LINSCOTT LAW & GREENSPAN

engineers

TRANSPORTATION IMPACT ANALYSIS (PTS #657591)

# HOME DEPOT AND SCOTTISH RITE CENTER

City of San Diego, California February 3, 2021

LLG Ref. 3-20-3270



Prepared by: Amelia Giacalone Transportation Planner III

Under the Supervision of: John Boarman, P.E Principal Linscott, Law & Greenspan, Engineers

4542 Ruffner Street Suite 100 San Diego, CA 92111 858.300.8800 т 858.300.8810 г www.llgengineers.com

# **EXECUTIVE SUMMARY**

Linscott, Law & Greenspan, Engineers (LLG) has prepared the following Transportation Impact Analysis (TIA) to determine and evaluate the potential impacts to the local roadway system due to the proposed Home Depot and Scottish Rite Center project, consistent with the City of San Diego's *Traffic Impact Study Manual*, July 1998.

For transportation environmental review, this Project intends to tier off the Mission Valley Community Plan Update (MVCPU) Program Environmental Impact Report (PEIR) (Project No. 518009/SCH No. 2017071066). The MVCPU PEIR was approved on September 10, 2019 and analyzed an update to the Community Plan that guides development of the entire Mission Valley Community Planning Area.

The Project is implementing the Regional Commercial Land Use designation for this property as identified in the approved MVCPU PEIR. Therefore, analysis of this Project tiers off the traffic analysis in the PEIR.

The Project site is located on the south side of Camino Del Rio South between Mission Center Road and Texas Street where the existing Scottish Rite Center and a car dealership are located. The Project site is located within the City of San Diego's Mission Valley Community Planning Area. The Project's discretionary actions include a Site Development Permit and a right-of-way Vacation.

The Project proposes to redevelop the site, which currently includes the existing 63,882 SF (square foot) Scottish Rite Center and 7,142 SF of auto-dealership land uses, with a 40,000 SF Scottish Rite Center and a 126,932 SF Home Depot (including a 106,688 SF home improvement center and a 20,244 SF garden center). The 18.33-acre site is in the CPIOZ-A, CR-2-1 Zone within the Mission Valley Plan Area. The Project proposes commercial uses and therefore is consistent with the underlying land uses analyzed for the site in the MVCPU.

The Project is calculated to generate 4,363 net-new driveway Average Daily Trips (ADT) with 308 trips during the AM peak hour (181 inbound / 127 outbound) and 395 trips during the PM peak hour (198 inbound / 197 outbound).

The intersection and segment analysis provided in this study shows that the following analyzed facilities are calculated to operate at Level of Service (LOS) E or F without and with the addition of Project traffic:

#### Intersections

- 4. Mission Center Road / I-8 EB Ramps
- 9. Texas Street / Camino Del Rio South.
- 10. Texas Street / Madison Avenue

#### Street Segments

#### Camino Del Rio South:

Mission Center Road to Project Site Project Site to Texas Street

The intersections calculated to operate at LOS E or F in this study were found to have significant, unavoidable impacts in the MVCPU PEIR. The intersection improvements required to mitigate those impacts were rejected by the City Council as infeasible when approving the MVCPU. Thus, the Project intersection analysis results are consistent with the analysis results in the MVCPU.

For the Camino Del Rio South segments noted above, the MVCPU PEIR disclosed that those segments operate at LOS E under Existing conditions. As a commercial development consistent with the zoning for the Project site (see *Section 2* of this report), the amount of traffic the Project will contribute to those segments is consistent with the MVCPU PEIR segment analysis. In adopting the MVCPU PEIR, the City determined that roadway network modifications to Camino Del Rio South between Mission Center Road and Texas Street would be made and would mitigate potentially significant impacts at community buildout to a less than significant level. The proposed roadway network modification analyzed in the MVCPU PEIR would provide a two-lane Collector cross section with a two-way left-turn lane and bike lanes. The Project is implementing those roadway network modifications along the Project frontage consistent with the MVCPU PEIR. Specifically, the Project features include the following roadway modifications to the segment:

- A two-way left-turn lane along the Project frontage on Camino Del Rio South.
- A westbound left-turn lane along Camino Del Rio South approaching the eastern Home Depot Driveway.
- A 6 ft wide Class II bike lane along the Project frontage on Camino Del Rio South.

In addition to the improvements listed above, the Project will provide the following features to improve overall access to the site:

- The parkway will be widened from 10 ft to 14 ft to create a landscape buffer between the street and the sidewalk.
- The public sidewalk will be widened from 5 ft to 8 ft and provided non-contiguously.
- Pedestrian entrances and walkways will be provided via the public right-of-way to each building.
- To accentuate the pedestrian entrance, Home Depot has created a "pedestrian gateway" as shown in *Appendix H*.
- Short- and long-term bicycle parking facilities will be provided on site for the Home Depot and Scottish Rite buildings, per the Land Development Code and Climate Action Plan Consistency Checklist requirements.

# TABLE OF CONTENTS

SECT	ION	Pag	ЪЕ
1.0	Intr	oduction	1
2.0	Pro	ect Description	2
3.0	Exis	ting Conditions	6
	3.1	Existing Street Network	6
	3.2	Existing Traffic Volumes	7
4.0	Ana	lysis Approach and Methodology1	1
	4.1	Intersections	1
	4.2	Street Segments1	1
5.0	Sigr	ificance Criteria 1	2
6.0	Ana	lysis of Existing Conditions1	4
	6.1	Peak Hour Intersection Levels of Service	4
	6.2	Daily Street Segment Levels of Service 1	4
7.0	Trip	o Generation, Distribution, & Assignment1	7
	7.1	Trip Generation1	7
	7.2	Trip Distribution & Assignment 1	8
8.0	Ana	lysis of Near-Term (Opening Year 2023) Scenarios 2	2
	8.1	Cumulative Projects	2
	8.2	Near-Term (Opening Year 2023) Without Project	
		8.2.1 Intersection Analysis	
	0.2	8.2.2 Segment Operations	
	8.3	Near-Term (Opening Year 2023) + Project28.3.1Intersections Analysis2	
		8.3.1       Intersections Analysis       2         8.3.2       Segment Operations       2	
9.0	Mis	sion Valley Community Plan Update Mitigation Measure Review	5
10.0	Site	Access and Circulation Review	7
	10.1	Site Access	7
	10.2	Parking	7
	10.3	Queuing Review	8
11.0	Acti	ve Transportation Review	9
	11.1	Pedestrian Conditions	9

12.0	Conclusions	41
	11.3 Bicycle Conditions	39
	11.2 Transit Conditions	39

# **A**PPENDICES

APPEND	DIX
A.	Intersection and Segment Manual Count Sheets, Growth Rate Calculations, and Signal Timing Plans
B.	City of San Diego Roadway Classification Table
C.	Existing Peak Hour Intersection Analysis Worksheets
D.	Near-Term (Opening Year 2023) without Project Peak Hour Intersection Analysis Worksheets and Cumulative Projects Information
E.	Near-Term (Opening Year 2023) + Project Peak Hour Intersection Analysis Worksheets and Queue Calculation Sheets
F.	Excerpts from the Mission Valley Community Plan Update Transportation Impact Study, May 2019
G.	SANDAG Select Zone Assignment (SZA)
H.	Pedestrian Facilities
I.	Transit Schedules

J. MVCPU Project Site Land Use Assumptions

# LIST OF FIGURES

SECTION—FIG	URE #	FOLLOWING PAGE
Figure 2–1	Vicinity Map	
Figure 2–2	Project Area Map	
Figure 2–3	Project Site Plan	
Figure 3–1	Existing Conditions Diagram	9
Figure 3–2	Existing Traffic Volumes	
Figure 7–1	Project Traffic Distribution	
Figure 7–2	Project Traffic Volumes	
Figure 8–1	Cumulative Projects Location Map	
Figure 8–2	Cumulative Projects Traffic Volumes	
Figure 8–3	Near-Term (Opening Year 2023) without Project Traffic Volumes	
Figure 8–4	Near-Term (Opening Year 2023) + Project Traffic Volumes	

# LIST OF TABLES

SECTION—TABLE #	Page
Table 3–1 Existing Traffic Volumes (2015 plus growth)	
Table 5–1 City Of San Diego Traffic Impact Significance Thresholds	
Table 6–1 Existing Intersection Operations	
Table 6–2 Existing Street Segment Operations	
Table 8-1 Near-Term Cumulative Projects	
Table 8-2 Near-Term (Opening Year 2023) Intersection Operations	
Table 8-3 Near-Term (Opening Year 2023) Street Segment Operations	
Table 10-1 Queue Summary	
Table 11–1 Bicycle Facilities	

#### TRANSPORTATION IMPACT ANALYSIS

# HOME DEPOT AND SCOTTISH RITE CENTER

City of San Diego, California February 3, 2021

## 1.0 INTRODUCTION

Linscott, Law & Greenspan Engineers (LLG) has prepared the following Transportation Impact Analysis (TIA) to determine and evaluate the potential impacts to the local transportation system due to the proposed Home Depot and Scottish Rite Center Project, consistent with the City of San Diego's *Traffic Impact Study Manual*, July 1998

For transportation environmental review, the project intends to tier off the Mission Valley Community Plan Update (MVCPU) Program Environmental Impact Report (PEIR) (Project No. 518009/SCH No. 2017071066). The Mission Valley CPU PEIR was approved on September 10, 2019 and analyzed an update to the Community Plan that guides development of the entire Mission Valley Community Planning area.

The Project is implementing the Regional Commercial Land Use designation for this property as identified in the approved MVCPU PEIR. Therefore, analysis of this Project tiers off the traffic analysis in the PEIR.

The Project site is located on the south side of Camino Del Rio South between Mission Center Road and Texas Street where the existing Scottish Rite Center and a car dealership are located. The Project site is located within the City of San Diego's Mission Valley Community Planning Area. The project's discretionary actions include a Site Development Permit and a right-of-way Vacation.

The following items are included in this traffic study:

- Project Description
- Existing Conditions Discussion
- Analysis Approach and Methodology
- Significance Criteria
- Trip Generation/Distribution/Assignment
- Analysis of Opening Day (Year 2023) Scenarios
- Mission Valley Community Plan Update Mitigation Measure Review
- Site Access and Circulation Review
- Active Transportation Review
- Conclusions

# 2.0 PROJECT DESCRIPTION

The Home Depot and Scottish Rite Center project site is located on the south side of Camino Del Rio South between Mission Center Road and Texas Street where the existing Scottish Rite Center is located.

The Project proposes to redevelop the site, which includes demolition of the existing 63,882 SF (square foot) Scottish Rite Center and 7,142 SF of auto-dealership land uses, and construction of a 40,000 SF Scottish Rite Center and a 126,932 SF Home Depot (including a 106,688 SF home improvement center and a 20,244 SF garden center). The 18.33-acre site is in the CPIOZ-A, CR-2-1 Zone within the Mission Valley Community Plan Area. The Project proposes commercial uses and therefore is consistent with the underlying land uses analyzed for the site in the Mission Valley Community Plan Update (MVCPU). *Appendix J* contains additional information on the Project site land uses that were analyzed in the MVCPU.

Access to the new Scottish Rite Center, to be located on the west side of the site, will be provided via one full-access driveway along Camino Del Rio South. Access to the proposed Home Depot, to be located on the east side of the site, will be provided via two full-access driveways along Camino Del Rio South. The easternmost driveway will also continue to serve the existing UFCW building located just east of the Project site. The Project will improve its frontage for consistency with the Mission Valley Community Plan Mobility Element.

*Figure 2–1* shows the Project vicinity. *Figure 2–2* shows a more detailed Project area map. *Figure 2–3* depicts the conceptual site plan.



N:\3270\Figures Date: 9/5/2020 Time: 1:59 PM GREENSPAN

Figure 2-1

# Vicinity Map

Home Depot and Scottish Rite Center

engineer

LAW &



N:\3270\Figures Date: 09/07/20

LINSCOTT LAW &

GREENSPAN

engineer

Figure 2-2

## **Project Area Map**



LINSCOTT N:\3270\Figures Date: 09/08/20 LAW &

GREENSPAN

engineers

Figure 2-3
Conceptual Site Plan

# 3.0 EXISTING CONDITIONS

Effective evaluation of the traffic impacts of the proposed project requires an understanding of the existing transportation system within the project study area. *Figure 3–1* shows an existing conditions diagram, including intersection control and lane configurations.

The specific study area includes the following intersections and street segments based on the anticipated distribution of the project traffic and area of potential impact:

#### Intersections

- 1. Mission Center Road / Camino De La Reina
- 2. Mission Center Road / Camino Del Rio North
- 3. Camino Del Rio North / I-8 WB Ramps
- 4. Mission Center Road / I-8 EB Ramps
- 5. Mission Center Road / Camino Del Rio South
- 6. Qualcomm Way / Camino Del Rio North
- 7. Qualcomm Way / I-8 WB Ramps
- 8. Qualcomm Way / I-8 EB Ramps
- 9. Texas Street / Camino Del Rio South
- 10. Texas Street / Madison Avenue
- 11. Camino Del Rio South / Future Scottish Rite Center Driveway
- 12. Camino Del Rio South / Future Home Depot Driveway (West)
- 13. Camino Del Rio South / Future Home Depot Driveway (East)

### Segments

### Camino Del Rio South

- Mission Center Road to the Project site
- Project site to Texas Street

Mission Center Road / Auto Circle

• Camino Del Rio South to I-8 EB Ramps

### Texas Street

- I-8 EB Ramps to Camino Del Rio South
- Camino Del Rio S to Madison Avenue

# 3.1 Existing Street Network

The following is a description of the existing street network in the study area.

**Camino Del Rio South** is a two-lane undivided roadway between Mission Center Road and Texas Street. Within the study area, Camino Del Rio South has a posted speed limit of 35 mph. On-street parking is allowed along the south side of the roadway. Contiguous sidewalks are provided along the

south side of the roadway. Class II bicycle facilities are present on both sides of the roadway. No bus stops are provided within the study area roadway. Per the MVCPU, Camino Del Rio South has an ultimate classification of a two-lane Collector with two-way left turn lane.

**Mission Center Road** is a four-lane undivided roadway between I-8 EB Ramps and Camino Del Rio South. Within the study area, Mission Center Road has a posted speed limit of 40 mph. There is no on-street parking permitted. A non-contiguous sidewalk is provided along the west side of the roadway. Bicycle facilities are not provided. However, based on the MVCPU, a Class II bicycle facility is proposed. No bus stops are provided within the study area roadway. Per the MVCPU, Mission Center Road is at its ultimate classification of a four-lane Collector with two-way left turn lane.

**Texas Street** is a four-lane roadway between Camino Del Rio South and approximately 1,400 feet north of Madison Avenue, where the roadway narrows to three lanes. Between that point and Madison Avenue, there are two southbound and one northbound lanes. Within the study area, Texas Street has a posted speed limit of 35 mph in the southbound direction and 40 mph in the northbound direction. There is no on-street parking permitted north of Madison Avenue. Contiguous sidewalks are provided on the west side between Camino Del Rio South and Mission Avenue and noncontiguous sidewalks on both sides for the remainder of the segment. Class II bicycle facilities are provided on both sides with a buffer on the west side. MTS bus route 6 runs along Texas Street from the roadway's northern terminus at Camino Del Rio South to El Cajon Boulevard with bus stops provided at Camino Del Rio South and Madison Avenue within the study area. Per the MVCPU and North Park Community Plan, Texas Street is at its ultimate classification of a four-lane Major Arterial.

**Qualcomm Way** is a four-lane undivided roadway between I-8 EB ramps and Camino Del Rio South. Within the study area, Qualcomm Way has a posted speed limit of 40 mph. Contiguous sidewalks are provided on the west side. Bicycle facilities are not provided. However, based on the community plan update, a Class II bicycle facility is proposed. MTS bus route 6 runs along Qualcomm Way from Camino De La Reina to the roadway's southern terminus at Camino Del Rio South with bus stops provided at Camino De La Riena. Per the MVCPU, Qualcomm Way is at its ultimate classification of a four-lane Major Arterial.

# 3.2 Existing Traffic Volumes

Due to the ongoing Covid-19 pandemic, which has altered traffic patterns and volumes, conducting Year 2020 existing traffic counts was not practical, nor would it have provided the type of information required to perform a study of this nature. Therefore, traffic counts at the study area intersections, including bicycle and pedestrian counts, were obtained from the traffic study conducted for the Mission Valley Community Plan Update. These counts were conducted on Wednesday or Thursday of September 9, 10, 16 and 17, 2015 between the hours of 7:00-9:00 AM and 4:00-6:00 PM while schools were in session. A growth factor of 1% per year compounded for five years was applied to the traffic counts to represent Year 2020 conditions based on historical data on the roadways in the Project area.

*Table 3–1* is a summary of the average daily traffic volumes conducted in September 2015 with a growth factor of 1% per year compounded for five years applied.

*Figure 3–2* shows the Existing Traffic Volumes. *Appendix A* contains the manual count sheets and growth rate calculations.

Street Segment	ADT <sup>a</sup>
Camino Del Rio South	
Mission Center Road to Project Site	7,790
Project Site to Texas Street	7,790
Mission Center Road	
I-8 EB Ramps to Camino Del Rio South	22,050
Texas Street	
I-8 EB Ramps to Camino Del Rio South	27,150
Camino Del Rio South to Madison Avenue	30,530

 TABLE 3–1

 EXISTING TRAFFIC VOLUMES (2015 PLUS GROWTH)

Footnotes:

a. Average Daily Traffic Volumes.



N:\3270\Figures Date: 12/11/2020 Time: 10:11 AM LAW & GREENSPAN

engineers

Artenal				
			Project Site	
		(#)	Study Intersection	
			Traffic Signal	
		STOP	Stop Sign	
			Turning Movements	
		2/4/6	Number of Travel Lanes	
		35mph	Posted Speed Limit	
		U/D	Divided / Undivided Roadway	
Adams Ave		V	Yield Sign	-
		OL	Right Turn Overlap Phase	
	+-		MTS Bus Route #6	
Madison Ave	Utah St		Study Segments	
			Q	

Figure 3-1

# **Existing Conditions Diagram**

Home Depot and Scottish Rite Center



LINSCOTT Date: 10/26/2020 LAW & Time: 2:10 PM GREENSPAN

> engineers Figure 3-2

# **Existing Traffic Volumes**

Home Depot and Scottish Rite Center

# 4.0 ANALYSIS APPROACH AND METHODOLOGY

Level of service (LOS) is the term used to denote the different operating conditions which occur on a given roadway segment under various traffic volume loads. It is a qualitative measure used to describe a quantitative analysis taking into account factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. Level of service provides an index to the operational qualities of a roadway segment or an intersection. Level of service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. Level of service designation is reported differently for signalized and unsignalized intersections, as well as for roadway segments.

# 4.1 Intersections

*Signalized intersections* were analyzed under AM and PM peak hour conditions. Average vehicle delay was determined utilizing the methodology found in Chapter 19 of the *Highway Capacity Manual 6<sup>th</sup> Edition (HCM 6)*, with the assistance of the *Synchro* (version 10) computer software. The delay values (represented in seconds) were qualified with a corresponding intersection LOS. City of San Diego and Caltrans location-specific signal timing information such as minimum greens, cycle lengths, splits for the freeway interchanges were included in the analysis, where available. City of San Diego signal timing sheets are provided in *Appendix A*.

*Unsignalized intersections* were analyzed under AM and PM peak hour conditions. Average vehicle delay and LOS was determined based upon the procedures found in Chapters 20 and 21 of the *HCM 6* with the assistance of the *Synchro* (version 10) computer software.

# 4.2 Street Segments

Street segment analysis is based upon the comparison of daily traffic volumes (ADTs) to the City of San Diego *Roadway Segment LOS by Average Daily Traffic (ADT)* table. This table (included in *Appendix B*) provides segment capacities for different street classifications.

# 5.0 SIGNIFICANCE CRITERIA

According to the City of San Diego's *Significance Determination Thresholds* dated July 2016, a project is considered to have a significant impact if project traffic would decrease the operations of surrounding roadways by a defined threshold. The City defined thresholds are shown in *Table 5–1*.

The impact is designated either a "direct" or "cumulative" impact. According to the City's *Significance Determination Thresholds*,

"*Direct* traffic impacts are those projected to occur at the time a proposed development becomes operational, including other developments not presently operational but which are anticipated to be operational at that time (near term)."

"*Cumulative* traffic impacts are those projected to occur at some point after a proposed development becomes operational, such as during subsequent phases of a project and when additional proposed developments in the area become operational (short-term cumulative) or when affected community plan area reaches full planned buildout (long-term cumulative)."

It is possible that a project's near term (direct) impacts may be reduced in the long term, as future projects develop and provide additional roadway improvements (for instance, through implementation of traffic phasing plans). In such a case, the project may have direct impacts but not contribute considerably to a cumulative impact."

If the project exceeds the thresholds in *Table 5–1*, then the project is considered to have a significant "direct" or "cumulative" project impact. A significant impact can also occur if a project causes the Level of Service to degrade from LOS D to LOS E or F, even if the allowable increases in *Table 5–1* are not exceeded. A feasible mitigation measure will need to be identified to return the impact within the City thresholds, or the impact will be considered significant and unmitigated.

#### TABLE 5–1 CITY OF SAN DIEGO TRAFFIC IMPACT SIGNIFICANCE THRESHOLDS

	Allowable Increase Due to Project Impacts <sup>a</sup>										
Level of Service with Project <sup>b</sup>	Freeways Roadway Segments				Intersections	Ramp Metering <sup>c</sup>					
	V/C	Speed (mph)	V/C	Speed (mph)	Delay (sec.)	Delay (min.)					
Е	E 0.010 1.0		0.02	1.0	2.0	2.0					
F 0.005		0.5	0.01	0.5	1.0	1.0					

Footnotes:

- a. If a proposed project's traffic causes the values shown in the table to be exceeded, the impacts are determined to be significant. The project applicant shall then identify feasible improvements (within the Traffic Impact Study) that will restore/and maintain the traffic facility at an acceptable LOS. If the LOS with the proposed project becomes unacceptable (see note b), or if the project adds a significant amount of peak-hour trips to cause any traffic queues to exceed on- or off-ramp storage capacities, the project applicant shall be responsible for mitigating the project's direct significant and/or cumulatively considerable traffic impacts.
- b. All LOS measurements are based upon Highway Capacity Manual procedures for peak-hour conditions. However, V/C ratios for roadway segments are estimated on an ADT/24-hour traffic volume basis (using Table 2 of the City's Traffic Impact Study Manual). The acceptable LOS for freeways, roadways, and intersections is generally "D" ("C" for undeveloped locations), and "E" for Downtown San Diego. For metered freeway ramps, LOS does not apply. However, ramp meter delays above 15 minutes are considered excessive.

c. The allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 minutes. The allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 minute.

#### General Notes:

- 1. Delay = Average control delay per vehicle measured in seconds for intersections or minutes for ramp meters
- 2. LOS = Level of Service
- 3. V/C = Volume to Capacity ratio
- 4. Speed = Arterial speed measured in miles per hour

# 6.0 ANALYSIS OF EXISTING CONDITIONS

# 6.1 Peak Hour Intersection Levels of Service

**Table 6-1** summarizes the peak hour intersection operations under existing conditions. As seen in *Table 6-1*, all intersections are calculated to currently operate at LOS D or better during the AM and PM peak hours, with the exception of the following:

- 4. Mission Center Road / I-8 EB Ramps (LOS E during the PM peak hour)
- 9. Texas Street / Camino Del Rio South (LOS E during the AM and PM peak hours)
- 10. Texas Street / Madison Avenue (LOS F during the AM and LOS E during the PM peak hours)

Appendix C contains the Existing intersection analysis calculation worksheets.

# 6.2 Daily Street Segment Levels of Service

*Table 6-2* summarizes the existing street segment operations. As seen in *Table 6-2*, the study area street segments are calculated to currently operate at LOS D or better, with the exception of Camino Del Rio South, which is calculated to operate at LOS E west and east of the Project site.

	Control	Peak	Exis	ting
Intersection	Туре	Hour	Delay <sup>a</sup>	LOS <sup>b</sup>
1. Mission Center Road / Camino De La Reina	Signal	AM PM	33.2 51.2	C D
2. Mission Center Road / Camino Del Rio N	Signal	AM PM	51.6 48.3	D D
3. Camino Del Rio N / I-8 WB Ramps	Signal	AM PM	33.9 48.8	C D
4. Mission Center Road / I-8 EB Ramps	Signal	AM PM	45.6 59.7	D E
5. Mission Center Road / Camino Del Rio S	Signal	AM PM	46.2 43.9	D D
6. Qualcomm Way / Camino Del Rio N	Signal	AM PM	20.5 37.8	C D
7. Qualcomm Way / I-8 WB Ramps	Signal	AM PM	22.8 30.0	C C
8. Qualcomm Way / I-8 EB Ramps	Signal	AM PM	1.0 0.9	A A
9. Texas Street / Camino Del Rio S	Signal	AM PM	70.3 67.7	E E
10. Texas Street / Madison Avenue	Signal	AM PM	104.8 59.9	F E
<ol> <li>Camino Del Rio S / Future Scottish Rite Center Driveway</li> </ol>	_c	AM PM	-	-
<ol> <li>Camino Del Rio S / Future Home Depot Driveway (West)</li> </ol>	_ c	AM PM		-
<ol> <li>Camino Del Rio S / Future Home Depot Driveway (East)</li> </ol>	_ c	AM PM		-

TABLE 6–1 **EXISTING INTERSECTION OPERATIONS** 

Footnotes:	SIGNALIZ	ED	UNSIGNAL	IZED
<ul><li>a. Average delay expressed in seconds per vehicle.</li><li>b. Level of Service.</li></ul>	DELAY/LOS THR	ESHOLDS	DELAY/LOS THE	RESHOLDS
c. Intersection does not currently exist	Delay	LOS	Delay	LOS
General Notes 1. Shaded areas indicate LOS E or F	$0.0~\leq~10.0$	А	$0.0~\leq~10.0$	А
1. Shaded areas indicate EOS E of 1	10.1 to 20.0	В	10.1 to 15.0	В
	20.1 to 35.0	С	15.1 to 25.0	С
	35.1 to 55.0	D	25.1 to 35.0	D
	55.1 to 80.0	Е	35.1 to 50.0	Е
	$\geq 80.1$	F	$\geq 50.1$	F

LLG Ref. 3-20-3270 Home Depot and Scottish Rite Center

Street Segment	Classification	Capacity (LOS E) <sup>a</sup>	ADT <sup>b</sup>	LOS <sup>c</sup>	<b>V/C</b> <sup>d</sup>
Camino Del Rio South					
Mission Center Road to Project Site	2-Lane Collector (w/o TWLTL)	8,000	7,790	Е	0.974
Project Site to Texas Street	2-Lane Collector (w/o TWLTL)	8,000	7,790	Е	0.974
Mission Center Road					
I-8 EB Ramps to Camino Del Rio S	4-Lane Collector <sup>e</sup>	30,000 <sup>e</sup>	22,050	D	0.735
Texas Street					
I-8 EB Ramps to Camino Del Rio S	4-Lane Major Arterial	40,000 27,150		С	0.679
Camino Del Rio S to Madison Avenue	4-Lane Major Arterial	40,000	30,530	D	0.763

# TABLE 6–2 EXISTING STREET SEGMENT OPERATIONS

#### Footnotes:

a. Capacities based on City of San Diego's Roadway Classification Table.

b. Average Daily Traffic Volumes.

c. Level of Service.

d. Volume to Capacity.

e. Per Mission Valley Community Plan Update Mobility Existing Conditions Report (June 2017), this segment is analyzed with a 30,000 ADT capacity for a 4 Lane Collector with raised median.

#### General Notes

1. Shaded areas indicate LOS E

# 7.0 TRIP GENERATION, DISTRIBUTION, & ASSIGNMENT

## 7.1 Trip Generation

The trip generation rates for the Project were based on the *City of San Diego Trip Generation Manual, May 2003* and the *SANDAG (Not So) Brief Guide of Vehicular Trip Generation Rates for the San Diego Region, April 2002.* The following land use changes are proposed by the Project:

#### Construction (Proposed Land Uses)

**Home Depot – Home Improvement Center:** The Project proposes to develop a 106,688 SF home improvement center. Per discussions with City staff, the SANDAG driveway trip rate of 40 ADT per 1,000 SF for "home improvement superstore" was used. Based on the ratio of the City of San Diego cumulative versus driveway trip rates for "lumber/home improvement store", a cumulative trip rate of 36 ADT per 1,000 SF was used.

Peak hour splits (7% and 9% during the AM and PM peak hours, respectively) were based on the "lumber/home improvement store" category in the *City of San Diego Trip Generation Manual*.

- Home Depot Garden Center: The Project proposes to develop a 20,244 SF garden center in conjunction with the proposed home improvement center. Per discussions with City staff, the SANDAG driveway trip rate of 40 ADT per 1,000 SF for "home improvement superstore" was used. Based on the ratio of the City of San Diego cumulative versus driveway trip rates for "home improvement store", a cumulative trip rate of 36 ADT per 1,000 SF was used. Peak hour splits (5% AM and 8% PM) were based on the SANDAG "home improvement superstore" category.
- Scottish Rite Center: The Project proposes to develop a 40,000 SF Scottish Rite Center at the west side of the Project site. The City of San Diego driveway trip rate of 15 ADT per 1,000 SF and cumulative trip rate of 9 ADT per 1,000 SF for "house of worship" were used to represent this "fraternal organization". Currently, the 63,882 SF Scottish Rite Event Center not only provides facilities for its internal fraternal organization but also for Gem shows, San Diego Rocket Con, Coinarama, and various trade shows and events that draw people from the entire region. The Scottish Rite Event Center currently has capacity for 10,000 guests. The proposed Project reduces the Scottish Rite Center to a 40,000 SF Scottish Rite facility that will serve just the fraternal organization itself without the regional Gem Shows, trade shows and other similar events.

### Demolition (Existing Land Uses to Be Removed)

• Auto Dealership: The Project proposes to demolish the existing 7,142 SF auto dealership currently on the site. A trip credit was applied using the City of San Diego driveway trip rate of 50 ADT per 1,000 SF and cumulative trip rate of 45 ADT per 1,000 SF for "car dealer".

• Scottish Rite Center: The Project proposes to demolish the existing 63,882 SF Scottish Rite Center currently on the site. A trip credit was applied using the City of San Diego driveway trip rate of 15 ADT per 1,000 SF and cumulative trip rate of 9 ADT per 1,000 SF for "house of worship".

*Table 7–1* summarizes the Project trip generation. As shown in *Table 7–1*, the Project is calculated to generate 4,363 net-new driveway ADT with 308 total driveway trips during the AM peak hour (181 inbound / 127 outbound) and 395 total driveway trips during the PM peak hour (198 inbound / 197 outbound).

The Project is calculated to generate 4,034 net-new cumulative ADT with 281 driveway trips during the AM peak hour (166 inbound / 115outbound) and 365 driveway trips during the PM peak hour (183 inbound / 182 outbound).

### 7.2 Trip Distribution & Assignment

A Project-specific SANDAG Select Zone model was used to estimate the Project's distribution. The unadjusted SANDAG Select Zone model run is included in *Appendix G*.

Figure 7–1 shows the distribution of the Project trips. Figure 7–2 shows the Project traffic volumes.

					ENERATION TA	DLE							
	AM Peak Hour						PM Peak Hour						
Land Use & Size	Trip Rate & Credits		ADT	% of	In:Out		Volume	)	% of	In:Out		Volume	
	_			ADT	Split <sup>b</sup>	In	Out	Total	ADT	Split <sup>b</sup>	In	Out	Total
	•			Pr	oposed Project	•				•			•
Home Depot - Home	Trip Rate <sup>a</sup> :	40 / KSF	4,268	7%	60:40	179	120	299	9%	50 : 50	192	192	384
Improvement Center	Thp Kate".	40 / KSF	4,208	/ 70	00:40		120	299	970	30 : 30	192	-	364
106.688 KSF	Cumulative:	90%	3,841			161	108	269			173	173	346
	Pass-By:	10%	427			18	12	30			19	19	38
	Driveway	100%	4,268			179	120	299			192	192	384
Home Depot - Garden Center	Trip Rate:	40 / KSF	810	5%	60 : 40	25	16	41	8%	50 : 50	33	32	65
20.244 KSF	Cumulative:	90%	729			23	14	37			30	29	59
201211 1101	Pass-By:	10%	81			2	2	4			4	3	7
	Driveway	100%	810			25	16	41			34	32	66
Scottish Rite Center	Trip Rate:	15 / KSF	600	4%	80 : 20	19	5	24	8%	50 : 50	24	24	48
40.0 KSF	Cumulative:	60%	360			11	3	14	-		15	14	29
	Pass-By:	40%	240			8	2	10			10	9	19
	Driveway	100%	600			19	5	24			25	23	48
	Cumulative		4,930			195	125	320			218	216	434
<b>Proposed Subtotal</b>	Pass-By		748			28	16	44			33	31	64
1	Driveway		5,678			223	141	364			251	247	498
			-,,,,,	Existing	Site (To Be Rem							,	.,, ,
Auto Dealership	Trip Rate	50 / KSF	357	5%	70 : 30	13	5	18	7%	50 : 50	13	12	25
7.142 KSF	Cumulative:	90%	321			11	5	16			12	11	23
	Pass-By:	10%	36			1	1	2			2	1	3
	Driveway:	100%	357			12	6	18			14	12	26
Scottish Rite Center	Trip Rate	15 / KSF	958	4%	80 : 20	30	8	38	8%	50 : 50	39	38	77
63.882 KSF	Cumulative:	60%	575			18	5	23			23	23	46
	Pass-By:	40%	383			12	3	15			16	15	31
	Driveway:	100%	958			30	8	38			39	38	77
	Cumulative		896			29	10	39			35	34	69
Existing Subtotal	Pass-By		419			13	4	17			18	16	34
C	Driveway		1,315			42	14	56			53	50	103
	Cumulative		4,034			166	115	281			183	182	365
<b>Overall Net Trips</b>	Pass-By		329			15	12	27			15	15	30
<b>F</b> <sup></sup>	Driveway		4,363			181	127	308			198	197	395

 TABLE 7–1

 TRIP GENERATION TABLE

Footnotes:

a. Per discussions with City staff, 40 trips per 1,000 SF was applied to the Home Improvement Center category per the SANDAG Brief Guide of Vehicular Trip Generation Rates in the San Diego Region, April 2002.

b. See Section 7.1 for additional information on the peak hour splits assumed for the proposed land uses.

LINSCOTT, LAW & GREENSPAN, engineers



LINSCOTT LAW & GREENSPAN

engineers

#### Figure 7-1

# **Project Traffic Distribution**



LINSCOTT LAW & GREENSPAN

engineers

#### Figure 7-2

# **Project Traffic Volumes**

Home Depot and Scottish Rite Center

# 8.0 ANALYSIS OF NEAR-TERM (OPENING YEAR 2023) SCENARIOS

For purposes of this analysis, and based on the planned Opening Year of Project, it was assumed the Project would be constructed and fully operational by the Year 2023. This timeframe represents the Near-Term "Opening Year" baseline conditions. By Opening Year, it would be expected that ambient growth would occur within the study area due to other development projects.

# 8.1 Cumulative Projects

"Cumulative" projects are other projects in the study area that are expected to be constructed and occupied between the date of existing data collection and the time of the Project's expected Opening Year in 2023, thus adding traffic to the local circulation system. LLG identified relevant, pending cumulative projects in the study area that could be constructed and generating traffic in the study area vicinity by the expected opening year of the Project in Year 2023. Based on this research, eleven cumulative projects were identified.

*Table 8–1* provides a summary of each of the cumulative projects.

Eight of the eleven (numbers 1 through 8 in *Table 8–1*) cumulative projects are expected to add trips to the study intersections and street segments on the west side of the Project site (Intersections 1 through 5 and along Mission Center Road and Camino Del Rio South). Traffic generated by these cumulative projects was added to the Year 2020 traffic volumes to develop the Near-Term (Opening Year 2023) condition on the west side of the study area.

The Aztec Stadium project, which will be a part of the forthcoming SDSU Mission Valley campus, is expected to be constructed and operational prior to the Project's Opening Year 2023. This project is not expected to generate trips above the trips that were generated by Qualcomm Stadium, which was in use when the existing counts were conducted (September 2015). Additionally, the majority of the trips generated by the Aztec Stadium project will occur outside the commuter peak hours and on weekends. Therefore, trips associated with this project are considered to be accounted for in the baseline traffic volumes. It is unlikely that any of the remaining portion of the SDSU Mission Valley campus will be completed by Year 2023. To be conservative, approximately 10% of the residential land use was assumed to be operational by Year 2023 and trips were added accordingly.

Four of the eleven (numbers 4, and 9 through 11 in *Table 8–1*) cumulative projects are expected to add trips to the study intersections and segments on the east side of the Project site (Intersections 6 through 10 and along Qualcomm Way/Texas Street and Camino Del Rio South). Traffic generated by these cumulative projects was added to the Year 2020 traffic volumes to develop the Near-Term (Opening Year 2023) condition on the east side of the study area.

Appendix D includes additional information regarding the cumulative projects' trip generation calculations and distribution.

Project traffic was then added to the Near-Term (Opening Year 2023) traffic volumes to arrive at the Near-Term (Opening Year 2023) With Project condition.

*Figure 8–1* shows the cumulative projects location map. *Figure 8–2* shows the cumulative projects traffic volumes. *Figure 8–3* shows the Near-Term (Opening Year 2023) without Project traffic volumes. *Figure 8–4* shows the Near-Term (Opening Year 2023) + Project traffic volumes.

Droigot Nome	The Constant	True of Development	ADT	AM Peak Hour		PM Pea	k Hour	Stat a
Project Name	Type of Development	Project Size	ADT	In	Out	In	Out	Status
1. Camino Del Rio Mixed Use (Millennium I) (PTS 341130) <sup>e</sup>	Multi-Family Residential Multi-Tenant Office Retail	305 dwelling units 5,000 SF 4,000 SF	1,432	32	99	107	52	Completed and operational in February 2018
2. Witt Mission Valley (Millennium 2) (PTS 562674) <sup>e</sup>	Multi-Family Residential Multi-Tenant Office Retail Restaurant (Car dealership) Repair Shop	277 dwelling units 3,600 SF 2,500 SF 3,500 SF (20,400 SF) (17,700 SF)	581	0	86	68	0	Under construction
3. Hazard Center Redevelopment (PTS 146803) <sup>g</sup>	Residential Commercial / Retail	473 Multi-Dwelling Units 4,205 SF Commercial	949	36	137	80	40	Approved
<ol> <li>Quarry Falls (Civita) – Phases 2, 3 and 4<sup>a</sup> (PTS 49068)<sup>e, f</sup></li> </ol>	Residential Retail Commercial Community Commercial Neighborhood Commercial Commercial Office Recreation Center	4,780 dwelling units 503,000 SF 50,000 SF 50,000 SF 620,000 SF 4,000 SF	42,536	1,317	1,144	2,075	2,107	Under Construction
5. Residence Inn (445 Camino Del Rio South) (PTS 322365) <sup>h</sup>	Motel	118 Rooms	1,062	34	51	38	58	Completed Construction
6. Town & Country Master Plan (PTS 424475) <sup>b, g</sup>	Multi-Family Residential (Hotel) (Convention Center)	840 Units (254 Rooms) (35,632 SF)	(2,066)	(239)	43	(52)	(176)	Under Construction
		(Continued on	Next Pag	ge)				·

 TABLE 8-1

 NEAR-TERM CUMULATIVE PROJECTS

->

Droject Nomo	Type of Davidonment	Ducient Size	ADT	AM Peak Hour		PM Peak Hour		Status	
Project Name	Type of Development	Project Size	ADT	In	Out	In	Out	Status	
(Continued from Previous Page)									
7. Union Tribune Master Plan (PTS 473343) <sup>c, g</sup>	Multi-Family Residential Service Retail Amenity Space Commercial Office	129 Units 3,000 SF 170,000 SF	1,128	17	66	68	32	Phase I complete and operational	
8. Alexan Fashion Valley (PTS 474586) <sup>g</sup>	Multi-Family Residential Commercial Office Retail (Office)	284 Units 8,150 SF 3,145 SF (69,651 SF)	851	(76)	94	81	(63)	Under Construction	
9. Discovery Place (PTS 357184) <sup>g</sup>	Hotel Fast Food Commercial / Retail	111 Rooms 1,500 SF 6,000 SF	1,971	54	63	76	94	Under Construction	
Discovery Place (PTS 369379) <sup>g</sup>	Interpretive Center – Undeveloped Park – Discovery Center	18 acres 8,000 SF	250	4	3	12	12	Completed Construction	
10. Camino Del Rio South Marijuana Outlet (PTS 622996) <sup>f</sup>	Marijuana Outlet	2,596 SF	649	15	12	28	28	Under Review	
11. SDCCU Stadium Site Development <sup>d, f</sup>	Residential	460 units	3,680	59	235	258	110	Master EIR Approved	

# TABLE 8-1 NEAR-TERM CUMULATIVE PROJECTS

Footnotes:

a. Based on coordination with the applicant, most of Phase 1 was occupied in year 2015. To be conservative, Phases 2, 3 and 4 of the project was assumed (Quarry Falls EIR provided in City of San Diego website; excerpt included in *Appendix D*).

b. Per the approved Town and Country Master Plan, the project proposes to construct 840 dwelling units by demolishing 254 rooms and 35,632 SF of convention space. Given the reduction in hotel rooms and conventions rooms, per the approved project EIR, there was no increase in daily traffic. Based on coordination with the Town & Country applicant in January 2020, the Town & Country project is anticipated to build its first two phases (i.e. 435 units) in Year 2020.

c. The Union Tribune office use was completed and occupied in October 2018. The timing of the residential use is unknown at this time.

d. The MVCPU included the Soccer City development in its forecast projections as it was conservative from a traffic generation perspective. By Year 2023, it is conservatively assumed that the new stadium will be operational and approximately 10% of the residential land use will be operational.

e. Project distribution assumed to be approximately 10% along the Mission Center Road corridor.

f. Project distribution assumed to be approximately 10% along the Qualcomm Way corridor.

g. Project distribution obtained from transportation impact analysis report and included in Appendix D.

h. Project traffic volumes are included in Appendix D.

### 8.2 Near-Term (Opening Year 2023) Without Project

#### 8.2.1 Intersection Analysis

*Table 8–2* summarizes the peak hour intersection operations for the Near-Term (Opening Year 2023) without Project condition. As seen in *Table 8–2*, all intersections are calculated to operate at LOS D or better during the AM and PM peak hours, with the exception of the following:

- 4. Mission Center Road / I-8 EB Ramps (LOS E during the PM peak hour)
- 9. Texas Street / Camino Del Rio South (LOS E during the AM and PM peak hours)
- 10. Texas Street / Madison Avenue (LOS F during the AM and LOS E during the PM peak hours)

Appendix D contains the Near-Term (Opening Year 2023) without Project intersection analysis calculation worksheets.

### 8.2.2 Segment Operations

*Table 8–3* summarizes the segment operations throughout the study area for the Near-Term (Opening Year 2023) without Project condition. As seen in *Table 8–3*, the study area street segments are calculated to operate at LOS D or better, with the exception of Camino Del Rio South, which is calculated to operate at LOS F west and east of the Project site.

### 8.3 Near-Term (Opening Year 2023) + Project

#### 8.3.1 Intersections Analysis

*Table 8–2* summarizes the intersection operations for the Near-Term (Opening Year 2023) + Project condition. As seen in *Table 8–2*, with the addition of Project traffic, all intersections are calculated to operate at LOS D or better during the AM and PM peak hours, with the exception of the following:

- 4. Mission Center Road / I-8 EB Ramps (LOS E during the PM peak hour)
- 9. Texas Street / Camino Del Rio South (LOS F during the AM and LOS E during the PM peak hours)
- 10. Texas Street / Madison Avenue (LOS F during the AM and LOS E during the PM peak hours)

While the facilities listed above are calculated to operate at LOS E or F, their operations are consistent with the LOS analysis results in the MVCPU PEIR, as further described in the following section. The Project proposes commercial uses and is consistent with the underlying land uses analyzed for the site in the MVCPU. Therefore, for the reasons discussed in *Section 9* below and as disclosed in the MVCPU PEIR, off-site improvements to these facilities are not feasible or required.

Appendix E contains the Near-Term (Opening Year 2023) + Project intersection analysis calculation worksheets.

LINSCOTT, LAW & GREENSPAN, *engineers* 

#### 8.3.2 *Segment Operations*

*Table 8–3* summarizes the segment operations throughout the study area for the Near-Term (Opening Year 2023) + Project condition. As seen in *Table 8–3*, with the addition of Project traffic, the study area street segments are calculated to operate at LOS D or better, with the exception of Camino Del Rio South, which is calculated to operate at LOS F west and east of the Project site.

The MVCPU PEIR disclosed that the Camino Del Rio South segments from Mission Center Road to Texas Street operate at LOS E in the existing condition. An improvement to Camino Del Rio South was included in the MVCPU PEIR analysis as a proposed CPU roadway network modification as follows: "Restripe Camino del Rio South from a 2-Lane Collector to a 2-Lane Collector with Two-Way Left-Turn Lane to accommodate bicycle lanes. Left-turn pockets may be provided at driveway locations as needed in lieu of a continuous two-way left-turn lane. On-street parking would be removed in some locations to facilitate implementation of the two-way left-turn lane or left-turn pockets, and Class II Bike Lanes."

With the above referenced roadway modification to Camino Del Rio South, as disclosed in the MVCPU PEIR, Camino Del Rio South will operate at LOS D or better with the development contemplated by the MVCPU. The Project will implement the above roadway modification to Camino Del Rio South along its frontage and provide transitions outside the extents of its frontage.

The Project proposes uses consistent with the underlying land uses analyzed in the MVCPU PEIR. Therefore, Project impacts to the applicable Camino Del Rio South segments are consistent with those disclosed in the MVCPU PEIR.

Intersection		Control	Year 2023 Peak Hour		Year 2 With Pi		Δe	Significant Impact <sup>f</sup>	
		Туре	nour	Delay <sup>a</sup>	LOS <sup>b</sup>	Delay	LOS		Impact
1.	Mission Center Road / Camino De La Reina	Signal	AM PM	42.1 53.6	D D	43.7 54.9	D D	1.6 1.3	No
2.	Mission Center Road / Camino Del Rio N	Signal	AM PM	52.3 54.0	D D	52.9 54.1	D D	0.6 0.1	No
3.	Camino Del Rio N / I-8 WB Ramps	Signal	AM PM	34.3 50.9	C D	34.9 51.6	C D	0.6 0.7	No
4.	Mission Center Road / I-8 EB Ramps	Signal	AM PM	48.0 <b>62.1</b>	D E	50.3 67.8	D E	2.3 <b>5.7</b>	Yes
5.	Mission Center Road / Camino Del Rio N	Signal	AM PM	48.6 45.7	D D	48.7 46.1	D D	0.1 0.4	No
6.	Qualcomm Way / Camino Del Rio N	Signal	AM PM	23.1 49.7	C D	23.3 50.0	C D	0.2 0.3	No
7.	Qualcomm Way / I-8 WB Ramps	Signal	AM PM	27.1 51.7	C D	27.5 53.5	C D	0.4 1.8	No
8.	Qualcomm Way / I-8 EB Ramps	Signal	AM PM	1.0 1.0	A A	1.1 1.1	A A	0.1 0.1	No
9.	Texas Street / Camino Del Rio S	Signal	AM PM	77.4 71.2	E E	86.1 75.7	F E	8.7 4.5	Yes
10.	Texas Street / Madison Avenue	Signal	AM PM	114.5 70.1	F E	119.7 73.5	F E	5.2 3.4	Yes
11.	Camino Del Rio S / Future Scottish Rite Center Driveway <sup>g</sup>	MSSC <sup>c, d</sup>	AM PM	-	-	12.5 18.2	B C	-	No
	•	1	(Contini	ied on Nexi	t Page)				

 TABLE 8-2

 NEAR-TERM (OPENING YEAR 2023) INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Year 2023 Without Project		Year 2023 With Project		Δ <sup>e</sup>	Significant
			Delay <sup>a</sup>	LOS <sup>b</sup>	Delay	LOS	1	Impact <sup>f</sup>
	(0	Continued	from Previ	ous Page	)			
12. Camino Del Rio S / Future Home Depot Driveway (West) <sup>g</sup>		AM	-	-	15.6	C	-	
	MSSC <sup>c,d</sup>	PM	-	-	29.7	D	-	No
13. Camino Del Rio S / Future	MSSC <sup>c, d</sup>	AM	-	-	13.6	В	-	
Home Depot Driveway (East) <sup>g</sup>		РМ	-	-	31.5	D	-	No
Footnotes:	1 1.1							
<ul><li>a. Average delay expressed in second.</li><li>b. Level of Service.</li></ul>		SIGNALI	ZED	UNSIGNALIZED				
c. MSSC = Minor Street Stop Contr	h	DELAY/LOS THI	RESHOLDS	DELAY/LOS THRESHOLDS				

Delay

 $0.0~\leq~10.0$ 

10.1 to 20.0

20.1 to 35.0

35.1 to 55.0

 $55.1 \ to \ 80.0$ 

 $\geq 80.1$ 

LOS

А

В

С

D

Е

F

LOS

А

В

С

D

Е

F

Delay

 $0.0~\leq~10.0$ 

10.1 to 15.0

15.1 to 25.0

25.1 to 35.0

35.1 to 50.0

 $\geq 50.1$ 

# TABLE 8-2 NEAR-TERM (OPENING YEAR 2023) INTERSECTION OPERATIONS

delay and LOS reported.d. Intersection does not exist under "without Project" conditions.

e.  $\Delta$  denotes an increase in delay due to project.

f. Operations are consistent with the LOS analysis results in the MVCPU. See *Section 9* below for additional discussion of the MVCPU PEIR analysis and findings regarding mitigation

 Dedicated westbound left-turn pockets into the site assumed at the Project driveways as a Project feature.

General Notes

Shaded areas indicate LOS E or F

Street Segment	Capacity (LOS E) <sup>a</sup>	Year 2023 Without Project			Year 20	23 With	Project	Δe	Significant Impact? <sup>f</sup>
	(LOSE)	ADT <sup>b</sup>	T <sup>b</sup> LOS <sup>c</sup> V/C <sup>d</sup>			LOS	V/C		impact:
Camino Del Rio South									
Mission Center Road to Project Site	8,000	8,020	F	1.003	9,510	F	1.189	0.186	Yes
Project Site to Texas Street	8,000	8,020	F	1.003	10,560	F	1.320	0.317	Yes
Mission Center Road									
I-8 EB Ramps to Camino Del Rio S	30,000	22,870	D	0.762	24,320	D	0.811	0.049	No
Texas Street									
I-8 EB Ramps to Camino Del Rio S	40,000	29,920	С	0.748	31,690	D	0.792	0.044	No
Camino Del Rio S to Madison Avenue	40,000	32,870	D	0.822	33,430	D	0.836	0.014	No

TABLE 8–3 NEAR-TERM (OPENING YEAR 2023) STREET SEGMENT OPERATIONS

Footnotes:

Capacities based on City of San Diego Roadway Classification Table a.

Average Daily Traffic Volumes. Level of Service. b.

c.

d. Volume to Capacity.

 $\Delta$  denotes an increase in volume to capacity due to project. e.

Operations are consistent with the LOS analysis results in the MVCPU. See Section 9 below for additional discussion of the MVCPU PEIR analysis and f. findings regarding improvements and impacts.

**General** Notes

Shaded areas indicate LOS F




Figure 8-1

## **Cumulative Project Location Map**



LINSCOTT Date: 12/10/2020 LAW & Time: 3:13 PM GREENSPAN

engineers

Figure 8-2

# **Cumulative Projects Traffic Volumes**

Home Depot and Scottish Rite Center



Date: 12/10/2020 Time: 3:15 PM LAW & GREENSPAN

engineers

Figure 8-3

# Near-Term (Year 2023) without Project Traffic Volumes

Home Depot and Scottish Rite Center



Date: 1/11/2021 Time: 9:18 AM LAW & GREENSPAN

engineers

Figure 8-4

# Near-Term (Year 2023) with Project Traffic Volumes

Home Depot and Scottish Rite Center

## 9.0 MISSION VALLEY COMMUNITY PLAN UPDATE MITIGATION MEASURE REVIEW

The Project site is located within the City of San Diego's Mission Valley Community Planning Area. The updated Mission Valley Community Plan (MVCPU) was adopted by the City Council on September 10, 2019.

The intersection and segment analysis provided in this study shows that the following analyzed facilities are calculated to operate at LOS E or F without and with the addition of Project traffic:

#### Intersections

- 4. Mission Center Road / I-8 EB Ramps
- 9. Texas Street / Camino Del Rio South
- 10. Texas Street / Madison Avenue

#### Street Segments

Camino Del Rio South: Mission Center Road to Project Site Project Site to Texas Street

The intersections listed above are reported to operate at LOS E or F in the MVCPU. The proposed Project is consistent with the underlying land uses analyzed for the site in the MVCPU PEIR. The following is a summary of the intersection impacts and mitigation measure language included in Section 5.5.2 of the *Mission Valley Community Plan Update Transportation Impact Study* prepared by Chen Ryan, May 2019, for the intersections listed above. *Appendix F* includes excerpts from the *Mission Valley Community Plan Update Transportation Impact Study*.

<u>4. Mission Center Road / I-8 EB Ramps</u>: Widening the southbound approach to construct an additional southbound through lane would mitigate the MVCPU's significant impact. However, this mitigation measure is not recommended. There is insufficient right-of-way available along the southbound approach to accommodate the additional travel lane. In addition, the widening would be inconsistent with City policies promoting active transportation and the City of Villages growth strategy, and would obstruct the City's efforts to achieve Climate Action Plan (CAP) active transportation mode share goals. Therefore, this impact would remain significant and unavoidable.

<u>9. Texas Street / Camino Del Rio South</u>: Widening the northbound approach to construct an additional northbound through lane would mitigate the MVCPU's significant impact. However, this mitigation measure is not recommended. There is insufficient right-of-way available along the northbound approach to accommodate the additional travel lane. A detailed project study report is needed to identify appropriate improvement to address impacts and accommodate auto, bicycle, pedestrian and transit along Qualcomm Way and Texas Street, between Camino De La Reina and Camino Del Rio South. Therefore, this impact would remain significant and unavoidable.

LINSCOTT, LAW & GREENSPAN, *engineers* 

<u>10. Texas Street / Madison Avenue</u>: Widening the northbound approach to construct an additional northbound through lane would mitigate the MVCPU's significant impact. However, this mitigation measure is not recommended. There is insufficient right-of-way available along the northbound approach to accommodate the additional travel lane. In addition, the widening would be inconsistent with City policies promoting active transportation and the City of Villages growth strategy, and would obstruct the City's efforts to achieve CAP active transportation mode share goals. Therefore, this impact would remain significant and unavoidable.

The measures described above would be required to mitigate Project intersection impacts. As discussed above, the intersections calculated to operate at LOS E or F in this Project study were found to have significant, unavoidable impacts in the MVCPU PEIR as the City Council found the measures described above to be infeasible. The Project intersection analysis results are consistent with the LOS analysis results in the MVCPU PEIR and the Project is consistent with the underlying land uses analyzed for the site in the MVCPU PEIR. Therefore, the impacts would remain significant and unmitigated, consistent with the MVCPU PEIR.

With respect to the segments of Camino del Rio South discussed above, the MVCPU PEIR disclosed that the Camino Del Rio South segments from Mission Center Road to Texas Street operate at LOS E in the existing condition. An improvement to Camino Del Rio South was included in the MVCPU PEIR analysis as a proposed CPU roadway network modification as follows: "Restripe Camino del Rio South from a 2-Lane Collector to a 2-Lane Collector with Two-Way Left-Turn Lane to accommodate bicycle lanes. Left-turn pockets may be provided at driveway locations as needed in lieu of a continuous two-way left-turn lane. On-street parking would be removed in some locations to facilitate implementation of the two-way left-turn lane or left-turn pockets, and Class II Bike Lanes."

With the above referenced roadway modification to Camino Del Rio South, as disclosed in the MVCPU PEIR, Camino Del Rio South will operate at LOS D or better with the development contemplated by the MVCPU. The Project will implement the above roadway modification to Camino Del Rio South along its frontage and provide transitions outside the extents of its frontage.

The Project proposes uses consistent with the underlying land uses analyzed in the MVCPU PEIR. Therefore, Project impacts to the applicable Camino Del Rio South segments are consistent with those disclosed in the MVCPU.

## 10.0 SITE ACCESS AND CIRCULATION REVIEW

### 10.1 Site Access

Access to the new Scottish Rite Center, to be located on the west side of the site, will be provided via one full-access driveway along Camino Del Rio South. Access to the proposed Home Depot, to be located on the east side of the site, will be provided via two full-access driveways along Camino Del Rio South. The easternmost driveway will continue to provide inbound and outbound access to the existing UFCW building located just east of the Project site. Therefore, traffic from UFCW was included in the analysis of the easternmost Project driveway. As shown in *Table 8-2*, the Project driveways are all calculated to operate acceptably at LOS D or better during the AM and PM peak hours. All driveways will be constructed per City standards.

The Project will provide the following features to improve access to the site:

- A two-way left-turn lane along the Project frontage on Camino Del Rio South.
- A westbound left-turn lane along Camino Del Rio South approaching the eastern Home Depot Driveway.
- A 6 ft wide Class II bike lane along the Project frontage on Camino Del Rio South.
- The parkway will be widened from 10 ft to 14 ft to create a landscape buffer between the street and the sidewalk.
- The public sidewalk will be widened from 5 ft to 8 ft and be provided non-contiguously.
- Pedestrian entrances and walkways will be provided via the public right-of-way to each building.
- To accentuate the pedestrian entrance, Home Depot has created a "pedestrian gateway" as shown in *Appendix H*.
- Short- and long-term bicycle parking facilities will be provided on site for the Home Depot and Scottish Rite buildings, per the Land Development Code and Climate Action Plan Consistency Checklist requirements.

## 10.2 Parking

The Scottish Rite Center is a fraternal organization. Per Municipal Code Table 142-05G, fraternal organizations are parked at a ratio of 2.5/1,000 sf. In the Transit Priority Area (TPA), 85% of the minimum is required. The site is in a TPA and therefore, the parking requirement is  $0.85 \times 2.5 = 2.1$  spaces per 1,000 sf. The new Scottish Rite Center is proposed at 40,000 sf x 2.1 = 84 spaces. Thus, a minimum of 84 spaces are required. The Scottish Rite Center proposes to provide a total of 123 surface parking spaces and will therefore be in compliance with the minimum parking requirement.

Per Municipal Code Table 142-05G, the parking for Home Depot in a TPA would be 4.3 spaces per 1,000 sf of enclosed building area not including the garden center. Thus, the parking requirement for Home Depot is 106,688 sf x 4.3/1,000 sf = 459 spaces required. The Home Depot proposes to provide a total of 459 parking spaces, including 72 surface spaces and 387 parking garage spaces, and will therefore be in compliance with the minimum parking requirement.

#### 10.3 Queuing Review

Access to the site will be via three driveways on Camino Del Rio South as described above. A twoway left-turn lane along the Project frontage on Camino Del Rio South and a westbound left-turn pocket along Camino Del Rio South approaching the eastern Home Depot Driveway will be provided as Project features. In order to ensure the vehicle queue turning left into the Project site won't exceed the left-turn pocket storage lengths, resulting in potential congestion and backups along Camino Del Rio South, an assessment of the potential queues on Camino Del Rio South at the Project driveways was conducted using simulation provided by the SimTraffic analysis software.

Based on the simulation, under Near-Term + Project conditions, the 95<sup>th</sup> percentile westbound leftturn queue at all three driveways is calculated to be 56' or less (approximately two cars, assuming an average car length of 25') during the AM and PM peak hours, as shown in *Table 10-1*. The 95thpercentile queue is defined to be the queue length that has only a 5-percent probability of being exceeded during the analysis time period. Therefore, the expected available storage for the westbound left turn movement at all three driveways is expected to contain the westbound left-turn queue.

Appendix E contains the Near-Term (Opening Year 2023) + Project queue calculation worksheets.

Intersection	Movement	Peak Hour	Available Storage (feet)	Year 2023 with Project Queue (feet)
Camino Del Rio South / Scottish Rite Center Dwy	WBL	AM PM	100'	7' 14'
Camino Del Rio South / Home Depot West Dwy	WBL	AM PM	100'	21' 30'
Camino Del Rio South / Home Depot East Dwy	WBL	AM PM	100'	44' 56'

TABLE 10-1
QUEUE SUMMARY

General Notes:

1. 95th percentile queues reported.

2. SimTraffic software was used to conduct simulation for 6 runs of 1-hour recording.

# 11.0 ACTIVE TRANSPORTATION REVIEW

### 11.1 Pedestrian Conditions

Pedestrian facilities are provided within the Project study area. Contiguous sidewalks are provided on the south side of Camino Del Rio South. Texas Street has contiguous sidewalks on the west side of the roadway only. On Mission Center Road, non-contiguous sidewalks are partially provided only on the west side of the roadway, with contiguous sidewalks provided on the I-8 overpass.

The Project will provide the following features to improve pedestrian access to the site:

- The parkway will be widened from 10 ft to 14 ft to create a landscape buffer between the street and the sidewalk.
- The public sidewalk will be widened from 5 ft to 8 ft and provided non-contiguously.
- Pedestrian entrances and walkways will be provided via the public right-of-way to each building.
- To accentuate the pedestrian entrance, Home Depot has created a "pedestrian gateway" shown in *Appendix H*.

### 11.2 Transit Conditions

Bus service is provided by the Metropolitan Transit System (MTS). The closest bus route serving the site is Route 6, with a stop located approximately a third of a mile from the site at the intersection of Camino Del Rio South and Texas Street. Route 6 runs from Fashion Valley to North Park with destinations to Fashion Valley Mall, Mission Valley Center, North Park Community Park, and Park in the Valley. Route 6 runs seven days a week with service generally 5:24 AM to 11:25 PM weekdays, 6:25 AM to 10:25 PM Saturdays, and 7:34 AM to 8:30 PM Sundays. Service is every 15 minutes during peak periods and is at 30-minute intervals during off peak periods and weekends.

In addition, the Fashion Valley Transit Center is located approximately two miles walking distance west of the Project site. The Fashion Valley Transit Center serves as a convergence point for the Green Line Trolley and seven bus routes, including Route 6, 20, 25, 41, 88, 120, and 928. Access to the Fashion Valley Transit Center is provided via the local roadway network, dedicated transit center parking, the San Diego River Trail, and a pedestrian bridge crossing the San Diego River.

Appendix I provides the transit schedules for Route 6 and the Green Line Trolley

In order to encourage transit use and alternative transportation modes, the Project will provide transit, carpool, and van subsidies and will commit to maintaining an employer network in the SANDAG iCommute program.

### 11.3 Bicycle Conditions

A detailed bicycle network inventory was conducted for the surrounding study area. *Table 11–1* summarizes the existing and future bicycle classifications on the study street segments.

The Project will provide the following features to improve bicycle access to the site:

- A 6 ft wide Class II bike lane along the Project frontage on Camino Del Rio South.
- Short- and long-term bicycle parking facilities will be provided on site for the Home Depot and Scottish Rite buildings, per the Land Development Code and Climate Action Plan Consistency Checklist requirements.

Dictole LAGitities					
Street Segment	Existing Classification	Future Classification per MVCPU <sup>a</sup>			
Camino Del Rio South					
Mission Center Road to Project Site	Class II Bike Lane	Class II Bike Lane			
Project Site to Qualcomm Way	Class II Bike Lane	Class II Bike Lane			
Mission Center Road					
I-8 EB Ramps to Camino Del Rio S	No Existing Facilities	No Proposed Facilities			
Texas Street					
I-8 EB Ramps to Camino Del Rio S	No Existing Facilities	Class II Bike Lane			
Camino Del Rio S to Madison Avenue	Class II Bike Lane	Class II Bike Lane			

#### TABLE 11–1 BICYCLE FACILITIES

Source: Mission Valley Community Plan Update, 2019

## 12.0 CONCLUSIONS

Linscott, Law & Greenspan, Engineers (LLG) has prepared the preceding Transportation Impact Analysis (TIA) to determine and evaluate the potential impacts to the local roadway system due to the proposed Home Depot and Scottish Rite Center project, consistent with the City of San Diego's *Traffic Impact Study Manual*, July 1998.

The Project is consistent with the MVCPU PEIR. The MVCPU PEIR was approved on September 10, 2019 and analyzed an update to the Community Plan that guides development of the entire Mission Valley Community Planning Area.

The Project is implementing the Regional Commercial Land Use designation for this property as identified in the approved MVCPU PEIR. Therefore, analysis of this Project tiers off the traffic analysis in the PEIR.

The intersections calculated to operate at LOS E or F in this study were also found to have significant, unavoidable impacts in the MVCPU PEIR. The intersection improvements required to mitigate those impacts were rejected by the City Council as infeasible when approving the MVCPU. Thus, the Project intersection analysis results are consistent with the analysis results in the MVCPU PEIR.

With respect to the segments of Camino del Rio South analyzed in this study, the MVCPU PEIR disclosed that these segments operate at LOS E under Existing conditions. As a commercial development consistent with the zoning for the Project site (see *Section 2* of this report), the amount of traffic the Project will contribute to those segments is consistent with the MVCPU PEIR segment analysis. In adopting the MVCPU PEIR, the City determined that roadway network modifications to Camino Del Rio South between Mission Center Road and Texas Street would be made and would mitigate potentially significant impacts at community buildout to a less than significant level. The proposed roadway network modification analyzed in the MVCPU PEIR would provide a two-lane Collector cross section with a two-way left-turn lane and bike lanes. The Project is implementing those roadway network modifications along the Project frontage consistent with the MVCPU PEIR. Specifically, the Project features include the following roadway modifications to the segment:

- A two-way left-turn lane along the Project frontage on Camino Del Rio South.
- A westbound left-turn pocket along Camino Del Rio South approaching the eastern Home Depot Driveway.
- A 6 ft wide Class II bike lane along the Project frontage on Camino Del Rio South.

In addition to the improvements listed above, the Project will provide the following features to improve overall access to the site:

- The parkway will be widened from 10 ft to 14 ft to create a landscape buffer between the street and the sidewalk.
- The public sidewalk will be widened from 5 ft to 8 ft and provided non contiguously.

- Pedestrian entrances and walkways will be provided via the public right-of-way to each building.
- To accentuate the pedestrian entrance, Home Depot has created a "pedestrian gateway" as shown in *Appendix H*.
- Short- and long-term bicycle parking facilities will be provided on site for the Home Depot and Scottish Rite buildings, per the Land Development Code and Climate Action Plan Consistency Checklist requirements.