	17.15	122	15.00	445	17.30	497	16.15
AM PK HOUR	631	7.00	962	7.15	1397	7.45	2313	7.00
PM PK HOUR	746	17.00	411	16.15	1676	17.00	1835	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	67	402	162	631
8-9	33	149	133	315
9-10	23	110	109	242
15-16	36	369	98	503
16-17	38	423	150	611
17-18	34	567	145	746
TOTAL	231	2020	797	3048

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	141	617	103	861
8-9	117	551	60	728
9-10	89	191	32	312
15-16	127	237	42	406
16-17	157	193	46	396
17-18	142	212	55	409
TOTAL	773	2001	338	3112

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
1492	4	126	36	392
1043	8	9	24	45
554	5	1	16	3
909	8	56	19	359
1007	11	9	15	52
1155	9	4	4	65
6160	45	205	114	916

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	33	1014	81	1128
8-9	49	1204	116	1369
9-10	33	1013	38	1084
15-16	48	1486	49	1583
16-17	61	1442	57	1560
17-18	94	1499	83	1676
TOTAL	318	7658	424	8400

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	102	1998	213	2313
8-9	148	1930	154	2232
9-10	126	1535	109	1770
15-16	80	1414	132	1626
16-17	124	1399	160	1683
17-18	97	1488	250	1835
TOTAL	677	9764	1018	11459

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
3441	9	151	5	74
3601	14	13	3	6
2854	6	0	6	1
3209	14	144	0	55
3243	13	26	0	0
3511	9	19	0	0
19859	65	353	14	136

Prepared by National Data & Surveying Services

Haskell Ave & Nordhoff St

Peak Hour Turning Movement Count

ID: 18-05640-002
City: North Hills

Day: Thursday
Date: 09/27/2018

PEAK HOURS

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

COUNT PERIODS

AM	07:00 AM - 10:00 AM
NOON	NONE
PM	03:00 PM - 06:00 PM

Haskell Ave — SOUTHBOUND

AM	100	721	133	0	582	AM
NOON	0	0	0	0	0	NOON
PM	55	212	142	0	911	PM
	0	2	1	0		

Nordhoff St — EASTBOUND

AM	NOON	PM	
2059	0	1577	
0	0	0	0
48	0	94	1
1177	0	1499	3
128	0	83	0
AM	NOON	PM	

CONTROL

Signalized

TEV	5094	0	4666
	AM	NOON	PM
PHF	0.96		0.97

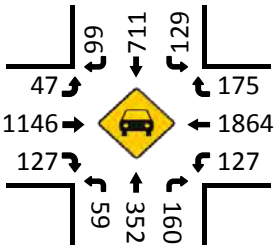
Nordhoff St — WESTBOUND

PM	NOON	AM	
250	0	178	0
1488	0	1900	3
95	0	133	1
2	0	1	0
1788	0	1471	
PM	NOON	AM	

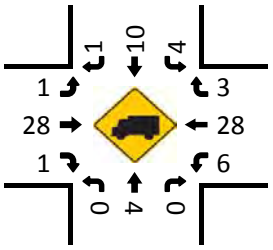
Haskell Ave — NORTHBOUND

PM	390	0	34	567	145	PM
NOON	0	0	0	0	0	NOON
AM	982	0	59	356	160	AM
		0	1	2	0	

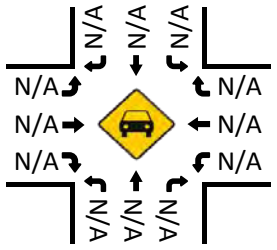
Cars (AM)



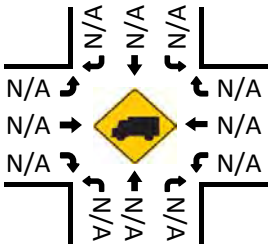
HT (AM)



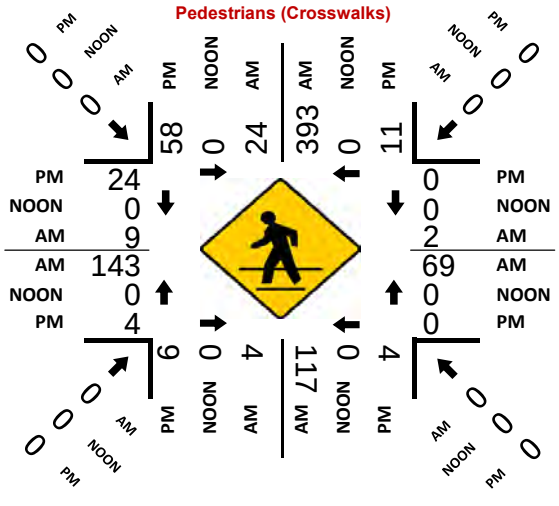
Cars (NOON)



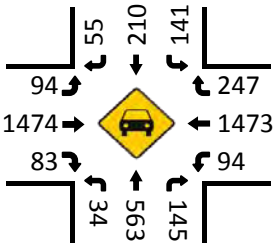
HT (NOON)



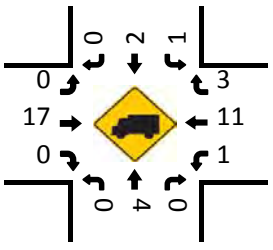
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Haskell Ave & Nordhoff St
City: North Hills
Control: Signalized

Project ID: 18-05640-002
Date: 9/27/2018

Total

NS/EW Streets:	Haskell Ave				Haskell Ave				Nordhoff St				Nordhoff St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	10	65	39	0	33	105	21	0	6	211	12	0	20	513	51	0	1086
7:15 AM	15	82	28	0	50	158	19	0	9	236	17	0	29	494	63	0	1200
7:30 AM	24	137	47	0	30	167	39	0	10	279	17	0	25	495	49	0	1319
7:45 AM	18	118	48	0	28	187	24	0	8	288	35	0	28	496	50	0	1328
8:00 AM	7	50	31	0	38	201	21	0	11	287	51	0	37	445	42	1	1222
8:15 AM	10	51	34	0	37	166	16	0	19	323	25	0	43	464	37	0	1225
8:30 AM	9	26	38	0	23	89	9	0	17	312	21	0	27	512	37	0	1120
8:45 AM	7	22	30	0	19	95	14	0	2	282	19	0	40	509	38	0	1077
9:00 AM	5	38	31	0	19	77	9	0	7	245	8	0	40	420	32	0	931
9:15 AM	3	24	35	0	21	43	7	0	9	233	8	0	25	401	24	0	833
9:30 AM	8	27	19	0	27	34	8	0	9	286	16	0	25	336	23	0	818
9:45 AM	7	21	24	0	22	37	8	0	8	249	6	0	35	378	30	1	826
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	123	661	404	0	347	1359	195	0	115	3231	235	0	374	5463	476	2	12985
APPROACH %'s :	10.35%	55.64%	34.01%	0.00%	18.25%	71.49%	10.26%	0.00%	3.21%	90.23%	6.56%	0.00%	5.92%	86.51%	7.54%	0.03%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	59	356	160	0	133	721	100	0	48	1177	128	0	133	1900	178	1	5094
PEAK HR FACTOR :	0.615	0.650	0.833	0.000	0.875	0.897	0.641	0.000	0.632	0.911	0.627	0.000	0.773	0.958	0.890	0.250	0.959
	0.691				0.917				0.922				0.963				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	6	93	21	0	40	73	9	0	10	347	17	0	11	373	40	0	1040
3:15 PM	10	100	28	0	31	70	14	0	14	371	16	0	30	351	23	0	1058
3:30 PM	12	70	27	0	20	46	10	0	9	388	8	0	18	357	30	0	995
3:45 PM	8	106	22	0	36	48	9	0	15	380	8	0	21	333	39	0	1025
4:00 PM	9	84	28	0	39	40	9	0	20	370	10	0	26	307	34	1	977
4:15 PM	5	107	41	0	40	51	12	0	15	356	13	0	39	421	37	0	1137
4:30 PM	11	104	37	0	37	61	11	0	13	356	22	0	32	338	44	0	1066
4:45 PM	13	128	44	0	41	41	14	0	13	360	12	0	26	333	45	0	1070
5:00 PM	11	132	38	0	46	49	8	0	13	367	23	0	21	375	49	1	1133
5:15 PM	8	159	38	0	21	54	13	0	26	383	20	0	19	354	58	1	1154
5:30 PM	8	129	34	0	38	58	20	0	28	395	22	0	25	381	66	0	1204
5:45 PM	7	147	35	0	37	51	14	0	27	354	18	0	30	378	77	0	1175
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	108	1359	393	0	426	642	143	0	203	4427	189	0	298	4301	542	3	13034
APPROACH %'s :	5.81%	73.06%	21.13%	0.00%	35.18%	53.01%	11.81%	0.00%	4.21%	91.87%	3.92%	0.00%	5.79%	83.61%	10.54%	0.06%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	34	567	145	0	142	212	55	0	94	1499	83	0	95	1488	250	2	4666
PEAK HR FACTOR :	0.773	0.892	0.954	0.000	0.772	0.914	0.688	0.000	0.839	0.949	0.902	0.000	0.792	0.976	0.812	0.500	0.969
	0.910				0.881				0.942				0.946				

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Haskell Ave

East/West Parthenia St

Day: Thursday Date: 09/27/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: Yes I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	49	68	135	144
BIKES	5	3	21	32
BUSES	0	0	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	109	7.30	274	8.00	357	8.00	510	7.30
PM PK 15 MIN	192	17.00	164	15.15	400	17.30	287	17.45
AM PK HOUR	353	7.30	978	7.30	1281	7.30	1895	7.00
PM PK HOUR	699	16.45	487	15.00	1420	17.00	1111	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	45	148	80	273
8-9	51	101	97	249
9-10	33	95	45	173
15-16	44	246	133	423
16-17	38	355	204	597
17-18	63	406	200	669
TOTAL	274	1351	759	2384

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	245	456	95	796
8-9	291	412	126	829
9-10	119	140	91	350
15-16	214	191	82	487
16-17	160	154	70	384
17-18	168	151	80	399
TOTAL	1197	1504	544	3245

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
1069	9	2	9	1
1078	7	0	15	0
523	4	0	19	0
910	6	3	9	0
981	3	1	13	2
1068	3	1	6	0
5629	32	7	71	3

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	79	964	46	1089
8-9	91	1040	30	1161
9-10	82	513	27	622
15-16	109	946	45	1100
16-17	100	1154	35	1289
17-18	151	1226	43	1420
TOTAL	612	5843	226	6681

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	131	1450	314	1895
8-9	69	976	96	1141
9-10	51	679	57	787
15-16	35	743	156	934
16-17	42	811	151	1004
17-18	51	906	154	1111
TOTAL	379	5565	928	6872

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
2984	7	0	10	1
2302	3	0	12	4
1409	1	0	11	1
2034	3	0	11	0
2293	5	0	23	4
2531	1	0	6	1
13553	20	0	73	11

Prepared by National Data & Surveying Services

Haskell Ave & Parthenia St

Peak Hour Turning Movement Count

ID: 18-05640-003
City: North Hills

Day: Thursday
Date: 09/27/2018

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	07:00 AM - 10:00 AM
NONE	NONE
04:45 PM - 05:45 PM	03:00 PM - 06:00 PM

SOUTHBOUND (Haskell Ave)

AM	98	524	303	0	526	AM
NOON	0	0	0	0	0	NOON
PM	81	165	168	0	735	PM
	0	2	1	0		

EASTBOUND (Parthenia St)

AM	NOON	PM	
1478	0	1030	
0	0	0	0
76	0	143	1
1135	0	1215	2
46	0	42	0
AM	NOON	PM	

WESTBOUND (Parthenia St)

PM	NOON	AM	
160	0	290	0
891	0	1335	2
48	0	125	1
0	0	1	0
1592	0	1554	
PM	NOON	AM	

NORTHBOUND (Haskell Ave)

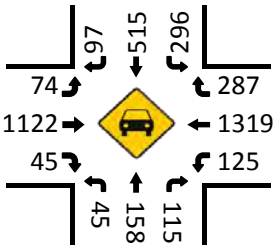
PM	255	0	58	432	209	PM
NOON	0	0	0	0	0	NOON
AM	695	0	45	160	115	AM
		0	1	2	0	

CONTROL

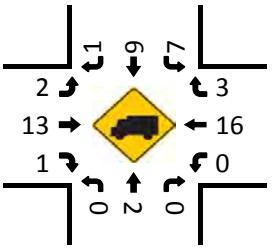
Signalized

TEV	4253	0	3612
	AM	NOON	PM
PHF	0.92		0.98

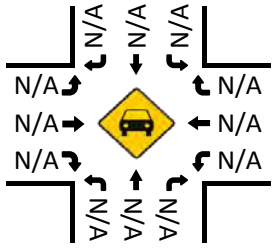
Cars (AM)



HT (AM)



Cars (NOON)



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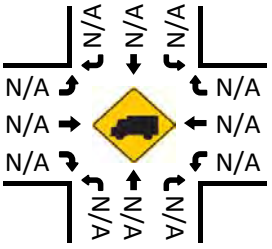
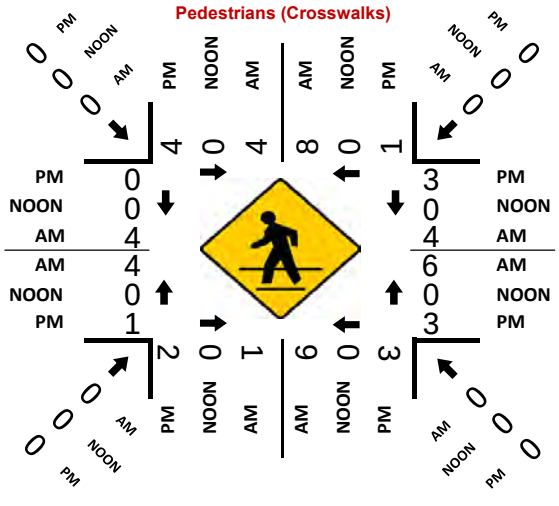
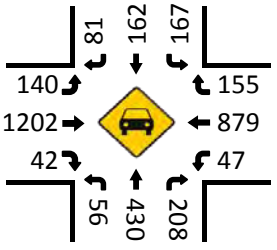


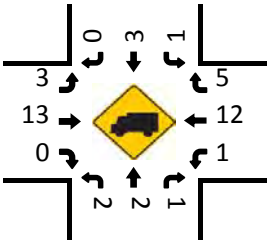
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Haskell Ave & Parthenia St
City: North Hills
Control: Signalized

Project ID: 18-05640-003
Date: 9/27/2018

Total

NS/EW Streets:	Haskell Ave				Haskell Ave				Parthenia St				Parthenia St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	9	17	6	0	37	78	30	0	22	158	9	0	25	386	54	0	831
7:15 AM	4	24	9	0	81	99	23	0	20	237	8	0	43	391	62	1	1002
7:30 AM	18	62	29	0	53	139	18	0	21	297	14	0	32	363	115	0	1161
7:45 AM	14	45	36	0	74	140	24	0	16	272	15	0	30	310	83	0	1059
8:00 AM	9	29	41	0	95	146	33	0	19	329	9	0	20	271	30	0	1031
8:15 AM	13	35	22	0	94	129	33	0	33	247	9	0	18	237	22	0	892
8:30 AM	20	17	18	0	47	57	29	0	20	243	6	0	16	251	22	0	746
8:45 AM	9	20	16	0	55	80	31	0	19	221	6	0	15	217	22	0	711
9:00 AM	12	37	14	0	44	62	26	0	22	151	8	0	8	207	16	0	607
9:15 AM	5	20	13	0	25	29	23	0	27	125	4	0	12	184	16	0	483
9:30 AM	6	18	10	0	26	22	17	0	13	116	6	0	12	155	16	0	417
9:45 AM	10	20	8	0	24	27	25	0	20	121	9	0	19	133	9	0	425
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	129	344	222	0	655	1008	312	0	252	2517	103	0	250	3105	467	1	9365
APPROACH %'s :	18.56%	49.50%	31.94%	0.00%	33.16%	51.04%	15.80%	0.00%	8.77%	87.64%	3.59%	0.00%	6.54%	81.22%	12.22%	0.03%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	45	160	115	0	303	524	98	0	76	1135	46	0	125	1335	290	1	4253
PEAK HR FACTOR :	0.625	0.645	0.701	0.000	0.797	0.897	0.742	0.000	0.905	0.862	0.767	0.000	0.727	0.854	0.630	0.250	0.916
	0.734				0.844				0.880				0.858				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	11	66	35	0	48	63	22	0	28	206	7	0	12	195	53	0	746
3:15 PM	9	45	37	0	75	68	21	0	29	269	10	0	7	176	45	0	791
3:30 PM	12	53	25	0	45	26	19	0	24	230	11	0	6	181	29	0	661
3:45 PM	12	82	36	0	46	34	20	0	28	241	17	0	10	191	29	0	746
4:00 PM	8	82	63	0	36	37	23	0	22	270	6	0	14	177	35	0	773
4:15 PM	7	87	41	0	40	34	14	0	25	284	14	0	9	194	40	0	789
4:30 PM	9	75	48	0	38	42	12	0	25	310	5	0	8	216	36	0	824
4:45 PM	14	111	52	0	46	41	21	0	28	290	10	0	11	224	40	0	888
5:00 PM	13	128	51	0	38	45	25	0	39	281	8	0	17	213	45	0	903
5:15 PM	18	104	63	0	42	40	11	0	38	294	12	0	9	225	44	0	900
5:30 PM	13	89	43	0	42	39	24	0	38	350	12	0	11	229	31	0	921
5:45 PM	19	85	43	0	46	27	20	0	36	301	11	0	14	239	34	0	875
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	145	1007	537	0	542	496	232	0	360	3326	123	0	128	2460	461	0	9817
APPROACH %'s :	8.58%	59.62%	31.79%	0.00%	42.68%	39.06%	18.27%	0.00%	9.45%	87.32%	3.23%	0.00%	4.20%	80.68%	15.12%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	58	432	209	0	168	165	81	0	143	1215	42	0	48	891	160	0	3612
PEAK HR FACTOR :	0.806	0.844	0.829	0.000	0.913	0.917	0.810	0.000	0.917	0.868	0.875	0.000	0.706	0.973	0.889	0.000	0.980
	0.910				0.958				0.875				0.988				

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Haskell Ave

East/West Roscoe Blvd

Day: Thursday Date: 09/27/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: Yes I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	0	70	330	499
BIKES	4	2	13	15
BUSES	0	0	30	31

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	4	9.00	170	8.15	287	9.45	600	7.30
PM PK 15 MIN	13	17.15	71	15.15	425	17.30	465	17.00
AM PK HOUR	8	7.00	655	7.30	1095	9.00	2193	7.15
PM PK HOUR	43	16.30	249	15.00	1533	17.00	1723	16.45

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	2	1	5	8
8-9	1	1	0	2
9-10	3	1	1	5
15-16	3	4	11	18
16-17	2	17	17	36
17-18	4	17	21	42
TOTAL	15	41	55	111

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	274	8	317	599
8-9	274	3	251	528
9-10	115	0	148	263
15-16	196	0	53	249
16-17	155	1	71	227
17-18	172	1	68	241
TOTAL	1186	13	908	2107

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
607	0	0	8	0
530	6	0	7	0
268	2	0	3	0
267	2	0	12	0
263	0	0	6	0
283	3	0	5	0
2218	13	0	41	0

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	32	883	0	915
8-9	47	832	0	879
9-10	61	1034	0	1095
15-16	107	1278	0	1385
16-17	156	1310	2	1468
17-18	144	1387	2	1533
TOTAL	547	6724	4	7275

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	11	1993	133	2137
8-9	10	1809	137	1956
9-10	5	1792	88	1885
15-16	3	1313	215	1531
16-17	1	1397	227	1625
17-18	2	1433	285	1720
TOTAL	32	9737	1085	10854

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
3052	5	0	0	0
2835	6	0	0	0
2980	7	0	0	0
2916	9	0	0	0
3093	13	0	0	0
3253	4	0	0	0
18129	44	0	0	0

Prepared by National Data & Surveying Services

Haskell Ave & Roscoe Blvd

Peak Hour Turning Movement Count

ID: 18-05640-004
City: North Hills

Day: Thursday
Date: 09/27/2018

PEAK HOURS

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

COUNT PERIODS

AM	07:00 AM - 10:00 AM
NOON	NONE
PM	03:00 PM - 06:00 PM

Haskell Ave — SOUTHBOUND

AM	312	7	336	0	215 AM
NOON	0	0	0	0	0 NOON
PM	68	1	171	1	447 PM
	1	0.5	1.5	0	

Roscoe Blvd — EASTBOUND

AM	NOON	PM	
2289	0	1505	
0	0	0	0
42	0	144	1
871	0	1387	3
0	0	2	0

CONTROL

Signalized

TEV	3739 AM	0 NOON	3536 PM
PHF	0.91		0.95

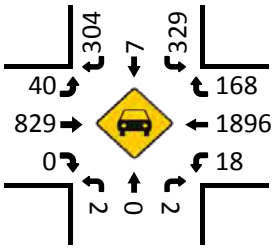
Roscoe Blvd — WESTBOUND

PM	NOON	AM	
285	0	173	0
1433	0	1975	3
2	0	18	1
0	0	1	0
1579	0	1210	

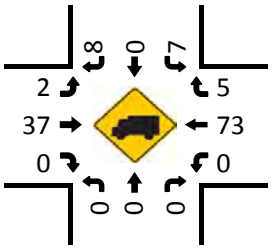
Haskell Ave — NORTHBOUND

	0	0	1	0	
PM	5	0	4	17	21 PM
NOON	0	0	0	0	0 NOON
AM	25	0	2	0	2 AM

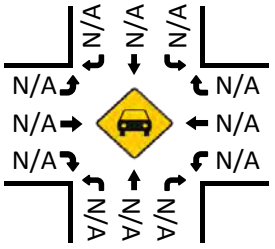
Cars (AM)



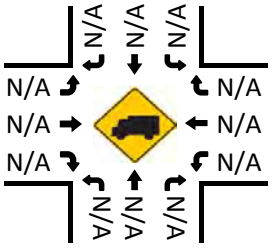
HT (AM)



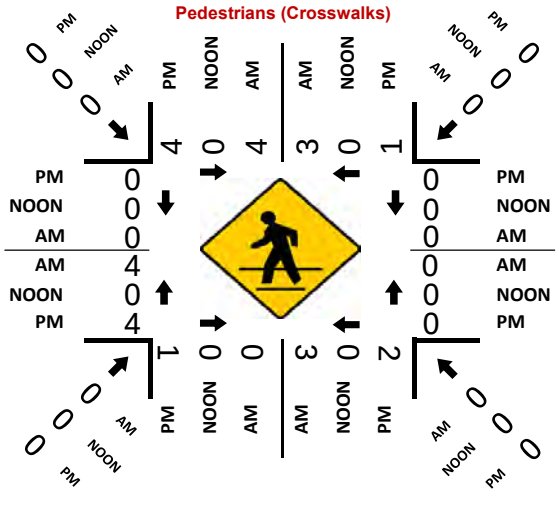
Cars (NOON)



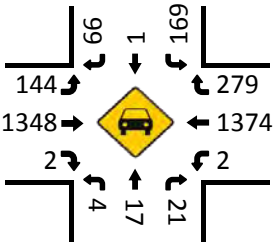
HT (NOON)



Pedestrians (Crosswalks)



Cars (PM)



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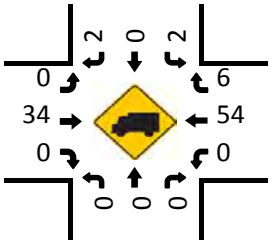


National Data & Surveying Services

Intersection Turning Movement Count

Location: Haskell Ave & Roscoe Blvd
City: North Hills
Control: Signalized

Project ID: 18-05640-004
Date: 9/27/2018

Total

NS/EW Streets:	Haskell Ave				Haskell Ave				Roscoe Blvd				Roscoe Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	1.5	0.5	1	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	1	1	0	43	2	59	0	5	213	0	0	1	450	15	0	790
7:15 AM	0	0	2	0	72	1	84	0	7	199	0	0	0	502	21	0	888
7:30 AM	1	0	2	0	66	3	100	0	8	247	0	0	5	550	44	1	1027
7:45 AM	1	0	0	0	93	2	74	0	12	224	0	0	4	491	53	0	954
8:00 AM	0	0	0	0	80	1	66	0	10	186	0	0	6	482	34	0	865
8:15 AM	0	0	0	0	97	1	72	0	12	214	0	0	3	452	42	0	893
8:30 AM	0	1	0	0	55	1	50	0	15	212	0	0	1	446	35	0	816
8:45 AM	1	0	0	0	42	0	63	0	10	220	0	0	0	429	26	0	791
9:00 AM	2	1	1	0	33	0	67	0	19	265	0	0	3	453	25	0	869
9:15 AM	1	0	0	0	21	0	39	1	16	252	0	0	1	434	23	0	788
9:30 AM	0	0	0	0	32	0	14	0	14	242	0	0	1	461	15	0	779
9:45 AM	0	0	0	0	28	0	28	0	12	275	0	0	0	444	25	0	812
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	6	3	6	0	662	11	716	1	140	2749	0	0	25	5594	358	1	10272
APPROACH %'s :	40.00%	20.00%	40.00%	0.00%	47.63%	0.79%	51.51%	0.07%	4.85%	95.15%	0.00%	0.00%	0.42%	93.58%	5.99%	0.02%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	2	0	2	0	336	7	312	0	42	871	0	0	18	1975	173	1	3739
PEAK HR FACTOR :	0.500	0.000	0.250	0.000	0.866	0.583	0.780	0.000	0.875	0.882	0.000	0.000	0.750	0.898	0.816	0.250	0.910
	0.333				0.963				0.895				0.903				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	1.5	0.5	1	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	1	0	1	0	45	0	15	0	24	349	0	0	1	322	63	2	823
3:15 PM	1	0	0	0	62	0	9	0	24	344	0	1	0	332	48	0	821
3:30 PM	0	2	7	0	41	0	15	0	26	344	0	0	0	327	43	0	805
3:45 PM	1	2	3	0	48	0	14	0	32	241	0	0	0	332	61	0	734
4:00 PM	1	4	5	0	28	1	19	0	52	343	2	0	1	367	54	0	877
4:15 PM	1	4	1	0	39	0	17	0	31	334	0	0	0	348	54	0	829
4:30 PM	0	4	6	0	49	0	20	0	40	312	0	0	0	334	49	0	814
4:45 PM	0	5	5	0	39	0	15	0	33	321	0	0	0	348	70	0	836
5:00 PM	0	5	5	0	41	0	21	1	44	346	0	0	0	393	72	0	928
5:15 PM	2	7	4	0	44	1	17	0	29	329	1	0	1	356	82	0	873
5:30 PM	2	2	4	0	44	0	18	0	34	391	0	0	0	341	60	0	896
5:45 PM	0	3	8	0	42	0	12	0	37	321	1	0	1	343	71	0	839
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	9	38	49	0	522	2	192	1	406	3975	4	1	4	4143	727	2	10075
APPROACH %'s :	9.38%	39.58%	51.04%	0.00%	72.80%	0.28%	26.78%	0.14%	9.26%	90.63%	0.09%	0.02%	0.08%	84.97%	14.91%	0.04%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	4	17	21	0	171	1	68	1	144	1387	2	0	2	1433	285	0	3536
PEAK HR FACTOR :	0.500	0.607	0.656	0.000	0.972	0.250	0.810	0.250	0.818	0.887	0.500	0.000	0.500	0.912	0.869	0.000	0.953
	0.808				0.956				0.902				0.925				

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South I-405 SB Ramps

East/West Nordhoff St

Day: Thursday Date: 09/27/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: Yes I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	0	142	206	113
BIKES	0	0	25	36
BUSES	0	0	26	27

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	0	0.00	317	9.00	386	8.15	413	7.00
PM PK 15 MIN	0	0.00	309	15.30	480	17.15	395	15.00
AM PK HOUR	0	0.00	1179	8.15	1511	7.45	1622	7.00
PM PK HOUR	0	0.00	1194	15.30	1831	16.45	1437	15.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
15-16	0	0	0	0
16-17	0	0	0	0
17-18	0	0	0	0
TOTAL	0	0	0	0

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	221	1	851	1073
8-9	279	1	866	1146
9-10	355	1	755	1111
15-16	448	5	648	1101
16-17	491	1	673	1165
17-18	437	2	649	1088
TOTAL	2231	11	4442	6684

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
1073	7	183	8	268
1146	10	17	5	39
1111	7	4	14	16
1101	1	160	2	299
1165	2	24	1	75
1088	6	19	20	71
6684	33	407	50	768

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	1193	139	1332
8-9	0	1333	143	1476
9-10	0	1038	199	1237
15-16	0	1189	546	1735
16-17	1	1185	584	1770
17-18	0	1139	655	1794
TOTAL	1	7077	2266	9344

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	112	1510	0	1622
8-9	91	1387	0	1478
9-10	164	1088	0	1252
15-16	294	1143	0	1437
16-17	256	1074	0	1330
17-18	259	1129	0	1388
TOTAL	1176	7331	0	8507

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
2954	0	0	0	0
2954	0	0	0	0
2489	0	0	0	0
3172	0	0	0	0
3100	0	0	0	0
3182	0	0	0	0
17851	0	0	0	0

Prepared by National Data & Surveying Services

I-405 SB Ramps & Nordhoff St

Peak Hour Turning Movement Count

ID: 18-05640-005
City: North Hills

Day: Thursday
Date: 09/27/2018

PEAK HOURS	COUNT PERIODS
07:45 AM - 08:45 AM	07:00 AM - 10:00 AM
NONE	NONE
03:30 PM - 04:30 PM	03:00 PM - 06:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	4123	0	4322
PHF	0.99		0.95

I-405 SB Ramps — SOUTHBOUND

	L	T	R	U	Total
AM	863	1	260	0	0
NOON	0	0	0	0	0
PM	691	2	501	0	0

EASTBOUND — Nordhoff St

	L	T	R	U	Total
AM	2258	0	1740		
NOON	0	0	1		0
PM	0	0	0		0
	1350	0	1193		3
	161	0	629		1

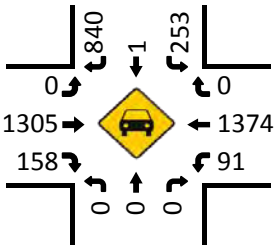
WESTBOUND — Nordhoff St

	L	T	R	U	Total
PM	0	0	0		0
NOON	1048	0	1395		2
AM	257	0	93		2
	0	0	0		0
	1694	0	1610		

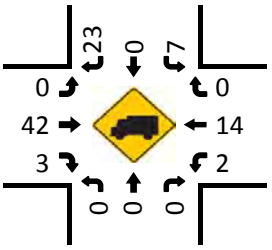
NORTHBOUND — I-405 SB Ramps

	L	T	R	U	Total
PM	888	0	0	0	0
NOON	0	0	0	0	0
AM	255	0	0	0	0

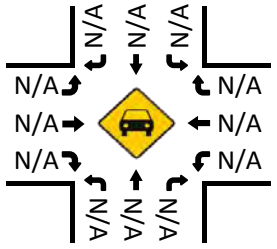
Cars (AM)



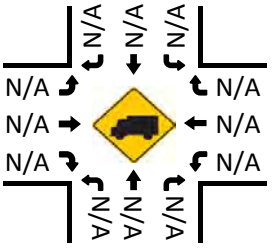
HT (AM)



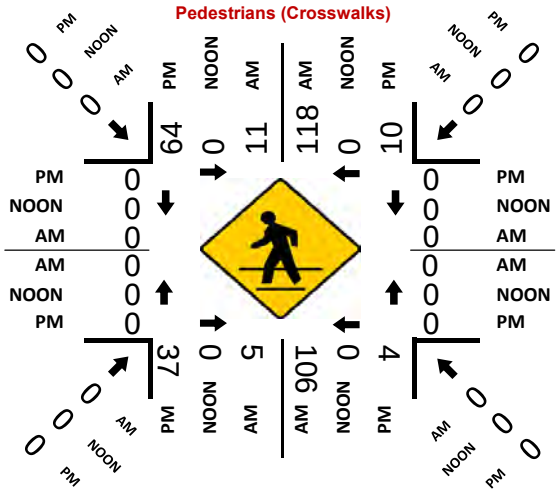
Cars (NOON)



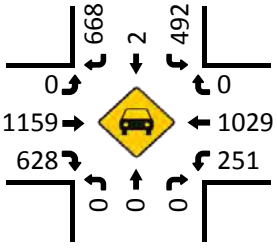
HT (NOON)



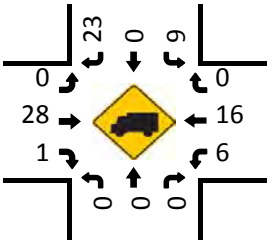
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: I-405 SB Ramps & Nordhoff St
City: North Hills
Control: Signalized

Project ID: 18-05640-005
Date: 9/27/2018

Total

NS/EW Streets:	I-405 SB Ramps				I-405 SB Ramps				Nordhoff St				Nordhoff St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0.5	0	1.5	0	0	3	1	0	2	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	76	0	214	0	0	257	32	0	37	376	0	0	992
7:15 AM	0	0	0	0	55	1	215	0	0	292	34	0	22	391	0	0	1010
7:30 AM	0	0	0	0	41	0	209	0	0	317	28	0	31	379	0	0	1005
7:45 AM	0	0	0	0	49	0	213	0	0	327	45	0	22	364	0	0	1020
8:00 AM	0	0	0	0	76	0	208	0	0	340	35	0	32	351	0	0	1042
8:15 AM	0	0	0	0	72	1	236	0	0	341	45	0	23	306	0	0	1024
8:30 AM	0	0	0	0	63	0	206	0	0	342	36	0	16	374	0	0	1037
8:45 AM	0	0	0	0	68	0	216	0	0	310	27	0	20	356	0	0	997
9:00 AM	0	0	0	0	91	0	226	0	0	272	33	0	31	292	0	0	945
9:15 AM	0	0	0	0	91	0	181	0	0	250	43	0	46	282	0	0	893
9:30 AM	0	0	0	0	81	0	148	0	0	270	63	0	45	246	0	0	853
9:45 AM	0	0	0	0	92	1	200	0	0	246	60	0	42	268	0	0	909
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	855	3	2472	0	0	3564	481	0	367	3985	0	0	11727
APPROACH %'s :					25.68%	0.09%	74.23%	0.00%	0.00%	88.11%	11.89%	0.00%	8.43%	91.57%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	260	1	863	0	0	1350	161	0	93	1395	0	0	4123
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.855	0.250	0.914	0.000	0.000	0.987	0.894	0.000	0.727	0.932	0.000	0.000	0.989
					0.909				0.979				0.954				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0.5	0	1.5	0	0	3	1	0	2	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	0	0	0	106	1	156	0	0	296	94	0	88	307	0	0	1048
3:15 PM	0	0	0	0	99	2	150	0	0	286	131	0	61	300	0	0	1029
3:30 PM	0	0	0	0	120	1	188	0	0	299	164	0	79	286	0	0	1137
3:45 PM	0	0	0	0	123	1	154	0	0	308	157	0	66	250	0	0	1059
4:00 PM	0	0	0	0	130	0	173	0	0	279	147	0	62	245	0	0	1036
4:15 PM	0	0	0	0	128	0	176	0	0	307	161	1	50	267	0	0	1090
4:30 PM	0	0	0	0	114	1	162	0	0	303	132	0	81	294	0	0	1087
4:45 PM	0	0	0	0	119	0	162	0	0	296	144	0	63	268	0	0	1052
5:00 PM	0	0	0	0	107	1	156	0	0	285	156	0	68	254	0	0	1027
5:15 PM	0	0	0	0	115	0	150	0	0	299	181	0	77	302	0	0	1124
5:30 PM	0	0	0	0	104	1	171	0	0	281	189	0	52	282	0	0	1080
5:45 PM	0	0	0	0	111	0	172	0	0	274	129	0	62	291	0	0	1039
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1376	8	1970	0	0	3513	1785	1	809	3346	0	0	12808
APPROACH %'s :					41.03%	0.24%	58.74%	0.00%	0.00%	66.30%	33.69%	0.02%	19.47%	80.53%	0.00%	0.00%	
PEAK HR :	03:30 PM - 04:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	501	2	691	0	0	1193	629	1	257	1048	0	0	4322
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.963	0.500	0.919	0.000	0.000	0.968	0.959	0.250	0.813	0.916	0.000	0.000	0.950
					0.966				0.972				0.894				

City Of Los Angeles
Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:
North/South I-405 SB Ramps

East/West Roscoe Blvd

Day: Thursday Date: 09/27/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: Yes I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	0	277	410	340
BIKES	7	0	22	17
BUSES	0	0	30	31

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	0	0.00	385	7.00	321	7.30	388	7.30
PM PK 15 MIN	0	0.00	283	16.45	420	17.30	384	17.00
AM PK HOUR	0	0.00	1475	7.00	1178	9.00	1500	7.15
PM PK HOUR	0	0.00	984	16.45	1552	16.45	1431	16.30

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
15-16	0	0	0	0
16-17	0	0	0	0
17-18	0	0	0	0
TOTAL	0	0	0	0

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	630	0	845	1475
8-9	601	0	680	1281
9-10	504	3	833	1340
15-16	402	3	498	903
16-17	394	1	550	945
17-18	372	4	563	939
TOTAL	2903	11	3969	6883

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
1475	7	0	2	2
1281	10	0	11	1
1340	5	2	7	2
903	7	0	9	1
945	4	0	5	1
939	11	1	10	0
6883	44	3	44	7

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	1025	98	1123
8-9	0	995	104	1099
9-10	0	1028	150	1178
15-16	0	1076	386	1462
16-17	0	1139	388	1527
17-18	0	1077	467	1544
TOTAL	0	6340	1593	7933

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	101	1368	0	1469
8-9	104	1237	0	1341
9-10	121	1089	0	1210
15-16	282	1062	0	1344
16-17	235	1090	0	1325
17-18	283	1095	0	1378
TOTAL	1126	6941	0	8067

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
2592	1	0	0	0
2440	0	0	0	0
2388	0	0	0	0
2806	2	0	0	0
2852	0	0	0	0
2922	0	0	0	0
16000	3	0	0	0

Prepared by National Data & Surveying Services

I-405 SB Ramps & Roscoe Blvd

Peak Hour Turning Movement Count

ID: 18-05640-006
City: Van Nuys

Day: Thursday
Date: 09/27/2018

PEAK HOURS

AM: 07:15 AM - 08:15 AM
NOON: NONE
PM: 04:45 PM - 05:45 PM

COUNT PERIODS

AM: 07:00 AM - 10:00 AM
NOON: NONE
PM: 03:00 PM - 06:00 PM

I-405 SB Ramps — SOUTHBOUND

AM	806	0	610	0	0	AM
NOON	0	0	0	0	0	NOON
PM	581	4	399	0	0	PM
	1.3	0.3	1.3	0		

EASTBOUND (Roscoe Blvd)

AM	NOON	PM	
2195	0	1681	
0	0	0	0
0	0	0	0
1060	0	1090	3
104	0	462	1

WESTBOUND (Roscoe Blvd)

PM	NOON	AM	
0	0	0	0
1100	0	1389	2
279	0	111	2
0	0	0	0
1489	0	1670	

CONTROL

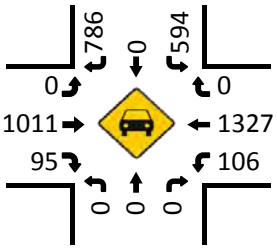
Signalized

TEV	4080	0	3915
	AM	NOON	PM
PHF	0.95		0.97

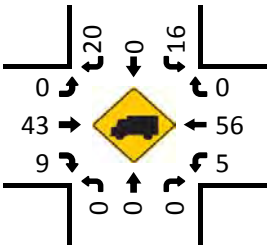
I-405 SB Ramps — NORTHBOUND

PM	745	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	215	0	0	0	0	AM
		0	0	0	0	

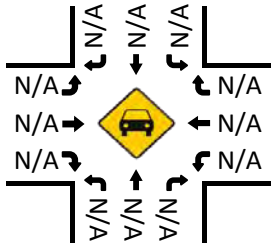
Cars (AM)



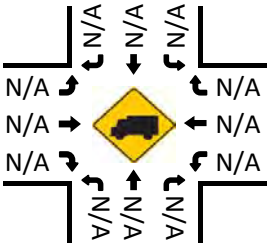
HT (AM)



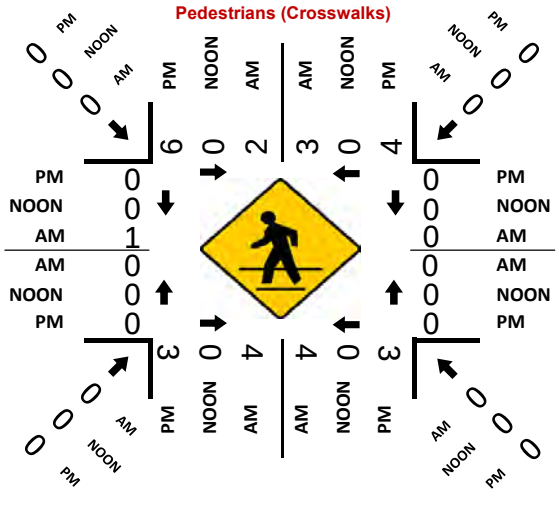
Cars (NOON)



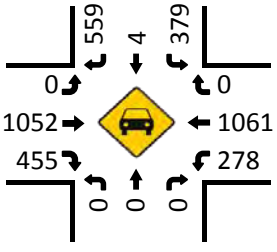
HT (NOON)



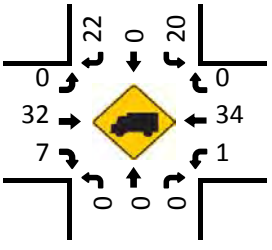
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: I-405 SB Ramps & Roscoe Blvd
City: Van Nuys
Control: Signalized

Project ID: 18-05640-006
Date: 9/27/2018

Total

NS/EW Streets:	I-405 SB Ramps				I-405 SB Ramps				Roscoe Blvd				Roscoe Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1.3	0.3	1.3	0	0	3	1	0	2	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	180	0	205	0	0	212	21	0	26	300	0	0	944
7:15 AM	0	0	0	0	124	0	229	0	0	268	25	0	30	342	0	0	1018
7:30 AM	0	0	0	0	157	0	210	0	0	298	23	0	23	365	0	0	1076
7:45 AM	0	0	0	0	169	0	201	0	0	247	29	0	22	361	0	0	1029
8:00 AM	0	0	0	0	160	0	166	0	0	247	27	0	36	321	0	0	957
8:15 AM	0	0	0	0	160	0	167	0	0	252	29	0	20	346	0	0	974
8:30 AM	0	0	0	0	140	0	185	0	0	259	30	0	23	302	0	0	939
8:45 AM	0	0	0	0	141	0	162	0	0	237	18	0	25	268	0	0	851
9:00 AM	0	0	0	0	153	2	227	0	0	270	30	0	20	287	0	0	989
9:15 AM	0	0	0	0	127	1	213	0	0	250	40	0	31	265	0	0	927
9:30 AM	0	0	0	0	120	0	180	0	0	259	36	0	32	300	0	0	927
9:45 AM	0	0	0	0	104	0	213	0	0	249	44	0	38	237	0	0	885
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1735	3	2358	0	0	3048	352	0	326	3694	0	0	11516
APPROACH %'s :					42.36%	0.07%	57.57%	0.00%	0.00%	89.65%	10.35%	0.00%	8.11%	91.89%	0.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	610	0	806	0	0	1060	104	0	111	1389	0	0	4080
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.902	0.000	0.880	0.000	0.000	0.889	0.897	0.000	0.771	0.951	0.000	0.000	0.948
							0.957				0.907				0.966		

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1.3	0.3	1.3	0	0	3	1	0	2	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	0	0	0	89	1	141	0	0	309	95	0	74	257	0	0	966
3:15 PM	0	0	0	0	98	1	97	0	0	300	114	0	74	279	0	0	963
3:30 PM	0	0	0	0	87	0	123	0	0	274	89	0	78	248	0	0	899
3:45 PM	0	0	0	0	128	1	137	0	0	193	88	0	56	278	0	0	881
4:00 PM	0	0	0	0	88	0	129	0	0	298	92	0	53	274	0	0	934
4:15 PM	0	0	0	0	95	0	138	0	0	291	101	0	57	234	0	0	916
4:30 PM	0	0	0	0	87	0	125	0	0	280	100	0	59	298	0	0	949
4:45 PM	0	0	0	0	124	1	158	0	0	270	95	0	66	284	0	0	998
5:00 PM	0	0	0	0	92	2	131	0	0	277	118	0	89	295	0	0	1004
5:15 PM	0	0	0	0	100	1	146	0	0	246	126	0	62	278	0	0	959
5:30 PM	0	0	0	0	83	0	146	0	0	297	123	0	62	243	0	0	954
5:45 PM	0	0	0	0	97	1	140	0	0	257	100	0	70	279	0	0	944
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1168	8	1611	0	0	3292	1241	0	800	3247	0	0	11367
APPROACH %'s :					41.91%	0.29%	57.80%	0.00%	0.00%	72.62%	27.38%	0.00%	19.77%	80.23%	0.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	399	4	581	0	0	1090	462	0	279	1100	0	0	3915
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.804	0.500	0.919	0.000	0.000	0.918	0.917	0.000	0.784	0.932	0.000	0.000	0.975
							0.869				0.924				0.898		

City Of Los Angeles
Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:
North/South I-405 NB Ramps

East/West Nordhoff St

Day: Thursday Date: 09/27/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: Yes I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	66	0	223	107
BIKES	0	0	25	40
BUSES	0	0	26	27

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	257	7.15	0	0.00	430	8.00	396	7.00
PM PK 15 MIN	228	15.15	0	0.00	443	16.15	353	15.00
AM PK HOUR	960	7.00	0	0.00	1624	8.00	1291	7.00
PM PK HOUR	881	15.00	0	0.00	1702	16.00	1371	16.30

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	784	4	172	960
8-9	651	1	123	775
9-10	496	2	161	659
15-16	440	1	440	881
16-17	379	10	407	796
17-18	411	4	427	842
TOTAL	3161	22	1730	4913

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
15-16	0	0	0	0
16-17	0	0	0	0
17-18	0	0	0	0
TOTAL	0	0	0	0

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
960	6	171	22	355
775	18	11	44	19
659	21	0	33	0
881	8	109	34	345
796	3	7	22	68
842	0	7	40	72
4913	56	305	195	859

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	479	922	0	1401
8-9	539	1085	0	1624
9-10	525	867	0	1392
15-16	543	1061	0	1604
16-17	495	1207	0	1702
17-18	490	1087	0	1577
TOTAL	3071	6229	0	9300

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	846	445	1291
8-9	0	829	427	1256
9-10	0	754	295	1049
15-16	0	988	354	1342
16-17	0	967	355	1322
17-18	0	980	357	1337
TOTAL	0	5364	2233	7597

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
2692	0	0	12	125
2880	0	0	28	10
2441	0	0	20	0
2946	0	0	10	70
3024	0	0	1	8
2914	0	0	3	10
16897	0	0	74	223

Prepared by National Data & Surveying Services

I-405 NB Ramps & Nordhoff St

Peak Hour Turning Movement Count

ID: 18-05640-007
City: North Hills

Day: Thursday
Date: 09/27/2018

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	07:00 AM - 10:00 AM
NONE	NONE
04:15 PM - 05:15 PM	03:00 PM - 06:00 PM

I-405 NB Ramps — SOUTHBOUND

AM	0	0	0	0	931	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	878	PM

Nordhoff St — EASTBOUND

AM	NOON	PM		
1582	0	1368	⇦	
0	0	0	↶	0
502	0	504	↱	2
999	0	1175	→	2
0	0	0	↷	0
AM	NOON	PM		

WESTBOUND — Nordhoff St

	PM	NOON	AM
1 ↰	364	0	426
3 ←	981	0	809
0 ↶	0	0	0
0 ↶	0	0	0
⇨	1593	0	1155
	PM	NOON	AM

CONTROL: Signalized

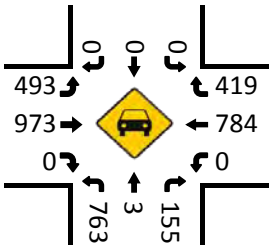
TEV	3668 AM	0 NOON	3839 PM
PHF	0.97		0.99

0 0 0 0 — 0 2 0.5 1.5

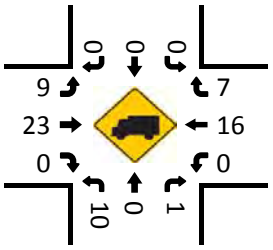
I-405 NB Ramps — NORTHBOUND

PM	0	0	387	10	418	PM
NOON	0	0	0	0	0	NOON
AM	0	0	773	3	156	AM

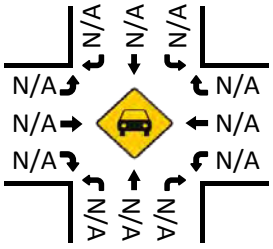
Cars (AM)



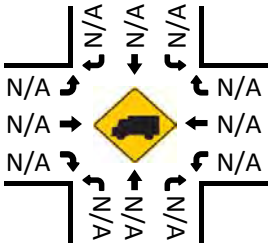
HT (AM)



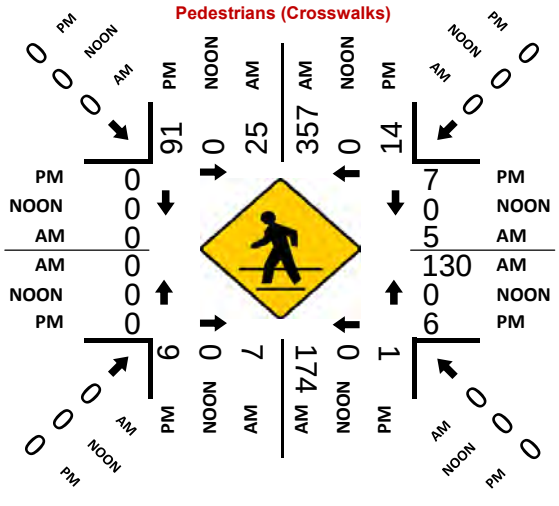
Cars (NOON)



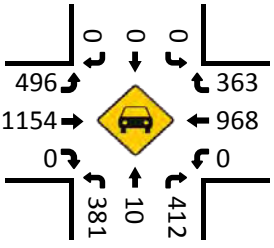
HT (NOON)



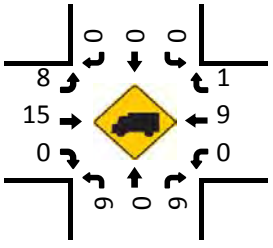
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: I-405 NB Ramps & Nordhoff St
City: North Hills
Control: Signalized

Project ID: 18-05640-007
Date: 9/27/2018

Total

NS/EW Streets:	I-405 NB Ramps				I-405 NB Ramps				Nordhoff St				Nordhoff St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	0.5	1.5	0	0	0	0	0	2	2	0	0	0	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	162	2	44	0	0	0	0	0	99	231	0	0	0	259	137	0	934
7:15 AM	206	1	50	0	0	0	0	0	132	223	0	0	0	204	116	0	932
7:30 AM	213	1	34	0	0	0	0	0	118	225	0	0	0	200	101	0	892
7:45 AM	203	0	44	0	0	0	0	0	130	243	0	0	0	183	91	0	894
8:00 AM	151	1	28	0	0	0	0	0	122	308	0	0	0	222	118	0	950
8:15 AM	132	0	27	0	0	0	0	0	135	266	0	0	0	213	110	0	883
8:30 AM	186	0	37	0	0	0	0	0	137	256	0	0	0	192	100	0	908
8:45 AM	182	0	31	0	0	0	0	0	145	255	0	0	0	202	99	0	914
9:00 AM	139	1	41	0	0	0	0	0	132	231	0	0	0	195	73	0	812
9:15 AM	120	0	37	0	0	0	0	0	124	211	0	0	0	194	69	0	755
9:30 AM	123	0	42	0	0	0	0	0	131	216	0	0	0	177	83	0	772
9:45 AM	114	1	41	0	0	0	0	0	138	209	0	0	0	188	70	0	761
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1931	7	456	0	0	0	0	0	1543	2874	0	0	0	2429	1167	0	10407
APPROACH %'s :	80.66%	0.29%	19.05%	0.00%					34.93%	65.07%	0.00%	0.00%	0.00%	67.55%	32.45%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	773	3	156	0	0	0	0	0	502	999	0	0	0	809	426	0	3668
PEAK HR FACTOR :	0.907	0.750	0.780	0.000	0.000	0.000	0.000	0.000	0.951	0.811	0.000	0.000	0.000	0.911	0.903	0.000	0.965
	0.907								0.873				0.908				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	0.5	1.5	0	0	0	0	0	2	2	0	0	0	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	114	0	102	0	0	0	0	0	140	249	0	0	0	266	87	0	958
3:15 PM	118	0	110	0	0	0	0	0	122	278	0	0	0	257	56	0	941
3:30 PM	110	0	109	0	0	0	0	0	135	267	0	0	0	238	112	0	971
3:45 PM	98	1	119	0	0	0	0	0	146	267	0	0	0	227	99	0	957
4:00 PM	96	1	102	0	0	0	0	0	116	307	0	0	0	219	91	0	932
4:15 PM	99	1	99	0	0	0	0	0	126	317	0	0	0	230	88	0	960
4:30 PM	93	2	103	0	0	0	0	0	120	292	0	0	0	263	82	0	955
4:45 PM	91	6	103	0	0	0	0	0	133	291	0	0	0	255	94	0	973
5:00 PM	104	1	113	0	0	0	0	0	125	275	0	0	0	233	100	0	951
5:15 PM	100	1	103	0	0	0	0	0	129	277	0	0	0	263	81	0	954
5:30 PM	101	0	95	0	0	0	0	0	115	274	0	0	0	247	92	0	924
5:45 PM	106	2	116	0	0	0	0	0	121	261	0	0	0	237	84	0	927
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1230	15	1274	0	0	0	0	0	1528	3355	0	0	0	2935	1066	0	11403
APPROACH %'s :	48.83%	0.60%	50.58%	0.00%					31.29%	68.71%	0.00%	0.00%	0.00%	73.36%	26.64%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	387	10	418	0	0	0	0	0	504	1175	0	0	0	981	364	0	3839
PEAK HR FACTOR :	0.930	0.417	0.925	0.000	0.000	0.000	0.000	0.000	0.947	0.927	0.000	0.000	0.000	0.933	0.910	0.000	0.986
	0.935								0.948				0.963				

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South I-405 NB Ramps

East/West Roscoe Blvd

Day: Thursday Date: 09/27/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: Yes I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	165	0	441	332
BIKES	0	0	22	19
BUSES	0	0	30	31

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	218	7.45	0	0.00	453	7.30	482	7.30
PM PK 15 MIN	169	16.45	0	0.00	398	15.00	492	17.00
AM PK HOUR	716	7.30	0	0.00	1671	7.15	1711	7.00
PM PK HOUR	618	15.00	0	0.00	1522	16.00	1773	16.15

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	412	2	241	655
8-9	405	2	215	622
9-10	373	2	263	638
15-16	323	5	290	618
16-17	267	9	306	582
17-18	267	6	272	545
TOTAL	2047	26	1587	3660

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
15-16	0	0	0	0
16-17	0	0	0	0
17-18	0	0	0	0
TOTAL	0	0	0	0

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
655	6	0	10	1
622	8	1	16	1
638	3	4	8	1
618	1	3	5	6
582	4	3	3	2
545	10	0	5	6
3660	32	11	47	17

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	352	1290	0	1642
8-9	335	1259	0	1594
9-10	392	1150	0	1542
15-16	441	1035	0	1476
16-17	399	1123	0	1522
17-18	420	1034	0	1454
TOTAL	2339	6891	0	9230

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	0	1078	633	1711
8-9	0	926	441	1367
9-10	0	832	412	1244
15-16	0	1035	595	1630
16-17	0	1064	678	1742
17-18	0	1100	599	1699
TOTAL	0	6035	3358	9393

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
3353	0	0	0	0
2961	0	0	0	0
2786	0	0	0	0
3106	0	0	0	0
3264	0	0	0	0
3153	0	0	0	0
18623	0	0	0	0

Prepared by National Data & Surveying Services

I-405 NB Ramps & Roscoe Blvd

Peak Hour Turning Movement Count

ID: 18-05640-008
City: Van Nuys

Day: Thursday
Date: 09/27/2018

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	07:00 AM - 10:00 AM
NONE	NONE
04:15 PM - 05:15 PM	03:00 PM - 06:00 PM

I-405 NB Ramps — SOUTHBOUND

AM	0	0	0	0	1016	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	1069	PM

Roscoe Blvd — EASTBOUND

AM	NOON	PM		
1500	0	1399	⇦	
0	0	0	↶	0
379	0	401	↱	2
1292	0	1119	→	2
0	0	0	↷	0
AM	NOON	PM		

WESTBOUND — Roscoe Blvd

	PM	NOON	AM
1 ↰	662	0	635
3 ←	1111	0	1064
0 ↰	0	0	0
0 ↰	0	0	0
⇨	1405	0	1527
	PM	NOON	AM

CONTROL

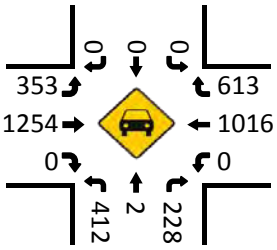
Signalized

TEV	4043 AM	0 NOON	3873 PM
PHF	0.91		0.97

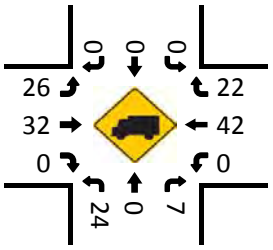
NORTHBOUND — I-405 NB Ramps

	0	2	0.5	1.5		
PM	0	0	288	6	286	PM
NOON	0	0	0	0	0	NOON
AM	0	0	436	2	235	AM

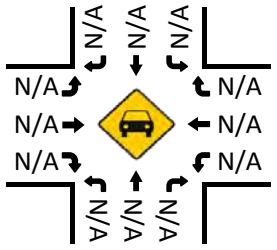
Cars (AM)



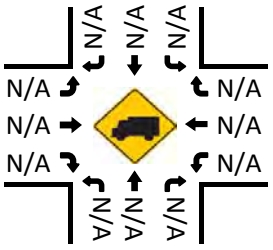
HT (AM)



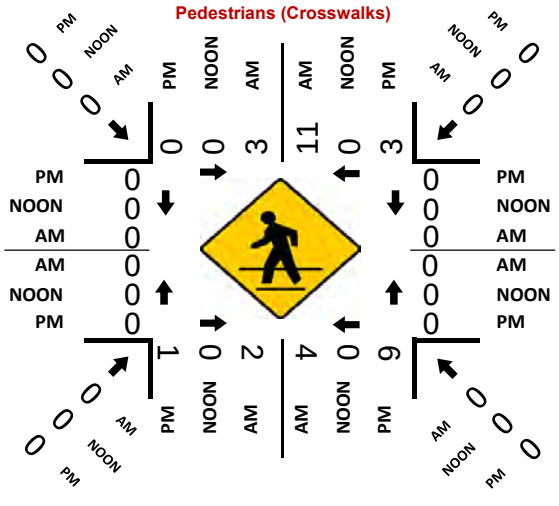
Cars (NOON)



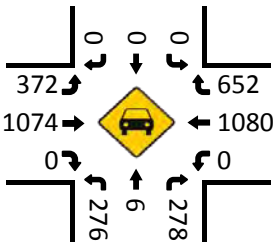
HT (NOON)



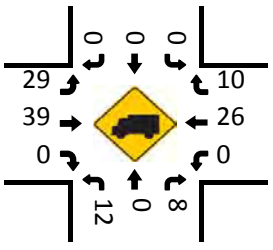
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: I-405 NB Ramps & Roscoe Blvd
City: Van Nuys
Control: Signalized

Project ID: 18-05640-008
Date: 9/27/2018

Total

NS/EW Streets:	I-405 NB Ramps				I-405 NB Ramps				Roscoe Blvd				Roscoe Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	0.5	1.5	0	0	0	0	0	2	2	0	0	0	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	83	1	52	0	0	0	0	0	67	315	0	0	0	253	123	0	894
7:15 AM	76	0	50	0	0	0	0	0	102	307	0	0	0	292	171	0	998
7:30 AM	113	0	62	0	0	0	0	0	102	351	0	0	0	289	193	0	1110
7:45 AM	140	1	77	0	0	0	0	0	81	317	0	0	0	244	146	0	1006
8:00 AM	107	1	46	0	0	0	0	0	94	317	0	0	0	239	125	0	929
8:15 AM	105	1	63	0	0	0	0	0	53	349	0	0	0	254	114	0	939
8:30 AM	98	0	59	0	0	0	0	0	98	292	0	0	0	222	110	0	879
8:45 AM	95	0	47	0	0	0	0	0	90	301	0	0	0	211	92	0	836
9:00 AM	119	2	69	0	0	0	0	0	93	329	0	0	0	189	105	0	906
9:15 AM	71	0	59	0	0	0	0	0	81	283	0	0	0	224	88	0	806
9:30 AM	95	0	64	0	0	0	0	0	113	277	0	0	0	220	105	0	874
9:45 AM	88	0	71	0	0	0	0	0	105	261	0	0	0	199	114	0	838
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1190	6	719	0	0	0	0	0	1079	3699	0	0	0	2836	1486	0	11015
APPROACH %'s :	62.14%	0.31%	37.55%	0.00%					22.58%	77.42%	0.00%	0.00%	0.00%	65.62%	34.38%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	436	2	235	0	0	0	0	0	379	1292	0	0	0	1064	635	0	4043
PEAK HR FACTOR :	0.779	0.500	0.763	0.000	0.000	0.000	0.000	0.000	0.929	0.920	0.000	0.000	0.000	0.911	0.823	0.000	0.911
	0.772								0.922				0.881				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	0.5	1.5	0	0	0	0	0	2	2	0	0	0	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	68	1	85	0	0	0	0	0	135	263	0	0	0	255	144	0	951
3:15 PM	89	1	63	0	0	0	0	0	107	283	0	0	0	274	122	0	939
3:30 PM	86	0	60	0	0	0	0	0	124	244	0	0	0	229	171	0	914
3:45 PM	80	3	82	0	0	0	0	0	75	245	0	0	0	277	158	0	920
4:00 PM	47	3	63	0	0	0	0	0	102	283	0	0	0	260	201	0	959
4:15 PM	55	2	77	0	0	0	0	0	95	276	0	0	0	245	162	0	912
4:30 PM	88	2	76	0	0	0	0	0	107	276	0	0	0	277	169	0	995
4:45 PM	77	2	90	0	0	0	0	0	95	288	0	0	0	282	146	0	980
5:00 PM	68	0	43	0	0	0	0	0	104	279	0	0	0	307	185	0	986
5:15 PM	69	3	76	0	0	0	0	0	101	252	0	0	0	263	141	0	905
5:30 PM	55	1	67	0	0	0	0	0	105	265	0	0	0	263	156	0	912
5:45 PM	75	2	86	0	0	0	0	0	110	238	0	0	0	267	117	0	895
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	857	20	868	0	0	0	0	0	1260	3192	0	0	0	3199	1872	0	11268
APPROACH %'s :	49.11%	1.15%	49.74%	0.00%					28.30%	71.70%	0.00%	0.00%	0.00%	63.08%	36.92%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	288	6	286	0	0	0	0	0	401	1119	0	0	0	1111	662	0	3873
PEAK HR FACTOR :	0.818	0.750	0.794	0.000	0.000	0.000	0.000	0.000	0.937	0.971	0.000	0.000	0.000	0.905	0.895	0.000	0.973
	0.858								0.992				0.901				

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Sepulveda Blvd

East/West Parthenia St

Day: Thursday Date: 09/27/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: Yes I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	143	179	117	68
BIKES	24	17	24	24
BUSES	55	37	0	20

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	238	7.30	477	8.15	370	7.45	386	7.15
PM PK 15 MIN	436	17.15	263	17.45	364	17.30	267	17.30
AM PK HOUR	864	7.30	1703	8.00	1297	7.30	1385	7.00
PM PK HOUR	1634	17.00	949	17.00	1360	17.00	941	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	123	631	66	820
8-9	103	602	92	797
9-10	138	536	81	755
15-16	201	1109	124	1434
16-17	200	1253	147	1600
17-18	197	1290	147	1634
TOTAL	962	5421	657	7040

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	86	1148	246	1480
8-9	109	1412	182	1703
9-10	87	903	116	1106
15-16	91	714	116	921
16-17	82	695	114	891
17-18	71	741	137	949
TOTAL	526	5613	911	7050

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
2300	13	54	25	37
2500	54	21	48	10
1861	47	24	35	13
2355	54	10	62	10
2491	62	9	63	2
2583	70	2	80	1
14090	300	120	313	73

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	58	839	212	1109
8-9	87	840	248	1175
9-10	69	438	161	668
15-16	87	755	189	1031
16-17	104	943	168	1215
17-18	104	1062	194	1360
TOTAL	509	4877	1172	6558

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	102	1266	17	1385
8-9	74	811	39	924
9-10	88	555	56	699
15-16	64	643	72	779
16-17	67	733	67	867
17-18	63	807	71	941
TOTAL	458	4815	322	5595

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
2494	18	51	12	4
2099	58	28	47	6
1367	44	27	43	8
1810	52	23	33	0
2082	57	10	48	3
2301	72	10	61	1
12153	301	149	244	22

Prepared by National Data & Surveying Services

Sepulveda Blvd & Parthenia St

Peak Hour Turning Movement Count

ID: 18-05640-009
City: North Hills

Day: Thursday
Date: 09/27/2018

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	07:00 AM - 10:00 AM
NONE	NONE
05:00 PM - 06:00 PM	03:00 PM - 06:00 PM

SOUTHBOUND (Sepulveda Blvd)

AM	232	1302	89	0	741	AM
NOON	0	0	0	0	0	NOON
PM	137	741	71	0	1465	PM
	0	3	1	0		

EASTBOUND (Parthenia St)

AM	NOON	PM	
1414	0	1140	
0	0	0	0
69	0	104	1
973	0	1062	2
255	0	194	0
AM	NOON	PM	

WESTBOUND (Parthenia St)

PM	NOON	AM	
71	0	22	0
807	0	1064	2
63	0	74	1
0	0	0	0
1280	0	1158	
PM	NOON	AM	

CONTROL

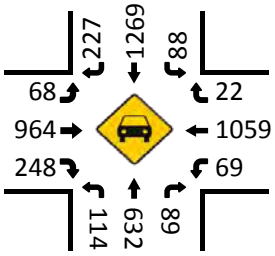
Signalized

TEV	4944	0	4884
	AM	NOON	PM
PHF	0.94		0.96

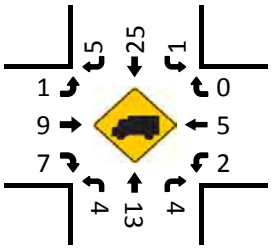
NORTHBOUND (Sepulveda Blvd)

PM	999	1	196	1290	147	PM
NOON	0	0	0	0	0	NOON
AM	1631	0	118	650	96	AM
		0	1	3	0	

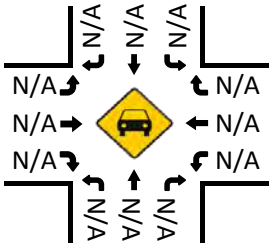
Cars (AM)



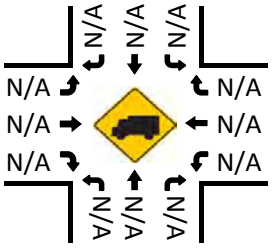
HT (AM)



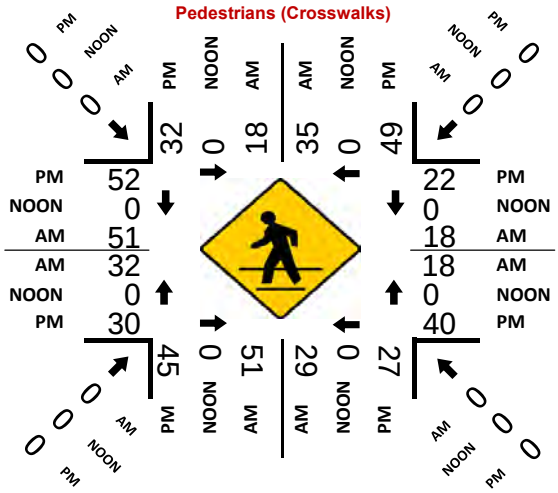
Cars (NOON)



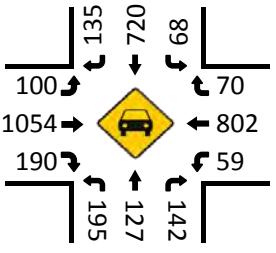
HT (NOON)



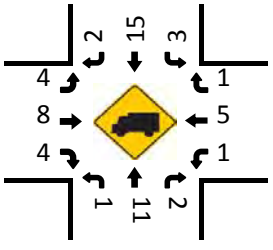
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Sepulveda Blvd & Parthenia St
City: North Hills
Control: Signalized

Project ID: 18-05640-009
Date: 9/27/2018

Total

NS/EW Streets:	Sepulveda Blvd				Sepulveda Blvd				Parthenia St				Parthenia St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	39	132	8	0	26	284	52	0	14	127	44	0	35	280	4	0	1045
7:15 AM	20	160	10	0	16	291	55	0	14	200	53	0	27	353	6	0	1205
7:30 AM	40	176	22	0	26	285	76	0	12	216	59	0	21	288	4	0	1225
7:45 AM	24	163	26	0	18	288	63	0	18	296	56	0	19	345	3	0	1319
8:00 AM	38	154	23	0	19	320	51	0	25	216	63	0	16	211	6	0	1142
8:15 AM	16	157	25	0	26	409	42	0	14	245	77	0	18	220	9	0	1258
8:30 AM	22	147	23	0	33	378	47	0	22	170	49	0	17	195	12	0	1115
8:45 AM	27	144	21	0	31	305	42	0	26	209	59	0	23	185	12	0	1084
9:00 AM	39	126	23	0	19	237	33	0	20	147	43	0	17	170	14	0	888
9:15 AM	31	124	21	0	21	256	34	1	16	118	44	0	21	143	10	0	840
9:30 AM	34	132	19	0	17	216	29	0	10	70	34	0	25	119	13	0	718
9:45 AM	34	154	18	0	29	194	20	0	23	103	40	0	25	123	19	0	782
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	364	1769	239	0	281	3463	544	1	214	2117	621	0	264	2632	112	0	12621
APPROACH %'s :	15.35%	74.58%	10.08%	0.00%	6.55%	80.74%	12.68%	0.02%	7.25%	71.71%	21.04%	0.00%	8.78%	87.50%	3.72%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	118	650	96	0	89	1302	232	0	69	973	255	0	74	1064	22	0	4944
PEAK HR FACTOR :	0.738	0.923	0.923	0.000	0.856	0.796	0.763	0.000	0.690	0.822	0.828	0.000	0.881	0.771	0.611	0.000	0.937
	0.908				0.851				0.876				0.790				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	58	216	38	0	24	175	39	0	17	154	48	0	13	174	16	0	972
3:15 PM	58	290	33	0	16	190	22	0	25	218	57	0	17	153	13	0	1092
3:30 PM	43	309	27	0	31	175	22	0	21	201	44	0	14	157	29	0	1073
3:45 PM	42	294	26	0	20	174	33	0	24	182	40	0	20	159	14	0	1028
4:00 PM	49	315	45	0	21	161	25	0	32	223	41	0	16	151	16	0	1095
4:15 PM	49	299	40	0	22	193	30	0	17	221	41	0	18	172	15	0	1117
4:30 PM	43	314	35	0	23	156	37	0	29	270	50	0	14	214	19	0	1204
4:45 PM	59	325	27	0	16	185	22	0	26	229	36	0	19	196	17	0	1157
5:00 PM	50	306	37	1	21	166	24	0	24	251	47	0	17	193	13	0	1150
5:15 PM	64	329	43	0	15	189	41	0	25	247	45	0	16	174	18	0	1206
5:30 PM	40	316	33	0	16	185	29	0	24	302	38	0	17	228	22	0	1250
5:45 PM	42	339	34	0	19	201	43	0	31	262	64	0	13	212	18	0	1278
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	597	3652	418	1	244	2150	367	0	295	2760	551	0	194	2183	210	0	13622
APPROACH %'s :	12.79%	78.23%	8.95%	0.02%	8.84%	77.87%	13.29%	0.00%	8.18%	76.54%	15.28%	0.00%	7.50%	84.38%	8.12%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	196	1290	147	1	71	741	137	0	104	1062	194	0	63	807	71	0	4884
PEAK HR FACTOR :	0.766	0.951	0.855	0.250	0.845	0.922	0.797	0.000	0.839	0.879	0.758	0.000	0.926	0.885	0.807	0.000	0.955
	0.937				0.902				0.934				0.881				

APPENDIX B

CMA AND LEVELS OF SERVICE EXPLANATION
CMA DATA WORKSHEETS – WEEKDAY AM AND PM PEAK HOURS

CRITICAL MOVEMENT ANALYSIS (CMA) DESCRIPTION

Level of Service is a term used to describe prevailing conditions and their effect on traffic. Broadly interpreted, the Level of Service concept denotes any one of a number of differing combinations of operating conditions which may take place 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, 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*. 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.

Critical Movement Analysis (CMA) is a procedure which provides a capacity and level of service geometry and traffic signal operation and results in a level of service determination for the intersection as a whole operating unit.

The per lane volume for each movement in the intersection is determined and the per lane intersection capacity based on the Transportation Research Board (TRB) Report 212 (*Interim Materials on Highway Capacity*). The resulting CMA represents the ratio of the intersection's cumulative volume over its respective capacity (V/C ratio). Critical Movement Analysis takes into account lane widths, bus and truck operations, pedestrian activity and parking activity, as well as number of lanes and geometrics.

The Level of Service (abbreviated from the *Highway Capacity Manual*) are listed here with their corresponding CMA 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.

Critical Movement Analysis Characteristics

Level of Service	Load Factor	Equivalent CMA
A (free flow)	0.0	0.00 - 0.60
B (rural design)	0.0 - 0.1	0.61 - 0.70
C (urban design)	0.1 - 0.3	0.71 - 0.80
D (maximum urban design)	0.3 - 0.7	0.81 - 0.90
E (capacity)	0.7 - 1.0	0.91 - 1.00
F (force flow)	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 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 (CMA = 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 Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Woodley Avenue	Year of Count:	2018	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	12/20/2018
CMA01	East-West Street:	Parthenia Street	Projection Year:	2020	Peak Hour:	AM	Reviewed by:	JAS	Project:	8618-8630 Haskell Ave. Charter

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	75	1	**75**	0	75	**75**	1	78	1	**78**	0	78	1	**78**	0	78	1	**78**
Left-Through		0							0				0				0	
Through	571	2	286	0	571	286	2	584	2	292	0	584	2	292	0	584	2	292
Through-Right		0							0				0				0	
Right	113	1	60	0	113	60	0	115	1	61	0	115	1	61	0	115	1	61
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	109	1	109	11	120	120	0	111	1	111	11	122	1	122	0	122	1	122
Left-Through		0							0				0				0	
Through	1475	2	**738**	0	1475	**738**	1	1506	2	**753**	0	1506	2	**753**	0	1506	2	**753**
Through-Right		0							0				0				0	
Right	85	1	56	0	85	56	0	87	1	57	0	87	1	57	0	87	1	57
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	59	1	**59**	0	59	**59**	0	60	1	**60**	0	60	1	**60**	0	60	1	**60**
Left-Through		0							0				0				0	
Through	955	1	588	31	986	604	13	987	1	606	31	1018	1	622	0	1018	1	622
Through-Right		1							1				1				1	
Right	221	0	221	0	221	221	0	225	0	225	0	225	0	225	0	225	0	225
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	107	1	107	0	107	107	0	109	1	109	0	109	1	109	0	109	1	109
Left-Through		0							0				0				0	
Through	1420	1	**743**	20	1440	**757**	19	1468	1	**768**	20	1488	1	**781**	0	1488	1	**781**
Through-Right		1							1				1				1	
Right	66	0	66	7	73	73	0	67	0	67	7	74	0	74	0	74	0	74
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		813	*North-South:*		813	*North-South:*			831	*North-South:*			831	*North-South:*			831
	East-West:		802	*East-West:*		816	*East-West:*			828	*East-West:*			841	*East-West:*			841
	SUM:		1615	*SUM:*		1629	*SUM:*			1659	*SUM:*			1672	*SUM:*			1672
VOLUME/CAPACITY *(V/C)* RATIO:			1.077			1.086				1.106				1.115				1.115
***V/C* LESS ATSAC/ATCS ADJUSTMENT:**			0.977			0.986				1.006				1.015				1.015
LEVEL OF SERVICE (LOS):			E			E				F				F				F

	NB--	SB--	EB--	WB--
No. of Phases				
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				
Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	0	0	0
ATSAC-1 or ATSAC+ATCS-2?				
Override Capacity				

	EXISTING CONDITION	EXISTING PLUS PROJECT	FUTURE CONDITION W/O PROJECT	FUTURE CONDITION W/ PROJECT	FUTURE W/ PROJECT W/ MITIGATION
No. of Phases	2	2	2	2	2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3? NB--	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3? SB--	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3? EB--	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3? WB--	0	0	0	0	0
ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2
Override Capacity	0	0	0	0	0

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.009	Δ*v/c* after mitigation:	0.009
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Woodley Avenue	Year of Count:	2018	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	12/20/2018
CMA01	East-West Street:	Parthenia Street	Projection Year:	2020	Peak Hour:	PM	Reviewed by:	JAS	Project:	8618-8630 Haskell Ave. Charter

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			2			2			2				2				2	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
	Override Capacity			0			0			0				0				0	
NORTHBOUND	Left	175	1	175	0	175	175	1	180	1	180	0	180	1	180	0	180	1	180
	Left-Through		0							0				0				0	
	Through	1380	2	**690**	0	1380	**690**	1	1409	2	**705**	0	1409	2	**705**	0	1409	2	**705**
	Through-Right		0							0				0				0	
	Right	218	1	176	0	218	176	0	222	1	179	0	222	1	179	0	222	1	179
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	50	1	**50**	2	52	**52**	0	51	1	**51**	2	53	1	**53**	0	53	1	**53**
	Left-Through		0							0				0				0	
	Through	532	2	266	0	532	266	2	545	2	273	0	545	2	273	0	545	2	273
	Through-Right		0							0				0				0	
	Right	92	1	34	0	92	34	0	94	1	35	0	94	1	35	0	94	1	35
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	116	1	116	0	116	116	0	118	1	118	0	118	1	118	0	118	1	118
	Left-Through		0							0				0				0	
	Through	1115	1	**612**	5	1120	**614**	22	1159	1	**635**	5	1164	1	**638**	0	1164	1	**638**
	Through-Right		1							1				1				1	
	Right	108	0	108	0	108	108	1	111	0	111	0	111	0	111	0	111	0	111
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	84	1	**84**	0	84	**84**	0	86	1	**86**	0	86	1	**86**	0	86	1	**86**
	Left-Through		0							0				0				0	
	Through	866	1	487	6	872	491	17	900	1	505	6	906	1	509	0	906	1	509
	Through-Right		1							1				1				1	
	Right	107	0	107	2	109	109	0	109	0	109	2	111	0	111	0	111	0	111
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		740	*North-South:*		742	*North-South:*			756	*North-South:*			758	*North-South:*			758
		East-West:		696	*East-West:*		698	*East-West:*			721	*East-West:*			724	*East-West:*			724
		SUM:		1436	*SUM:*		1440	*SUM:*			1477	*SUM:*			1482	*SUM:*			1482
	VOLUME/CAPACITY *(V/C)* RATIO:			0.957			0.960				0.985				0.988				0.988
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.857**			**0.860**				**0.885**				**0.888**				**0.888**
	LEVEL OF SERVICE (LOS):			**D**			**D**				**D**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.003	Δ*v/c* after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Haskell Avenue	Year of Count:	2018	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	12/20/2018
CMA02	East-West Street:	Nordhoff Street	Projection Year:	2020	Peak Hour:	AM	Reviewed by:	JAS	Project:	8618-8630 Haskell Ave. Charter

	EXISTING CONDITION	EXISTING PLUS PROJECT	FUTURE CONDITION W/O PROJECT	FUTURE CONDITION W/ PROJECT	FUTURE W/ PROJECT W/ MITIGATION
No. of Phases	2	2	2	2	2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2
Override Capacity	0	0	0	0	0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	59	1	**59**	4	63	**63**	0	60	1	**60**	4	64	1	**64**	0	64	1	**64**
	Left-Through		0							0				0				0	
	Through	356	1	258	10	366	268	0	363	1	263	10	373	1	273	0	373	1	273
	Through-Right		1							1				1				1	
	Right	160	0	160	10	170	170	0	163	0	163	10	173	0	173	0	173	0	173
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	133	1	133	0	133	133	0	136	1	136	0	136	1	136	0	136	1	136
	Left-Through		0							0				0				0	
	Through	721	1	**411**	16	737	**419**	0	735	1	**419**	16	751	1	**427**	0	751	1	**427**
	Through-Right		1							1				1				1	
	Right	100	0	100	0	100	100	0	102	0	102	0	102	0	102	0	102	0	102
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	48	1	**48**	0	48	**48**	0	49	1	**49**	0	49	1	**49**	0	49	1	**49**
	Left-Through		0							0				0				0	
	Through	1177	2	435	0	1177	437	35	1236	2	456	0	1236	2	458	0	1236	2	458
	Through-Right		1							1				1				1	
	Right	128	0	128	7	135	135	0	131	0	131	7	138	0	138	0	138	0	138
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	134	1	134	16	150	150	0	137	1	137	16	153	1	153	0	153	1	153
	Left-Through		0							0				0				0	
	Through	1900	2	**693**	0	1900	**693**	43	1981	2	**721**	0	1981	2	**721**	0	1981	2	**721**
	Through-Right		1							1				1				1	
	Right	178	0	178	0	178	178	0	182	0	182	0	182	0	182	0	182	0	182
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		470	*North-South:*		482	*North-South:*			479	*North-South:*			491	*North-South:*			491
		East-West:		741	*East-West:*		741	*East-West:*			770	*East-West:*			770	*East-West:*			770
		SUM:		1211	*SUM:*		1223	*SUM:*			1249	*SUM:*			1261	*SUM:*			1261
	VOLUME/CAPACITY *(V/C)* RATIO:			0.807			0.815				0.833				0.841				0.841
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.707**			**0.715**				**0.733**				**0.741**				**0.741**
	LEVEL OF SERVICE (LOS):			**C**			**C**				**C**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.008	Δ*v/c* after mitigation:	0.008
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Haskell Avenue	Year of Count:	2018	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	12/20/2018
CMA02	East-West Street:	Nordhoff Street	Projection Year:	2020	Peak Hour:	PM	Reviewed by:	JAS	Project:	8618-8630 Haskell Ave. Charter

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB--	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB--	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	34	1	34	1	35	35	0	35	1	35	1	36	1	36	0	36	1	36
	Left-Through		0							0				0				0	
	Through	567	1	**356**	3	570	**359**	0	578	1	**363**	3	581	1	**366**	0	581	1	**366**
	Through-Right		1							1				1				1	
	Right	145	0	145	3	148	148	0	148	0	148	3	151	0	151	0	151	0	151
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	142	1	**142**	0	142	**142**	0	145	1	**145**	0	145	1	**145**	0	145	1	**145**
	Left-Through		0							0				0				0	
	Through	212	1	134	2	214	135	0	216	1	136	2	218	1	137	0	218	1	137
	Through-Right		1							1				1				1	
	Right	55	0	55	0	55	55	0	56	0	56	0	56	0	56	0	56	0	56
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	94	1	**94**	0	94	**94**	0	96	1	**96**	0	96	1	**96**	0	96	1	**96**
	Left-Through		0							0				0				0	
	Through	1499	2	527	0	1499	528	41	1570	2	552	0	1570	2	552	0	1570	2	552
	Through-Right		1							1				1				1	
	Right	83	0	83	1	84	84	0	85	0	85	1	86	0	86	0	86	0	86
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	97	1	97	2	99	99	0	99	1	99	2	101	1	101	0	101	1	101
	Left-Through		0							0				0				0	
	Through	1488	2	**579**	0	1488	**579**	33	1551	2	**602**	0	1551	2	**602**	0	1551	2	**602**
	Through-Right		1							1				1				1	
	Right	250	0	250	0	250	250	0	255	0	255	0	255	0	255	0	255	0	255
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		498	*North-South:*		501	*North-South:*			508	*North-South:*			511	*North-South:*			511
		East-West:		673	*East-West:*		673	*East-West:*			698	*East-West:*			698	*East-West:*			698
		SUM:		1171	*SUM:*		1174	*SUM:*			1206	*SUM:*			1209	*SUM:*			1209
VOLUME/CAPACITY *(V/C)* RATIO:				0.781			0.783				0.804				0.806				0.806
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.681**			**0.683**				**0.704**				**0.706**				**0.706**
LEVEL OF SERVICE (LOS):				**B**			**B**				**C**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	$\Delta v/c$ after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Haskell Avenue	Year of Count:	2018	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	12/20/2018
CMA03	East-West Street:	Parthenia Street	Projection Year:	2020	Peak Hour:	AM	Reviewed by:	JAS	Project:	8618-8630 Haskell Ave. Charter

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			2			2			2				2				2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0		NB-- 0	SB--	0		NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0		EB-- 0	WB--	0		EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
Override Capacity			0			0			0				0				0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	45	1	45	27	72	72	0	46	1	46	27	73	1	73	0	73	1	73
	Left-Through		0							0				0				0	
	Through	160	1	**138**	29	189	**167**	0	163	1	**140**	29	192	1	**169**	0	192	1	**169**
	Through-Right		1							1				1				1	
	Right	115	0	115	29	144	144	0	117	0	117	29	146	0	146	0	146	0	146
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	303	1	**303**	0	303	**303**	0	309	1	**309**	0	309	1	**309**	0	309	1	**309**
	Left-Through		0							0				0				0	
	Through	524	1	311	45	569	334	0	535	1	318	45	580	1	340	0	580	1	340
	Through-Right		1							1				1				1	
	Right	98	0	98	0	98	98	0	100	0	100	0	100	0	100	0	100	0	100
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	76	1	**76**	0	76	**76**	0	78	1	**78**	0	78	1	**78**	0	78	1	**78**
	Left-Through		0							0				0				0	
	Through	1135	1	591	0	1135	612	13	1171	1	609	0	1171	1	630	0	1171	1	630
	Through-Right		1							1				1				1	
	Right	46	0	46	42	88	88	0	47	0	47	42	89	0	89	0	89	0	89
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	126	1	126	45	171	171	0	129	1	129	45	174	1	174	0	174	1	174
	Left-Through		0							0				0				0	
	Through	1335	1	**813**	0	1335	**813**	19	1381	1	**839**	0	1381	1	**839**	0	1381	1	**839**
	Through-Right		1							1				1				1	
	Right	290	0	290	0	290	290	0	296	0	296	0	296	0	296	0	296	0	296
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		441	*North-South:*		470	*North-South:*			449	*North-South:*			478	*North-South:*			478
		East-West:		889	*East-West:*		889	*East-West:*			917	*East-West:*			917	*East-West:*			917
		SUM:		1330	*SUM:*		1359	*SUM:*			1366	*SUM:*			1395	*SUM:*			1395
VOLUME/CAPACITY *(V/C)* RATIO:				0.887			0.906				0.911				0.930				0.930
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.787**			**0.806**				**0.811**				**0.830**				**0.830**
LEVEL OF SERVICE (LOS):				**C**			**D**				**D**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.019	$\Delta v/c$ after mitigation:	0.019
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Haskell Avenue	Year of Count:	2018	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	12/20/2018
CMA03	East-West Street:	Parthenia Street	Projection Year:	2020	Peak Hour:	PM	Reviewed by:	JAS	Project:	8618-8630 Haskell Ave. Charter

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	58	1	58	8	66	66	0	59	1	59	8	67	1	67	0	67	1	67
	Left-Through		0							0				0				0	
	Through	432	1	**321**	9	441	**330**	0	441	1	**327**	9	450	1	**336**	0	450	1	**336**
	Through-Right		1							1				1				1	
	Right	209	0	209	9	218	218	0	213	0	213	9	222	0	222	0	222	0	222
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	168	1	**168**	0	168	**168**	0	171	1	**171**	0	171	1	**171**	0	171	1	**171**
	Left-Through		0							0				0				0	
	Through	165	1	123	7	172	127	0	168	1	126	7	175	1	129	0	175	1	129
	Through-Right		1							1				1				1	
	Right	81	0	81	0	81	81	0	83	0	83	0	83	0	83	0	83	0	83
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	143	1	143	0	143	143	0	146	1	146	0	146	1	146	0	146	1	146
	Left-Through		0							0				0				0	
	Through	1215	1	**629**	0	1215	**632**	22	1261	1	**652**	0	1261	1	**655**	0	1261	1	**655**
	Through-Right		1							1				1				1	
	Right	42	0	42	6	48	48	0	43	0	43	6	49	0	49	0	49	0	49
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	48	1	**48**	7	55	**55**	0	49	1	**49**	7	56	1	**56**	0	56	1	**56**
	Left-Through		0							0				0				0	
	Through	891	1	526	0	891	526	17	926	1	545	0	926	1	545	0	926	1	545
	Through-Right		1							1				1				1	
	Right	160	0	160	0	160	160	0	163	0	163	0	163	0	163	0	163	0	163
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		489	North-South:		498	North-South:			498	North-South:			507	North-South:			507
		East-West:		677	East-West:		687	East-West:			701	East-West:			711	East-West:			711
		SUM:		1166	SUM:		1185	SUM:			1199	SUM:			1218	SUM:			1218
VOLUME/CAPACITY (*V/C*) RATIO:				0.777			0.790				0.799				0.812				0.812
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.677**			**0.690**				**0.699**				**0.712**				**0.712**
LEVEL OF SERVICE (LOS):				**B**			**B**				**B**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.013	Δ*v/c* after mitigation:	0.013
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Haskell Avenue	Year of Count:	2018	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	12/20/2018
CMA04	East-West Street:	Roscoe Boulevard	Projection Year:	2020	Peak Hour:	AM	Reviewed by:	JAS	Project:	8618-8630 Haskell Ave. Charter

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			3			3			3				3				3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1			1				1				1	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0		NB-- 0	SB--	0		NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0		EB-- 0	WB--	0		EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
Override Capacity			0			0			0				0				0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	2	0	2	0	2	2	0	2	0	2	0	2	0	2	0	2	0	2
	Left-Through		0							0				0				0	
	Through	0	0	**4**	0	0	**4**	0	0	0	**4**	0	0	0	**4**	0	0	0	**4**
	Through-Right		0							0				0				0	
	Right	2	0	0	0	2	0	0	2	0	0	0	2	0	0	0	2	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	336	1	172	29	365	186	0	343	1	175	29	372	1	190	0	372	1	190
	Left-Through		1							1				1				1	
	Through	7	0	172	0	7	186	0	7	0	175	0	7	0	190	0	7	0	190
	Through-Right		0							0				0				0	
	Right	312	1	**291**	23	335	**296**	0	318	1	**297**	23	341	1	**302**	0	341	1	**302**
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	42	1	**42**	36	78	**78**	0	43	1	**43**	36	79	1	**79**	0	79	1	**79**
	Left-Through		0							0				0				0	
	Through	871	2	290	0	871	290	25	914	2	305	0	914	2	305	0	914	2	305
	Through-Right		1							1				1				1	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	19	1	19	0	19	19	0	19	1	19	0	19	1	19	0	19	1	19
	Left-Through		0							0				0				0	
	Through	1975	2	**716**	0	1975	**731**	29	2044	2	**740**	0	2044	2	**755**	0	2044	2	**755**
	Through-Right		1							1				1				1	
	Right	173	0	173	45	218	218	0	176	0	176	45	221	0	221	0	221	0	221
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		295	*North-South:*		300	*North-South:*			301	*North-South:*			306	*North-South:*			306
		East-West:		758	*East-West:*		809	*East-West:*			783	*East-West:*			834	*East-West:*			834
		SUM:		1053	*SUM:*		1109	*SUM:*			1084	*SUM:*			1140	*SUM:*			1140
VOLUME/CAPACITY *(V/C)* RATIO:				0.739			0.778				0.761				0.800				0.800
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.639**			**0.678**				**0.661**				**0.700**				**0.700**
LEVEL OF SERVICE (LOS):				**B**			**B**				**B**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.039 — $\Delta v/c$ after mitigation: 0.039

Significant impacted? NO — Fully mitigated? N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Haskell Avenue	Year of Count:	2018	Ambient Growth (%):	1.0	Conducted by:	NDS	Date:	12/20/2018
CMA04	East-West Street:	Roscoe Boulevard	Projection Year:	2020	Peak Hour:	PM	Reviewed by:	JAS	Project:	8618-8630 Haskell Ave. Charter

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			3			3			3				3				3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1			1				1				1	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0		NB-- 0	SB--	0		NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0		EB-- 0	WB--	0		EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
Override Capacity			0			0			0				0				0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	4	0	4	0	4	4	0	4	0	4	0	4	0	4	0	4	0	4
	Left-Through		0							0				0				0	
	Through	17	0	**42**	0	17	**42**	0	17	0	**42**	0	17	0	**42**	0	17	0	**42**
	Through-Right		0							0				0				0	
	Right	21	0	0	0	21	0	0	21	0	0	0	21	0	0	0	21	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	172	1	**87**	9	181	**91**	0	175	1	**88**	9	184	1	**93**	0	184	1	**93**
	Left-Through		1							1				1				1	
	Through	1	0	87	0	1	91	0	1	0	88	0	1	0	93	0	1	0	93
	Through-Right		0							0				0				0	
	Right	68	1	0	7	75	1	0	69	1	0	7	76	1	0	0	76	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	144	1	**144**	5	149	**149**	0	147	1	**147**	5	152	1	**152**	0	152	1	**152**
	Left-Through		0							0				0				0	
	Through	1387	2	463	0	1387	463	37	1452	2	485	0	1452	2	485	0	1452	2	485
	Through-Right		1							1				1				1	
	Right	2	0	2	0	2	2	0	2	0	2	0	2	0	2	0	2	0	2
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	2	1	2	0	2	2	0	2	1	2	0	2	1	2	0	2	1	2
	Left-Through		0							0				0				0	
	Through	1433	2	**573**	0	1433	**575**	33	1495	2	**595**	0	1495	2	**598**	0	1495	2	**598**
	Through-Right		1							1				1				1	
	Right	285	0	285	7	292	292	0	291	0	291	7	298	0	298	0	298	0	298
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		129	*North-South:*		133	*North-South:*			130	*North-South:*			135	*North-South:*			135
		East-West:		717	*East-West:*		724	*East-West:*			742	*East-West:*			750	*East-West:*			750
		SUM:		846	*SUM:*		857	*SUM:*			872	*SUM:*			885	*SUM:*			885
VOLUME/CAPACITY *(V/C)* RATIO:				0.594			0.601				0.612				0.621				0.621
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.494**			**0.501**				**0.512**				**0.521**				**0.521**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.009 — $\Delta v/c$ after mitigation: 0.009

Significant impacted? NO — Fully mitigated? N/A

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CRITICAL MOVEMENT ANALYSIS

I-405 Southbound Ramps @ Nordhoff Street

N-S St: I-405 Southbound Ramps
E-W St: Nordhoff Street
Project: 8618-8630 Haskell Avenue Charter School
File Name: CMA05
Counts by: NDS

Peak Hour: AM
Annual Growth: 1.0%

Date: 12/20/2018
Date of Count: 2018
Buildout Year: 2020

	2018 EXIST. TRAFFIC			2018 EXIST. + PROJECT				2018 EXIST. + PROJ. + MIT				2020 FUTURE BASELINE				2020 FUTURE W/PROJECT				2020 FUTURE W/MITIGATION			
Movement	Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NB Left	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T		0	-			0	-			0	-			0	-			0	-			0	-
NB Thru	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. T-R		0	-			0	-			0	-			0	-			0	-			0	-
NB Right	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T-R -		0				0				0				0				0				0	
SB Left	260	0	-	0	260	0	-	0	260	0	-	12	277	0	-	0	277	0	-	0	277	0	-
Comb. L-T		0	-			0	-			0	-			0	-			0	-			0	-
SB Thru	1	0	562	0	1	0	568	0	1	0	568	0	1	0	579	0	1	0	585	0	1	0	585
Comb. T-R		0	-			0	-			0	-			0	-			0	-			0	-
SB Right	863	1	562	11	874	1	568	0	874	1	568	0	880	1	579	11	891	1	585	0	891	1	585
Comb. L-T-R -		1				1				1				1				1				1	
EB Left	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T		0	-			0	-			0	-			0	-			0	-			0	-
EB Thru	1350	3	450	10	1360	3	453	0	1360	3	453	35	1412	3	471	10	1422	3	474	0	1422	3	474
Comb. T-R		0	-			0	-			0	-			0	-			0	-			0	-
EB Right	161	1	161	0	161	1	161	0	161	1	161	0	164	1	164	0	164	1	164	0	164	1	164
Comb. L-T-R -		0				0				0				0				0				0	
WB Left	93	2	51	0	93	2	51	0	93	2	51	9	104	2	57	0	104	2	57	0	104	2	57
Comb. L-T		0	-			0	-			0	-			0	-			0	-			0	-
WB Thru	1395	2	698	4	1399	2	700	0	1399	2	700	43	1466	2	733	4	1470	2	735	0	1470	2	735
Comb. T-R		0	-			0	-			0	-			0	-			0	-			0	-
WB Right	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T-R -		0				0				0				0				0				0	
Crit. Volumes:	N-S:		562	N-S:			568	N-S:			568	N-S:			579	N-S:			585	N-S:			585
	E-W:		698	E-W:			700	E-W:			700	E-W:			733	E-W:			735	E-W:			735
	SUM:		1260	SUM:			1267	SUM:			1267	SUM:			1312	SUM:			1320	SUM:			1320
No. of Phases:			3				3				3				3				3				3
(N/A=0, ATSAC=1, ATCS=2)			*2*				*2*				*2*				*2*				*2*				*2*
Volume / Capacity:			0.784				0.789				0.789				0.821				0.826				0.826
Level of Service:			C				C				C				D				D				D

Assumptions: *Maximum Sum of Critical Volumes (Intersection Capacity): 2 Phase=1500, 3 Phase=1425, 4+ Phase=1375, Unsignalized=1200.*
For dual turn lanes, 55% of volume is assigned to heavier lane.
For one excl. and one opt. turn lane, 50% of volume is assigned to exclusive lane.
Right turns on red from excl. lanes = 50% of overlapping left turn.

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CRITICAL MOVEMENT ANALYSIS

I-405 Southbound Ramps @ Nordhoff Street

N-S St: I-405 Southbound Ramps
E-W St: Nordhoff Street
Project: 8618-8630 Haskell Avenue Charter School
File Name: CMA05
Counts by: NDS

Peak Hour: PM
Annual Growth: 1.0%

Date: 12/20/2018
Date of Count: 2018
Buildout Year: 2020

	2018 EXIST. TRAFFIC			2018 EXIST. + PROJECT				2018 EXIST. + PROJ. + MIT				2020 FUTURE BASELINE				2020 FUTURE W/PROJECT				2020 FUTURE W/MITIGATION			
Movement	Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NB Left	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T		0	-			0	-			0	-			0	-			0	-			0	-
NB Thru	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. T-R		0	-			0	-			0	-			0	-			0	-			0	-
NB Right	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T-R -		0				0				0				0				0				0	
SB Left	501	0	-	0	501	0	-	0	501	0	-	5	516	0	-	0	516	0	-	0	516	0	-
Comb. L-T		0	-			0	-			0	-			0	-			0	-			0	-
SB Thru	2	0	597	0	2	0	598	0	2	0	598	0	2	0	611	0	2	0	612	0	2	0	612
Comb. T-R		0	-			0	-			0	-			0	-			0	-			0	-
SB Right	691	1	597	2	693	1	598	0	693	1	598	0	705	1	611	2	707	1	612	0	707	1	612
Comb. L-T-R -		1				1				1				1				1				1	
EB Left	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T		0	-			0	-			0	-			0	-			0	-			0	-
EB Thru	1193	3	398	3	1196	3	399	0	1196	3	399	41	1258	3	419	3	1261	3	420	0	1261	3	420
Comb. T-R		0	-			0	-			0	-			0	-			0	-			0	-
EB Right	629	1	629	0	629	1	629	0	629	1	629	0	642	1	642	0	642	1	642	0	642	1	642
Comb. L-T-R -		0				0				0				0				0				0	
WB Left	257	2	141	0	257	2	141	0	257	2	141	2	264	2	145	0	264	2	145	0	264	2	145
Comb. L-T		0	-			0	-			0	-			0	-			0	-			0	-
WB Thru	1048	2	524	1	1049	2	525	0	1049	2	525	33	1102	2	551	1	1103	2	552	0	1103	2	552
Comb. T-R		0	-			0	-			0	-			0	-			0	-			0	-
WB Right	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T-R -		0				0				0				0				0				0	
Crit. Volumes:		N-S:	597			N-S:	598			N-S:	598			N-S:	611			N-S:	612			N-S:	612
		E-W:	770			E-W:	770			E-W:	770			E-W:	787			E-W:	787			E-W:	787
		SUM:	1367			SUM:	1368			SUM:	1368			SUM:	1398			SUM:	1399			SUM:	1399
No. of Phases:			3				3				3				3				3				3
(N/A=0, ATSAC=1, ATCS=2)			*2*				*2*				*2*				*2*				*2*				*2*
Volume / Capacity:			0.860				0.860				0.860				0.881				0.882				0.882
Level of Service:			D				D				D				D				D				D

Assumptions: *Maximum Sum of Critical Volumes (Intersection Capacity): 2 Phase=1500, 3 Phase=1425, 4+ Phase=1375, Unsignalized=1200.*
For dual turn lanes, 55% of volume is assigned to heavier lane.
For one excl. and one opt. turn lane, 50% of volume is assigned to exclusive lane.
Right turns on red from excl. lanes = 50% of overlapping left turn.

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	I-405 Southbound Ramps	Year of Count:	2018	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	12/20/2018
CMA06	East-West Street:	Roscoe Boulevard	Projection Year:	2020	Peak Hour:	AM	Reviewed by:	JAS	Project:	8618-8630 Haskell Ave. Charter

	EXISTING CONDITION	EXISTING PLUS PROJECT	FUTURE CONDITION W/O PROJECT	FUTURE CONDITION W/ PROJECT	FUTURE W/ PROJECT W/ MITIGATION
No. of Phases	3	3	3	3	3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2
Override Capacity	0	0	0	0	0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	610	1	472	0	610	472	20	642	1	488	0	642	1	488	0	642	1	488
	Left-Through		0							0				0				0	
	Through	0	0	**472**	0	0	**472**	0	0	0	**488**	0	0	0	**488**	0	0	0	**488**
	Through-Right		0							0				0				0	
	Right	806	1	0	0	806	0	1	823	1	0	0	823	1	0	0	823	1	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
EASTBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	1060	3	353	21	1081	360	24	1105	3	368	21	1126	3	375	0	1126	3	375
	Through-Right		0							0				0				0	
	Right	104	1	104	7	111	111	2	108	1	108	7	115	1	115	0	115	1	115
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	111	2	61	0	111	61	31	144	2	79	0	144	2	79	0	144	2	79
	Left-Through		0							0				0				0	
	Through	1389	2	**695**	45	1434	**717**	29	1446	2	**723**	45	1491	2	**746**	0	1491	2	**746**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	North-South:		472	North-South:		472	North-South:			488	North-South:			488	North-South:			488
		East-West:		695	East-West:		717	East-West:			723	East-West:			746	East-West:			746
		SUM:		1167	SUM:		1189	SUM:			1211	SUM:			1234	SUM:			1234
	VOLUME/CAPACITY (V/C) RATIO:			0.819			0.834				0.850				0.866				0.866
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.719**			**0.734**				**0.750**				**0.766**				**0.766**
	LEVEL OF SERVICE (LOS):			**C**			**C**				**C**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.016 — Δ*v/c* after mitigation: 0.016

Significant impacted? NO — Fully mitigated? N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	I-405 Southbound Ramps	Year of Count:	2018	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	12/20/2018
CMA06	East-West Street:	Roscoe Boulevard	Projection Year:	2020	Peak Hour:	PM	Reviewed by:	JAS	Project:	8618-8630 Haskell Ave. Charter

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			3			3			3				3				3	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
	Override Capacity			0			0			0				0				0	
NORTHBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	399	1	328	0	399	328	31	438	1	346	0	438	1	346	0	438	1	346
	Left-Through		0							0				0				0	
	Through	4	0	**328**	0	4	**328**	0	4	0	**346**	0	4	0	**346**	0	4	0	**346**
	Through-Right		0							0				0				0	
	Right	581	1	0	0	581	0	2	595	1	0	0	595	1	0	0	595	1	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	1090	3	363	7	1097	366	36	1148	3	383	7	1155	3	385	0	1155	3	385
	Through-Right		0							0				0				0	
	Right	462	1	**462**	2	464	**464**	1	472	1	**472**	2	474	1	**474**	0	474	1	**474**
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	279	2	**153**	0	279	**153**	28	313	2	**172**	0	313	2	**172**	0	313	2	**172**
	Left-Through		0							0				0				0	
	Through	1100	2	550	7	1107	554	31	1153	2	577	7	1160	2	580	0	1160	2	580
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES		*North-South:*	328		*North-South:*	328		*North-South:*	346			*North-South:*	346			*North-South:*	346	
			East-West:	615		*East-West:*	617		*East-West:*	644			*East-West:*	646			*East-West:*	646	
			SUM:	943		*SUM:*	945		*SUM:*	990			*SUM:*	992			*SUM:*	992	
	VOLUME/CAPACITY *(V/C)* RATIO:			0.662			0.663			0.695				0.696				0.696	
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.562**			**0.563**			**0.595**				**0.596**				**0.596**	
	LEVEL OF SERVICE (LOS):			**A**			**A**			**A**				**A**				**A**	

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	Δ*v/c* after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	I-405 Northbound Ramps	Year of Count:	2018	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	12/20/2018
CMA07	East-West Street:	Nordhoff Street	Projection Year:	2020	Peak Hour:	AM	Reviewed by:	JAS	Project:	8618-8630 Haskell Ave. Charter

No. of Phases			3			3			3			3			3			3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	773	2	**425**	0	773	**425**	0	789	2	**434**	0	789	2	**434**	0	789	2	**434**
	Left-Through		0							0				0				0	
	Through	3	0	80	0	3	80	0	3	0	87	0	3	0	87	0	3	0	87
	Through-Right		1							1				1				1	
	Right	156	1	0	0	156	0	12	171	1	0	0	171	1	0	0	171	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	502	2	**276**	7	509	**280**	0	512	2	**282**	7	519	2	**285**	0	519	2	**285**
	Left-Through		0							0				0				0	
	Through	999	2	500	3	1002	501	47	1066	2	533	3	1069	2	535	0	1069	2	535
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	809	3	270	4	813	271	51	876	3	292	4	880	3	293	0	880	3	293
	Through-Right		0							0				0				0	
	Right	426	1	**426**	0	426	**426**	12	447	1	**447**	0	447	1	**447**	0	447	1	**447**
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		425	*North-South:*		425	*North-South:*			434	*North-South:*			434	*North-South:*			434
		East-West:		702	*East-West:*		706	*East-West:*			729	*East-West:*			732	*East-West:*			732
		SUM:		1127	*SUM:*		1131	*SUM:*			1163	*SUM:*			1166	*SUM:*			1166
VOLUME/CAPACITY *(V/C)* RATIO:				0.791			0.794				0.816				0.818				0.818
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.691**			**0.694**				**0.716**				**0.718**				**0.718**
LEVEL OF SERVICE (LOS):				**B**			**B**				**C**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	Δ*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	I-405 Northbound Ramps	Year of Count:	2018	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	12/20/2018
CMA07	East-West Street:	Nordhoff Street	Projection Year:	2020	Peak Hour:	PM	Reviewed by:	JAS	Project:	8618-8630 Haskell Ave. Charter

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			3			3			3				3				3	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
	Override Capacity			0			0			0				0				0	
NORTHBOUND	Left	387	2	213	0	387	213	0	395	2	217	0	395	2	217	0	395	2	217
	Left-Through		0							0				0				0	
	Through	10	0	**214**	0	10	**214**	0	10	0	**220**	0	10	0	**220**	0	10	0	**220**
	Through-Right		1							1				1				1	
	Right	418	1	0	0	418	0	3	429	1	0	0	429	1	0	0	429	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	504	2	**277**	2	506	**278**	0	514	2	**283**	2	516	2	**284**	0	516	2	**284**
	Left-Through		0							0				0				0	
	Through	1175	2	588	1	1176	588	46	1245	2	623	1	1246	2	623	0	1246	2	623
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	981	3	327	1	982	327	36	1037	3	346	1	1038	3	346	0	1038	3	346
	Through-Right		0							0				0				0	
	Right	364	1	**364**	0	364	**364**	3	374	1	**374**	0	374	1	**374**	0	374	1	**374**
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		214	*North-South:*		214	*North-South:*			220	*North-South:*			220	*North-South:*			220
		East-West:		641	*East-West:*		642	*East-West:*			657	*East-West:*			658	*East-West:*			658
		SUM:		855	*SUM:*		856	*SUM:*			877	*SUM:*			878	*SUM:*			878
	VOLUME/CAPACITY *(V/C)* RATIO:			0.600			0.601				0.615				0.616				0.616
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.500**			**0.501**				**0.515**				**0.516**				**0.516**
	LEVEL OF SERVICE (LOS):			**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	Δ*v/c* after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	I-405 Northbound Ramps	Year of Count:	2018	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	12/20/2018
CMA08	East-West Street:	Roscoe Boulevard	Projection Year:	2020	Peak Hour:	AM	Reviewed by:	JAS	Project:	8618-8630 Haskell Ave. Charter

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			3			3			3				3				3	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
	Override Capacity			0			0			0				0				0	
NORTHBOUND	Left	436	2	**240**	11	447	**246**	1	446	2	**245**	11	457	2	**251**	0	457	2	**251**
	Left-Through		0							0				0				0	
	Through	2	0	119	0	2	119	0	2	0	132	0	2	0	132	0	2	0	132
	Through-Right		1							1				1				1	
	Right	235	1	0	0	235	0	21	261	1	0	0	261	1	0	0	261	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	379	2	**208**	0	379	**208**	2	389	2	**214**	0	389	2	**214**	0	389	2	**214**
	Left-Through		0							0				0				0	
	Through	1292	2	646	21	1313	657	43	1361	2	681	21	1382	2	691	0	1382	2	691
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	1064	3	355	33	1097	366	52	1137	3	379	33	1170	3	390	0	1170	3	390
	Through-Right		0							0				0				0	
	Right	635	1	**635**	0	635	**635**	25	673	1	**673**	0	673	1	**673**	0	673	1	**673**
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		240	*North-South:*		246	*North-South:*			245	*North-South:*			251	*North-South:*			251
		East-West:		843	*East-West:*		843	*East-West:*			887	*East-West:*			887	*East-West:*			887
		SUM:		1083	*SUM:*		1089	*SUM:*			1132	*SUM:*			1138	*SUM:*			1138
	VOLUME/CAPACITY *(V/C)* RATIO:			0.760			0.764				0.794				0.799				0.799
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.660**			**0.664**				**0.694**				**0.699**				**0.699**
	LEVEL OF SERVICE (LOS):			**B**			**B**				**B**				**B**				**B**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.005 — $\Delta v/c$ after mitigation: 0.005

Significant impacted? NO — Fully mitigated? N/A

Level of Service Workhesheet
(Circular 212 Method)

I/S #:	North-South Street:	I-405 Northbound Ramps	Year of Count:	2018	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	12/20/2018
CMA08	East-West Street:	Roscoe Boulevard	Projection Year:	2020	Peak Hour:	PM	Reviewed by:	JAS	Project:	8618-8630 Haskell Ave. Charter

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			3			3			3				3				3	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
	Override Capacity			0			0			0				0				0	
NORTHBOUND	Left	288	2	**158**	2	290	**160**	2	296	2	163	2	298	2	164	0	298	2	164
	Left-Through		0							0				0				0	
	Through	6	0	146	0	6	146	0	6	0	**167**	0	6	0	**167**	0	6	0	**167**
	Through-Right		1							1				1				1	
	Right	286	1	0	0	286	0	35	327	1	0	0	327	1	0	0	327	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	0	0	**0**	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	401	2	**221**	0	401	**221**	1	410	2	**226**	0	410	2	**226**	0	410	2	**226**
	Left-Through		0							0				0				0	
	Through	1119	2	560	7	1126	563	66	1207	2	604	7	1214	2	607	0	1214	2	607
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	1111	3	370	5	1116	372	56	1189	3	396	5	1194	3	398	0	1194	3	398
	Through-Right		0							0				0				0	
	Right	662	1	**662**	0	662	**662**	27	702	1	**702**	0	702	1	**702**	0	702	1	**702**
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	North-South:		158	North-South:		160	North-South:			167	North-South:			167	North-South:			167
		East-West:		883	East-West:		883	East-West:			928	East-West:			928	East-West:			928
		SUM:		1041	SUM:		1043	SUM:			1095	SUM:			1095	SUM:			1095
	VOLUME/CAPACITY (V/C) RATIO:			0.731			0.732				0.768				0.768				0.768
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.631**			**0.632**				**0.668**				**0.668**				**0.668**
	LEVEL OF SERVICE (LOS):			**B**			**B**				**B**				**B**				**B**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.000 — Δ*v/c* after mitigation: 0.000

Significant impacted? NO — Fully mitigated? N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Boulevard	Year of Count:	2018	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	12/20/2018
CMA09	East-West Street:	Parthenia Street	Projection Year:	2020	Peak Hour:	AM	Reviewed by:	JAS	Project:	8618-8630 Haskell Ave. Charter

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			2			2			2				2				2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0		NB-- 0	SB--	0		NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0		EB-- 0	WB--	0		EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
Override Capacity			0			0			0				0				0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	118	1	**118**	0	118	**118**	15	135	1	**135**	0	135	1	**135**	0	135	1	**135**
	Left-Through		0							0				0				0	
	Through	650	2	249	0	650	249	91	754	2	284	0	754	2	284	0	754	2	284
	Through-Right		1							1				1				1	
	Right	96	0	96	0	96	96	0	98	0	98	0	98	0	98	0	98	0	98
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	89	1	89	0	89	89	0	91	1	91	0	91	1	91	0	91	1	91
	Left-Through		0							0				0				0	
	Through	1302	2	**511**	0	1302	**515**	84	1412	2	**551**	0	1412	2	**555**	0	1412	2	**555**
	Through-Right		1							1				1				1	
	Right	232	0	232	11	243	243	4	241	0	241	11	252	0	252	0	252	0	252
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	69	1	69	7	76	76	1	71	1	71	7	78	1	78	0	78	1	78
	Left-Through		0							0				0				0	
	Through	973	1	**614**	21	994	**625**	0	993	1	**633**	21	1014	1	**643**	0	1014	1	**643**
	Through-Right		1							1				1				1	
	Right	255	0	255	0	255	255	12	272	0	272	0	272	0	272	0	272	0	272
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	74	1	**74**	0	74	**74**	0	75	1	**75**	0	75	1	**75**	0	75	1	**75**
	Left-Through		0							0				0				0	
	Through	1064	1	543	33	1097	560	0	1085	1	554	33	1118	1	570	0	1118	1	570
	Through-Right		1							1				1				1	
	Right	22	0	22	0	22	22	0	22	0	22	0	22	0	22	0	22	0	22
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		629	*North-South:*		633	*North-South:*			686	*North-South:*			690	*North-South:*			690
		East-West:		688	*East-West:*		699	*East-West:*			708	*East-West:*			718	*East-West:*			718
		SUM:		1317	*SUM:*		1332	*SUM:*			1394	*SUM:*			1408	*SUM:*			1408
VOLUME/CAPACITY *(V/C)* RATIO:				0.878			0.888				0.929				0.939				0.939
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.778**			**0.788**				**0.829**				**0.839**				**0.839**
LEVEL OF SERVICE (LOS):				**C**			**C**				**D**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.010	Δ*v/c* after mitigation:	0.010
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Sepulveda Boulevard	Year of Count:	2018	Ambient Growth: (%):	1.0	Conducted by:	NDS	Date:	12/20/2018
CMA09	East-West Street:	Parthenia Street	Projection Year:	2020	Peak Hour:	PM	Reviewed by:	JAS	Project:	8618-8630 Haskell Ave. Charter

No. of Phases			2				2				2				2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0
ATSAC-1 or ATSAC+ATCS-2?			2				2				2				2				2
Override Capacity			0				0				0				0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	197	1	197	0	197	197	16	217	1	217	0	217	1	217	0	217	1	217
	Left-Through		0							0				0				0	
	Through	1290	2	**479**	0	1290	**479**	95	1411	2	**520**	0	1411	2	**520**	0	1411	2	**520**
	Through-Right		1							1				1				1	
	Right	147	0	147	0	147	147	0	150	0	150	0	150	0	150	0	150	0	150
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	71	1	**71**	0	71	**71**	0	72	1	**72**	0	72	1	**72**	0	72	1	**72**
	Left-Through		0							0				0				0	
	Through	741	2	293	0	741	293	102	858	2	333	0	858	2	334	0	858	2	334
	Through-Right		1							1				1				1	
	Right	137	0	137	2	139	139	1	141	0	141	2	143	0	143	0	143	0	143
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	104	1	104	2	106	106	3	109	1	109	2	111	1	111	0	111	1	111
	Left-Through		0							0				0				0	
	Through	1062	1	**628**	7	1069	**632**	0	1083	1	**650**	7	1090	1	**654**	0	1090	1	**654**
	Through-Right		1							1				1				1	
	Right	194	0	194	0	194	194	19	217	0	217	0	217	0	217	0	217	0	217
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	63	1	**63**	0	63	**63**	0	64	1	**64**	0	64	1	**64**	0	64	1	**64**
	Left-Through		0							0				0				0	
	Through	807	1	439	5	812	442	0	823	1	448	5	828	1	450	0	828	1	450
	Through-Right		1							1				1				1	
	Right	71	0	71	0	71	71	0	72	0	72	0	72	0	72	0	72	0	72
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		550	*North-South:*		550	*North-South:*			592	*North-South:*			592	*North-South:*			592
		East-West:		691	*East-West:*		695	*East-West:*			714	*East-West:*			718	*East-West:*			718
		SUM:		1241	*SUM:*		1245	*SUM:*			1306	*SUM:*			1310	*SUM:*			1310
VOLUME/CAPACITY *(V/C)* RATIO:				0.827			0.830				0.871				0.873				0.873
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.727**			**0.730**				**0.771**				**0.773**				**0.773**
LEVEL OF SERVICE (LOS):				**C**			**C**				**C**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	Δ*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A