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FOCUSED TRAFFIC IMPACT STUDY

915 9TH STREET

County of San Diego, California
April 16, 2026

LLG Ref. 3-25-4094

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1.0 INTRODUCTION

Linscott, Law & Greenspan, Engineers (LLG) has prepared this Focused Traffic Impact Study (TIS) to assess the operations of the various mobility systems as a result of the proposed 915 9th Street project (hereafter referred to as “Project”). The Project proposes to construct 88 single-family residential units located near the southeast corner of the San Vicente Road / 11th Street intersection within the Ramona Community Planning Area of the County of San Diego.

The transportation analysis presented in this report includes the following:

- Project Description
- Study Area, Analysis Approach & Methodology
- Roadway Improvement Thresholds
- Existing Conditions Discussion
- Analysis of Existing Conditions
- Project Trip Generation / Distribution / Assignment
- Cumulative Traffic Discussion
- Analysis of Near-Term Scenarios
- Access Assessment
- Active Transportation Discussion
- Recommendations and Improvements
- Conclusions

2.0 PROJECT DESCRIPTION

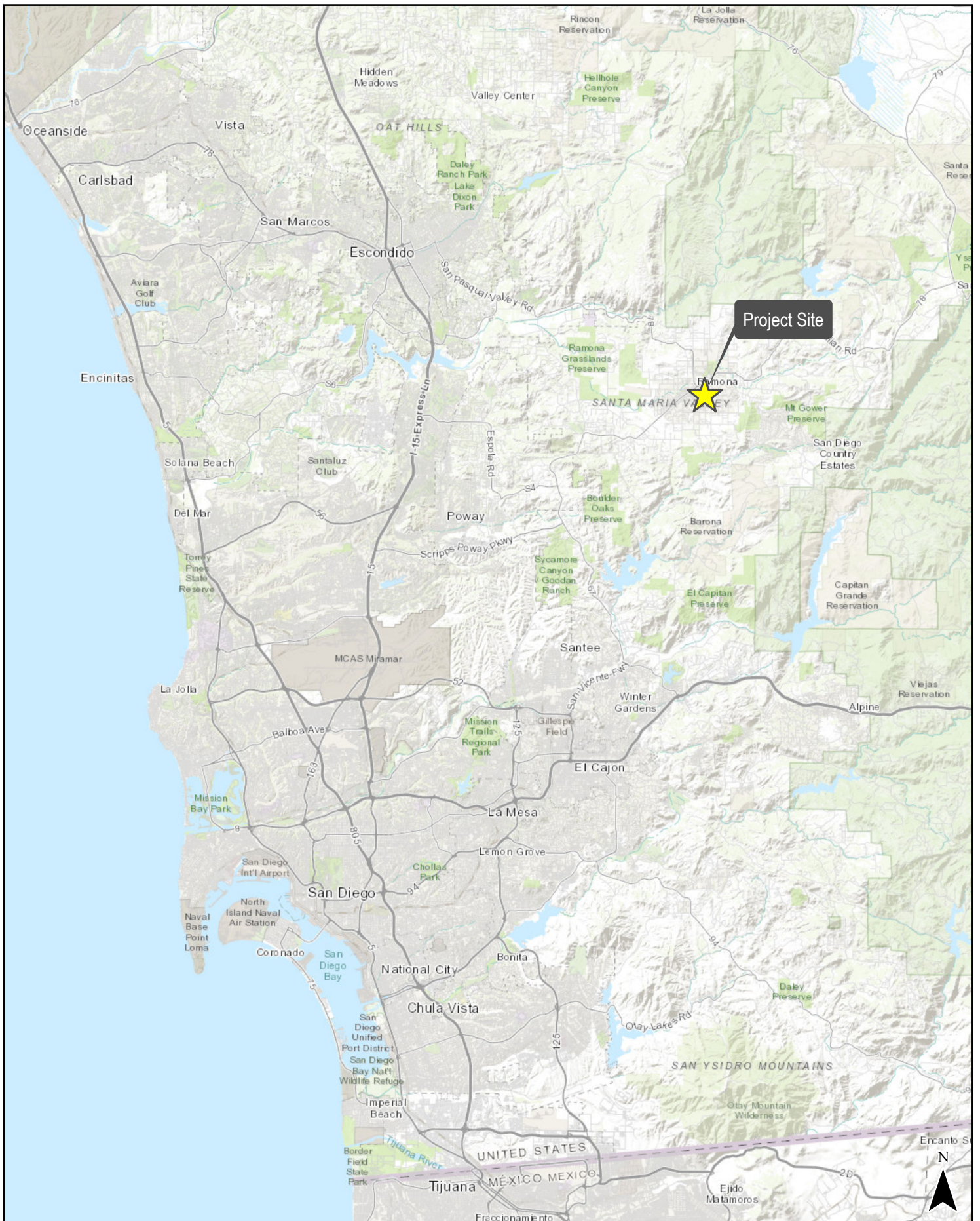
The Project proposes to construct 88 single-family residential units located near the southeast corner of the San Vicente Road / 11th Street intersection within the Ramona Community Planning Area of the County of San Diego. The subject parcel is largely undeveloped, except for an existing single-family residence and an aging barn located in the northeastern portion of the property.

The Project is consistent with the County General Plan and zoning regulations and proposes to develop approximately 19.65 acres across four parcels (APNs 284-202-21, 284-203-08, 284-205-01, and 284-244-01), which together would form two neighborhoods, as shown below:

- Neighborhood A is zoned VR-7.3 (7.3 du/ac allowed) and is planned for 16 single-family homes west of 10th Street.
- Neighborhood B is zoned VR-2 (2 du/ac allowed) and is planned for 72 single-family homes east of 10th Street.

Site access is proposed via two (2) full access driveways on 9th Street, which would also serve the residential units located on the parcel west of 10th Street. Access to 10th Street will be limited to emergency vehicles only and gated.

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



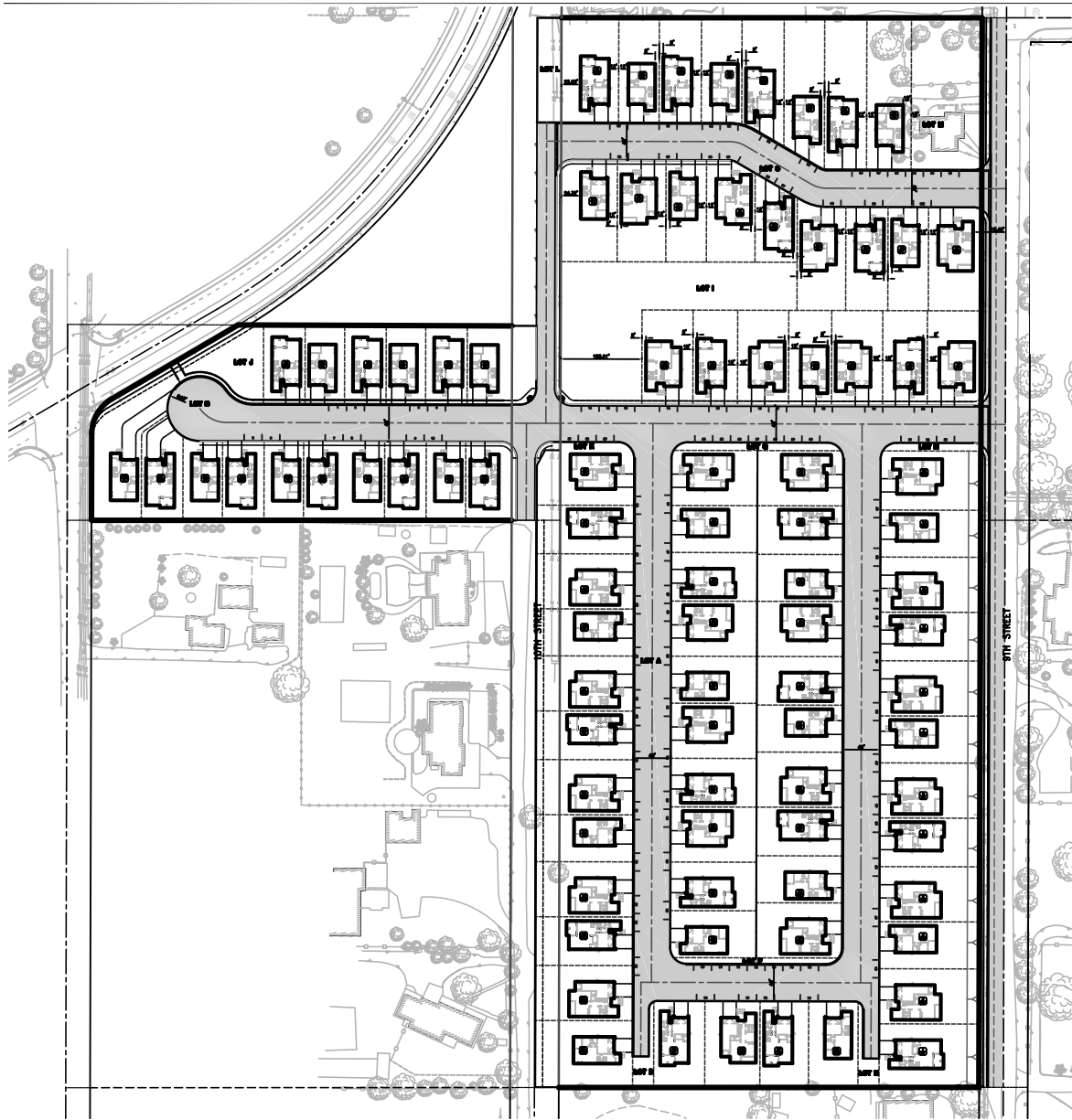
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SanGIS, Bureau of Land Management, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

Figure 2-1
Vicinity Map

915 9TH STREET





3.0 STUDY AREA, ANALYSIS APPROACH & METHODOLOGY

3.1 Study Area

Effective evaluation of the traffic impacts associated with the proposed Project requires an understanding of the existing transportation system within the Project area. Per the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements Transportation and Traffic* (dated August 24, 2011), the scope of the assessment of traffic impacts should include County of San Diego intersections expected to receive 25 or more peak hour trips from the Project. Therefore, the study area includes the following intersections and street segments. **Figure 3–1** shows an existing conditions diagram, including traffic control type and lane configurations.

INTERSECTIONS

1. Main Street (SR-67) / Ramona Street
2. Main Street (SR-67) / 10th Street
3. Main Street (SR-78) / 9th Street
4. D Street / 10th Street
5. D Street / 9th Street
6. E Street / 10th Street
7. E Street / 9th Street
8. G Street / 9th Street
9. H Street / 9th Street
10. San Vicente Road / 11th Street
11. San Vicente Road / Hanson Lane

STREET SEGMENTS

1. Main Street (SR-67) between 14th Street and 10th Street
2. Main Street (SR-78) between 14th Street and 9th Street
3. D Street between 10th Street and 9th Street
4. E Street between 10th Street and 9th Street
5. 9th Street between Main Street and G Street
6. 9th Street between G Street and Project Driveway

3.2 Analysis Scenarios

California Environmental Quality Act (CEQA) wise, the Project is consistent with the County General Plan / Community Plan. Therefore, a Vehicle Miles Traveled (VMT) analysis is not necessary. This report focuses on automobile delay and Level of Service (LOS). The LOS analysis was conducted to identify Project effects on the roadway operations within the study area and to recommend Project improvements to address any deficiencies. This Focused TIS analyzes the facilities listed above under the following scenarios consistent with the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements Transportation and Traffic* (dated August

24, 2011). The Project's anticipated completion date is in late 2027. To be slightly conservative an Opening Year 2028 was selected.

- **Existing Conditions** – Establishes the existing baseline of traffic conditions within the study area.
- **Existing + Project Conditions** – The Project's generated traffic is added to the Existing Conditions to evaluate the operations with the addition of Project traffic.
- **Existing + Project + Cumulative Conditions** – The Project's generated traffic is added to the Opening Year Conditions to evaluate the Year 2028 operations with the addition of Project traffic.

3.3 Methodology

Level of service 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.

3.3.1 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 (HCM) 6th Edition*, with the assistance of the *Synchro (version 12)* computer software. The delay values (represented in seconds) were qualified with a corresponding intersection LOS.

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 6th Edition*, with the assistance of the *Synchro (version 12)* computer software.

3.3.2 Street Segments

Street segment analysis is based upon the comparison of Average Daily Traffic volumes (ADTs) to the *County of San Diego Roadway Classification, LOS, and ADT Table*. This table provides segment capacities for different street classifications, based on traffic volumes and roadway characteristics. The County of San Diego Roadway Classification, LOS, and ADT Table is attached in **Appendix A**.

4.0 ROADWAY IMPROVEMENT THRESHOLDS

The following criterion was utilized to evaluate potential significant impacts, based on the *County of San Diego Guidelines for Determining Significance—Transportation and Traffic*, dated August 24, 2011. The *County of San Diego's General Plan Mobility Element* discusses the County's Level of Service criteria under Goal M-2. It requires that development projects provide associated road improvements necessary to achieve a level of service of "D" or higher on all Mobility Element roads except for those where a failing level of service has been accepted by the County. The County maintains a list of such roads.

4.1 Intersections

This section provides guidance for evaluating adverse environmental effects a project may have on signalized and unsignalized intersections. **Table 4-1** was obtained from County guidelines and summarizes the allowable increases in delay or traffic volumes at signalized and unsignalized intersections. Exceeding the thresholds in **Table 4-1** would result in a significant impact.

TABLE 4-1
SIGNIFICANT IMPACT THRESHOLDS ON INTERSECTIONS

Level of Service	Signalized	Unsignalized
LOS E	Delay of 2 seconds or less	20 or less peak hour trips on a critical movement
LOS F	Either a delay of 1 second, or 5 peak hour trips or less on a critical movement	5 or less peak hour trips on a critical movement

General Notes:

1. A critical movement is an intersection movement (right turn, left turn, through-movement) that experiences excessive queues, which typically operate at LOS F. Also, if a project adds significant volume to a minor roadway approach, a gap study should be provided that details the headways between vehicles on the major roadway.
2. By adding proposed project trips to all other trips from a list of projects, these same tables are used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project is responsible for mitigating its share of the cumulative impact.
3. The County may also determine impacts have occurred on roads even when a project's direct or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.
4. For determining significance at signalized intersections with LOS F conditions, the analysis must evaluate both the delay and the number of trips on a critical movement, exceedance of either criteria result in a significant impact.

Signalized Intersections – Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service traffic impact on a signalized intersection:

- The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a signalized intersection currently operating at LOS E or LOS F, or will cause a signalized intersection to operate at a LOS E or LOS F as identified in *Table 4-1*.
- Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance or other factors, the project would significantly impact the operations of the intersection.

Unsignalized Intersections – The operating parameters and conditions for unsignalized intersections differ dramatically from those of signalized intersections. Very small volume increases on one leg or turn and/or through movement of an unsignalized intersection can substantially affect the calculated delay for the entire intersection. Significance criteria for unsignalized intersections are based upon a minimum number of trips added to a critical movement at an unsignalized intersection.

Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic impact on an unsignalized intersection as listed in *Table 4-1* and described as text below:

- The additional or redistributed ADT generated by the proposed project will add 21 or more peak hour trips to a critical movement of an unsignalized intersection, and cause an unsignalized intersection to operate below LOS D, or
- The additional or redistributed ADT generated by the proposed project will add 21 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS E, or
- The additional or redistributed ADT generated by the proposed project will add 6 or more peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate at LOS F, or
- The additional or redistributed ADT generated by the proposed project will add 6 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS F.

4.2 Street Segments

This section provides guidance for evaluating adverse environmental effects a project may have on street segments. The allowable ADT increases on LOS E/F operation roadways was obtained from County guidelines and are summarized in *Table 4-2*. The thresholds in *Table 4-2* are based upon average operating conditions on County roadways. Exceeding the thresholds in *Table 4-2* would result in a significant impact. It should be noted that these thresholds only establish general guidelines, and that the specific project location must be taken into account in conducting an analysis of traffic impact from new development.

**TABLE 4-2
SIGNIFICANT IMPACT THRESHOLDS ON STREET SEGMENTS**

Level of Service	Two-Lane Road	Four-Lane Road	Six-Lane Road
LOS E	200 ADT	400 ADT	600 ADT
LOS F	100 ADT	200 ADT	300 ADT

General Notes:

1. By adding proposed project trips to all other trips from a list of projects, this same table must be used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes additional trips must mitigate a share of the cumulative impacts.
2. The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.

5.0 EXISTING CONDITIONS

5.1 Existing Roadway Network

The following is a description of the existing off-site roadway network in the study area. *Figure 5–1* shows an existing conditions diagram.

Main Street is classified as a 4.1B Major Road with intermittent turn lanes west of 10th Street and as a 4.2B Boulevard with intermittent turn lanes east of 10th Street in the *County of San Diego General Plan Mobility Element*. It is currently built as a four-lane undivided roadway with two-way left-turn lane. Main Street is under Caltrans jurisdiction, with a State Route transition between SR-67 and SR-78 at 10th Street. Within the Project study area, sidewalks are provided on both sides of the roadway. There are no bicycle facilities along Main Street. Per the *County of San Diego Bicycle Transportation Plan*, Class III bike routes are proposed between Pala Street and Magnolia Avenue. Parking is permitted intermittently on both sides of the roadway. The posted speed limit is 30 mph.

D Street is an unclassified roadway in the *County of San Diego General Plan Mobility Element*. It is currently built as a two-lane undivided roadway. Within the Project study area, approximately 100 feet of sidewalk is provided on the south side of the roadway between 10th Street and 9th Street. There are no bicycle facilities along D Street, nor are any planned in the *County of San Diego Bicycle Transportation Plan*. Parking is permitted intermittently on both sides of the roadway. There is no posted speed limit within this roadway. However, given its roadway characteristics, it has a prima facie speed limit of approximately 25 mph.

E Street is an unclassified roadway in the *County of San Diego General Plan Mobility Element*. It is currently built as a two-lane undivided roadway. Within the Project study area, sidewalks are not provided on both sides of the roadway between 10th Street and 9th Street. There are no bicycle facilities along E Street, nor are any planned in the *County of San Diego Bicycle Transportation Plan*. Parking is permitted on both sides of the roadway. There is no posted speed limit within this roadway. However, given its roadway characteristics, it has a prima facie speed limit of approximately 25 mph.

9th Street is an unclassified roadway in the *County of San Diego General Plan Mobility Element*. It is currently built as a two-lane undivided roadway. Within the Project study area, sidewalks are provided on both sides of the roadway between Main Street and H Street. There are no bicycle facilities along 9th Street, nor are any planned in the *County of San Diego Bicycle Transportation Plan*. Parking is permitted intermittently on both sides of the roadway. The posted speed limit is 25 mph.

10th Street is classified as a 2.1B Community Collector with continuous turn lane between Main Street and H Street in the *County of San Diego General Plan Mobility Element*. It is currently built as a two-lane undivided roadway with two-way left-turn lane. There is a separate portion of 10th Street between Barger Place and its northern terminus, approximately 1,700 feet to the north, that is not classified in the Mobility Element. This unclassified portion is currently a dirt County road maintained by local residents. The 10th Street name transitions to San Vicente Road south of H Street. Within the Project study area, sidewalks are provided on both sides of the roadway between Main Street and H

Street. Per the *County of San Diego Bicycle Transportation Plan*, Class II bike lanes are provided on both sides of the roadway. Parking is not permitted. The posted speed limit is 50 mph.

San Vicente Road is classified as a 2.1B Community Collector with continuous turn lane between H Street and Warnock Drive in the *County of San Diego General Plan Mobility Element*. It is currently built as a two-lane undivided roadway with two-way left-turn lane. The San Vicente Road name transitions to 10th Street north of H Street. Within the Project study area, sidewalks are provided on the west side of the roadway between H Street and Hanson Lane and intermittently on the east side. Per the *County of San Diego Bicycle Transportation Plan*, Class II bike lanes are provided on both sides of the roadway. Parking is not permitted. The posted speed limit is 50 mph.

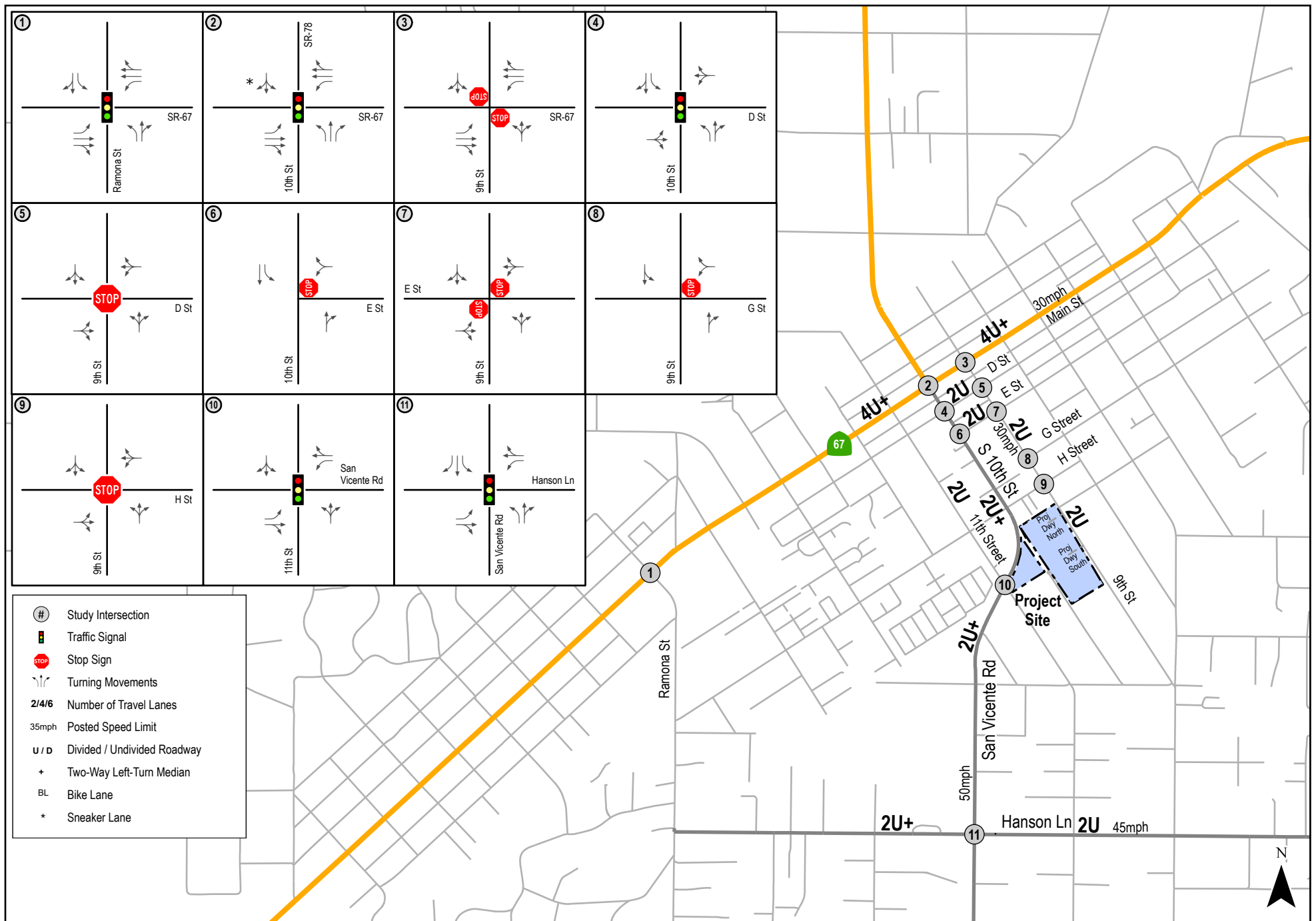
Hanson Lane is classified as a 2.2C Light Collector with intermittent turn lanes between Ramona Street and San Vicente Road, and as a 2.3B Minor Collector with intermittent turns lanes between San Vicente Road to Keyes Road in the *County of San Diego General Plan Mobility Element*. It is currently built as a two-lane undivided roadway with two-way left-turn lane west of San Vicente Road and a two-lane undivided roadway east of San Vicente Road. Within the Project study area, sidewalks are provided on the north side of the roadway west of San Vicente Road. Per the *County of San Diego Bicycle Transportation Plan*, Class II bike lanes are provided on both sides of the roadway. Parking is permitted intermittently on the north side west of San Vicente Road. The posted speed limit is 45 mph.

5.2 Existing Traffic Volumes

Peak hour intersection turning movement and street segment average daily traffic (ADT) volume counts were conducted at the study area intersections and street segments on Tuesday, June 24, 2025, Tuesday, December 2, 2025, and Tuesday, April 7, 2026. The December 2, 2025 and April 7, 2026 counts were conducted while schools in the area were in session. However, the June 24, 2025 counts were conducted during summer break; therefore, a 6% growth factor was applied to these locations.

For Main Street, both west of 10th Street (SR-67) and east of 10th Street (SR-78), ADTs were obtained from the *SANDAG Transportation Forecast Information Center (TFIC)* website. When compared with the peak hour traffic volumes counted at the Main Street / 10th Street intersection, it was deemed reasonable to use these ADTs because the peak hour volumes on Main Street, both west and east of 10th Street, represent approximately 17 to 21 percent of the ADT, consistent with the typical ratio of peak hour to daily traffic.

Figure 5–2 shows the Existing traffic volumes. **Appendix B** contains the manual count sheets and the SANDAG TFIC ADT volumes.



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Figure 5-1
Existing Conditions Diagram



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Figure 5-2
Existing Traffic Volumes

915 9th Street

6.0 ANALYSIS OF EXISTING CONDITIONS

6.1 Peak Hour Intersection Analysis

Table 6-1 summarizes the Existing peak hour intersection operations. As shown in *Table 6-1*, all of the study area intersections are calculated to currently operate at LOS D or better.

It should be noted that, in analyzing these intersections, consideration was given to intersections where sufficient lane width at a shared movement allows the movement to be treated as a dedicated approach. For example, a “sneaker lane” configuration is typically reasonable to assume when the lane width is at least 20 feet, as this exceeds twice the width of an average passenger vehicle and allows vehicles to queue side by side during the red phase with adequate separation.

For this study area, the southbound shared through / right-turn movement at the Main Street (SR-67) / 10th Street is approximately 20 feet wide. In addition, this approach includes side-by-side loop detectors and prohibits on-street parking in the immediate vicinity of the intersection. Therefore, it is reasonable to analyze this movement as having sufficient capacity to operate as separate southbound through and right-turn movements.

Appendix C contains the Existing intersection analysis worksheets.

**TABLE 6-1
EXISTING INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Existing	
			Delay ^a	LOS ^b
1. Main St (SR-67) / Ramona St	Signal	AM PM	43.0 40.1	D D
2. Main St (SR-67) / 10th St	Signal	AM PM	26.0 37.0	C D
3. Main St (SR-67) / 9th St	TWSC ^c	AM PM	19.9 24.8	C C
4. D St / 10th St	Signal	AM PM	13.4 12.4	B B
5. D St / 9th St	AWSC ^d	AM PM	9.8 8.7	A A
6. E St / 10th St	TWSC ^c	AM PM	12.8 10.9	B B
7. E St / 9th St	TWSC ^c	AM PM	10.4 9.3	B A
8. G St / 9th St	TWSC ^c	AM PM	9.2 9.3	A A
9. H St / 9th St	AWSC ^d	AM PM	7.6 7.5	A A
10. San Vicente Rd / 11th St	Signal	AM PM	16.5 25.3	B C
11. San Vicente Rd / Hanson Ln	Signal	AM PM	19.2 27.5	B C

Footnotes:

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c. TWSC – Two-Way Stop Controlled intersection. Worst-case minor street movement delay is reported.
- d. AWSC – All-Way Stop Controlled intersection.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

6.2 Daily Street Segment Operations

Table 6–2 summarizes the Existing street segment operations. As shown in *Table 6–2*, all of the study area street segments are calculated to currently operate at LOS C or better.

TABLE 6–2
EXISTING STREET SEGMENT OPERATIONS

Street Segment	Functional Classification	Capacity (LOS E) ^a	ADT ^b	LOS ^c	V/C ^d
Main St					
14th St to 10th St (SR-67)	4-Lane Major Road <i>with Intermittent Turn Lanes (4.1B)</i>	34,200	19,600	B	0.573
10th St to 9th St (SR-78)	4-Lane Boulevard <i>with Intermittent Turn Lanes (4.2B)</i>	28,000	13,200	A	0.471
D St					
10th St to 9th St	2-Lane Rural Residential Collector <i>Non-Mobility Element Road</i>	4,500	3,760	LOS C or better	0.836
E St					
10th St to 9th St	2-Lane Rural Residential Collector <i>Non-Mobility Element Road</i>	4,500	220	LOS C or better	0.049
9th St					
Main St to G St	2-Lane Rural Residential Collector <i>Non-Mobility Element Road</i>	4,500	1,360	LOS C or better	0.302
G St to Project Drwy	2-Lane Rural Residential Collector <i>Non-Mobility Element Road</i>	4,500	1,370	LOS C or better	0.304

Footnotes:

- a. Capacities based on County of San Diego Roadway Classification Table (see *Appendix A*).
- b. Average Daily Traffic Volumes.
- c. Level of Service.
- d. Volume to Capacity.

7.0 PROJECT TRIP GENERATION/ DISTRIBUTION/ ASSIGNMENT

The following is a discussion of the Project trip generation calculations and the Project traffic distribution and assignment onto the local street network.

7.1 Trip Generation

As described in *Section 2.0*, the Project proposes to construct 88 single-family residential units. Trip rates for single-family detached housing land use (land use code 210) were taken from the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition*, to determine the traffic generated by the proposed Project. **Table 7-1** shows the Project trip generation. As shown in **Table 7-1**, the Project is calculated to generate 897 Average Daily Traffic (ADT), with 66 trips during the AM peak hour (17 inbound and 49 outbound), and 88 trips during the PM peak hour (55 inbound and 33 outbound).

7.2 Trip Distribution/Assignment

Project traffic was distributed and assigned to the street system based on the site location, and the relative locations of employment centers, schools and retail destinations. As mentioned in *Section 2.0*, daily access will only be via 9th Street.

In addition, given the residential land use and the associated familiarity of daily commuting patterns, it is anticipated that inbound Project traffic utilizing Main Street (SR-67) west of 10th Street will likely make the eastbound right-turn at the Main Street (SR-67) / 10th Street intersection. These vehicles will then make a southbound left-turn at either D Street or E Street to reach 9th Street where Project access is provided. Outbound vehicles destined for Main Street (SR-67) to the west can access this road via either 9th Street or 10th Street. The northbound left-turn at the Main Street (SR-67) / 9th Street intersection is difficult since this intersection is uncontrolled for Main Street traffic and a driver must cross both directions of heavy traffic on Main Street. Therefore, westbound oriented drivers are expected to use D Street or E Street to access 10th Street and proceed to the signalized Main Street (SR-67) / 10th Street intersection when leaving the Project site.

The quickest way to Downtown San Diego and other southeast San Diego destinations during peak periods is via Wildcat Canyon Road to SR-67 (see **Appendix D**). Therefore, a relatively high percentage of traffic is expected to use this road. Twelve (12) percent of traffic was assigned to the San Vicente Road to Wildcat Canyon Road route.

Since there are schools on Hanson Lane, 5% of Project traffic was assigned to utilize that road.

Figure 7-1 shows the Project traffic distribution. **Figure 7-2** shows the Project traffic volumes. **Figure 7-3** shows the Existing + Project traffic volumes.

**TABLE 7 –1
PROJECT TRIP GENERATION**

Land Use	Size	Daily Trip Ends (ADTs)		AM Peak Hour					PM Peak Hour				
		Equation ^a	Volume	Equation ^a	In:Out Split ^a	Volume			Equation ^a	In:Out Split	Volume		
						In	Out	Total			In	Out	Total
Single-Family	88 DU	$\text{Ln}(T) = 0.92 \text{ Ln}(X) + 2.68^b$	897	$\text{Ln}(T) = 0.91 \text{ Ln}(X) + 0.12^b$	26:74	17	49	66	$\text{Ln}(T) = 0.94 \text{ Ln}(X) + 0.27^b$	63:37	55	33	88

Footnotes:

- a. Linear/Logarithmic rates/formulas are based on *ITE Trip Generation Manual, 11th Edition*.
- b. Rates are based on single-family detached housing fitted curve equation (land use code 210).



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Figure 7-1
Project Traffic Distribution



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Figure 7-2
Project Traffic Volumes

915 9th Street



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Figure 7-3
Existing + Project Traffic Volumes

8.0 CUMULATIVE TRAFFIC

To forecast future traffic volumes for Opening Year 2028, taking into account cumulative projects and ambient growth, the SANDAG ABM2+ Year 2025 and Year 2035 models were used to determine an appropriate annual growth rate. Based on the SANDAG models, a 2% per year growth factor was applied to existing traffic volumes for three years to estimate the 2028 base traffic volumes. Project traffic volumes were then added to obtain the Existing + Project + Cumulative traffic volumes.

Figure 8–1 shows the Existing + Project + Cumulative traffic volumes.



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Figure 8-1
Existing + Project + Cumulative Traffic Volumes

9.0 ANALYSIS OF NEAR-TERM SCENARIOS

The following section presents the analysis of study area intersections and street segments under Near-Term conditions.

9.1 Existing + Project Conditions

9.1.1 Peak Hour Intersection Operations

Table 9-1 summarizes the Existing + Project peak hour intersection operations. As shown in *Table 9-1*, all of the study area intersections are calculated to operate at LOS D or better.

Appendix E contains the Existing + Project intersection analysis worksheets.

9.1.2 Daily Street Segment Operations

Table 9-2 summarizes the Existing + Project street segment operations. As shown in *Table 9-2*, all of the study area street segments are calculated to operate at LOS C or better.

9.2 Existing + Project + Cumulative Conditions

9.2.1 Peak Hour Intersection Operations

Table 9-1 summarizes the Existing + Project + Cumulative peak hour intersection operations. As shown in *Table 9-1*, all of the study area intersections are calculated to operate at LOS D or better in this scenario.

A queue analysis was also conducted for the westbound left-turn movement at the Main Street (SR-67) / 9th Street intersection under the worst-case scenario (Existing + Project + Cumulative) using traffic simulation and the SimTraffic computer software. The simulation was conducted for 5 runs of 1-hour recording. The westbound left-turn movement at the Main Street (SR-67) / 10th Street intersection was not included in the queuing analysis, as Project traffic from the east are not expected to travel further west to 10th Street when Project access is provided only on 9th Street.

The available storage length of the westbound left-turn pocket of the Main Street (SR-67) / 9th Street intersection is 100 feet. With the addition of Project traffic, the calculated 95th percentile queues during the AM and PM peak hours are 28 feet and 74 feet, respectively, which are contained within the available storage. The 95th percentile queue is defined to be the queue length that has only a 5 percent probability of being exceeded during the analysis time period. As shown in *Figure 7-2*, the Project is expected to add only add 2 and 6 vehicles during the AM and PM peak hour, respectively.

Appendix F contains the Existing + Project + Cumulative intersection and queuing analysis worksheets.

9.2.2 Daily Street Segment Operations

Table 9-2 summarizes the Existing + Project + Cumulative street segment operations. As shown in *Table 9-2*, all of the study area street segments are calculated to operate at LOS C or better in this scenario.

**TABLE 9-1
NEAR-TERM INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Existing		Existing + Project		Existing + Project + Cumulative	
			Delay ^a	LOS ^b	Delay	LOS	Delay	LOS
1. Main St (SR-67) / Ramona St	Signal	AM	43.0	D	43.0	D	45.1	D
		PM	40.1	D	40.1	D	42.0	D
2. Main St (SR-67) / 10th St	Signal	AM	26.0	C	26.6	C	27.9	C
		PM	37.0	D	39.3	D	44.0	D
3. Main St (SR-67) / 9th St	TWSC ^c	AM	19.9	C	20.1	C	20.6	C
		PM	24.8	C	25.0	C	27.9	D
4. D St / 10th St	TWSC ^c	AM	13.4	B	14.1	B	14.6	B
		PM	12.4	B	13.1	B	13.4	B
5. D St / 9th St	AWSC ^d	AM	9.8	A	10.1	B	10.6	B
		PM	8.7	A	8.9	A	9.2	A
6. E St / 10th St	Signal	AM	12.8	B	12.9	B	13.3	B
		PM	10.9	B	10.9	B	11.1	B
7. E St / 9th St	Signal	AM	10.4	B	10.8	B	11.0	B
		PM	9.3	A	9.4	A	10.2	B
8. G St / 9th St	TWSC ^c	AM	9.2	A	9.4	A	9.5	A
		PM	9.3	A	9.8	A	9.9	A
9. H St / 9th St	AWSC ^d	AM	7.6	A	7.9	A	8.0	A
		PM	7.5	A	7.8	A	7.9	A
10. San Vicente Rd / 11th St	Signal	AM	16.5	B	16.5	B	21.1	C
		PM	25.3	C	25.3	C	26.7	C

TABLE 9-1
NEAR-TERM INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing		Existing + Project		Existing + Project + Cumulative	
			Delay ^a	LOS ^b	Delay	LOS	Delay	LOS
11. San Vicente Rd / Hanson Ln	Signal	AM PM	19.2 27.5	B C	19.3 27.9	B C	19.9 29.9	B C

Footnotes:

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c. TWSC – Two-Way Stop Controlled intersection. Worst-case minor street movement delay is reported.
- d. AWSC – All-Way Stop Controlled intersection.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

**TABLE 9-2
NEAR-TERM STREET SEGMENT OPERATIONS**

Street Segment	Existing Capacity (LOS E) ^a	Existing			Existing + Project			Existing + Project + Cumulative		
		ADT ^b	LOS ^c	V/C ^d	ADT	LOS	V/C	ADT	LOS	V/C
Main St										
14th St to 10th St (SR-67)	34,200	19,600	B	0.573	20,050	B	0.586	21,250	B	0.621
10th St to 9th St (SR-78)	28,000	13,200	A	0.471	13,200	A	0.471	14,010	A	0.500
D St										
10th to 9th St	4,500	3,760	LOS C or better	0.836	4,120	LOS C or better	0.916	4,350	LOS C or better	0.967
E St										
10th St to 9th St	4,500	220	LOS C or better	0.049	380	LOS C or better	0.084	390	LOS C or better	0.087
9th St										
Main St to G St	4,500	1,360	LOS C or better	0.302	2,020	LOS C or better	0.449	2,100	LOS C or better	0.467
G St to Project Drwy	4,500	1,370	LOS C or better	0.304	2,120	LOS C or better	0.471	2,200	LOS C or better	0.489

Footnotes:

- a. Capacities based on County of San Diego Roadway Classification Table (see *Appendix A*).
- b. Average Daily Traffic Volumes.
- c. Level of Service.
- d. Volume to Capacity.

10.0 ACCESS ASSESSMENT

As described in *Section 2.0*, the Project's access would be via two (2) full access driveways fronting the two-lane undivided roadway of 9th Street. 9th Street would also serve the residential units located on the parcel west of 10th Street. A conservative approach was taken in the analysis of the Project driveways by combining all trips from the two 9th Street driveways into a single access point, rather than analyzing them individually, which would show each access point operating better. The following lane geometry was assumed:

- *Southbound approach*: shared through/right-turn lane
- *Northbound approach*: shared through/left-turn lane
- *Eastbound approach*: shared left-turn/right-turn lane

The Project driveway is calculated to operate at LOS A during the AM and PM peak hours under all scenarios, even with this conservative approach.

Appendix G contains the Project driveway analysis worksheets for the worst-case scenario (Existing + Project + Cumulative).

11.0 ACTIVE TRANSPORTATION

11.1 Pedestrian Mobility

Within the Project study area, sidewalks are currently provided on both sides of Main Street; on approximately 100 feet on the south side of D Street between 10th Street and 9th Street; on both sides of 9th Street between Main Street and H Street; on both sides of 10th Street; on the west side of San Vicente Road and intermittently on the east side between H Street and Hanson Lane; and on the north side of Hanson Lane west of San Vicente Road. The nearest signalized intersection is located at the San Vicente Road / 11th Street intersection, adjacent to the west boundary of the Project site, providing a controlled crossing location with pedestrian push buttons and crosswalks.

11.2 Bicycle Mobility

Class II bike lanes are currently provided on both sides of 10th Street; on both sides of San Vicente Road; and on both sides of Hanson Lane. Per the *County of San Diego Bicycle Transportation Plan*, Class III bike routes are proposed on Main Street between Pala Street and Magnolia Avenue. There are no existing or planned bicycle facilities along 9th Street.

11.3 Transit Mobility

The nearest bus stop is located approximately 0.5 miles from the Project site at the Main Street / 10th Street intersection. The North County Transit District (NCTD) and Metropolitan Transit System (MTS) operate within the study area. The bus stop serves NCTD route 371 and MTS routes 891 and 892. Continuous sidewalk connectivity is available along 9th Street and 10th Street between the Project site and the bus stop. A description of the bus route schedules is provided below.

Route 371 Flex operates as a deviated fixed-route service. It follows a set schedule, with weekday service starting at 4:46 AM with approximately 2-hour headways during the AM and PM peak period. There are a total of thirty-one (31) stops along this route. The route can deviate within a certain distance to pick up or drop off passengers. To use this deviation, you must make a reservation at least 30 minutes in advance, and no later than 5:00 p.m. the day before your trip.

Routes 891 and 892 run between the El Cajon Transit Center and Christmas Circle & Palm Canyon Road near Borrego Springs, passing through Ramona and Julian. Within the Ramona Community Planning Area, there are a total of nine (9) stops along these routes. Route 892 operates only on Thursdays, and Route 891 operates only on Fridays, with a westbound stop in Ramona at approximately 9:30 AM and an eastbound return through Ramona around 3:31 PM, providing a single morning westbound and a single afternoon eastbound service in town.

Appendix H contains the bus route schedule and map.

12.0 CONCLUSIONS

The Project proposes to construct 88 single-family residential units located near the southeast corner of the San Vicente Road / 11th Street intersection within the Ramona Community Planning Area of the County of San Diego. The subject parcel is largely undeveloped, except for an existing single-family residence and an aging barn located in the northeastern portion of the property. Site access is proposed via two (2) full access driveways on 9th Street, which would also serve the residential units located on the parcel west of 10th Street. It should be noted that access via 10th Street to the south will be limited to emergency vehicles only and gated; therefore, all other vehicles will access the Project site via 9th Street.

The proposed Project is calculated to generate 897 Average Daily Traffic (ADT), with 66 trips during the AM peak hour (17 inbound and 49 outbound), and 88 trips during the PM peak hour (55 inbound and 33 outbound). The study area intersections and street segments are calculated to operate acceptably at LOS D or better during the AM and PM peak hours under all scenarios. Therefore, no substantial effects are identified.

A queue analysis was conducted for the westbound left-turn movement at the Main Street (SR-67) / 9th Street intersection under the worst-case scenario (Existing + Project + Cumulative). The calculated 95th percentile queues during the AM and PM peak hours are 28 feet and 74 feet, respectively, which are contained within the available westbound left-turn pocket storage of 100 feet.

In addition, it should be noted that the Project will be required to participate in the County's Transportation Impact Fee (TIF) program, since it is tiering off the County of San Diego General Plan.