

TRANSPORTATION IMPACT ANALYSIS
ESCONDIDO NORTH LLC.

Escondido, California
October 6, 2022

LLG Ref. 3-21-3356

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EXECUTIVE SUMMARY

The proposed Escondido North LLC. Project is located within the City of Escondido. The Project proposes the development of 44 single family detached and 10 multifamily attached units. The existing area is currently occupied by thirteen residential units. The H Lot will include 23 single family detached and 10 multifamily attached units, and will demolish the 5 existing single family detached units. The F Lot will include 21 single family detached units, and will demolish the 6 existing single family detached units and 2 existing multifamily attached units.

The F Lots are located within APNs 224-142-30-00, 224-142-31-00, 224-142-32-00 and 224-142-33-00 on the southwest corner of the Conway Drive / Stanley Avenue intersection. Site access is proposed via one full access driveway along Lehner Avenue. The H Lots are located within APNs 224-141-23-00, 224-141-24-00 and 224-141-25-00 on the northwest corner of the Conway Drive / Stanley Avenue intersection. Site access is proposed via two (2) full access driveways: along Conway Drive serving the multifamily attached units and along Stanley Avenue serving the single family detached units.

VMT ANALYSIS

The Project is calculated to generate more than the minimum 200 ADT and is located over ½ mile walking distance from an existing major transit stop; therefore, it is not screened out on the basis of Project size or its proximity to transit opportunities. In addition, since the Project VMT per capita is higher than 85% of the Regional average, a significant VMT impact is calculated. TDM strategies are recommended to reduce the Project's VMT impacts.

As a subsequent action, the City is in the process of preparing a VMT Exchange Program that will establish a mechanism towards maintaining VMT efficiency within its jurisdiction. This program would identify improvements based on the GHG Handbook that could serve to facilitate or encourage residents to walk, bike or take transit as substitutes for driving. The following pedestrian network and infrastructure improvements and equivalent VMT reductions were evaluated based on information in the GHG Handbook and are recommended:

- N. Ash Street / Vista Avenue – install high visibility crosswalks and accessible pedestrian signals on all four legs. VMT reduction equates to 60 VMT per measure – total reduction for this intersection is 120 VMT.
- N. Broadway / Rincon Avenue – install high visibility crosswalks on the north, south and east legs, and install accessible pedestrian signals on all four legs. VMT reduction equates to 60 VMT per measures – total reduction for this intersection is 120 VMT.
- Stanley Avenue / Conway Drive – install high visibility crosswalks on the west leg and curb ramps on the northwest and southwest corner. VMT reduction equates to 15 VMT for the high visibility crosswalk and 8 VMT per curb ramp – total reduction for this intersection is 31 VMT.
- Lehner Avenue / Conway Drive – install high visibility crosswalks on the west and south legs, and curb ramps on the northwest corner. VMT reduction equates to 30 VMT for the

high visibility crosswalks and 8 VMT for the curb ramp – total reduction for this intersection is 38 VMT.

- New sidewalk – approximately 1 mile of new sidewalk equates to 303 VMT reduction. The Project proposes to construct approximately 2,111 feet of new sidewalk along its Project frontage. This would equate to approximately 121 VMT reduction.

The total value of the improvements shown above would result in a total VMT reduction of 430 VMT, thereby exceeding the required 423 VMT reduction as calculated in *Table 5–2*, which would reduce the VMT to below a level of significance.

TRAFFIC LEVEL OF SERVICE (LOS) ANALYSIS

A traffic LOS analysis was also conducted. The Project study area for the traffic analysis includes the following intersections and street segments:

INTERSECTIONS

1. N. Broadway / Rincon Avenue
2. Rincon Avenue / N. Ash Street
3. Rincon Avenue / Conway Drive
4. Conway Drive / H Lot Driveway #1
5. Stanley Avenue / N. Ash Street
6. Stanley Avenue / H Lot Driveway #2
7. Stanley Avenue / Conway Drive
8. Lehner Avenue / N. Ash Street
9. Lehner Avenue / F Lot Driveway

STREET SEGMENTS

1. **Rincon Avenue:** Between N. Broadway and N. Ash Street
2. **Rincon Avenue:** Between N. Ash Street and Conway Drive (approximately west half portion)
3. **Rincon Avenue:** Between N. Ash Street and Conway Drive (approximately east half portion)
4. **Rincon Avenue:** Just east of Conway Drive
5. **Stanley Avenue:** Between N. Ash Street and Conway Drive
6. **Lehner Avenue:** Between N. Ash Street and Conway Drive
7. **Vista Avenue:** Between N. Ash Street and Conway Drive
8. **N. Ash Street:** Between Stanley Avenue and Lehner Avenue
9. **N. Ash Street:** Between Lehner Avenue and Vista Avenue
10. **N. Ash Street:** South of Vista Avenue
11. **Conway Drive:** Between Rincon Avenue and Stanley Avenue
12. **Conway Drive:** Between Lehner Avenue and Vista Avenue

Based on the established criteria discussed in *Section 6.0*, no substantial effects are calculated in

terms of intersection and segment capacity for the project. Therefore, improvements are not required under these analyses.

PROJECT TRIP GENERATION AND DISTRIBUTION

The Project traffic generation calculations were conducted using the trip generation rates published in SANDAG's *(Not So) Brief Guide of Vehicular Traffic Generation Rates for San Diego Region (April 2002)*. Based on the project description, the *Single Family Detached* and *Apartment* category was used which SANDAG specifies as 10 trips / unit and 6 trips / unit, respectively.

The proposed Project is calculated to generate 378 net new daily trips with 30 trips (8 inbound / 22 outbound) in AM peak hour and 37 trips (26 inbound / 11 outbound) during PM peak hour. These trips include credit from the 11 single family detached and 2 multifamily attached units to be demolished within the Project site.

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APPENDIX

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- B. SANDAG Screening Map, sidewalk VMT reduction calculations and excerpts from the CAPCOA GHG Handbook
- C. Peak Hour Intersection Analysis Worksheets – Existing
- D. Individual Project Distributions and Cumulative Project Locations
- E. Peak Hour Intersection Analysis Worksheets – Existing + Project
- F. Peak Hour Intersection Analysis Worksheets – Opening Year (2023) without Project
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**TRANSPORTATION IMPACT ANALYSIS
ESCONDIDO NORTH LLC.**

Escondido, California
October 6, 2022

1.0 INTRODUCTION

Linscott, Law and Greenspan, Engineers (LLG) has prepared this transportation impact analysis to assess the impacts to the street system as a result of the proposed Escondido North LLC. Project located within the City of Escondido. The Project proposes the development of 44 single family detached and 10 multifamily attached units.

The traffic analysis presented in this report includes the following:

- Project Description
- Existing Conditions
- Analysis Approach and Methodology
- CEQA Vehicle Miles Traveled (VMT) Analysis
- Substantial Effect Criteria
- Analysis of Existing Conditions
- Trip Generation/Distribution/Assignment
- Cumulative Projects Discussion
- Analysis of Near-Term Scenarios
- Analysis of Long-Term Scenarios
- Project Access
- Active Transportation Discussion
- Conclusions

2.0 PROJECT DESCRIPTION

The proposed Escondido North LLC. Project is located within the City of Escondido. The Project proposes the development of 44 single family detached and 10 multifamily attached units. The existing area is currently occupied by thirteen residential units. The H Lot will include 23 single family detached and 10 multifamily attached units, and will demolish the 5 existing single family detached units. The F Lot will include 21 single family detached units, and will demolish the 6 existing single family detached units and 2 existing multifamily attached units.

The F Lot is located within APNs 224-142-30-00, 224-142-31-00, 224-142-32-00 and 224-142-33-00 on the southwest corner of the Conway Drive / Stanley Avenue intersection. Site access is proposed via one full access driveway along Lehner Avenue. The H Lot is located within APNs 224-141-23-00, 224-141-24-00 and 224-141-25-00 on the northwest corner of the Conway Drive / Stanley Avenue intersection. Site access is proposed via two (2) full access driveways: along Conway Drive serving the multifamily attached units and along Stanley Avenue serving the single family detached units.

Figure 2-1 shows the Project vicinity and *Figure 2-2* illustrates, in more detail, the site location. *Figure 2-3* shows the Project site plan.

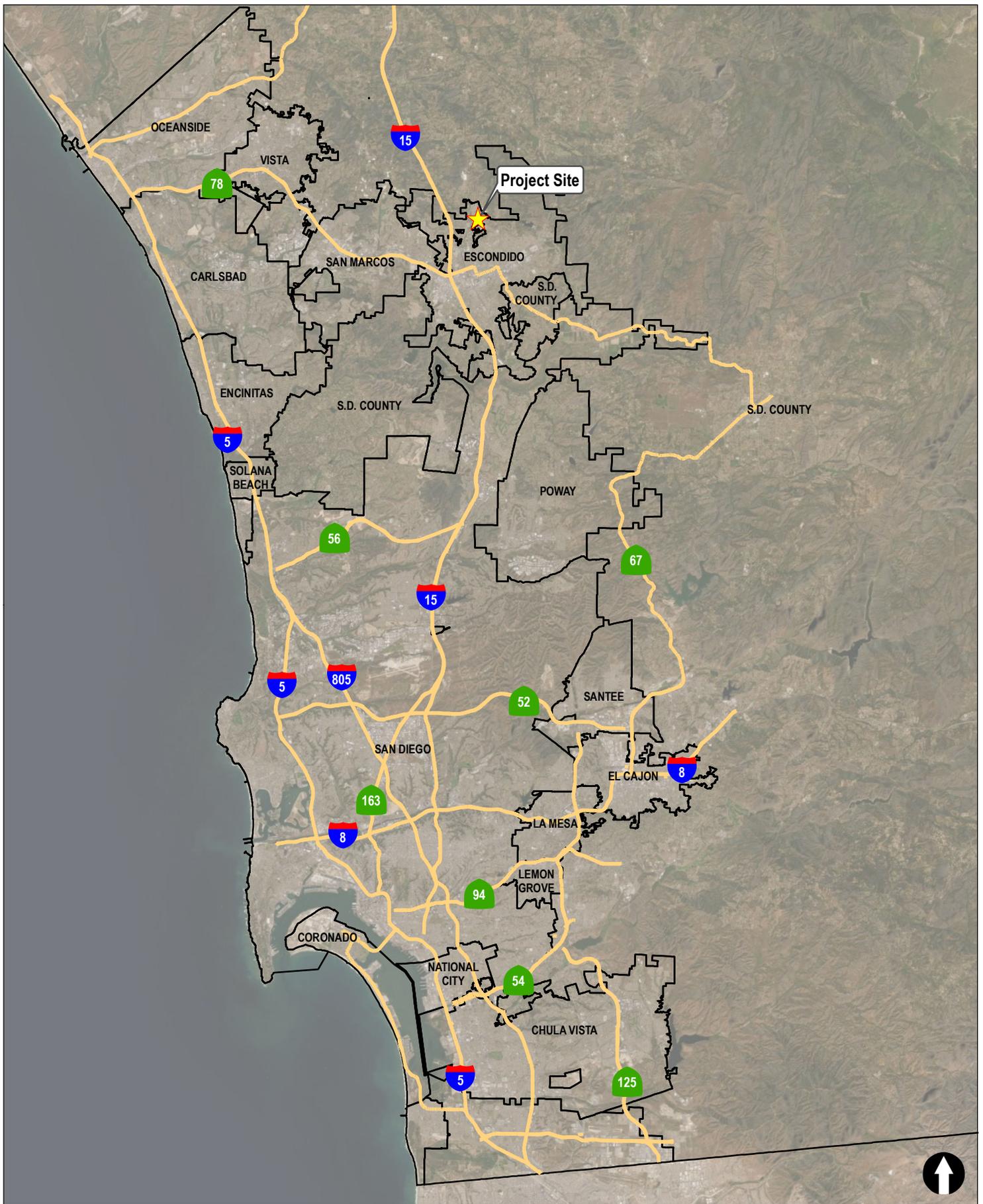
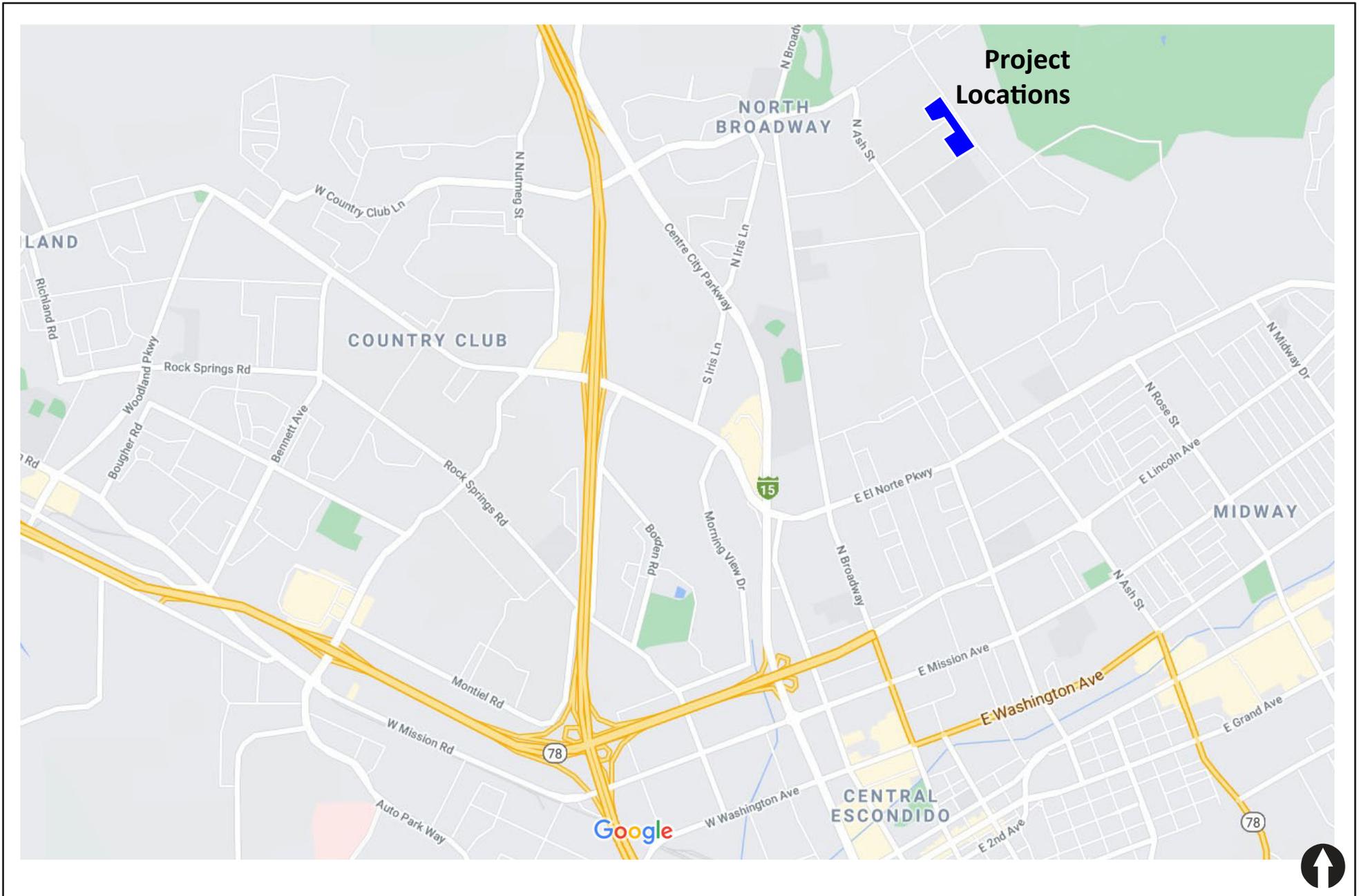


Figure 2-1

Vicinity Map



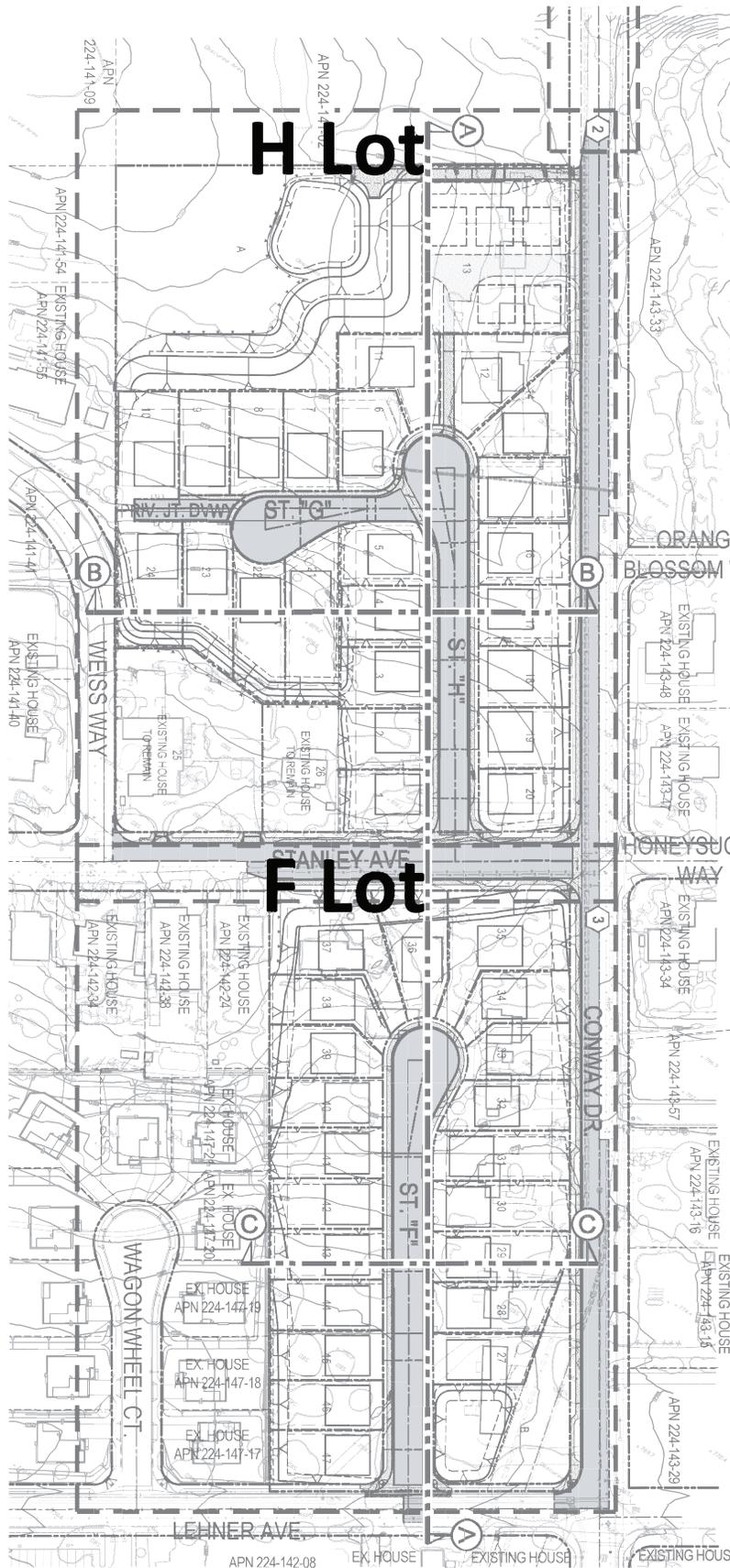


Figure 2-3

Project Site Plan

ESCONDIDO NORTH LLC

3.0 EXISTING CONDITIONS

Effective evaluation of the traffic impacts associated with the proposed project requires an understanding of the existing transportation system within the project area. *Figure 3-1* shows an existing conditions diagram, including signalized/unsignalized intersections and lane configurations.

The study area includes the following intersections and street segments:

INTERSECTIONS

1. N. Broadway / Rincon Avenue
2. Rincon Avenue / N. Ash Street
3. Rincon Avenue / Conway Drive
4. Conway Drive / H Lot Driveway #1
5. Stanley Avenue / N. Ash Street
6. Stanley Avenue / H Lot Driveway #2
7. Stanley Avenue / Conway Drive
8. Lehner Avenue / N. Ash Street
9. Lehner Avenue / F Lot Driveway

STREET SEGMENTS

1. **Rincon Avenue:** Between N. Broadway and N. Ash Street
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7. **Vista Avenue:** Between N. Ash Street and Conway Drive
8. **N. Ash Street:** Between Stanley Avenue and Lehner Avenue
9. **N. Ash Street:** Between Lehner Avenue and Vista Avenue
10. **N. Ash Street:** South of Vista Avenue
11. **Conway Drive:** Between Rincon Avenue and Stanley Avenue
12. **Conway Drive:** Between Lehner Avenue and Vista Avenue

3.1 Existing Transportation Conditions

The facilities analyzed in this report fall under the jurisdiction of the City of Escondido. The following is a brief description of the streets and the traffic they serve including vehicles, cyclists and pedestrians in the project area:

Rincon Avenue is classified as a Collector from west of Broadway to just west of Conway Drive and a Local Collector from just west of Conway Drive to east of Conway Drive in the Escondido Circulation Element within the study area. It is currently constructed as a four-lane undivided roadway with a two-way left-turn lane between Broadway and mid-way (660 feet) between Ash Street and Conway Drive and as a two-lane undivided roadway mid-way (660 feet) between Ash and Conway and eastward. Sidewalks are provided on the north side and a portion of the south side of Rincon Avenue in the study area. The south side of Rincon Avenue is undeveloped from 730 feet west of Conway Drive and 200 feet east of Conway Drive. No sidewalk exists in this undeveloped segment. Bike lanes are not provided. Curbside parking is not permitted. The posted speed limit is 40 mph west of Conway Drive and there is no posted speed limit east of Conway Drive.

Stanley Avenue is classified as a Local Collector Street in the Escondido Circulation Element within the study area. It is currently constructed as a two-lane undivided roadway but not to the Local Collector standard cross-section. Sidewalks are provided on the western 2/3 (approximately 1,100 feet) of the roadway on the south side from Ash Street to Conway Drive. No sidewalk exists on the eastern 600 feet of the south side, nor along the north side of Stanley Avenue. Bike lanes are not provided. Curbside parking is not permitted. There are no posted speed limits.

Lehner Avenue is an unclassified roadway in the Escondido Circulation Element within the study area. It is currently constructed as a two-lane undivided roadway. Sidewalks are provided on both sides of the roadway from Ash Street to Conway Drive, with the exception of a 270 foot gap along an undeveloped parcel on the western half of the south side. Bike lanes are not provided. Curbside parking is permitted intermittently along this roadway. The posted speed limit is 25 mph.

Conway Drive is classified as a Local Collector Street in the Escondido Circulation Element within the study area. It is currently constructed as a two-lane undivided roadway but not to the Local Collector standard cross-section. Sidewalks are not provided from Rincon Avenue to Stanley Avenue, with the exception of a 600 foot segment on the east side north and south of Stanley Avenue. Bike lanes are not provided. Curbside parking is not permitted. There are no posted speed limits.

3.2 Existing Traffic Volumes

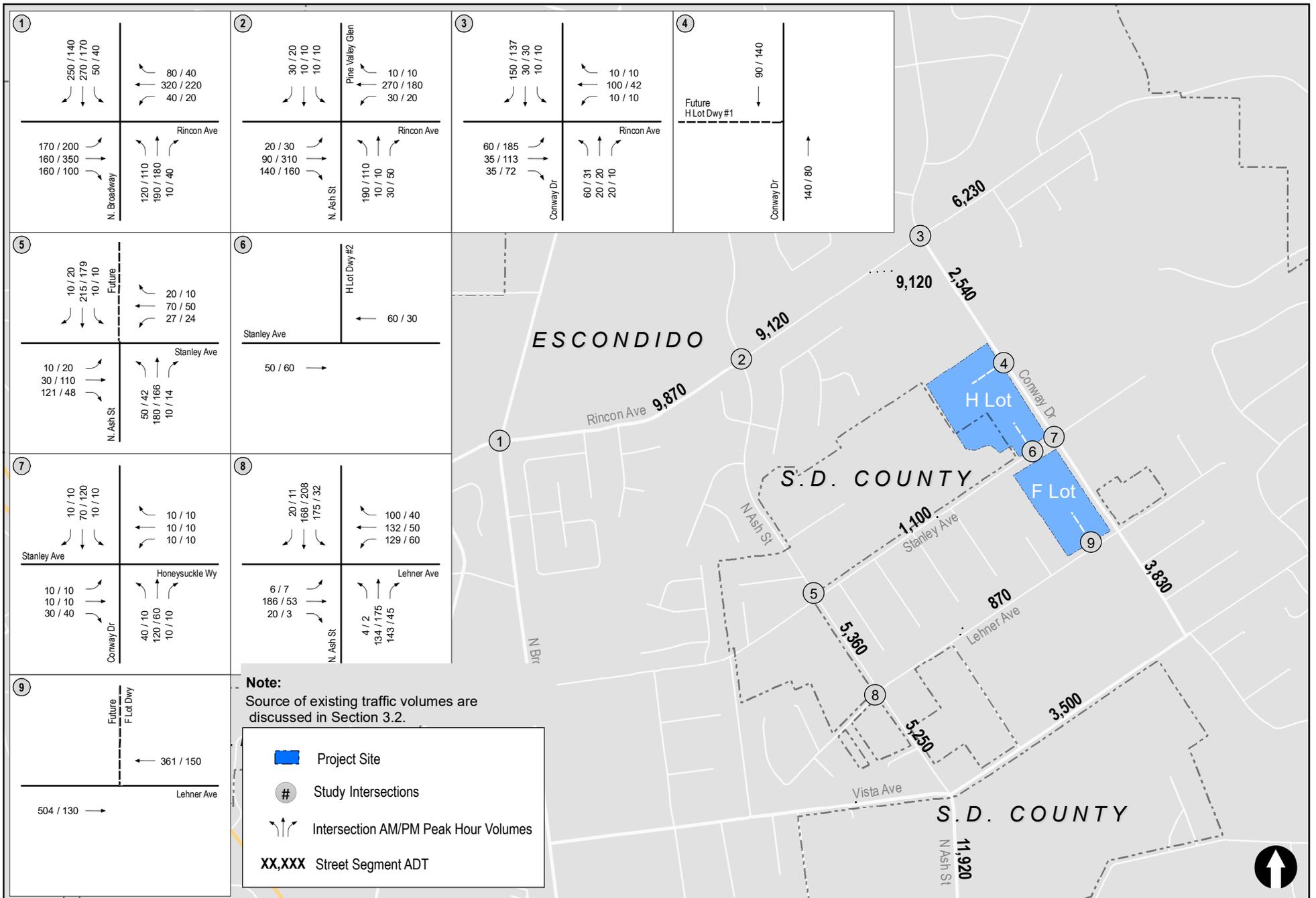
Traffic counts were conducted on Thursday, March 18, 2021. However, due to the Covid-19 pandemic alternate travel patterns, these counts were adjusted to pre-Covid levels. A comparison was made on an ADT basis between the SANDAG Series 13 model's non-Covid ADTs and the Year 2021 ADT counts to determine how much less the counts were. The Year 2021 counts were factored using the appropriate growth rate.

The above peak hour traffic volume calculation approach was applied to all study area intersections with exception to one intersection (Lehner Avenue / N. Ash Street) where historical counts were obtained from an approved traffic study prepared by LLG. For this particular intersection, a 5% growth was applied to represent Year 2021 traffic volumes.

Similarly, Year 2021 ADT counts were used as reference to estimate the existing ADT volumes for the analysis. The Escondido Circulation Element volumes, which contained Year 2012 and Year 2035 ADT volumes, were interpolated to obtain existing volumes.

Study area intersection peak hour and street segment ADT volumes for the existing scenario are depicted on *Figure 3-2*. *Appendix A* contains the count sheets, traffic volume adjustments and a volume comparison with available City counts.





4.0 ANALYSIS APPROACH AND METHODOLOGY

4.1 CEQA VMT Analysis

The City of Escondido *Transportation Impact Analysis Guidelines (TIAG)* were adopted on April 21, 2021. This document sets out the methodology for conducting a Transportation Study and a CEQA VMT (Vehicle Miles Traveled) analysis. SB 743 changes the focus of transportation impact analysis in CEQA from measuring impacts to drivers, to measuring the impact of driving. The change is being made by replacing LOS with VMT for CEQA purposes and providing streamlined review of land use and transportation projects that will help reduce future VMT growth. This shift in transportation impact focus is expected to better align transportation impact analysis and mitigation outcomes with the State's goals to reduce GHG emissions, encourage infill development, and improve public health through more active transportation.

Prior to the City's guidelines, the California Office of Planning and Research (OPR) had updated the CEQA Guidelines and provided a final Technical Advisory in December 2018, which recommended vehicle miles traveled (VMT) as the most appropriate measure of transportation impacts under CEQA. The California Natural Resources Agency certified and adopted the CEQA Guidelines including the Guidelines section implementing SB 743. The changes have been approved by the Office of the Administrative Law and have been in effect since July 2020.

While VMT is the preferred quantitative metric for assessing potentially significant transportation impacts under CEQA, it should be noted that SB 743 does not prevent a city or county from using metrics such as LOS as part of the application of local general plan policies, municipal and zoning codes, conditions of approval, or any other planning requirements through a city's planning approval process; cities can still ensure adequate operation of the transportation system in terms of transportation congestion measures related to vehicular delay and roadway capacity. As such, the City continues to require congestion-related transportation analysis and mitigation projects through planning approval processes outside CEQA.

4.1.1 Methodology for CEQA VMT Analysis

The following summarizes the appropriate metric for various types of projects:

- *Residential*: VMT/capita
- *General Employment*: VMT/employee
- *Industrial Employment*: VMT/employee
- *Regional Retail., Regional Recreational, or Regional Public Facilities*: Change in total VMT (using the boundary method)
- *Mixed-Use*: Each project component evaluated per the appropriate metric based on land use type (e.g., residential, employment, and retail)
- *Transportation Project*: Change in total VMT (using the boundary method)
- Unique circumstances may require alternate metrics

4.1.2 Screening Criteria for CEQA VMT Analysis

The requirements to prepare a detailed transportation VMT analysis apply to all land development projects, except those that meet at least one of the screening criteria. A project that meets at least one of the following screening criteria below would be presumed to have a less than significant VMT impact due to project characteristics and/or location:

- Small Residential and Employment Projects
- Projects Located in a Transit-Accessible Area
- Projects in a VMT-Efficient Area
- Locally-Serving Retail Projects
- Locally-Serving Public Facilities
- Redevelopment Projects with Lower Total VMT

4.1.3 Thresholds of Significance

The significant thresholds and specific VMT metrics used to measure VMT are described by land use type below.

- Residential: 15% below regional average VMT/capita
- Employment: 15% below regional average VMT/employee
- Industrial Employment: At or below regional average VMT/employee
- Mixed-Use: Each project component evaluated per the appropriate metric based on land use type (e.g., residential, employment, and retail)
- Regional Retail, Regional Recreational, or Regional Public Facilities: A net increase in total regional VMT using the boundary method

4.2 LOS Analysis

The City of Escondido's published Traffic Impact Analysis Guidelines provide the following direction on report approach and methodology:

1. The traffic study should utilize the Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region (April 2002) published by SANDAG, to determine the project traffic volume.
2. The traffic study should utilize the following scenarios to determine project traffic impacts at intersections and along roadway segments.
 - a. Existing Condition (based on new traffic counts)
 - b. Existing + Project Traffic Condition
 - c. Opening Year (2023) (Existing + Cumulative Projects) without Project Condition
 - d. Opening Year (2023) with Project Traffic Condition
 - e. Long-Term (Year 2035) Without Project Condition
 - f. Long-Term (Year 2035) With Project Traffic Condition

3. Highway Capacity Manual should be utilized to determine level of service for intersections.
4. The study area should include at least all major intersections (signalized and unsignalized) adjacent to the site. The tables below contain the trigger-points to identify if a roadway segment or intersection should be included in the Traffic Impact Analysis. **Table 4-1** below contains the trigger-points for roadway segments within the City of Escondido for different street classifications based on ADT added to the segment. **Table 4-2** below contains the trigger-points for intersections based on peak hour volumes.

**TABLE 4-1
TRAFFIC IMPACT ANALYSIS ADT THRESHOLDS FOR ROADWAY SEGMENTS**

Street Classification	Lanes	Cross Sections (ft.)	TIA Trigger-Points (ADT generation)
Prime Arterial	(8 lanes)	116/136 (NP)	900
	(6 lanes)	106/126 (NP)	800
Major Road	(6 lanes)	90/110 (NP)	700
	(4 lanes)	82/102 (NP)	500
Collector	(4 lanes)	64/84 (NP)	500
	(4 lanes)	(WP)	250
Local Collector and all other	(2 lanes)	42/66 (NP)	200
		(WP)	

General Notes:

1. NP = No parking on street
2. WP = With parking on street

**TABLE 4-2
TRAFFIC IMPACT ANALYSIS ADT THRESHOLDS FOR INTERSECTIONS**

Intersection Classification (Minor leg of the intersection)	TIA Trigger-Points (AM or PM peak hour trips added to any leg)
Prime Arterial	50
Major Road	40
Collector	30
Local Collector	20

4.2.1 Methodology for LOS Analysis

The City of Escondido utilizes the following methodology for evaluating traffic operations.

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. LOS provides an index to the operational qualities of a roadway segment or an intersection. LOS designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. LOS designation is reported differently for signalized intersections and roadway segments.

The analysis conducted in this report utilized the published Highway Capacity Manual (HCM) methodology for evaluating signalized intersections. They also utilize LOS criteria for circulation element roadways based on published capacity tables. The following is a discussion of the both methodologies:

4.2.2 Signalized Intersections

For signalized intersections, LOS criteria are stated in terms of the average control delay per vehicle for a 15-minute analysis period. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay.

Table 4–3 summarizes the signalized intersections levels of service descriptions. **Table 4–4** depicts the intersection LOS and corresponding delay ranges, which are based on overall intersection delay (signalized intersections) and the average control delay for any particular minor movement (unsignalized intersections), respectively. LOS relative to signalized and unsignalized intersection is further described below.

LOS A describes operations with very low delay, (i.e. less than 10.0 seconds per vehicle). This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.

LOS B describes operations with delay in the range 10.1 seconds and 20.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.

LOS C describes operations with delay in the range 20.1 seconds and 35.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear. *Signal cycle failure (or overflow) is an interrupted traffic condition in which a number of queued vehicles are unable to depart due to insufficient capacity during a signal cycle.* The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.

LOS D describes operations with delay in the range 35.1 seconds and 55.0 seconds per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or higher volume (demand) / capacity (v/c) ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are frequent.

LOS E describes operations with delay in the range of 55.1 seconds to 80.0 seconds per vehicle. This is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.

LOS F describes operations with delay in excess of over 80.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with over-saturation (i.e., when arrival flow rates exceed the capacity of the intersection). It may also occur at high v/c ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

**TABLE 4-3
INTERSECTION LEVEL OF SERVICE DESCRIPTIONS**

Level of Service	Description
A	Occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	Occurs generally with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.
C	Results generally when there is fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
D	Results generally in noticeable congestion. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences.
F	Considered to be unacceptable to most drivers. This condition often occurs with oversaturation (i.e., when arrival flow rates exceed the capacity of the intersection). It may also occur at high volume-to-capacity ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels

**TABLE 4-4
INTERSECTION LOS & DELAY RANGES**

LOS	Delay (seconds/vehicle)	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10.0	≤ 10.0
B	10.1 to 20.0	10.1 to 15.0
C	20.1 to 35.0	15.1 to 25.0
D	35.1 to 55.0	25.1 to 35.0
E	55.1 to 80.0	35.1 to 50.0
F	≥ 80.1	≥ 50.1

Source: Highway Capacity Manual, 6th Edition.

4.2.3 Unsignalized Intersections

For unsignalized intersections, LOS is determined by the computed or measured control delay and is defined for each minor movement: LOS is not defined for the intersection as a whole. Level of Service F exists when there are insufficient gaps of suitable size to allow a side street demand to safely cross through a major street traffic stream. This level of service is generally evident from extremely long control delays experienced by side-street traffic and by queuing on the minor-street approaches. The method, however, is based on a constant critical gap size; that is, the critical gap remains constant no matter how long the side-street motorist waits. LOS F may also appear in the form of side-street vehicles selecting smaller-than-usual gaps. In such cases, safety may be a problem, and some disruption to the major traffic stream may result. It is important to note that LOS F may not always result in long queues, but may result in adjustments to normal gap acceptance behavior, which are more difficult to observe in the field than queuing.

4.2.4 Street Segments

Street segment analysis is based upon the comparison of daily traffic volumes (ADTs) to the City of Escondido's *Roadway Classification, Level of Service, and ADT Table (Table 4-5)*. This table provides segment capacities for different street classifications, based on traffic volumes and roadway characteristics.

**TABLE 4-5
CITY OF ESCONDIDO ROADWAY CLASSIFICATION, LEVEL OF SERVICE AND AVERAGE DAILY TRIP THRESHOLDS
STREET CLASSIFICATION LANES CROSS SECTIONS LEVEL OF SERVICE**

Street Classification	Lanes	Cross Sections ¹	Level of Service/ADT Threshold				
			A	B	C	D	E
Prime Arterial	(8 lanes)	116/136 (NP)	23,800	37,800	51,800	62,300	70,000
Prime Arterial	(6 lanes)	106/126 (NP)	20,400	32,400	44,400	53,400	60,000
Super Major Road	(6 lanes)	90/110 (NP)	17,000	27,000	37,000	44,500	50,000
Major Road	(4 lanes)	82/102 (NP)	12,600	20,000	27,400	32,900	37,000
Collector	(4 lanes)	64/84 (NP)	11,600	18,500	25,300	30,400	34,200
Collector	(4 lanes)	(WP)	6,800	10,800	14,800	17,800	20,000
Local Collector	(2 lanes)	42/66 (NP)	5,100	8,100	11,100	13,400	15,000
Local Collector	(2 lanes)	(WP)	3,400	5,400	7,400	8,900	10,000
Rural Collector	(2 lanes)						

1. Cross sections define the configuration of a proposed roadway at right angles to the centerline. Street cross sections assist in choosing the appropriate design standards for a particular street.

NP = No Parking WP = With Parking

ADT = Average Daily Trips

LOS	V/C Ratio
A	0.00 ≥ 0.34
B	0.35 ≥ 0.54
C	0.55 ≥ 0.74
D	0.75 ≥ 0.89
E	0.90 ≥ 1.00
F	>1.00

5.0 CEQA VMT ASSESSMENT

5.1 Project Size

The Project proposes the development of 44 single family detached and 10 multifamily attached units. In addition, the existing area is currently occupied by thirteen residential units, eleven of which are single family detached and two are multifamily attached units, and will be demolished and replaced by the Project. Since the Project proposes to redevelop the site given these information, the component of the Project to be considered in the VMT analysis would be the net new trips. Therefore, the Project is calculated to generate approximately 378 net new daily trips with 30 trips (8 inbound / 22 outbound) in AM peak hour and 37 trips (26 inbound / 11 outbound) during PM peak hour as discussed in *Section 8.0*.

This is more than the minimum 200 ADT that would not require a VMT analysis or presumed to have less than significant VMT impacts per the City's guidelines. Therefore, the Project is not screened out on the basis of Project size.

5.2 Location Near Transit Opportunities

The Project is located within approximately 1 mile walking distance of the N. Broadway / Rincon Avenue intersection. This intersection is served by Routes 358 and 359, which operates on a 2-hour headway throughout the day between 5:00 AM and 8:00 PM, Monday through Friday. Given that the Project sites are located over ½ mile walking distance from an existing major transit stop, the Project is not screened out on the basis of its proximity to transit opportunities.

The nearest bus routes, 358 and 359, connects to a major transit hub, the Escondido Transit Center, which is approximately 4 miles from the site and connects residents to the beaches in Oceanside, and trains to Los Angeles or San Diego. Residents can also connect to an Express Bus to downtown San Diego.

5.3 SANDAG Screening Map

The Project is not located in a VMT efficient area (15% or more below the base year average household VMT/capita) based on the applicable location-based screening map produced by SANDAG. The San Diego average regional VMT/capita is 19.0 (and 15% below 19.0 would equate to 16.1) per SANDAG Series 14 (Year 2016) data.

Using the SANDAG screening map for residential projects under per capita measurements, the Project is located in census tract 201.07 and would be expected to generate 19.3 VMT/capita. This equates to 101.7% of the regional average VMT/capita. Hence, the Project would have a potential significant VMT impact. **Table 5-1** shows the VMT analysis results. **Appendix B** includes the result of the SANDAG map.

**TABLE 5-1
PROJECT VEHICLE MILES TRAVELED ANALYSIS**

VMT per Resident		
Geography	VMT per Resident	Exceeds Threshold?
San Diego Region	19.0	–
<i>Significance Threshold (85% of Regional Average VMT)</i>	16.1	–
Project Sites		
F & H Lots	19.3	Yes

Source: SANDAG San Diego Region SB743 VMT Maps

As mentioned in *Section 4.1.3*, if the project average exceeds 85% of the regional average, a detailed calculation of the remaining VMT reduction needed to avoid exceeding the threshold is required. Proper mitigation measures to avoid or reduce the impact are also required. Based on the size and the location of the Project within the City, a household size of 3.21 residents per unit¹ was used to calculate the remaining VMT reduction. **Table 5-2** shows the VMT reduction calculations. As shown in *Table 5-2*, the Project is calculated to require a VMT reduction of 423 VMT.

**TABLE 5-2
VMT REDUCTION CALCULATIONS**

Number of dwelling units: 41 (54 proposed units minus 13 units to be demolished)
Household size: 3.21 residents per unit ^a
41 units x 3.21 resident per household = 132 residents
132 residents x 19.3 VMT/resident ^b = 2,548 VMT generated by Project
Target VMT is 85% of regional mean or 16.1 VMT
132 residents x 16.1 VMT = 2,125 VMT
2,548 VMT_{Project} – 2,125 VMT_{target} = 423 VMT reduction required

Footnotes:

- a. General Plan Housing Element
- b. SANDAG VMT Map

5.4 VMT Mitigation Measures

This section discusses possible VMT adjustment and reduction strategies to avoid or reduce the Project’s impact. These strategies aim to achieve one or both of the following results:

¹ Obtained from the City’s Housing Element Update dated June 2021.

- Reduce the number of daily vehicle trips
- Reduce the length of trips made by residents

Per the *City of Escondido Transportation Impact Analysis Guidelines*, there are several resources for determining the reduction in VMT that can be gained from implementing TDM measures. These include the *California Air Pollution Control Officers Association (CAPCOA) 2021 Handbook for Analyzing Greenhouse Gas Emission Reduction, Assessing Climate Vulnerabilities, and Advancing Health and Equity (GHG Handbook)* and the *SANDAG Mobility Management Guidebook*.

As a subsequent action, the City is in the process of preparing a VMT Exchange Program that will establish a mechanism towards maintaining VMT efficiency within its jurisdiction. This program would identify improvements based on the GHG Handbook that could serve to facilitate or encourage residents to walk, bike or take transit as substitutes for driving. Therefore, a similar approach was conducted to determine the proper improvements to the existing pedestrian network and infrastructure in the Project’s vicinity. The following pedestrian network and infrastructure improvements, with reference to the GHG Handbook, show the equivalent VMT reduction based on City-specific derivations.

Sidewalk

Using the GHG Handbook, Measure T-18, the average VMT reduction per mile of new sidewalks is derived below:

Parameters

A – Percent reduction of VMT (max allowed = 6.4%)

B – Average sidewalk length in 0.6-mile radius in the City of Escondido = 14.5 miles²

C – Average sidewalk length in 0.6-mile radius in the City of Escondido + 1-mile new Sidewalk = 15.5 miles³

D – The elasticity of VMT with respect to the ratio of sidewalks-to-streets = -0.05⁴

Percent Reduction of VMT (using Measure T-18 formula)

$$A = (C / B - 1) \times D = (15.5 \text{ miles} / 14.5 \text{ miles} - 1) \times -0.05 = -0.34\%$$

² The City of Escondido maintains approximately 300 miles of streets. Assuming roughly 80% of the streets have sidewalks on both sides, total sidewalks are estimated at 300 X 2-side X 80% = 480 miles of sidewalks. The City of Escondido has a land area of 37.34 square miles of land. It is estimated that Escondido has an approximate density of (480 miles of sidewalk / 37.34 square miles of land =) 12.85 miles of sidewalk per square mile of land. The GHG handbook recommends a study area of a 0.6-mile radius (1.13 square miles) to calculate VMT reduction achieved from increasing sidewalk coverage. A study area is estimated to have an average of (1.13 square miles x 12.85 miles of sidewalks / square mile of land =) 14.5 miles of sidewalk.

³ Walking is typically an alternative for short trips and may not replace trips that are longer than 1 mile. The reduction is applied only on the VMT generated from all trips that start and end in the City of Escondido and the trip length is shorter than 1 mile.

⁴ A study found that a 0.05 percent decrease in household vehicle travel occurs for every 1 percent increase in the sidewalk-to-street ratio (Frank et al. 2011; Handy et al. 2014)

VMT Reduction Per Mile of New Sidewalks

Total VMT in Escondido from Trips that are < 1 mile (per SANDAG ABM2+ Model 2016 Base Year) = 89,090

Therefore,

Average VMT reduction = A x Total VMT = 0.34% x 89,090 VMT = *303 VMT reduced / 1 mile of new sidewalk*

An excerpt from the GHG Handbook of Measure T-18 is included in *Appendix B*.

High Visibility Crosswalk

An engineering/planning judgement estimate was made assuming the number of new walking trips that would result daily from these types of improvements. The improvements are estimated to convert up to 25 short vehicle trips to walking trips per day. The average walking trip length is 0.6 miles one-way (based on the GHG Handbook) or 1.2 miles round-trip. Therefore, 25 additional walking trips reduces VMT by 1.2 miles *25 walking trips = *30 VMT per one pedestrian improvement*.

Curb Ramp

Curb ramp installation also encourages pedestrian activity for people who use mobility devices, have limited mobility, and for people who are pushing strollers, wagons, etc. Most intersections in Escondido have curb ramps; however, some intersections have incomplete (not all corners have them) or completely missing ramps. To offer flexibility and achieve the benefit of having curb ramps installed, the 30 VMT reduction per improvement was divided by four (4) to reflect a typical four-corner intersection ($30/4=7.5$, rounded to the nearest whole number = *8 VMT per intersection corner*).

Per coordination with City staff regarding the VMT improvement options and a review of the above-mentioned VMT reducing projects, the following improvements and equivalent VMT reductions were evaluated and are recommended:

- N. Ash Street / Vista Avenue – install high visibility crosswalks and accessible pedestrian signals on all four legs. VMT reduction equates to 60 VMT per measure – total reduction for this intersection is 120 VMT.
- N. Broadway / Rincon Avenue – install high visibility crosswalks on the north, south and east legs, and install accessible pedestrian signals on all four legs. VMT reduction equates to 60 VMT per measures – total reduction for this intersection is 120 VMT.
- Stanley Avenue / Conway Drive – install high visibility crosswalks on the west leg and curb ramps on the northwest and southwest corner. VMT reduction equates to 15 VMT for the high visibility crosswalk and 8 VMT per curb ramp – total reduction for this intersection is 31 VMT.
- Lehner Avenue / Conway Drive – install high visibility crosswalks on the west and south legs, and curb ramps on the northwest corner. VMT reduction equates to 30 VMT

- for the high visibility crosswalks and 8 VMT for the curb ramp – total reduction for this intersection is 38 VMT.
- New sidewalk – approximately 1 mile of new sidewalk equates to 303 VMT reduction. The Project proposes to construct approximately 2,111 feet of new sidewalk along its Project frontage. This would equate to approximately 121 VMT reduction. *Appendix B* includes the sidewalk VMT reduction calculations.

The total value of the improvements shown above would result in a total VMT reduction of 430 VMT, thereby exceeding the required 423 VMT reduction as calculated in *Table 5–2*, which would reduce the VMT to below a level of significance.

6.0 SUBSTANTIAL EFFECT CRITERIA

For purposes of this TIA, the criteria established in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.), Transportation, will apply to the analysis of direct, indirect, and cumulative effects. As such, a substantial effect to transportation and traffic-related facilities would result if the Project would:

- A. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.
- B. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) (regarding the use of vehicles miles traveled (VMT) as a criterion for analyzing transportation impacts).
- C. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- D. Result in inadequate emergency access.

For Item A, the Project’s consistency (i.e., potential conflicts) with relevant programs, plans, ordinances, and/or policies relating to transit, roadway, bicycle, and pedestrian facilities is addressed in this section.

Specific to roadway conflicts, the Project’s consistency with the General Plan Mobility and Infrastructure Element will be addressed, as well as consistency with the City’s Traffic Impact Analysis Requirements Guidelines. A component of this analysis includes consideration of whether LOS targets identified in the General Plan and Traffic Guidelines would be achieved or whether the Project would conflict with such targets. To assist in that analysis, the Substantial Effect Criteria shown in **Table 6-1** below are utilized to assess potential conflicts and related impacts.

**TABLE 6-1
CITY OF ESCONDIDO TRANSPORTATION SUBSTANTIAL EFFECT CRITERIA**

Level of Service with Project	Allowable Change due to Project Impact		
	Roadway Segments		Intersections Delay (sec.)
	V/C	Speed (mph)	
D, E, or F	0.02	1	2

Source: See City of Escondido.

Notes: V/C = volume to capacity ratio (use LOS E for capacity).

No Significant Impact occurs at areas in GP Downtown Specific Area that operate at LOS “D” or better.

Mitigation measures should also be considered for any segment or intersection operating at LOS “F” subject to less than substantial effect.

7.0 ANALYSIS OF EXISTING CONDITIONS

7.1 Peak Hour Intersection Operations

Table 7-1 summarizes the existing peak hour intersection operations. As shown in *Table 7-1*, all the study area signalized and unsignalized intersections are calculated to currently operate at LOS C or better during both the AM and PM peak hours with the exception of the following intersection:

- N. Broadway / Rincon Avenue (LOS D during the AM and PM peak hours)

Appendix C contains the Existing intersection analysis worksheets.

7.2 Daily Street Segment Operations

Table 7-2 summarizes the existing street segment operations along the key study area street segments. As shown in *Table 7-2*, all street segments are calculated to currently operate LOS C or better on a daily basis with exception to the following street segments:

- Rincon Avenue between N. Ash Street to Conway Drive (approximately east half portion) (LOS E)
- N. Ash Street south of Vista Avenue (LOS D)

**TABLE 7-1
EXISTING INTERSECTION OPERATIONS**

Intersection	Control Type	Movement	Peak Hour	Delay ^a	LOS ^b
1. N. Broadway / Rincon Avenue	Signal	Overall	AM	45.2	D
		Overall	PM	36.2	D
2. Rincon Avenue / N. Ash Street	AWSC ^c	Overall	AM	12.7	B
		Overall	PM	11.5	B
3. Rincon Avenue / Conway Drive	AWSC	Overall	AM	9.4	A
		Overall	PM	10.7	B
4. Conway Drive / H Lot Driveway #1	DNE	-	AM	-	-
		-	PM	-	-
5. Stanley Avenue / N. Ash Street	AWSC	Overall	AM	14.4	B
		Overall	PM	11.5	B
6. Stanley Avenue / H Lot Driveway #2	DNE	-	AM	-	-
		-	PM	-	-
7. Stanley Avenue / Conway Drive	MSSC ^d	WB	AM	12.8	B
		WB	PM	11.0	B
8. Lehner Avenue / N. Ash Street	AWSC	Overall	AM	22.2	C
		Overall	PM	11.8	B
9. Lehner Avenue / F Lot Driveway	DNE	-	AM	-	-
		-	PM	-	-

Footnotes:

- a. Average delay expressed in seconds per vehicle
- b. Level of Service
- c. AWSC- All Way Stop Controlled intersection
- d. MSSC- Minor Street Stop Controlled intersection. Worst-case movement approach delay and LOS reported.

SIGNALIZED		UNSIGNALIZED	
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 7-2
EXISTING STREET SEGMENT OPERATIONS**

Street Segment	Functional Class	Capacity (LOS E)^a	ADT^b	LOS^c	V/C^d
Rincon Avenue					
N. Broadway to N. Ash Street	4-Lane Collector	20,000	9,870	B	0.494
N. Ash Street to Conway Drive (approximately west half portion) ^e	2-Lane Collector	15,000	9,120	C	0.608
N. Ash Street to Conway Drive (approximately east half portion) ^e	2-Lane Local Collector	10,000	9,120	E	0.912
East of Conway Drive	2-Lane Local Collector	10,000	6,230	C	0.623
Stanley Avenue					
N. Ash Street to Conway Drive	2-Lane Local Collector	10,000	1,100	A	0.110
Lehner Avenue					
N. Ash Street to Conway Drive	2-Lane Local Collector	10,000	870	A	0.087
Vista Avenue					
N. Ash Street to Conway Drive	2-Lane Local Collector	10,000	3,500	B	0.350
N. Ash Street					
Stanley Avenue to Lehner Avenue	2-Lane Local Collector	10,000	5,360	B	0.536
Lehner Avenue to Vista Avenue	2-Lane Local Collector	10,000	5,250	B	0.525
South of Vista Avenue	2-Lane Local Collector	15,000	11,920	D	0.795
Conway Drive					
Rincon Avenue to Stanley Avenue	2-Lane Local Collector	10,000	2,540	A	0.254
Lehner Avenue to Vista Avenue	2-Lane Local Collector	10,000	3,830	B	0.383

Footnotes:

- a. Capacities based on the City of Escondido Roadway Classification Table
- b. Average Daily Traffic Volumes
- c. Level of Service
- d. Volume to Capacity
- e. The west half of Rincon Avenue between N. Ash Street and Conway Drive is classified and constructed as a Collector, but the east half is classified as a Local Collector, but not built as a full Local Collector. Therefore, the west half was analyzed as a 15,000 capacity roadway and the east half as a 10,000 capacity roadway.

8.0 TRIP GENERATION/DISTRIBUTION/ASSIGNMENT

The following is a discussion of the Project trip generation calculations and the Project traffic distribution and assignment through the local network. It should be noted that credit was taken or applied for the existing land uses currently on-site.

8.1 Trip Generation

The Project proposes the development of 44 single family detached and 10 multifamily attached units. The Project traffic generation calculations were conducted using the trip generation rates published in SANDAG's *(Not So) Brief Guide of Vehicular Traffic Generation Rates for San Diego Region (April 2002)*. Based on the project description, the *Single Family Detached* and *Apartment* category was used which SANDAG specifies as 10 trips / unit and 6 trips / unit, respectively.

Table 8-1 shows a summary of the Project's trip generation. As shown, the proposed Project is calculated to generate 378 net new daily trips with 30 trips (8 inbound / 22 outbound) during the AM peak hour and 37 trips (26 inbound / 11 outbound) during the PM peak hour. These trips include credit from the 11 single family detached and 2 multifamily attached units to be demolished within the Project site.

8.2 Trip Distribution/Assignment

The Project traffic was distributed and assigned to the street system based on the site location, access to the I-15, existing traffic patterns in the area, a review of trip distribution of similar land uses from recently approved development projects in the vicinity and anticipated traffic patterns to and from the site. Given that the Project sites are located in different areas and have driveways fronting different street segments, individual Project distributions were developed to better represent the assignments going to and from each sites. The individual Project distributions are provided in **Appendix D**.

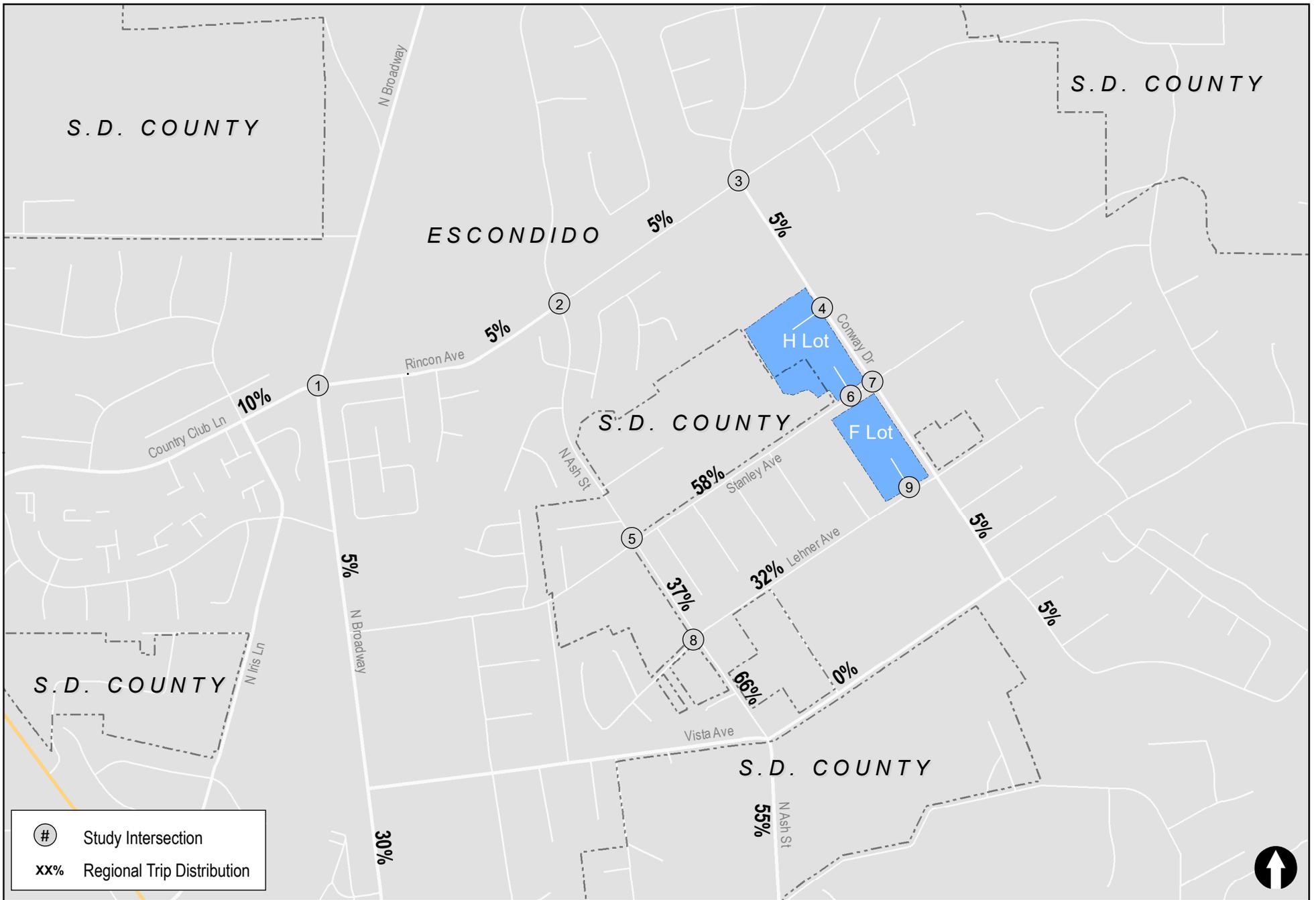
Figure 8-1 shows the overall Project traffic distribution. **Figure 8-2** shows the Project traffic volumes. **Figure 8-3** shows the Existing + Project traffic volumes.

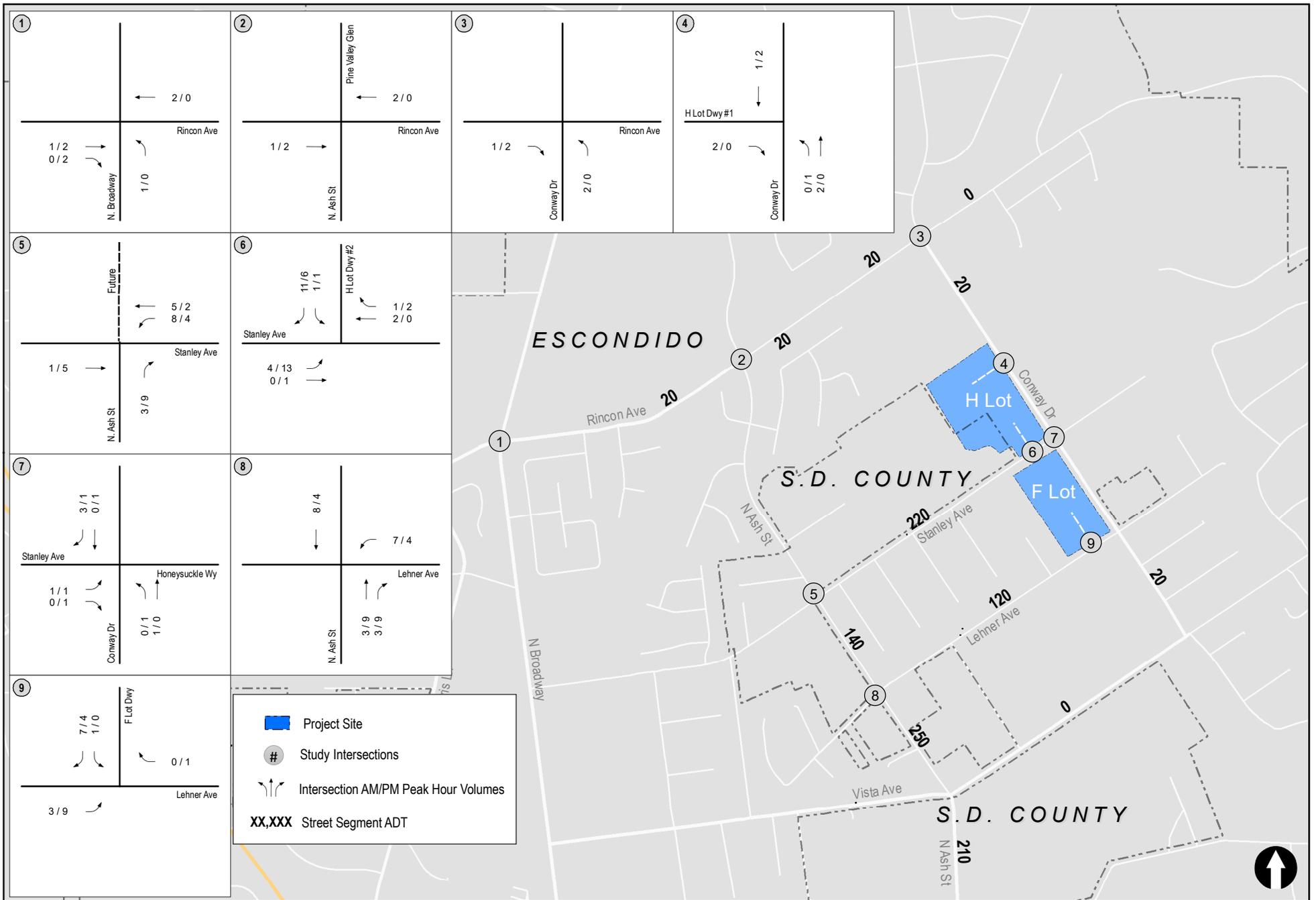
**TABLE 8-1
PROJECT TRIP GENERATION**

Land Use	Size	Daily Trip Ends (ADTs)		AM Peak Hour					PM Peak Hour				
		Rate ^a	Volume	% of ADT ^a	In:Out Split	Volume			% of ADT ^a	In:Out Split	Volume		
						In	Out	Total			In	Out	Total
<i>H Lot</i>													
<i>Driveway along Stanley Avenue</i>													
Single Family Detached Units	23 DU	10/DU ^b	230	8%	30:70	5	13	18	10%	70:30	16	7	23
Single Family Detached Units <i>(to be demolished)</i>	1 DU	10/DU ^b	-10	8%	30:70	0	-1	-1	10%	70:30	-1	0	-1
<i>Driveway along Conway Drive</i>													
Multifamily Attached Units	10 DU	6/DU ^c	60	8%	20:80	1	4	5	9%	70:30	4	1	5
Single Family Detached Units <i>(to be demolished)</i>	4 DU	10/DU ^b	-40	8%	30:70	-1	-2	-3	10%	70:30	-3	-1	-4
<i>F Lot</i>													
Single Family Detached Units	21 DU	10/DU ^b	210	8%	30:70	5	12	17	10%	70:30	15	6	21
Single Family Detached Units <i>(to be demolished)</i>	6 DU	10/DU ^b	-60	8%	30:70	-2	-3	-5	10%	70:30	-4	-2	-6
Multifamily Attached Units <i>(to be demolished)</i>	2 DU	6/DU ^c	-12	8%	20:80	0	-1	-1	9%	70:30	-1	0	-1
<i>Net Total</i>			<i>378</i>			<i>8</i>	<i>22</i>	<i>30</i>			<i>26</i>	<i>11</i>	<i>37</i>

Footnotes:

- a. Rates are based on SANDAG's (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002.
- b. Rates are based on single family detached rate of 10/DU.
- c. Rates are based on apartment rate of 6/DU





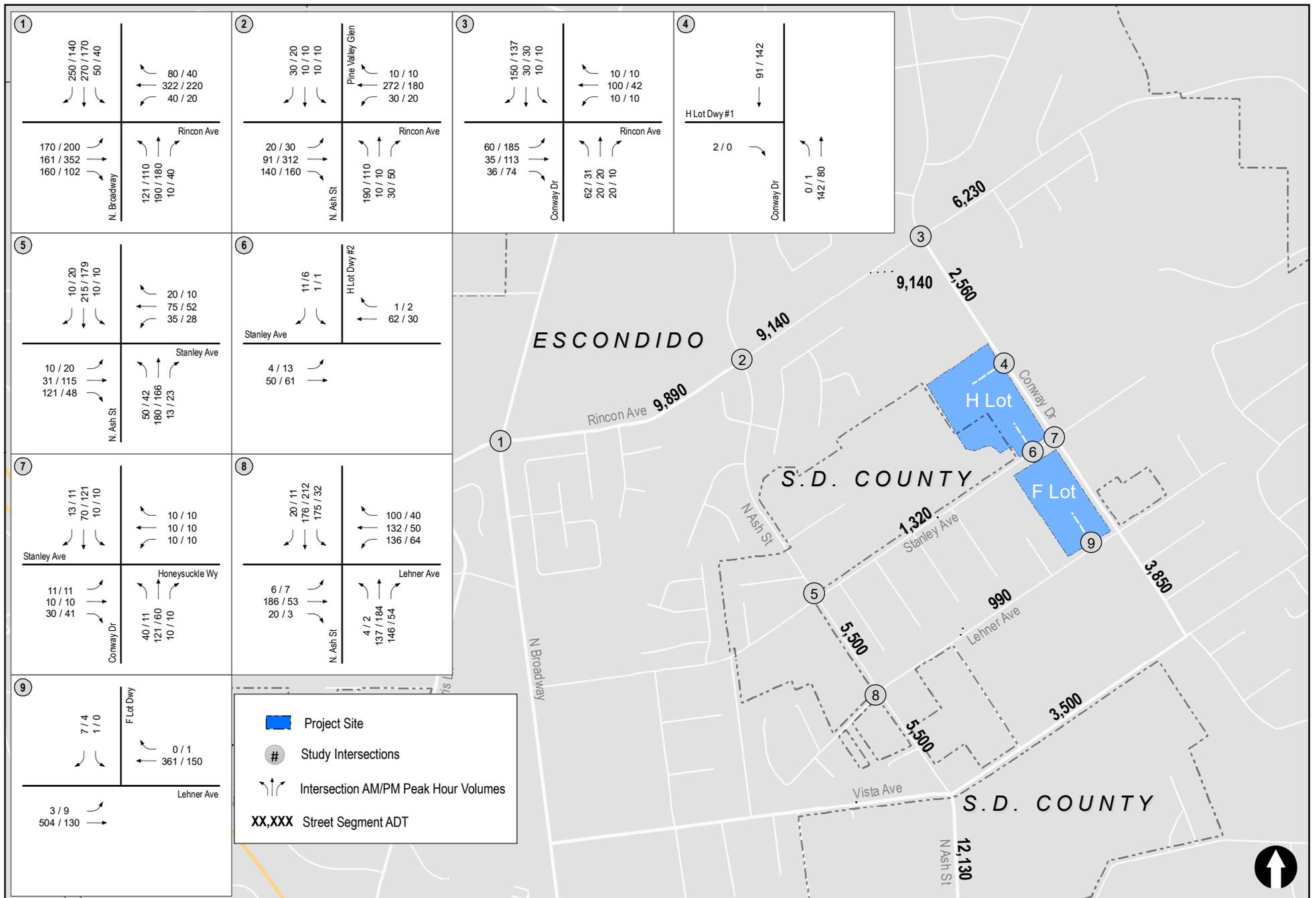


Figure 8-3
Existing + Project Traffic Volumes

9.0 CUMULATIVE PROJECTS DISCUSSION

Cumulative projects are other projects in the study area that will add traffic to the local circulation system in the near future. LLG researched potential cumulative projects within the City of Escondido to identify the potential discretionary projects which should be included in the analysis. Based on the research and discussions with City staff, most of the new projects around the study area have been completed and included in the traffic counts. **Table 9-1** includes a list of cumulative projects. Given the location and size of these cumulative projects, very few trips are anticipated to be added to the study area. However, to account for cumulative traffic, a growth rate of 1% per year for 2 years was applied to represent cumulative traffic volumes and represent pre-project baseline traffic. *Appendix D* includes a map showing the cumulative project locations.

Figure 9-1 shows the Cumulative projects traffic volumes. **Figure 9-2** shows the Opening Year (2023) (Existing + Cumulative Projects) without Project traffic volumes. **Figure 9-3** shows the Opening Year (2023) + Project traffic volumes.

**TABLE 9-1
CUMULATIVE PROJECTS**

Project	Location	Project Description	Entitlement Status
SUB 17-0007 North Avenue Estates	Northwest corner of North Avenue / Kaywood Drive intersection	34 homes	Approved. Building and grading plans in review
PHG 20-0032	Southwest corner of N. Iris Lane / Robin Hill Lane intersection	North Iris Annexation, 102 units	In Review
PHG 17-0025, 1802 N. Centre City Parkway	Southeast corner of Centre City Parkway / N. Iris Lane intersection	96-bed residential care facility	Approved

General Notes:

1. Cumulative projects information obtained from the City's Development Project Information website.



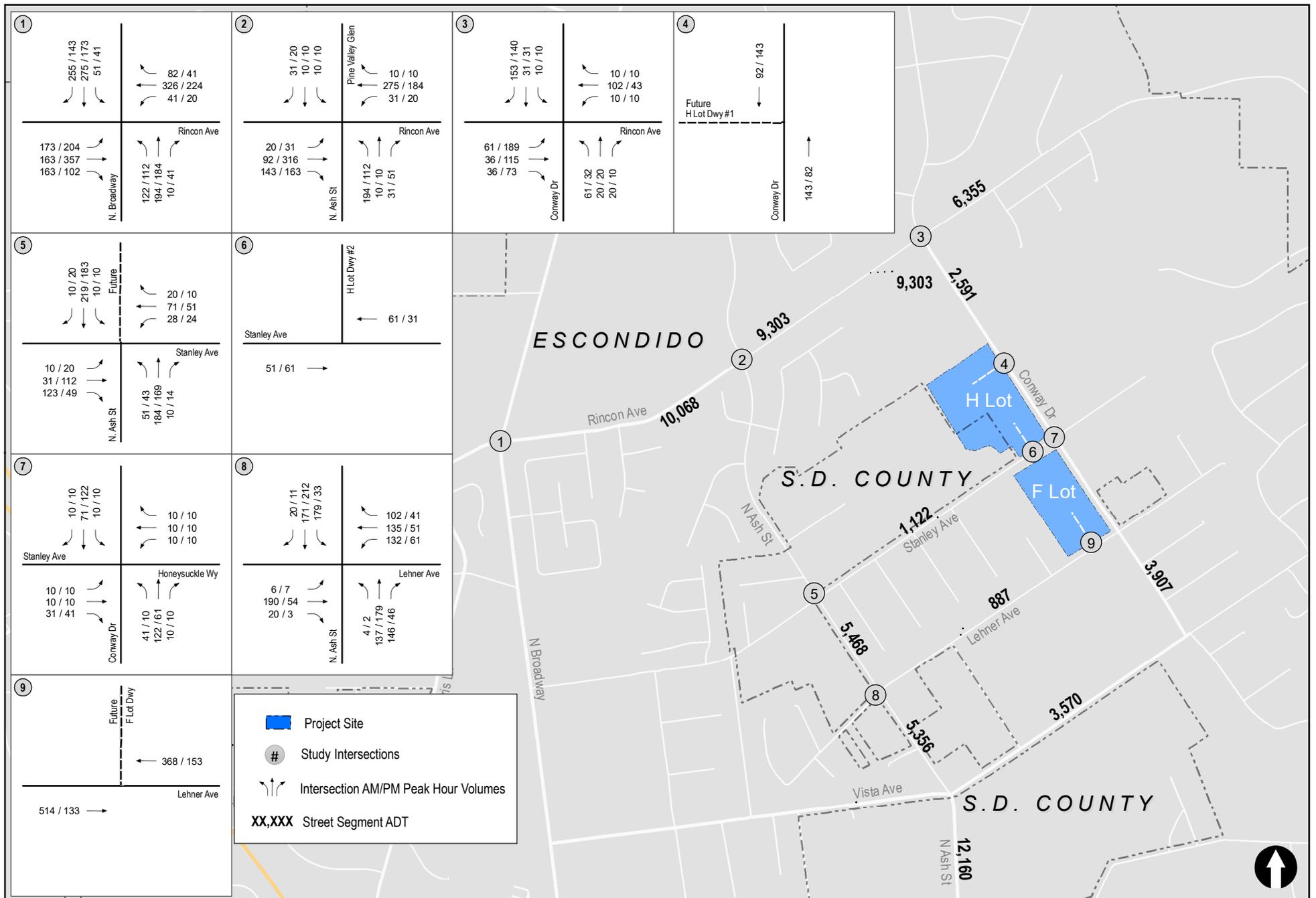
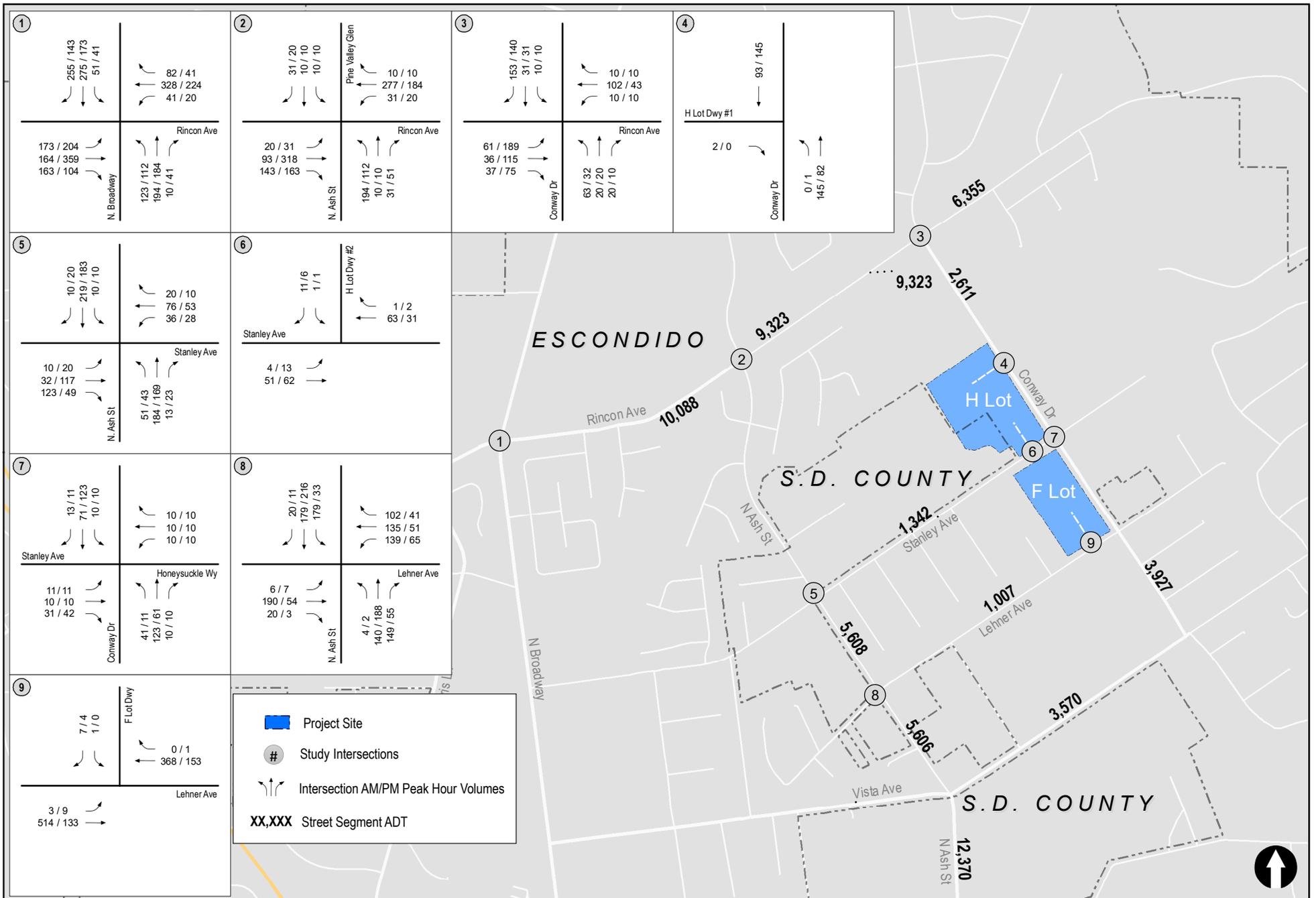


Figure 9-2
Opening Year (2023) without Project Traffic Volumes



10.0 ANALYSIS OF NEAR-TERM SCENARIOS

The following is a summary of the operational analyses for the various street-system components for the near-term traffic scenarios.

10.1 Existing + Project Conditions

10.1.1 Peak Hour Intersection Operations

Table 10–1 summarizes the Existing + Project intersection operations. As shown in *Table 10–1*, with the addition of Project traffic, all the study area signalized and unsignalized intersections are calculated to operate at LOS C or better during both the AM and PM peak hours with exception to the following intersection:

- N. Broadway / Rincon Avenue (LOS D during the AM and PM peak hours)

The increase in delay due to the Project at the above intersections is less than the allowable threshold of 2 seconds. Therefore, the Project does not have a substantial effect at this intersection.

Appendix E contains the Existing + Project intersection analysis worksheets.

10.1.2 Daily Street Segment Operations

Table 10–2 summarizes the Existing + Project street segment operations. As shown in *Table 10–2*, with the addition of Project traffic, all the study area street segments are calculated to continue to operate at LOS C or better with exception to the following street segments:

- Rincon Avenue between N. Ash Street to Conway Drive (approximately east half portion) (LOS E)
- N. Ash Street south of Vista Avenue (LOS D)

The increase in V/C due to the Project at the above street segments are less than the allowable threshold of 0.02. Therefore, the Project does not have a substantial effect at these street segments.

10.2 Opening Year (2023) (Existing + Cumulative Projects) without Project Conditions

10.2.1 Peak Hour Intersection Operations

Table 10–1 summarizes the Opening Year (2023) without Project intersection operations. *Table 10–1* shows that in the Opening Year (2023) without Project scenario, all the study area signalized and unsignalized intersections are calculated to operate at LOS C or better during both the AM and PM peak hours with exception to the following intersection:

- N. Broadway / Rincon Avenue (LOS D during the AM and PM peak hours)

Appendix F contains the Opening Year (2023) without Project intersection analysis worksheets.

10.2.2 Daily Street Segment Operations

Table 10–2 summarizes the Opening Year (2023) without Project street segment operations.

Table 10–2 shows that in the Opening Year (2023) without Project scenario, all the study area street segments are calculated to continue to operate at LOS C or better with exception to the following street segments:

- Rincon Avenue between N. Ash Street to Conway Drive (approximately east half portion) (LOS E)
- N. Ash Street south of Vista Avenue (LOS D)

10.3 Opening Year (2023) + Project Conditions

10.3.1 Peak Hour Intersection Operations

Table 10–1 summarizes the Opening Year (2023) with Project intersection operations. Table 10–1 shows that in the Opening Year (2023) with Project scenario, all the study area signalized and unsignalized intersections are calculated to operate at LOS C or better during both the AM and PM peak hours with exception to the following intersection:

- N. Broadway / Rincon Avenue (LOS D during the AM and PM peak hours)

The increase in delay due to the Project at the above intersections is less than the allowable threshold of 2 seconds. Therefore, the Project does not have a substantial effect at this intersection.

Appendix G contains the Opening Year (2023) with Project intersection analysis worksheets.

10.3.2 Daily Street Segment Operations

Table 10–2 summarizes the Opening Year (2023) with Project street segment operations. As shown in Table 10–2, in the Opening Year (2023) with Project scenario, all the study area street segments are calculated to continue to operate at LOS C or better with exception to the following street segments:

- Rincon Avenue between N. Ash Street to Conway Drive (approximately east half portion) (LOS E)
- N. Ash Street south of Vista Avenue (LOS D)

The increase in V/C due to the Project at the above street segments are less than the allowable threshold of 0.02. Therefore, the Project does not have a substantial effect at these street segments.

**TABLE 10-1
NEAR-TERM INTERSECTION OPERATIONS**

Intersection	Control Type	Movement	Peak Hour	Existing		Existing + Project		Δ^c	Opening Year (2023) without Project		Opening Year (2023) + Project		Δ^c	Substantial Effect?
				Delay ^a	LOS ^b	Delay	LOS		Delay	LOS	Delay	LOS		
1. N. Broadway / Rincon Avenue	Signal	Overall	AM	45.2	D	45.4	D	0.2	46.3	D	46.3	D	0.0	No
		Overall	PM	36.2	D	36.2	D	0.0	36.5	D	36.5	D	0.0	No
2. Rincon Avenue / N. Ash Street	AWSC ^d	Overall	AM	12.7	B	12.8	B	0.1	13.0	B	13.0	B	0.0	No
		Overall	PM	11.5	B	11.5	B	0.0	11.6	B	11.6	B	0.0	No
3. Rincon Avenue / Conway Drive	AWSC	Overall	AM	9.4	A	9.4	A	0.0	9.5	A	9.5	A	0.0	No
		Overall	AM	10.7	B	10.8	B	0.1	10.9	B	10.9	B	0.0	No
4. Conway Drive / H Lot Driveway #1	MSSC ^e	EB	AM	DNE	DNE	9.2	A	-	DNE	DNE	9.2	A	-	No
		EB	PM	DNE	DNE	7.6	A	-	DNE	DNE	7.6	A	-	No
5. Stanley Avenue / N. Ash Street	AWSC	Overall	AM	14.4	B	14.6	B	0.2	14.8	B	15.0	B	0.2	No
		Overall	PM	11.5	B	11.5	B	0.0	11.6	B	11.7	B	0.1	No

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**TABLE 10-1 (CONTINUED)
NEAR-TERM INTERSECTION OPERATIONS**

Intersection	Control Type	Movement	Peak Hour	Existing		Existing + Project		Δ^c	Opening Year (2023) without Project		Opening Year (2023) + Project		Δ^c	Substantial Effect?
				Delay ^a	LOS ^b	Delay	LOS		Delay	LOS	Delay	LOS		
CONTINUED FROM PREVIOUS PAGE														
6. Stanley Avenue / H Lot Driveway #2	MSSC	SB	AM	DNE	DNE	9.1	A	-	DNE	DNE	9.1	A	-	No
		SB	PM	DNE	DNE	8.8	A	-	DNE	DNE	8.8	A	-	No
7. Stanley Avenue / Conway Drive	MSSC	WB	AM	12.8	B	12.8	B	0.0	12.9	B	12.9	B	0.0	No
		WB	PM	11.0	B	11.0	B	0.0	11.0	B	11.0	B	0.0	No
8. Lehner Avenue / N. Ash Street	AWSC	Overall	AM	22.2	C	23.4	C	1.2	23.6	C	24.9	C	1.3	No
		Overall	PM	11.8	B	12.3	B	0.5	12.1	B	12.5	B	0.4	No
9. Lehner Avenue / F Lot Driveway	MSSC	SB	AM	DNE	DNE	12.1	B	-	DNE	DNE	12.2	B	-	No
		SB	PM	DNE	DNE	9.4	A	-	DNE	DNE	9.5	A	-	No

Footnotes:

- a. Average delay expressed in seconds per vehicle
- b. Level of Service
- c. "Δ" denotes the Project-induced increase in delay
- d. AWSC- All Way Stop Controlled intersection
- e. MSSC- Minor Street Stop Controlled intersection. Worst-case movement approach delay and LOS reported.

SIGNALIZED		UNSIGNALIZED	
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 10-2
NEAR-TERM STREET SEGMENT OPERATIONS**

Street Segment	Capacity (LOS E) ^a	Existing			Existing + Project			Δ ^e	Opening Year (2023) without Project			Opening Year (2023) + Project			Δ ^e	Substantial Effect?
		ADT ^b	LOS ^c	V/C ^d	ADT	LOS	V/C		ADT	LOS	V/C	ADT	LOS	V/C		
Rincon Avenue																
N. Broadway to N. Ash Street	20,000	9,870	B	0.494	9,890	B	0.495	0.001	10,068	B	0.503	10,088	B	0.504	0.001	None
N. Ash Street to Conway Drive (approximately west half portion) ^f	15,000	9,120	C	0.608	9,140	C	0.609	0.001	9,303	C	0.620	9,323	C	0.622	0.002	None
N. Ash Street to Conway Drive (approximately east half portion) ^f	10,000	9,120	E	0.912	9,140	E	0.914	0.002	9,303	E	0.930	9,323	E	0.932	0.002	None
East of Conway Drive	10,000	6,230	C	0.623	6,230	C	0.623	0.000	6,355	C	0.636	6,355	C	0.636	0.000	None
Stanley Avenue																
N. Ash Street to Conway Drive	10,000	1,100	A	0.110	1,320	A	0.132	0.022	1,122	A	0.112	1,342	A	0.134	0.022	None
Lehner Avenue																
N. Ash Avenue to Conway Drive	10,000	870	A	0.087	990	A	0.099	0.012	887	A	0.089	1,007	A	0.101	0.012	None
Vista Avenue																
N. Ash Avenue to Conway Drive	10,000	3,500	B	0.350	3,500	B	0.350	0.000	3,570	B	0.357	3,570	B	0.357	0.000	None
N. Ash Street																
Stanley Avenue to Lehner Avenue	10,000	5,360	B	0.536	5,500	C	0.550	0.014	5,468	B	0.547	5,608	C	0.561	0.014	None
Lehner Avenue to Vista Avenue	10,000	5,250	B	0.525	5,500	C	0.550	0.025	5,356	B	0.536	5,606	C	0.561	0.025	None
South of Vista Avenue	15,000	11,920	D	0.795	12,130	D	0.809	0.014	12,160	D	0.811	12,370	D	0.825	0.014	None

**TABLE 10-2
NEAR-TERM STREET SEGMENT OPERATIONS**

Street Segment	Capacity (LOS E) ^a	Existing			Existing + Project			Δ ^e	Opening Year (2023) without Project			Opening Year (2023) + Project			Δ ^e	Substantial Effect?
		ADT ^b	LOS ^c	V/C ^d	ADT	LOS	V/C		ADT	LOS	V/C	ADT	LOS	V/C		
Conway Drive																
Rincon Avenue to Stanley Avenue	10,000	2,540	A	0.254	2,560	A	0.256	0.002	2,591	A	0.259	2,611	A	0.261	0.002	None
Lehner Avenue to Vista Avenue	10,000	3,830	B	0.383	3,850	B	0.385	0.002	3,907	B	0.391	3,927	B	0.393	0.002	None

Footnotes:

- a. Capacities based on the City of Escondido Roadway Classification Table
- b. Average Daily Traffic Volumes
- c. Level of Service
- d. Volume to Capacity
- e. “Δ” denotes the Project-induced increase in V/C
- f. The west half of Rincon Avenue between N. Ash Street and Conway Drive is classified and constructed as a Collector, but the east half is classified as a Local Collector, but not built as a full Local Collector. Therefore, the west half was analyzed as a 15,000 capacity roadway and the east half as a 10,000 capacity roadway.

11.0 ANALYSIS OF LONG-TERM (YEAR 2035) SCENARIOS

The following is a summary of the operational analyses for the various street-system components for the long-term traffic scenarios.

11.1 Long-Term (Year 2035) Traffic Volumes

Long-Term (Year 2035) volumes were obtained from various sources as shown in *Table 11-1*. As shown in *Table 11-1*, the ADT volumes from the SANDAG Series 13 and 14 model and the City of Escondido Circulation Element volumes were summarized. To be conservative, the higher of these sources were used for each corresponding street segment under the Long-Term (Year 2035) without Project scenario. *Appendix A* contains the City of Escondido Circulation Element.

**TABLE 11-1
LONG-TERM (YEAR 2035) STREET SEGMENT VOLUMES**

Segment	Series 13	Series 14	City of Escondido Circulation Element	Utilized
Rincon Avenue				
Broadway to Ash Street	9,300	12,400	11,900	12,400
Ash Street to Conway Drive (approximately west half portion)	8,900	9,900	11,400	11,400
Ash Street to Conway Drive (approximately east half portion)	8,900	9,900	11,400	11,400
East of Conway Drive	6,900	8,400	8,000	8,400
Stanley Avenue				
Ash Street to Conway Drive	1,400	700	1,100	1,400
Lehner Avenue				
Ash Street to Conway Drive	Not Available	1,100	1,100	1,100
Vista Avenue				
Ash Street to Conway Drive	Not Available	1,500	1,600	1,600
Ash Street				
Stanley Avenue to Lehner Avenue	Not Available	2,800	3,500	3,500
Lehner Avenue to Vista Avenue	Not Available	3,300	3,000	3,000
South of Vista Avenue	Not Available	5,000	6,800	6,800

**TABLE 11-1
LONG-TERM (YEAR 2035) STREET SEGMENT VOLUMES**

Segment	Series 13	Series 14	City of Escondido Circulation Element	Utilized
Conway Drive				
Rincon Avenue to Stanley Avenue	1,900	1,300	2,100	3,290 ^a
Lehner Avenue to Vista Avenue	Not Available	2,100	2,500	2,500

Footnotes:

- a. Per City of Escondido Circulation Element, Year 2012 ADT of 2,800 is greater than the Year 2035 ADT of 2,100. To be conservative, 3,290, which was obtained from applying a growth factor onto existing traffic volume, was used instead. The growth factor was calculated from the average per year growth at the study area street segments between Year 2012 and Year 2035 of the City’s Circulation Element.

Long-Term (Year 2035) peak hour turning movement volumes were estimated using a template in Excel developed by LLG to determine peak hour traffic at an intersection from future Year 2035 ADT volumes using the relationship between existing peak hour turn movements and the existing ADT volumes. This same relationship can be assumed to generally continue in the future. For example, if the segment ADT on the roadway is forecast to double by the Year 2035, it is reasonable to assume that the peak hour intersection turning movement volumes will generally double. The Project traffic was added to the Long-Term (Year 2035) without Project traffic volumes to obtain Year 2035 + Project traffic volumes.

Figure 11-1 depicts the Long-Term (Year 2035) Without Project traffic volumes, while **Figure 11-2** depicts the Long-Term (Year 2035) With Project traffic volumes.

11.2 Long-Term (Year 2035) without Project Conditions

11.2.1 Peak Hour Intersection Operations

Table 11-2 summarizes the Long-Term (Year 2035) without Project intersection operations. *Table 11-2* shows that in the Long-Term (Year 2035) without Project traffic, all the study area signalized and unsignalized intersections are calculated to operate at LOS C or better during both the AM and PM peak hours with exception to the following intersections:

- N. Broadway / Rincon Avenue (LOS D during the AM and PM peak hours)
- Lehner Avenue / N. Ash Street (LOS D during the AM peak hour)

Appendix H contains the Long-Term (Year 2035) without Project intersection analysis worksheets.

11.2.2 Daily Street Segment Operations

Table 11-3 summarizes the Long-Term (Year 2035) without Project roadway segment operations. *Table 11-3* shows that in the Long-Term (Year 2035) without Project traffic, all the study area street segments are calculated to operate at LOS C or better with exception to the following street segment:

- Rincon Avenue between N Ash Street and Conway Drive (LOS D)
- Rincon Avenue east of Conway Drive (LOS D)

11.3 Long-Term (Year 2035) + Project Conditions

11.3.1 Peak Hour Intersection Operations

Table 11-2 summarizes the Long-Term (Year 2035) with Project intersection operations. As shown in *Table 11-2*, with the addition of Project traffic, all the study area signalized and unsignalized intersections are calculated to continue to operate at LOS C or better during both the AM and PM peak hours with the exception to the following intersections:

- N. Broadway / Rincon Avenue (LOS D during the AM and PM peak hours)
- Lehner Avenue / N. Ash Street (LOS D during the AM peak hour)

The increase in delay due to the Project at the above intersections is less than the allowable threshold of 2 seconds. Therefore, the Project does not have a substantial effect at these intersections.

Appendix I contains the Long-Term (Year 2035) with Project intersection analysis worksheets.

11.3.2 Daily Street Segment Operations

Table 11-3 summarizes the Long-Term (Year 2035) with Project street segment operations. As shown in *Table 11-3*, with the addition of Project traffic, all study area street segments are calculated to continue to operate at LOS C or better with exception to the following street segment:

- Rincon Avenue between N Ash Street and Conway Drive (LOS D)
- Rincon Avenue east of Conway Drive (LOS D)

The increase in V/C ratio on the above street segment due to the Project traffic is less than the

allowable threshold of 0.02. Therefore, the Project does not have a substantial effect on this street segment.

**TABLE 11-2
LONG-TERM (YEAR 2035) INTERSECTION OPERATIONS**

Intersection	Control Type	Movement	Peak Hour	Long-Term (Year 2035) without Project		Long-Term (Year 2035) with Project		Δ^c	Substantial Effect?
				Delay	LOS	Delay	LOS		
1. N. Broadway / Rincon Avenue	Signal	Overall	AM	52.8	D	52.9	D	0.1	No
		Overall	PM	38.6	D	38.6	D	0.0	No
2. Rincon Avenue / N. Ash Street	AWSC ^d	Overall	AM	15.0	B	15.0	B	0.0	No
		Overall	PM	13.0	B	13.0	B	0.0	No
3. Rincon Avenue / Conway Drive	AWSC	Overall	AM	10.5	B	10.5	B	0.0	No
		Overall	PM	12.3	B	12.4	B	0.1	No
4. Conway Drive / H Lot Driveway #1	MSSC ^e	EB	AM	DNE	DNE	9.4	A	-	No
		EB	PM	DNE	DNE	7.7	A	-	No
5. Stanley Avenue / N. Ash Street	AWSC	Overall	AM	19.8	C	20.3	C	0.5	No
		Overall	PM	13.2	B	13.4	B	0.2	No

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**TABLE 11-2 (CONTINUED)
LONG-TERM (YEAR 2035) INTERSECTION OPERATIONS**

Intersection	Control Type	Movement	Peak Hour	Long-Term (Year 2035) without Project		Long-Term (Year 2035) with Project		Δ^c	Substantial Effect?
				Delay	LOS	Delay	LOS		
CONTINUED FROM PREVIOUS PAGE									
6. Stanley Avenue / H Lot Driveway #2	MSSC	SB	AM	DNE	DNE	9.3	A	-	No
		SB	PM	DNE	DNE	9.0	A	-	No
7. Stanley Avenue / Conway Drive	MSSC	WB	AM	15.8	C	15.9	C	0.1	No
		WB	PM	12.5	B	12.6	B	0.1	No
8. Lehner Avenue / N. Ash Street	AWSC	Overall	AM	32.7	D	34.8	D	2.1	No
		Overall	PM	13.8	B	14.4	B	0.6	No
9. Lehner Avenue / F Lot Driveway	MSSC	SB	AM	DNE	DNE	12.8	B	-	No
		SB	PM	DNE	DNE	9.7	A	-	No

Footnotes:

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c. "Δ" denotes the Project-induced increase in Delay
- d. AWSC- All Way Stop Controlled intersection
- e. MSSC- Minor Street Stop Controlled intersection. Worst-case movement approach delay and LOS reported.

SIGNALIZED		UNSIGNALIZED	
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 11-3
LONG-TERM (YEAR 2035) STREET SEGMENT OPERATIONS**

Street Segment	Capacity (LOS E) ^a	Long-Term w/o Project			Long -Term + Project			Δ ^e	Substantial Effect?
		ADT ^b	LOS ^c	V/C ^d	ADT	LOS	V/C		
Rincon Avenue									
N. Broadway to N. Ash Street	20,000	12,400	C	0.620	12,420	C	0.621	0.001	No
N. Ash Street to Conway Drive (approximately west half portion)	15,000	11,400	D	0.760	11,420	D	0.761	0.001	No
N. Ash Street to Conway Drive (approximately east half portion)	15,000	11,400	D	0.760	11,420	D	0.761	0.001	No
East of Conway Drive	10,000	8,800	D	0.880	8,800	D	0.880	0.000	No
Stanley Avenue									
N. Ash Street to Conway Drive	10,000	1,400	A	0.140	1,620	A	0.162	0.022	No
Lehner Avenue									
N. Ash Street to Conway Drive	10,000	1,100	A	0.110	1,220	A	0.122	0.012	No
Vista Avenue									
N. Ash Street to Conway Drive	20,000	1,600	A	0.080	1,600	A	0.080	0.000	No
N. Ash Street									
Stanley Avenue to Lehner Avenue	10,000	3,500	B	0.350	3,640	B	0.364	0.014	No
Lehner Avenue to Vista Avenue	10,000	3,000	A	0.300	3,250	A	0.325	0.025	No
South of Vista Avenue	15,000	6,800	B	0.453	7,010	B	0.467	0.014	No

**TABLE 11-3
LONG-TERM (YEAR 2035) STREET SEGMENT OPERATIONS**

Street Segment	Capacity (LOS E) ^a	Long-Term w/o Project			Long -Term + Project			Δ ^e	Substantial Effect?
		ADT ^b	LOS ^c	V/C ^d	ADT	LOS	V/C		
Conway Drive									
Rincon Avenue to Stanley Avenue	10,000	3,290	A	0.329	3,310	A	0.331	0.002	No
Lehner Avenue to Vista Avenue	10,000	2,500	A	0.250	2,520	A	0.252	0.002	No

Footnotes:

- a. Capacities based on the City of Escondido General Plan Circulation Element Classification Capacities.
- b. Average Daily Traffic Volumes
- c. Level of Service
- d. Volume to Capacity
- e. "Δ" denotes the Project-induced increase in V/C

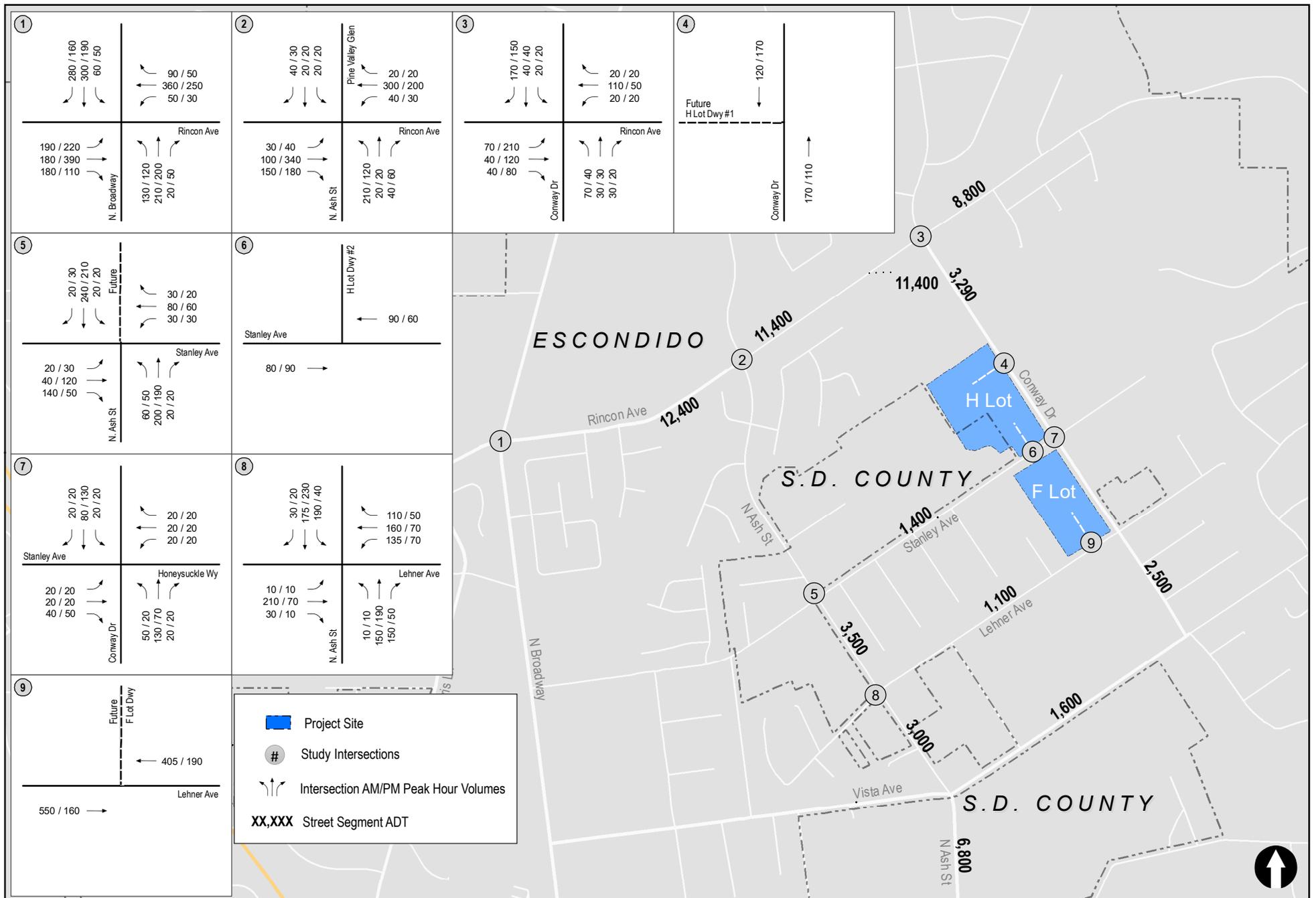


Figure 11-1
Long-Term (2035) without Project Traffic Volumes

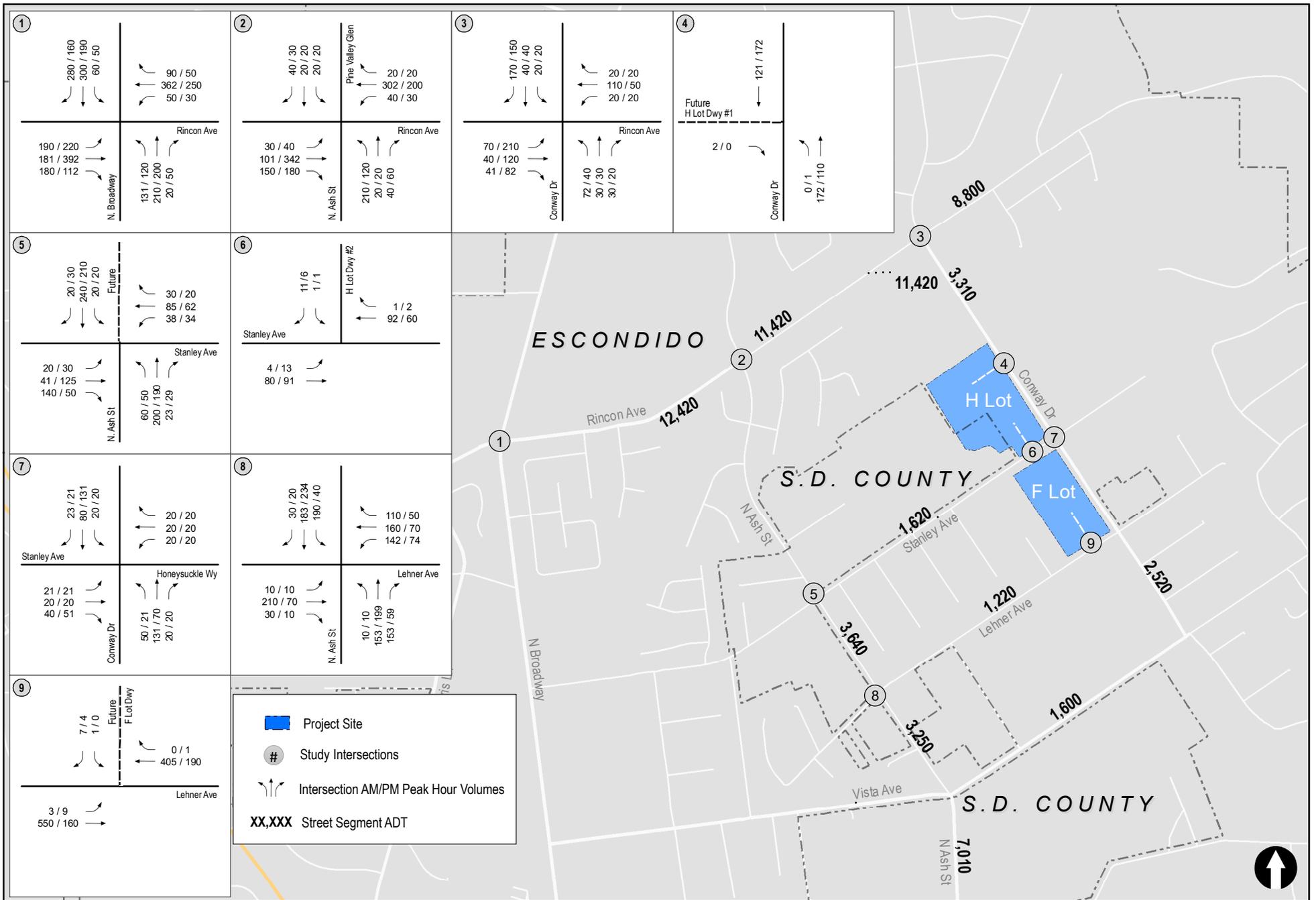


Figure 11-2
Long-Term (2035) + Project Traffic Volumes

12.0 PROJECT ACCESS

As described in *Section 2.0*, access to each Project sites are the following:

F Lot

The F Lot's site access is proposed via one full access driveway along Lehner Avenue.

H Lot

The H Lot's site access is proposed via two (2) full access driveway: along Conway Drive serving up to 10 multifamily attached units and along Stanley Avenue serving the single family detached units.

These access will function adequately and dedicated left-turn lanes into the site are not necessary.

13.0 ACTIVE TRANSPORTATION

13.1 Pedestrian Mobility

Pedestrian connectivity around the Project and the surrounding community area was assessed.

Figure 13–1 depicts the Existing Pedestrian Network including missing sidewalks and *Figure 13–2* depicts the Existing Pedestrian Activity.

As seen on *Figure 13–1* sidewalks are provided in the study area as described below:

- **Stanley Avenue** – Sidewalks are provided on the western 2/3 (approximately 1,100 feet) of the roadway on the south side from Ash Street to Conway Drive. No sidewalk exists on the eastern 600 feet of the south side, nor along the north side of Stanley Avenue. The Project proposes to construct a sidewalk on both sides along its frontage.
- **Lehner Avenue** – Sidewalks are provided along both sides of the roadway from Ash Street to Conway Drive, with the exception of a 270 foot gap along an undeveloped parcel on the western half of the south. The Project proposes to construct a sidewalk on the north side along its frontage.
- **Conway Drive** – Sidewalks are not provided from Rincon Avenue to Stanley Avenue, with the exception of a 600 foot segment on the east side north and south of Stanley Avenue. The Project proposes to construct a sidewalk on the west side along its frontage.
- **Ash Street** – Sidewalks are provided intermittently on both the west and east side between Rincon Avenue and Vista Avenue.
- **Rincon Avenue** – Sidewalks are provided on the north side and a portion of the south side of Rincon Avenue in the study segments. The south side of Rincon Avenue is undeveloped from 730 feet west of Conway Drive and 200 feet east of Conway Drive. No sidewalk exists in this undeveloped segment.
- **Vista Avenue** – Sidewalks are provided on the north side only of Vista Avenue between Ash Street and Conway Drive.

It may be noted that pedestrian activity in the Project vicinity is limited as the sidewalk system is discontinuous as described above and shown on *Figure 13–1*.

13.2 Bicycle Mobility

Figure 13–3 depicts the Existing Bicycle Network and *Figure 13–4* depicts the Existing Bicycle Activity. As seen on *Figure 13–3*, Class II bike lanes are provided along Broadway within the project study area. There are no existing Class III bike routes within the study area.

There are currently no existing dedicated bicycle lanes on Conway Drive, Stanley Avenue, Rincon Avenue, Vista Avenue and Lehner Avenue within the project study area. However, based on a review of the City of Escondido *Bicycle Master Plan*, October 2012, Class II bike lanes are planned along Rincon Avenue between Centre City Parkway and just west of Conway Drive, along Broadway south of Rincon Avenue and along Ash Street south of Rincon Avenue within the study

area. Class III bike routes are planned along Conway Drive between Rincon Avenue and Vista Avenue, along Vista Avenue between Broadway and Conway Drive and along Broadway north of Rincon Avenue within the study area.

13.3 Transit Mobility

Public transit is very limited in the immediate project vicinity. The City of Escondido's transit center is located 4 miles south of the Project site at the northwest corner of N. Quince Street and W. Valley Parkway. The Escondido Transit Center is a bus and train station located in Downtown Escondido. It serves as the current eastern terminus of the North County Transit District's (NCTD) SPRINTER light rail line. Multiple transit services via NCTD Breeze, NCTD, and MTS bus transit lines are provided.

The nearest bus stops to the project site are located on Broadway at Rincon Drive (4,100 feet from the Project site), near Stanley Avenue (4,200 feet from the Project site) and at Vista Avenue (4,200 feet from the Project site) which is considered an excessive walk, but a reasonable biking distance. These stops are served by NCTD routes 358 and 359 and runs along El Norte, Country Club Lane, Broadway, and connects directly to the Escondido Transit Center. This route operates at a 2-hour frequency Monday through Friday only from 5:02 AM through 8:38 PM. These routes do not operate on Saturdays, Sundays or holidays. The bus routes 358 and 359 map and schedule are included in *Appendix J*.

The NCTD SPRINTER Light Rail Line runs to Oceanside. The SPRINTER runs every 30 minutes in each direction Monday through Friday from approximately 4:00 AM to 9:00 PM. Saturday, Sunday, and holiday trains operate every 30 minutes between 10:00 AM and 6:00 PM and hourly before 10:00 AM and after 6:00 PM.

The Sprinter station is located adjacent to the Escondido Transit Center, which is connected to the Project by NCTD routes 358 and 359.

Bike and pedestrian access is available to the Escondido Transit Center. Bike access is available to the Escondido Transit Center on the bike lane on Broadway from Country Club Lane to El Norte Parkway. From the Escondido Transit Center, residents can reach the beaches in Oceanside, and connect to trains to Los Angeles or San Diego. Residents can also connect to the MTS Rapid Bus (route 235) to downtown San Diego. Bus route 235 stops are the Del Lago Transit Station, Rancho Bernardo Transit Station, Sabre Springs Transit Station, Miramar College Transit Station, Kearny Mesa Transit Station, Boulevard Transit Plaza, City Heights Transit Place, City College Transit Station and America Plaza Trolley Station. This route operates at a 15-minute frequency Monday through Friday from 4:43 AM through 11:51 PM, and operates at a 30-minute frequency on Saturday and Sunday from 4:43 AM through 11:21 PM. The bus route 235 map and schedule are included in *Appendix J*.

Consideration was given to providing a shuttle from the Project site to the Escondido Transit Center, but it was determined to be infeasible. *Figure 13-5* shows the existing transit network.

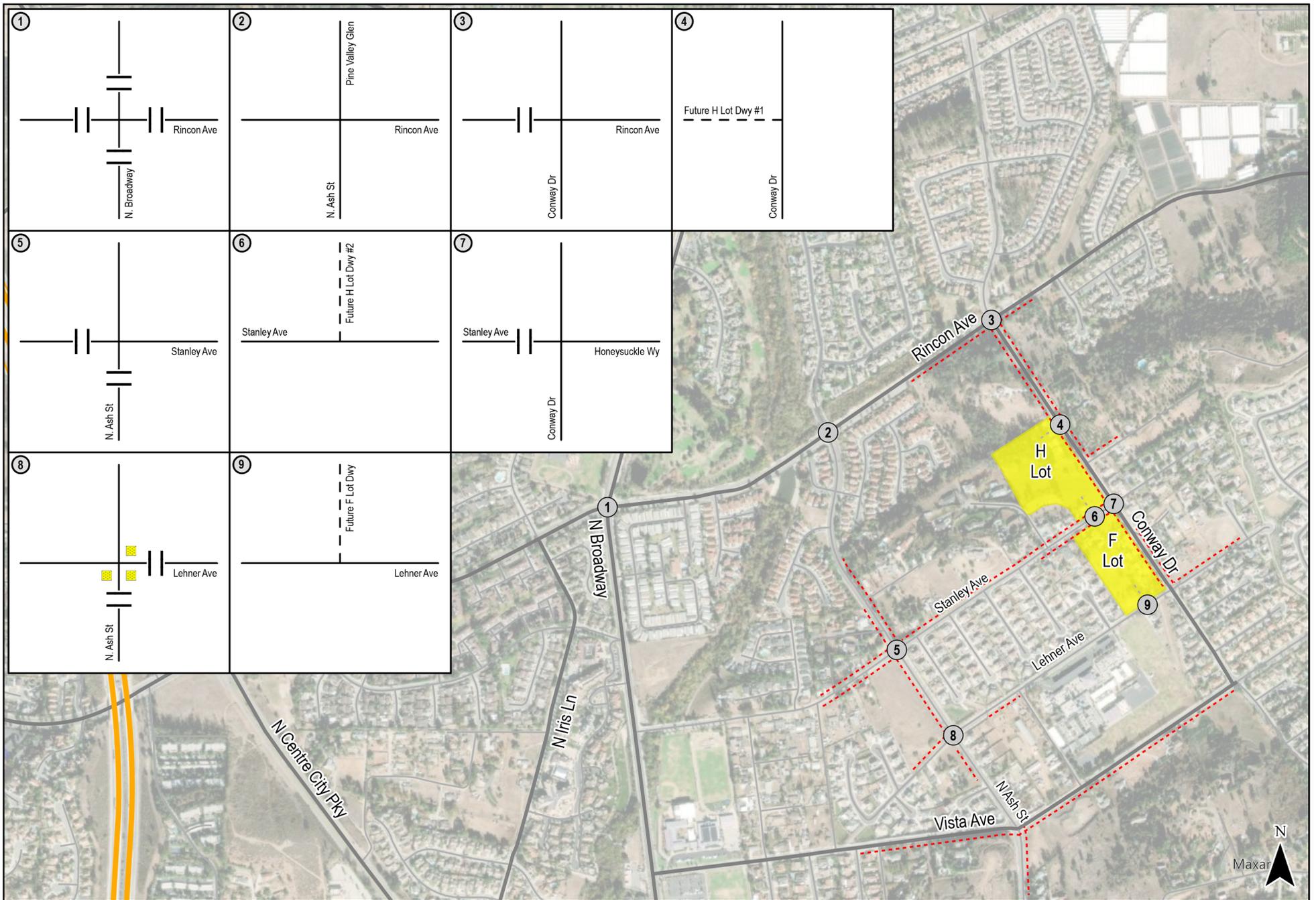
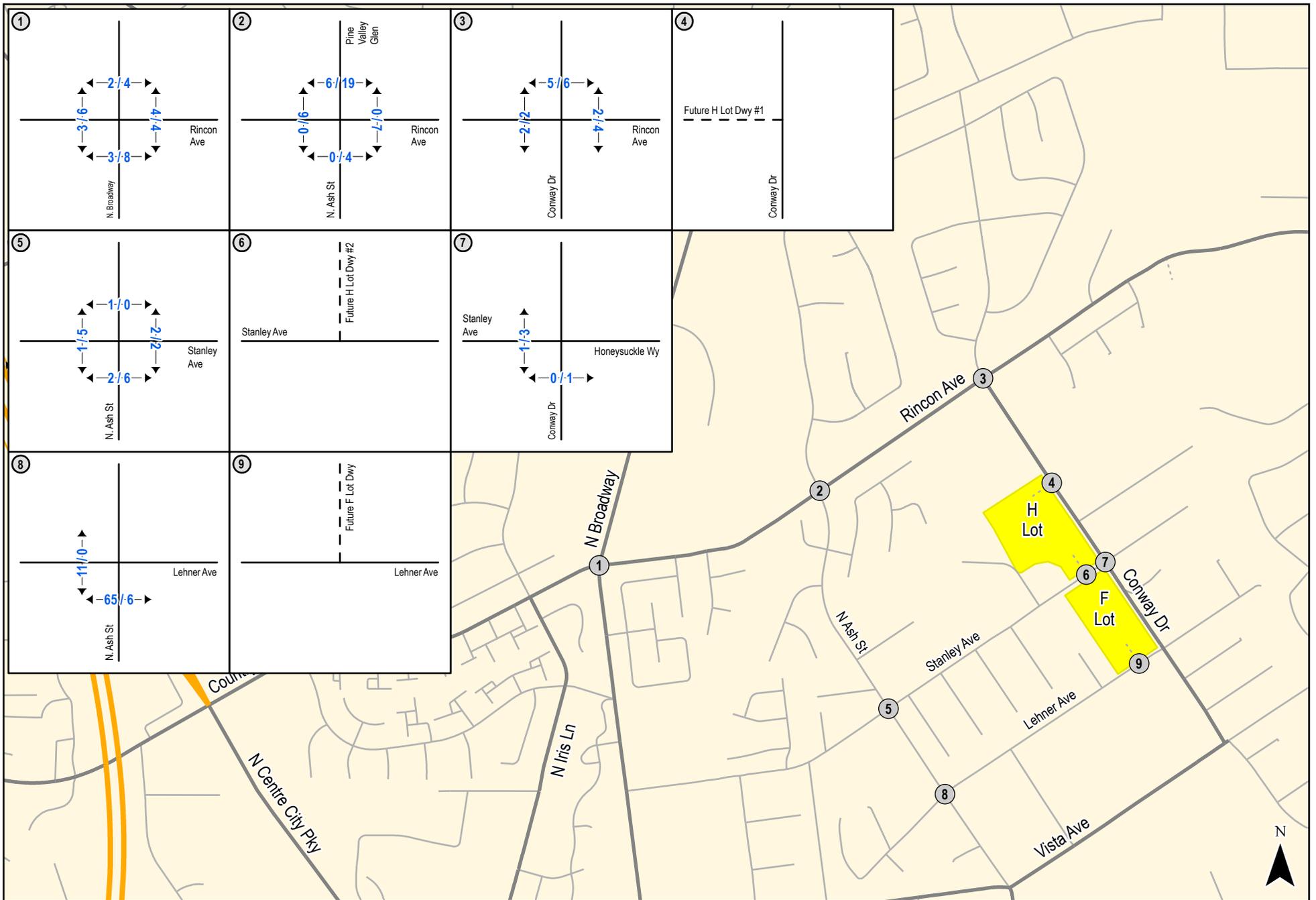


Figure 13-1
Existing Pedestrian Network



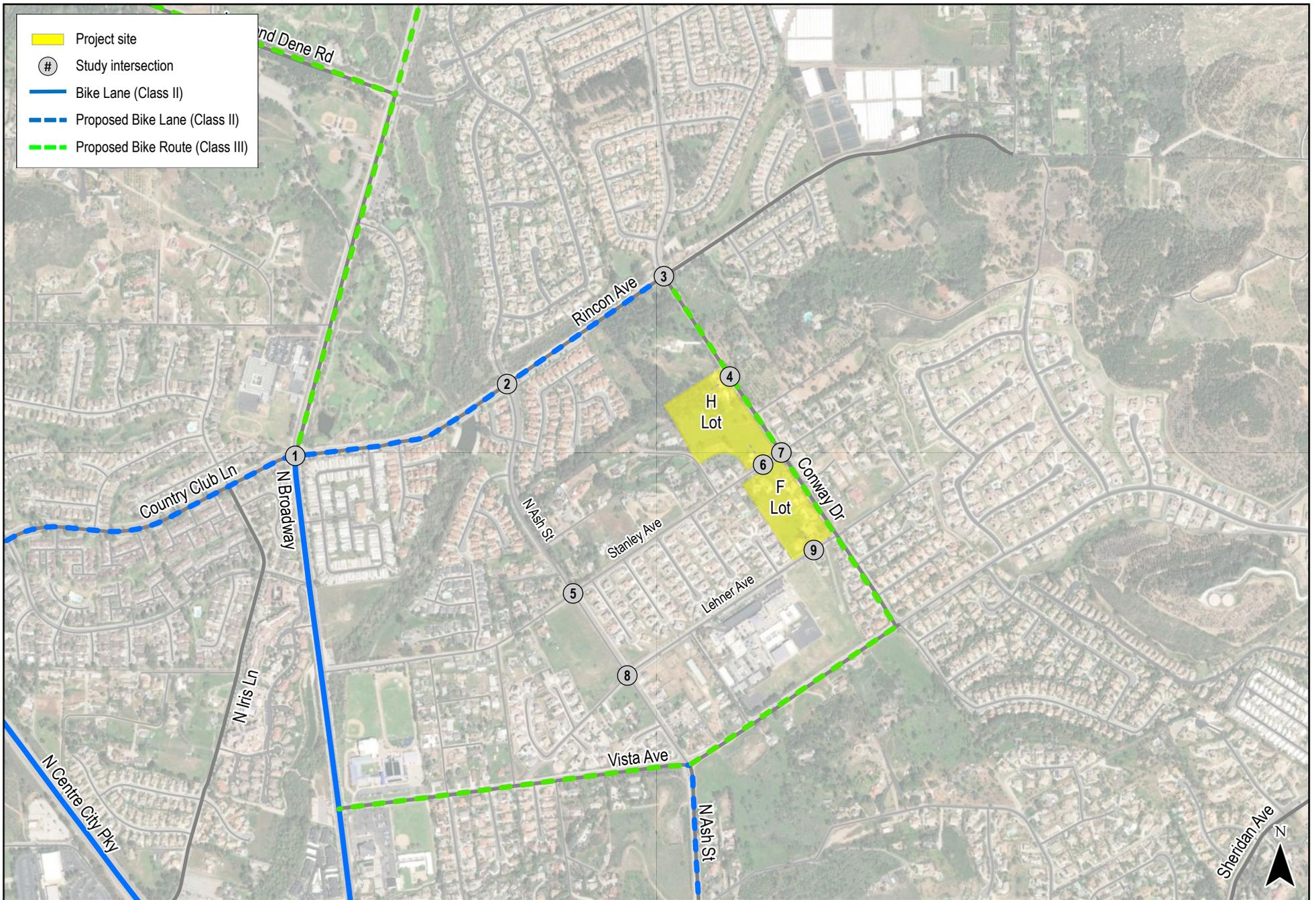


Figure 13-3
Bicycle Network

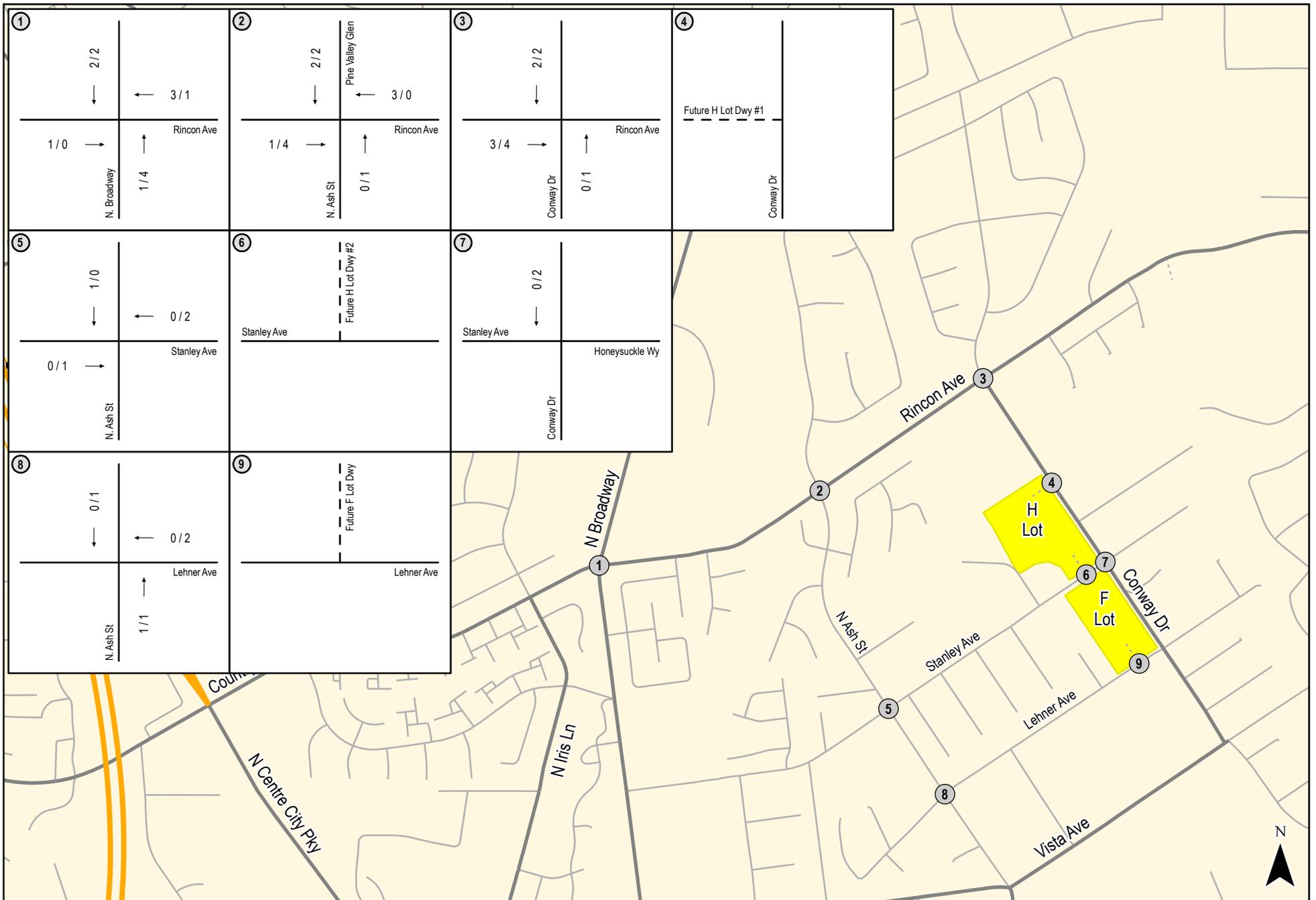


Figure 13-4
Existing Bicycle Activity

14.0 CONCLUSIONS

Based on the established criteria discussed in *Section 6.0*, no substantial effects are calculated in terms of intersection and segment capacity for the project. Therefore, improvements are not required under these analyses.

The Project is calculated to generate more than the minimum 200 ADT and the site is located over ½ mile walking distance from an existing major transit stop; therefore, it is not screened out on the basis of Project size or its proximity to transit opportunities. In addition, since the Project VMT per capita is higher than 85% of the Regional average, a significant VMT impact is calculated.

As a subsequent action, the City is in the process of preparing a VMT Exchange Program that will establish a mechanism towards maintaining VMT efficiency within its jurisdiction. This program would identify improvements based on the GHG Handbook that could serve to facilitate or encourage residents to walk, bike or take transit as substitutes for driving. The following pedestrian network and infrastructure improvements and equivalent VMT reductions were evaluated based on information in the GHG Handbook and are recommended:

- N. Ash Street / Vista Avenue – install high visibility crosswalks and accessible pedestrian signals on all four legs. VMT reduction equates to 60 VMT per measure – total reduction for this intersection is 120 VMT.
- N. Broadway / Rincon Avenue – install high visibility crosswalks on the north, south and east legs, and install accessible pedestrian signals on all four legs. VMT reduction equates to 60 VMT per measures – total reduction for this intersection is 120 VMT.
- Stanley Avenue / Conway Drive – install high visibility crosswalks on the west leg and curb ramps on the northwest and southwest corner. VMT reduction equates to 15 VMT for the high visibility crosswalk and 8 VMT per curb ramp – total reduction for this intersection is 31 VMT.
- Lehner Avenue / Conway Drive – install high visibility crosswalks on the west and south legs, and curb ramps on the northwest corner. VMT reduction equates to 30 VMT for the high visibility crosswalks and 8 VMT for the curb ramp – total reduction for this intersection is 38 VMT.
- New sidewalk – approximately 1 mile of new sidewalk equates to 303 VMT reduction. The Project proposes to construct approximately 2,111 feet of new sidewalk along its Project frontage. This would equate to approximately 121 VMT reduction.

The total value of the improvements shown above would result in a total VMT reduction of 430 VMT, thereby exceeding the required 423 VMT reduction as calculated in *Table 5–2*, which would reduce the VMT to below a level of significance.