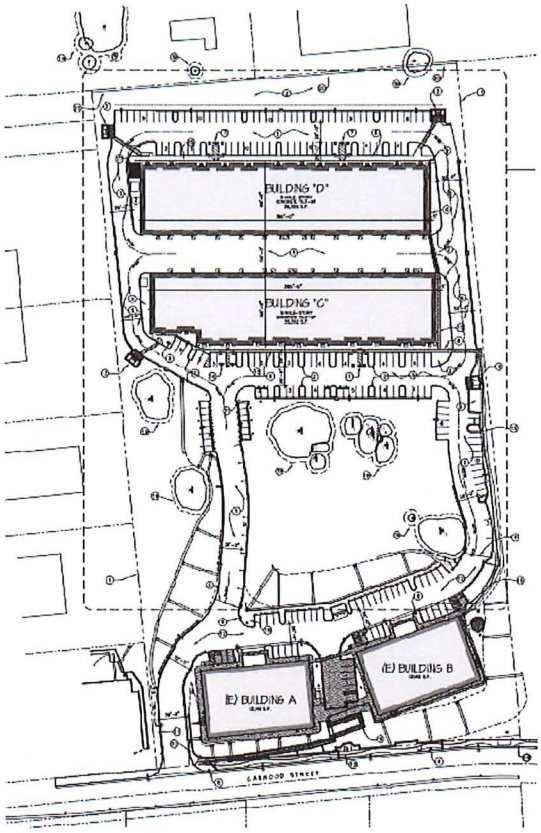
Appendix C

Traffic Report

AGOURA BUSINESS CENTER NORTH DEVELOPMENT
CITY OF AGOURA HILLS, CALIFORNIA

REVISED TRAFFIC AND CIRCULATION STUDY



September 7, 2023 **ATE Project #22020**

Prepared for:

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REVISED TRAFFIC AND CIRCULATION STUDY FOR THE AGOURA BUSINESS CENTER NORTH DEVELOPMENT - CITY OF AGOURA HILLS

Associated Transportation Engineers (ATE) has prepared the following revised traffic and circulation study for the Agoura Business Center North Development, proposed in the City of Agoura Hills. The revised traffic and circulation study addresses comments provided by City of Agoura staff. The traffic and circulation study evaluates the Project's consistency with the policies outlined in the City's traffic impact analysis guidelines.

We appreciate the opportunity to assist you with this Project.

Associated Transportation Engineers

Scott A. Schell
Principal Transportation Planner

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INTRODUCTION

The following study contains an analysis of the potential traffic and circulation impacts associated with the Agoura Business Center North Development (the "Project"), located in the City of Agoura Hills. The study provides information regarding existing and future traffic conditions within the Project study-area and recommends improvements where necessary. The study also includes an analysis of the Project's consistency with the policies outlined in the Los Angeles County Congestion Management Program (CMP).

PROJECT DESCRIPTION



The Project site is located at 28721 "C" and 28721 "D" Canwood Street in the City of Agoura Hills. Figure 1 illustrates the location of the Project site within the City. Figure 2 illustrates the Project site plan. The current Project application is for the construction of 2 buildings totaling 72,076 square-feet of light industrial space on a 10.22-acre site. The Project is consistent with the existing Business Park-Manufacturing-Freeway Corridor (BP-M-FC) zoning. Site access will be provided via an existing driveway connection to Canwood Street.

TRAFFIC SCENARIOS AND SCOPE OF WORK

The traffic study assesses potential traffic impacts for the following 6 scenarios.

Traffic Scenarios
1) Year 2022 Conditions
2) Year 2022 + Project Conditions
3) Year 2025 Conditions
4) Year 2025 + Project
5) Year 2035 Conditions
6) Year 2035 + Project Conditions

The traffic analysis evaluates the weekday AM and PM peak hour periods for 4 study-area roadway segments and 5 study-area intersections. The Near-Term scenario provides an analysis of the Project's opening year, 2025 assuming a 0.75% per year growth rate and development of approved and pending projects expected by that time. The Future Year scenario assumes year 2035 conditions using the same 0.75% per year growth rate plus development of approved and pending projects expected after 2025.



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PROJECT SITE LOCATION

FIGURE 1

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GENERAL NOTES

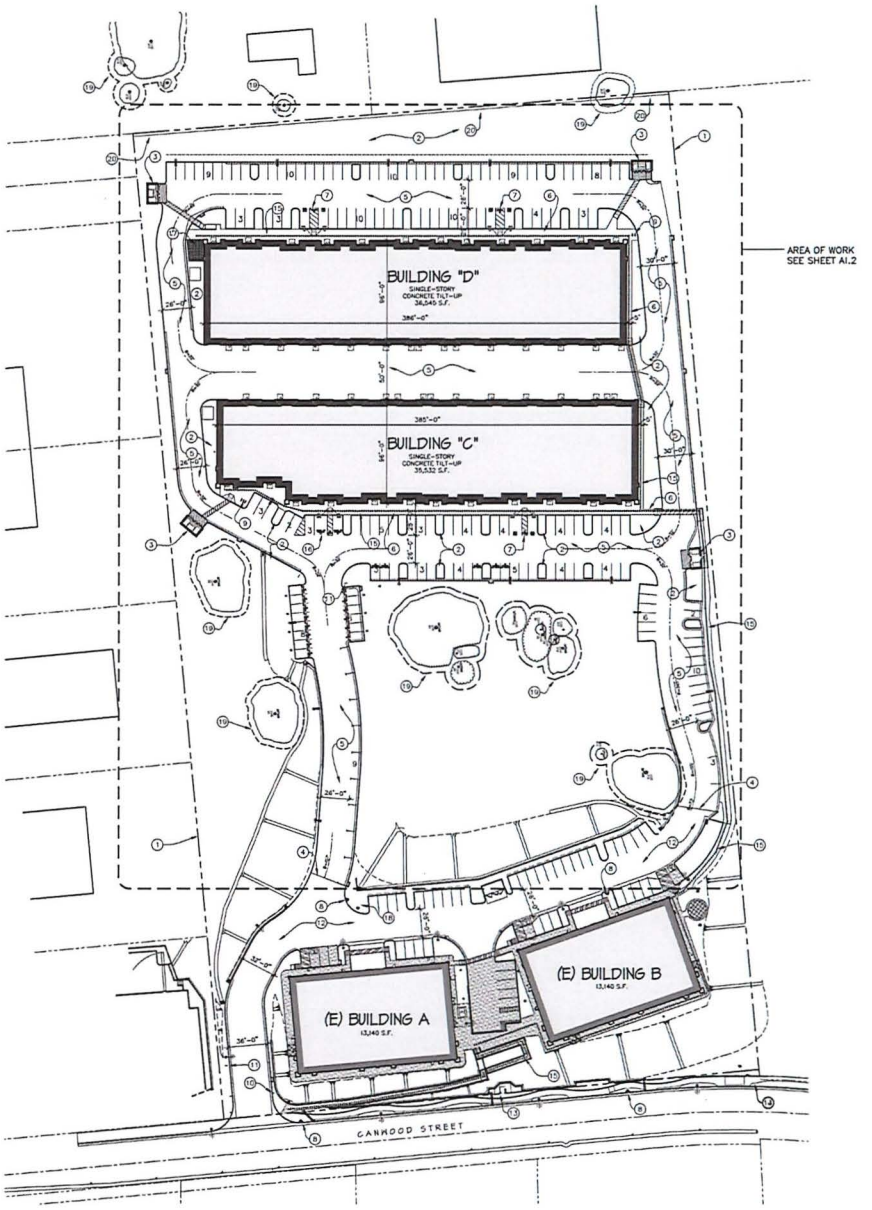
1. ALL EXTERIOR MATERIALS USED FOR EAVES, SIDINGS, PORCH, PATIO, DECKS, CANOPIES, CARPORT AND OTHER SIMILAR STRUCTURES NEED TO MEET THE "VERY HIGH FIRE HAZARD SEVERITY ZONE" AS OUTLINES IN CHAPTER 2 OF ARTICLE VIII IN THE 2020 LOS ANGELES COUNTY FIRE CODE AND AGOURA HILLS MUNICIPAL CODE.
2. A TWO PERCENT (2%) SLOPE AWAY FROM STRUCTURE FOR DRAINAGE (ON THE FIRST 5 FEET) ALL AROUND THE NEW STRUCTURES SHALL BE PROVIDED.
3. ALL NEW OR REPLACED WINDOWS WILL BE TEMPERED ON AT LEAST ONE SIDE OF THE DUAL PANE, OR A 20 MINUTE RATED WINDOW OR GLASS BLOCKS PER SECTION 704A.3.2.2 OF THE 2019 CALIFORNIA BUILDING CODE AND 2020 LOS ANGELES FIRE CODE.
4. FIRE SPRINKLERS WILL BE REQUIRED FOR ALL NEW STRUCTURES PER SECTION 903.2, ARTICLE VIII OF THE AGOURA HILLS MUNICIPAL CODE 903.2.

NOTE LEGEND

1. PROPERTY LINE
2. LANDSCAPING
3. TRASH ENCLOSURE
4. APPROXIMATE LIMITS OF DEVELOPMENT
5. ASPHALT PAVEMENT
6. CONCRETE PAVEMENT/SIDEWALK
7. ACCESSIBLE PARKING AND CURB RAMP
8. EXISTING FIRE HYDRANT
9. BICYCLE RACKS
10. ACCESSIBLE SITE ENTRY SIGN, SEE DETAIL 2/A8.0
11. EXISTING BUILDING LOCATOR SIGN, SEE 1/A1.0.
12. EXISTING PAVED PARKING AREA TO REMAIN PROTECT IN PLACE. SEE CIVIL DRAWINGS.
13. EXISTING FIRE DEPARTMENT POINT OF CONNECTION.
14. EXISTING BACKFLOW.
15. ACCESSIBLE PATH OF TRAVEL TO PUBLIC RIGHT A WAY. SLOPE NOT TO EXCEED 4.99% WITH MAX. 2% CROSS SLOPE.
16. LOCATION OF FUTURE VAN ACCESSIBLE EV CHARGING AND STANDARD ACCESSIBLE SPACES.
17. OUTDOOR PATIO SPACE.
18. ART WORK TO BE INSTALLED AT THIS LOCATION.
19. OAK TREE PROTECTED ZONE
20. REPLACE EXISTING CHAIN LINK FENCE WITH A BLACK WROUGHT IRON FENCE.

FIRE DEPARTMENT NOTES:

1. FIRE DEPARTMENT VEHICULAR ACCESS ROADS MUST BE INSTALLED AND MAINTAINED IN A SERVICEABLE MANNER PRIOR TO AND DURING THE TIME OF CONSTRUCTION. FIRE CODE 501.4.
2. PROVIDE APPROVED SIGNS OR OTHER APPROVED NOTICES OR MARKINGS THAT INCLUDE THE WORDS NO PARKING – FIRE LANE. SIGNS SHALL HAVE A MINIMUM DIMENSION OF 12 INCHES WIDE BY 18 INCHES HIGH AND HAVE RED LETTERS ON A WHITE REFLECTIVE BACKGROUND. SIGNS SHALL BE PROVIDED FOR FIRE APPARATUS ACCESS ROADS, TO CLEARLY INDICATE THE ENTRANCE TO SUCH ROAD, OR PROHIBIT THE OBSTRUCTION THEREOF AND AT INTERVALS, AS REQUIRED BY THE FIRE INSPECTOR. FIRE CODE 503.3.
3. APPROVED BUILDING ADDRESS NUMBERS, BUILDING NUMBERS OR APPROVED BUILDING IDENTIFICATION SHALL BE PROVIDED AND MAINTAINED SO AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET FRONTING THE PROPERTY. THE NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND, BE ARABIC NUMERALS OR ALPHABET LETTERS, AND BE A MINIMUM OF 4 INCHES HIGH WITH A MINIMUM STROKE WIDTH OF 0.5 INCH. FIRE CODE 505.1.
4. FIRE APPARATUS ACCESS ROADS SHALL BE IDENTIFIED WITH APPROVED SIGNS. TEMPORARY SIGNS SHALL BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE BY VEHICLES. SIGNS SHALL BE OF AN APPROVED SIZE, WEATHER RESISTANT AND BE MAINTAINED UNTIL REPLACED BY PERMANENT SIGNS. FIRE CODE 505.2.
5. AN APPROVED KEY BOX, LISTED IN ACCORDANCE WITH UL 1037 SHALL BE PROVIDED AS REQUIRED BY FIRE CODE 506. THE LOCATION OF EACH KEY BOX SHALL BE DETERMINED BY THE FIRE INSPECTOR.
6. THE REQUIRED FIRE FLOW FOR THE PUBLIC FIRE HYDRANTS FOR THIS PROJECT IS 4000 gpm AT 20 psi RESIDUAL PRESSURE FOR 4 HOURS. FIRE FLOW MAY BE REDUCED WITH THE INSTALLATION OF AUTOMATIC FIRE SPRINKLERS.
7. ALL FIRE HYDRANTS SHALL MEASURE 6"x4"x2-1/2" BRASS OR BRONZE, CONFORMING TO CURRENT AWWA STANDARD C503 OR APPROVED EQUAL, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE COUNTY OF LOS ANGELES FIRE CODE.
8. PLANS SHOWING UNDERGROUND PIPING FOR PRIVATE ON-SITE FIRE HYDRANTS SHALL BE SUBMITTED TO THE SPRINKLER PLAN CHECK UNIT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. FIRE CODE 901.2.
9. PROVIDE AN APPROVED AUTOMATIC FIRE SPRINKLER SYSTEM AS SET FORTH BY BUILDING CODE 903 AND FIRE CODE 903. PLANS SHALL BE SUBMITTED TO THE FIRE SPRINKLER PLAN CHECK UNIT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
10. THE MEANS OF EGRESS, AND EXIT DISCHARGE, SHALL BE ILLUMINATED AT ANY TIME THE BUILDING IS OCCUPIED WITH A LIGHT INTENSITY OF NOT LESS THAN 1 FOOT-CANDLE AT THE WALKING SURFACE LEVEL. CBC 1008.2.
11. PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED IN LOCATIONS AS REQUIRED BY FIRE CODE 906.



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PROJECT SITE PLAN

FIGURE 2

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The scope of work and traffic assessment methodologies presented in this study were developed based on the requirements outlined in the City of Agoura Hills' Transportation Assessment Guidelines (July 2020). A Memorandum of Understanding (MOU) outlining the traffic study scope and methodologies was provided to City staff.

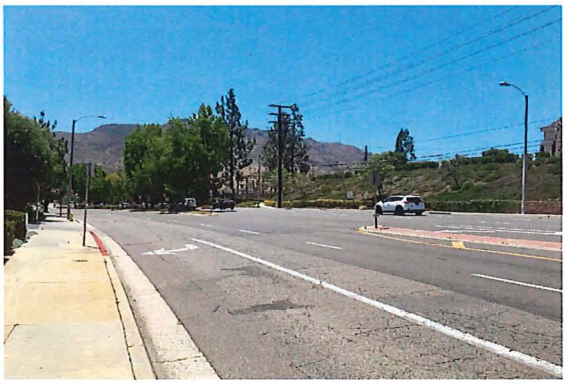
EXISTING CONDITIONS

Street Network

The Project site is served by a network of highways, arterial roads and collector streets as illustrated in Figure 1. The following text provides a brief description of the major components of the study-area street network.

U.S. Highway 101, located north of the Project site, is a multi-lane interstate highway serving the Pacific Coast between Los Angeles and San Francisco. U.S. Highway 101 is the principal route between the City of Agoura Hills and the adjacent cities of Ventura, Oxnard, Camarillo, Thousand Oaks, and Westlake Village to the west; and the cities of Calabasas and Los Angeles to the east. Regional access between the Project site and U.S. Highway 101 is provided via the Kanan Road and Reyes Adobe Road interchanges. The ramp intersections at the interchanges are signalized.

Kanan Road, located east of the Project site, is a 4-lane arterial roadway that extends south from Tamarind Street and intersects with U.S. Highway 101 and Agoura Road before entering into Los Angeles County at the southern City limits. The roadway provides a primary north-south surface street route through the City of Agoura Hills. Within the study-area, Kanan Road is signalized at the U.S. Highway 101 interchange and the Canwood Street intersection.





Canwood Street, is an east-west two-lane undivided Local Arterial which serves as a frontage road on the north side of U.S. Highway 101. The roadway originates at Lake Crest Drive, at the west City limits, and extends to Chesebro Road on the east. It serves local businesses and residential neighborhoods east and west of Kanan Road. The Kanan Road/Canwood Street intersection is signalized.



Clareton Drive, located west of the Project site, is a 2-lane north-south private street that extends north from Canwood Street. Clareton Drive provides access to various businesses including a U.S. Post Office. The intersection of Canwood Street/Clareton Drive intersection is controlled by a STOP-Sign on Clareton Drive.

Derry Avenue, located east of the Project site, is a 2-lane north-south local street that extends north from Canwood Street and terminating at the gated Medfield Street. Derry Avenue provides access to various business offices and light industrial uses. The intersection of Canwood Street/Derry Avenue intersection is controlled by a STOP-Sign on Derry Avenue.



Existing Roadway Levels of Service

In rating roadway operations, "Levels of Service" (LOS) A through F are used. LOS A and LOS B represent primarily free-flow operations, LOS C represents stable conditions, LOS D nears unstable operations with restrictions on maneuverability within traffic streams, LOS E represents unstable operations with maneuverability very limited, and LOS F represents breakdown or forced flow conditions (complete definitions of intersection levels of service are included in the Technical Appendix). The City of Agoura Hills considers LOS C or better acceptable for roadway operations.

The City's Transportation Assessment Guidelines require that the roadway segment analysis be performed by comparing the peak hour volume on a roadway segment with the Street Segment LOS Definitions and Descriptions outlined in the City of Agoura's General Plan and General Plan 2035 Final EIR and shown below in Table 1 (General Plan Circulation Plan roadway classifications contained in Technical Appendix).

Table 1
Street Segment Level of Service Definitions and Descriptions

Roadway Classification	# of Lanes	Median Type	Service Volume Thresholds for Level of service (vehicles per hour) (b)			
			C or Better	D	E	F
Collector	2	Undivided	$\leq$ 450	$\leq$ 950	$\leq$ 1,200	< 1,200
Arterial	2	Undivided	$\leq$ 870	$\leq$ 1,390	$\leq$ 1,480	< 1,480
	2.5(a)	Undivided	$\leq$ 1,087	$\leq$ 1,737	$\leq$ 1,942	< 1,942
	4	Undivided	$\leq$ 1,929	$\leq$ 2,803	$\leq$ 2,964	< 2,964
	4	Divided	$\leq$ 2,030	$\leq$ 2,950	$\leq$ 3,120	< 3,120
	5	Divided	$\leq$ 2,600	$\leq$ 3,700	$\leq$ 3,905	< 3,905
	6	Divided	$\leq$ 3,170	$\leq$ 4,450	$\leq$ 4,690	< 4,690

(a) Denotes three lane cross section with one through lane in each direction and a continuous two-way left-turn lane.
(b) Service volume thresholds for each level of service were derived and adapted from the Highway Capacity Manual (Transportation Research Board, 2000), and Florida Department of Transportation Research, 2002.

Existing peak hour traffic volumes for the study-area roadway segments were obtained from traffic counts conducted on Wednesday, May 8th 2019 for the Kanan Road corridor and Thursday, July 21st of 2022 for the Canwood Street corridor (count data included in Technical Appendix). The Wednesday, May 8th 2019 traffic counts for the Kanan Road corridor were adjusted to 2022 using a 0.75 per year growth factor for a 3-year period. Table 2 lists the Year 2022 peak hour volumes, roadway capacities, and levels of service for the study-area roadway segments.

Table 2
Year 2022 Roadway Levels of Service

Seg.	Roadway Segment	Classification	Lanes	LOS C Capacity	2022 Volume	LOS
1.	Kanan Road n/o U.S. Highway 101	Arterial	5 - D	2,600	3,299	LOS D
3.	Kanan Road n/o Agoura Road	Arterial	5 - D	2,600	1,969	LOS C or better
4.	Canwood Street e/o Kanan Road	Arterial	2.5 - U	1,087	1,226	LOS D
5.	Canwood Street e/o Derry Avenue	Arterial	2.5 - U	1,087	397	LOS C or better

Bolded values exceed adopted LOS C standard.

The data presented in Table 2 show that 2 of the roadway segments currently operate at LOS C or better which meets the City's LOS C standard. The section of Kanan Road north of U.S. Highway 101 and the section of Canwood Street east of Kanan Road operate at LOS D.

Existing Intersection Levels of Service

Because traffic flow on urban arterial roadways is most constrained at intersections, detailed traffic flow analyses focus on the operating conditions of critical intersections

during peak travel periods (7:00 AM - 9:00 AM / 4:00 PM - 6:00 PM). In rating intersection operations, the levels of service criteria (LOS A through F) described previously in the Existing Roadway Operations section are also used. The City of Agoura Hills considers LOS C or better acceptable for intersection operations.

Existing AM and PM peak hour traffic volumes for the study-area intersections were obtained from traffic counts conducted on Wednesday, May 8th 2019 for the Kanan Road corridor and Thursday, July 21st of 2022 for the Canwood Street corridor (count data included in Technical Appendix). The May 8th 2019 traffic counts for the Kanan Road corridor were adjusted to 2022 using a 0.75 per year growth factor for a 3-year period. The 2022 AM and PM peak hour traffic volumes for the study-area intersections are illustrated on Figure 3. The existing lane geometries and traffic controls for the intersections are illustrated on Figure 4.

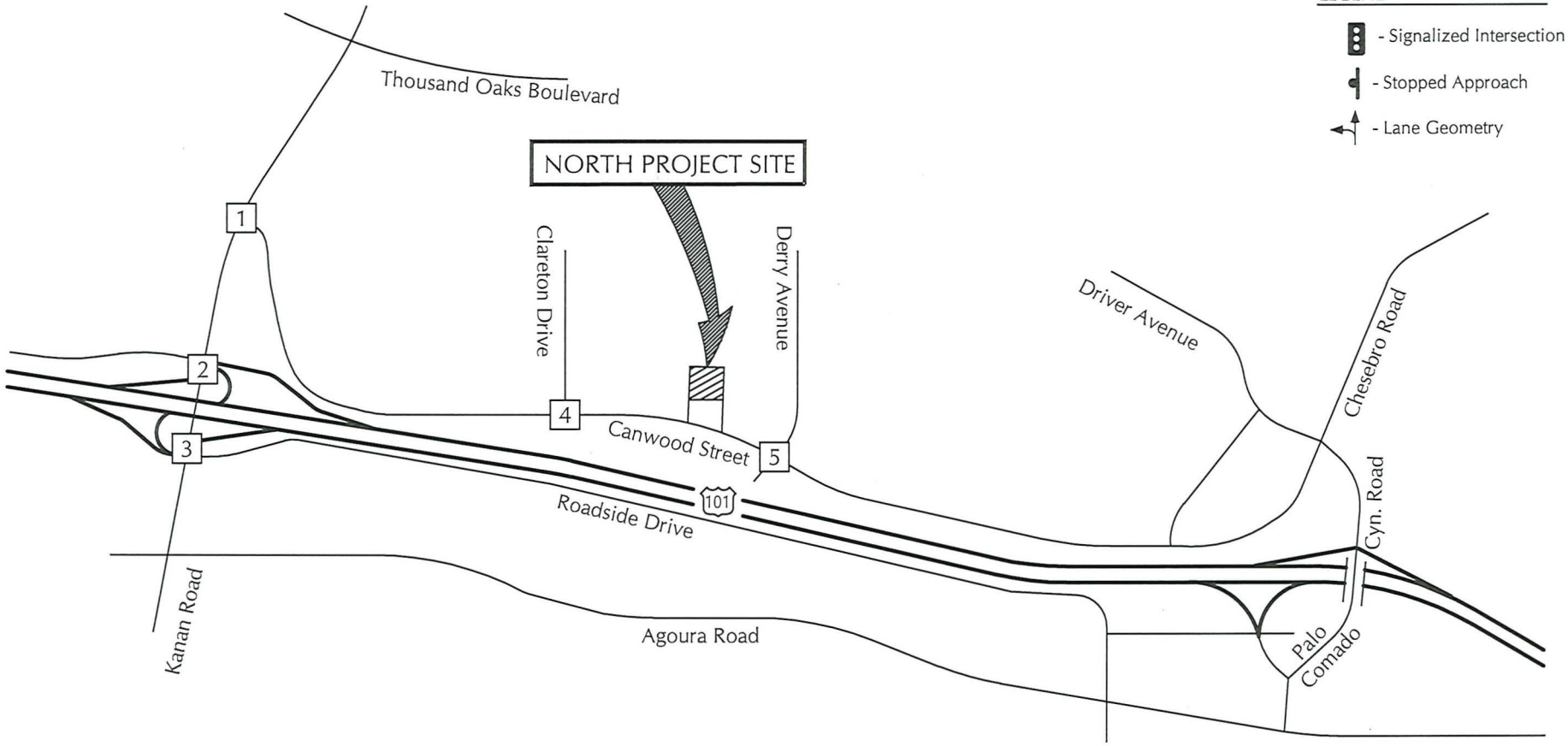
As stipulated in the City's Transportation Assessment Guidelines, levels of service were calculated for the signalized and unsignalized study-area intersections using the operations methodology outlined in the Highway Capacity Manual (HCM). Levels of service are based on the average number of seconds of delay per vehicle during the peak 15-minute period within the overall peak hour. Table 3 lists the Year 2022 traffic controls and levels of service for the study-area intersections (calculation worksheets included in Technical Appendix).

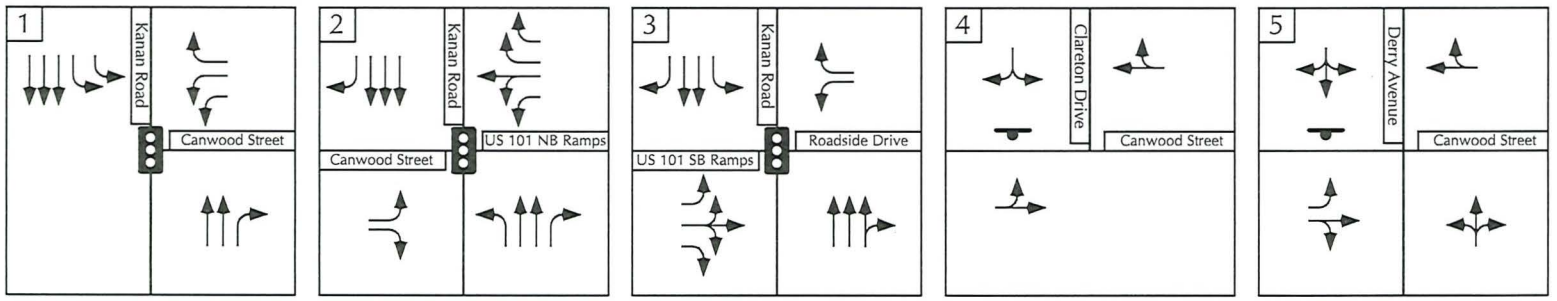
Table 3
Year 2022 Intersection Levels of Service

Intersection	Control	Delay/LOS	
		AM Peak Hour	PM Peak Hour
Canwood St./Kanan Rd.(a)	Signal	11.3 Sec./LOS B	23.7 Sec./LOS C
US 101 NB Ramps - Canwood St/Kanan Rd.(a)	Signal	**39.6 Sec./LOS D**	30.3 Sec./LOS C
US 101 SB Ramps - Roadside Dr/Kanan Rd.(a)	Signal	29.4 Sec./LOS C	29.1 Sec./LOS C
Canwood St./Clareton St.(b)	STOP-Sign	10.3 Sec./LOS B	12.8 Sec./LOS B
Canwood St./Derry Ave.(b)	STOP-Sign	11.1 Sec./LOS B	14.9 Sec./LOS B

Bolded values exceed adopted LOS standards.
(a) LOS based on average seconds of delay per vehicle.
(b) LOS based on minor street approach with highest vehicle delay

The data presented in Table 3 show that generally, the intersections operate in the LOS A - C range which meets the City's LOS C standard. The U.S. Highway 101 northbound ramps-Canwood Street/Kanan Road intersection currently operates at LOS D.





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EXISTING STREET NETWORK

FIGURE 3

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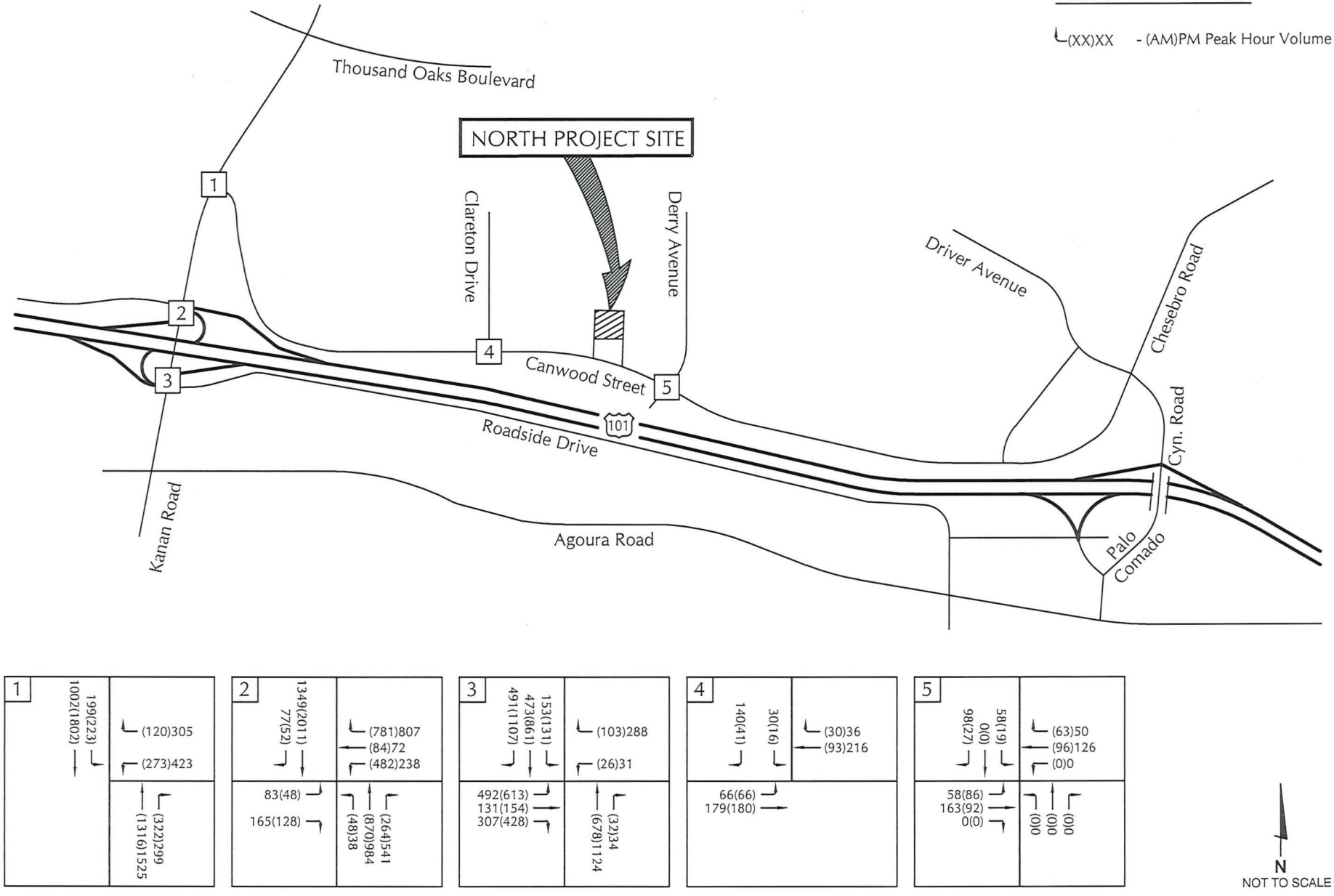

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YEAR 2022 TRAFFIC VOLUMES

FIGURE 4

GM- ATE#22020

CITY IMPACT AND MITIGATION POLICIES

The following sections presents the City's transportation impact and mitigation policies for intersections and roadway segments as outlined in the Transportation Assessment Guidelines.

At locations where the intersection or roadway segment LOS falls below, or is anticipated to fall below, the acceptable threshold of LOS C, feasible measures shall be identified to mitigate the impacts. Per the General Plan, development projects shall be mitigated to appropriate levels, but at least to the extent where the post-development level of service shall not be less than the LOS existing prior to development. The following sections identify impact criteria for signalized intersections, unsignalized intersections, and roadway segments.

Signalized Intersections

When comparing existing, near-term, long-term baseline conditions to "plus project" conditions, delay changes for signalized intersections that exceed the criteria shown in Table 4 should be identified.

Table 4
City of Agoura Hills Criteria for Signalized Intersections

LOS without Project	Average Total Delay (Seconds per Vehicle)	Project-Related Increase in Seconds of Average Total Delay
LOS C	> 20.0 – 35.0	Degrades intersection to LOS D
LOS D	> 35 – 55.0	Equal to or greater than 10.0 seconds
LOS E or F	> 55.0	Equal to or greater than 4.0 seconds

Unsignalized intersections

A proposed Project is considered to result in a significant impact if:

- Degrades the LOS at an unsignalized intersection to an unacceptable level of LOS D or worse;
- Increases delay at an unsignalized intersection operating at an unacceptable level by five of more seconds; or
- Results in satisfying the most recent California Manual on Uniform Traffic Control Devices (CAMUTCD) peak-hour volume warrant or other warrants for traffic signal installation at the intersection.

Roadway Segments

A proposed Project is considered to result in a significant impact if:

- Degrades the LOS at a roadway segment to an unacceptable level of LOS D or worse;
- Increases the volume-to-capacity (v/c) ratio on a roadway segment operating at an unacceptable level (LOS D, E, or F) by 0.05 or more.

EXISTING + PROJECT ANALYSIS

Project Trip Generation Estimates

The Project is proposing to construct 2 buildings totaling 72,076 square feet of light industrial space. Trip generation estimates were calculated for the Project based on the rates published in the Institute of Transportation Engineers (ITE), Trip Generation, 11th Edition for Light Industrial (Land Use Code #110). Table 5 presents the trip generation estimates for the Project.

Table 5
Project Trip Generation

Land Use	Size	ADT		AM Peak		PM Peak	
		Rate	Trips	Rate	Trips	Rate	Trips
Light Industrial	72.076 K.S.F.	4.87	351	0.74	53 (47/6)	0.65	47 (7/40)

The data presented in Table 5 indicate that the Project is forecast to generate 351 ADT, 53 AM peak hour trips and 47 PM peak hour trips.

Project Trip Distribution and Assignment

Trip distribution percentages were developed for the Project for assigning the primary trips to the adjacent street network based on existing traffic patterns, consideration of the proposed land uses and the surrounding land uses, and input from City staff. Table 6 lists the trip distribution pattern for assigning Project trips to the adjacent street network. The trip distribution and assignment of Project traffic to the study-area roadways and intersection is illustrated on Figure 5.

Table 6
Project Trip Distribution

Route	Origin/Destination	Percentage
U.S. Highway 101	West	40%
Kanan Road	North	10%
Kanan Road	South	5%
Canwood Street	West	15%
Canwood Street	East	30%
	Total:	**100%**

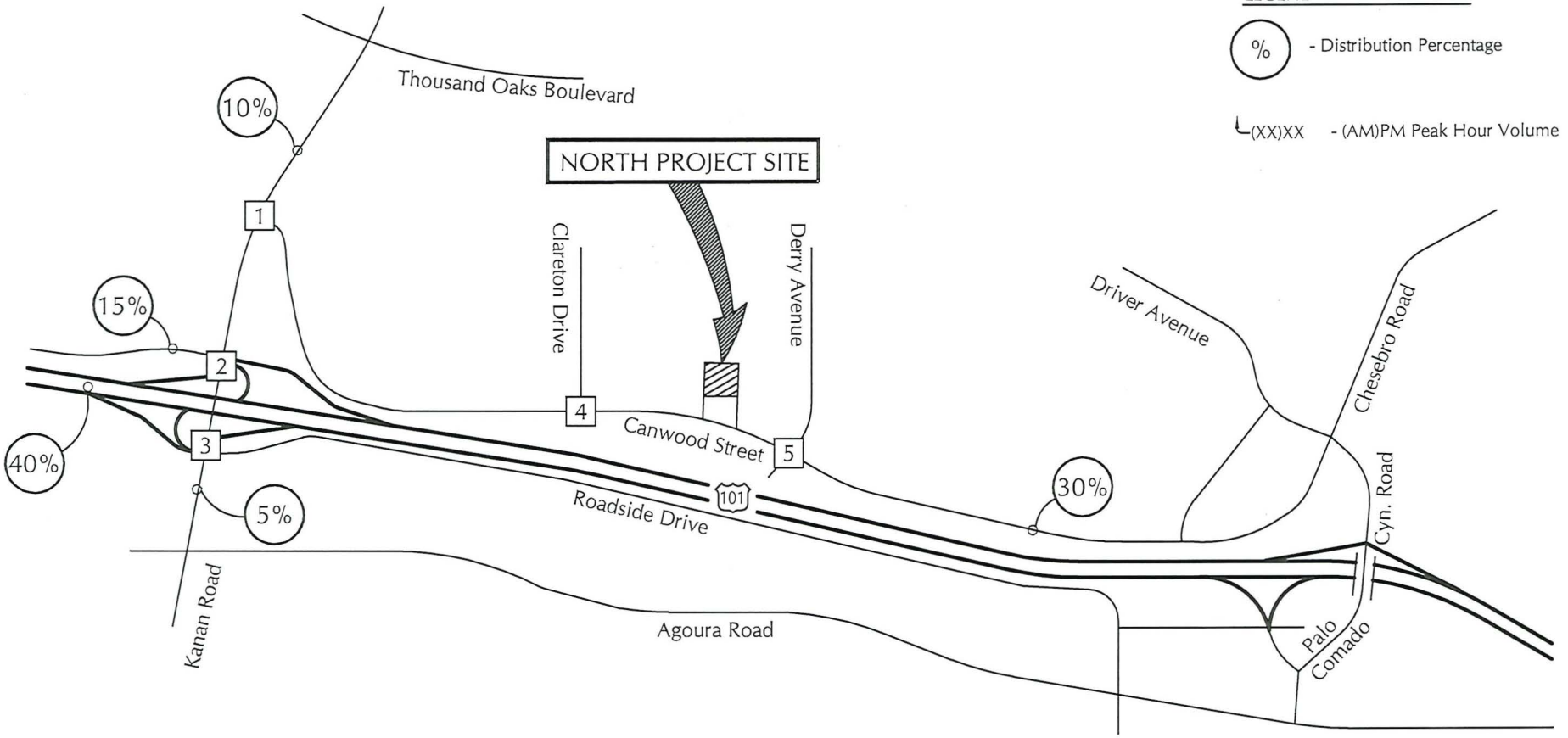
Year 2022 + Project Roadway Levels of Service

Levels of service were calculated for the study-area roadway assuming the Year 2022 + Project traffic volumes illustrated on Figure 6. Table 7 compares the Year 2022 and Year 2022 + Project levels of service and identifies impacts based on the applicable standards.

Table 7
Year 2022 + Project Roadway Levels of Service

Seg.	Roadway Segment	LOS C Capacity	2022	2022 + Project	LOS	V/C Change(a)	Impact?
1.	Kanan Road n/o U.S. Highway 101	2,600	3,299	3,327	LOS D	0.01	NO
2.	Kanan Road n/o Agoura Road	2,600	1,969	1,971	LOS C or better	NA	NO
3.	Canwood Street e/o Kanan Road	1,087	1,226	1,259	LOS D	0.03	NO
4.	Canwood Street e/o Derry Avenue	1,087	397	411	LOS C or better	NA	NO

Bolded values exceed adopted LOS C standard.
(a) V/C change based on theoretical capacity of street segment (LOS C thresholds).



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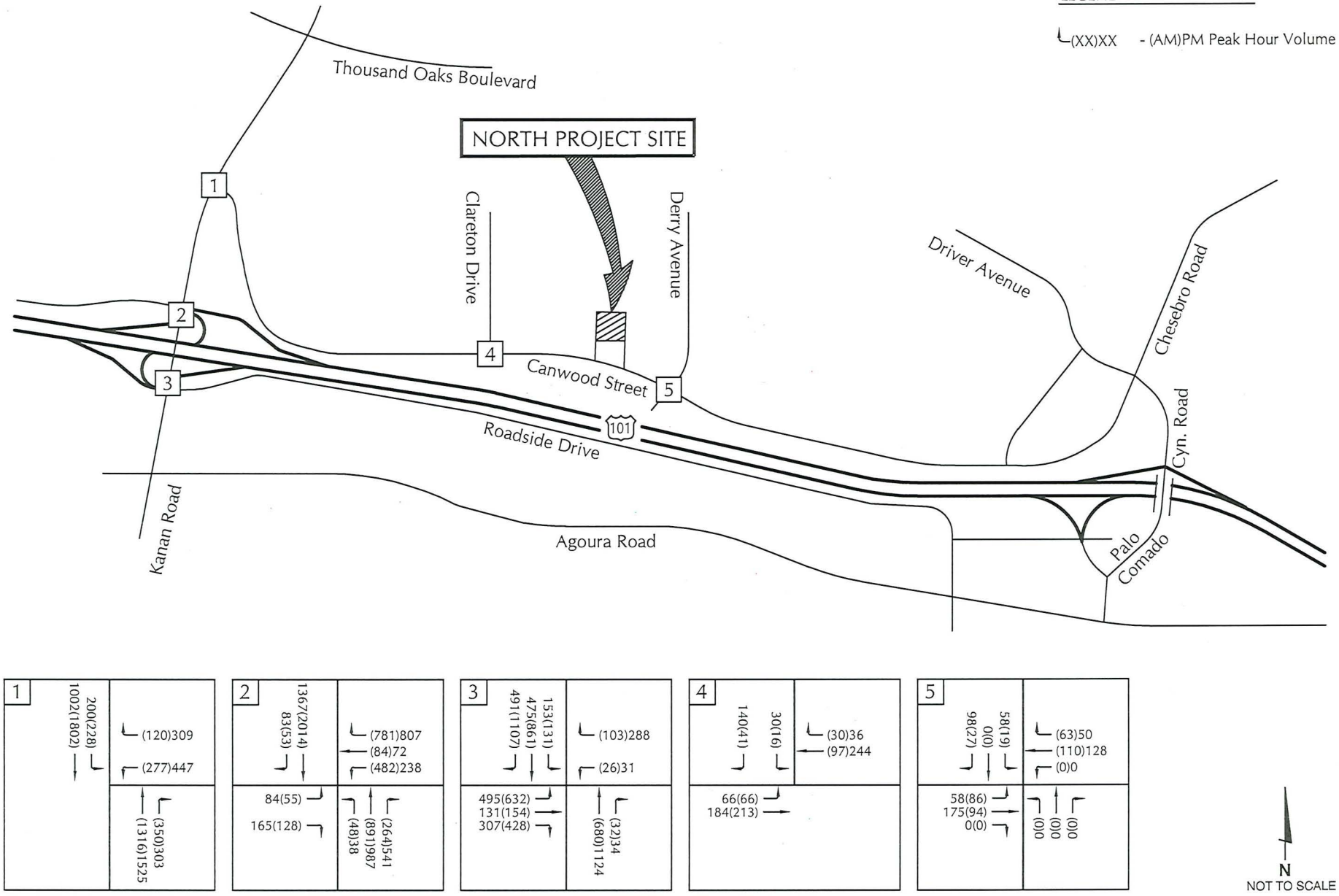
PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

FIGURE 5

GM- ATE#22020



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YEAR 2022 + PROJECT TRAFFIC VOLUMES

FIGURE 6

GM- ATE#22020

The data presented in Table 7 indicate that the section of Kanan Road north of U.S. Highway 101 and the section of Canwood Street east of Kanan Road will continue to operate at LOS D. The Project would add 28 peak hour trips to the section of Kanan Road north of U.S. highway 101 which would increase the V/C ratio by 0.007. This V/C increase would be well below the City's impact threshold of 0.05. The Project would therefore not generate significant roadway impacts based on the City's thresholds of significance. The Project would add 33 peak hour trips to the section of Canwood Street east of Kanan Road which would increase the V/C ratio by 0.017. This V/C increase would be well below the City's impact threshold of 0.05. The Project would therefore not generate significant roadway impacts based on the City's thresholds of significance.

Year 2022 + Project Intersection Levels of Service

Levels of service were calculated for the study-area intersections assuming the Year 2022 + Project traffic volumes illustrated on Figure 6. Tables 8 and 9 compare the Year 2022 and Year 2022 + Project levels of service and identify impacts based on the applicable standards.

Table 8
Year 2022 + Project AM Peak Hour Levels of Service

Intersection	2022		2022 + Project		Project-Added	
	Delay	LOS	Delay	LOS	Delay	Exceed?
Kanan Rd./Canwood St.(a)	11.3 Sec.	LOS B	11.3 Sec.	LOS B	0.0 Sec.	NO
US 101 NB Ramps - Canwood St/Kanan Rd.(a)	**39.6 Sec.**	**LOS D**	**38.4 Sec.**	**LOS D**	0.0 Sec.	NO
US 101 SB Ramps - Roadside Dr/Kanan Rd.(a)	29.4 Sec.	LOS C	30.3 Sec.	LOS C	0.9 Sec.	NO
Canwood St./Clareton Dr.(b)	10.3 Sec.	LOS B	10.5 Sec.	LOS B	0.2 Sec.	NO
Canwood St./Derry Ave.(b)	11.1 Sec.	LOS B	11.3 Sec.	LOS B	0.2 Sec.	NO

Bolded values exceed adopted LOS standards.
(a) LOS based on average seconds of delay per vehicle.
(b) LOS based on minor street approach with highest vehicle delay

Table 9
Year 2022 + Project PM Peak Hour Levels of Service

Intersection	2022		2022 + Project		Project Added	
	Delay	LOS	Delay	LOS	Delay	Exceed?
Kanan Rd./Canwood St.(a)	23.7 Sec.	LOS B	24.4 Sec.	LOS B	0.7 Sec.	NO
US 101 NB Ramps - Canwood St/Kanan Rd.(a)	30.3 Sec.	LOS C	32.4 Sec.	LOS C	2.1 Sec.	NO
US 101 SB Ramps - Roadside Dr/Kanan Rd.(a)	29.1 Sec.	LOS C	29.2 Sec.	LOS C	0.1 Sec.	NO
Canwood St./Clareton Dr.(b)	12.8 Sec.	LOS B	13.3 Sec.	LOS B	0.5 Sec.	NO
Canwood St./Derry Ave(b)	14.9 Sec.	LOS B	15.2 Sec.	LOS C	0.3 Sec.	NO

Bolded values exceed adopted LOS standards.
(a) LOS based on average seconds of delay per vehicle.
(b) LOS based on minor street approach with highest vehicle delay

The data presented in Tables 8 and 9 indicate that the U.S. Highway 101 northbound ramps-Canwood Street/Kanan Road intersection currently operates at LOS D during the AM peak hour period. The Project's traffic additions and resulting delay increase would not exceed the City's impact threshold. The remaining study-area intersections would operate acceptably in the LOS B - C range with Year 2022 + Project volumes. The Project would not generate significant traffic impacts based on the City's thresholds of significance. It is noted that there are locations where the average intersection delays decrease slightly with the addition of Project traffic. This is due to the Project adding traffic to individual movements that have lower than average delays when compared to the intersection as a whole, therefore resulting in a decrease in overall average delay.

YEAR 2025 (NEAR-TERM OPENING YEAR) + PROJECT ANALYSIS

The City's Transportation Assessment Guidelines require that roadway and intersection operations be analyzed for the opening year of the Project, which is assumed to be 2025 for this study.

Year 2025 Traffic Forecasts

Year 2025 traffic volumes were forecast for the study-area roadways and intersections assuming an ambient growth factor of 0.75 percent applied to the 2022 volumes for a three-year period. The 2025 forecasts also assume development of the approved/pending projects proposed within the City of Agoura Hills. The list of approved and pending projects used to forecast the Year 2025 traffic volumes was provided by City staff and is included in the Technical Appendix. The locations of the approved and pending projects are illustrated on Figure 7. Trip generation estimates were developed for approved/pending projects using the rates published in the ITE, Trip Generation, 11th Edition (trip generation worksheet is contained in the Technical Appendix). The trip assignment for the approved/pending projects was developed based on the location of each project, recent traffic studies, existing traffic patterns observed in the study-area as well as a general knowledge of the population, employment and commercial centers in Agoura Hills. The Year 2025 (Near-Term) added peak hour traffic volumes are illustrated on Figure 8. The Year 2025 (Near-Term) traffic volumes are illustrated on Figure 9.

Year 2025 + Project Roadway Levels of Service

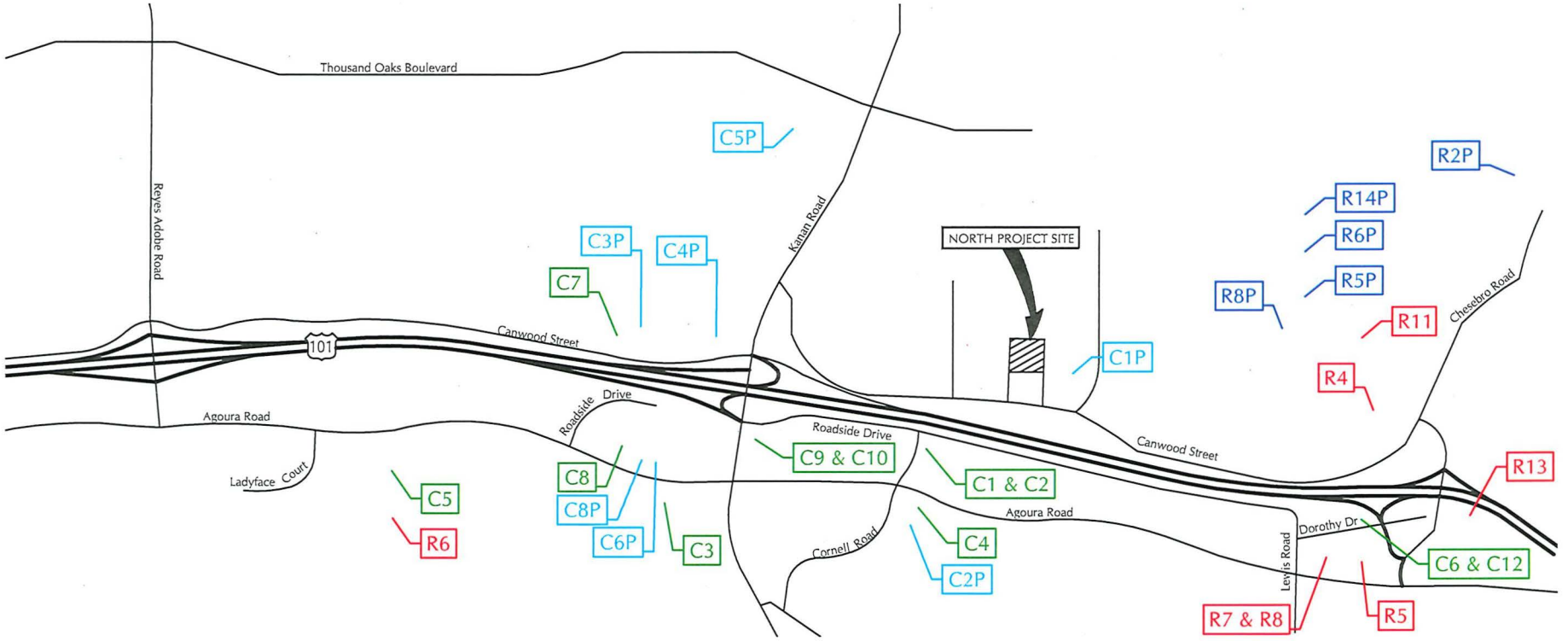
Levels of service were calculated for the study-area roadway assuming the Year 2025 + Project traffic volumes shown on Figure 10. Table 10 compares the Year 2025 and Year 2025 + Project levels of service and identifies impacts based on the applicable standards.

Table 10
Year 2025 + Project Roadway Levels of Service

Seg.	Roadway Segment	LOS "C" Capacity	2025	2025 + Project	LOS	V/C Change(a)	Impact?
1.	Kana Road n/o U.S. Highway 101	2,600	3,472	3,500	LOS D	0.01	NO
2.	Kanan Road n/o Agoura Road	2,600	2,467	2,469	LOS C or better	NA	NO
3.	Canwood Street e/o Kanan Road	1,087	1,254	1,287	LOS D	0.03	NO
4.	Canwood Street e/o Derry Avenue	1,087	404	418	LOS C or better	NA	NO

Bolded values exceed adopted LOS C standard.
(a) V/C change based on theoretical capacity of street segment (LOS C threshold).

The data presented in Table 10 indicate that the section of Kanan Road north of U.S. Highway 101 and the section of Canwood Street east of Kana Road are forecast to operate at LOS D. The Project would add 28 peak hour trips to the section of Kanan Road north of U.S. Highway 101 which would increase the V/C ratio by 0.007. This V/C increase would be well below the City's impact threshold of 0.05. The Project would therefore not generate significant roadway impacts based on the City's thresholds of significance. The Project would add 33 peak hour trips to the section of Canwood Street east of Kanan Road which would increase the V/C ratio by 0.017. This V/C increase would be well below the City's impact threshold of 0.05. The Project would therefore not generate significant roadway impacts based on the City's thresholds of significance.

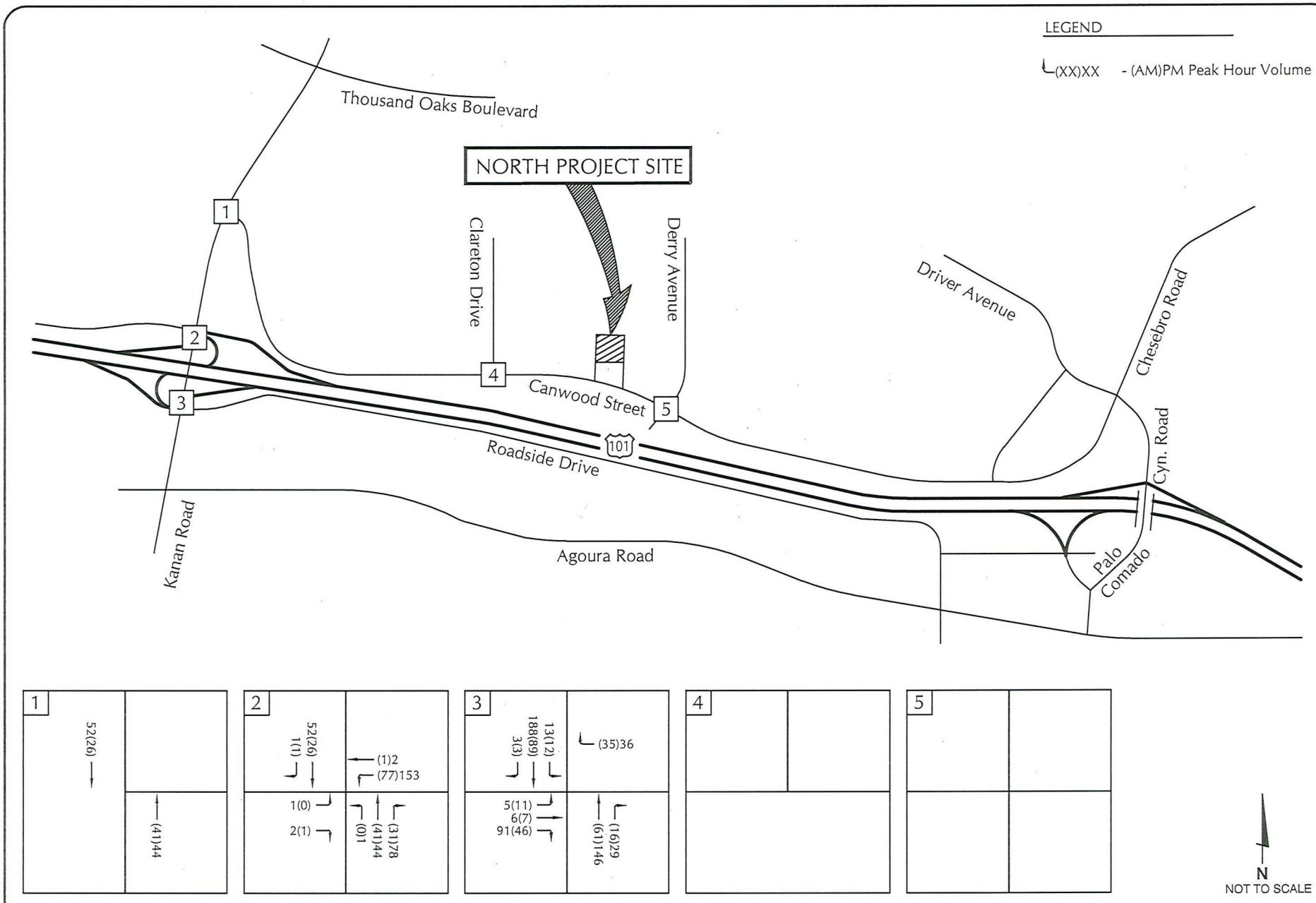


ASSOCIATED TRANSPORTATION ENGINEERS

APPROVED AND PENDING PROJECT LOCATIONS

FIGURE 7

GM- ATE#22020

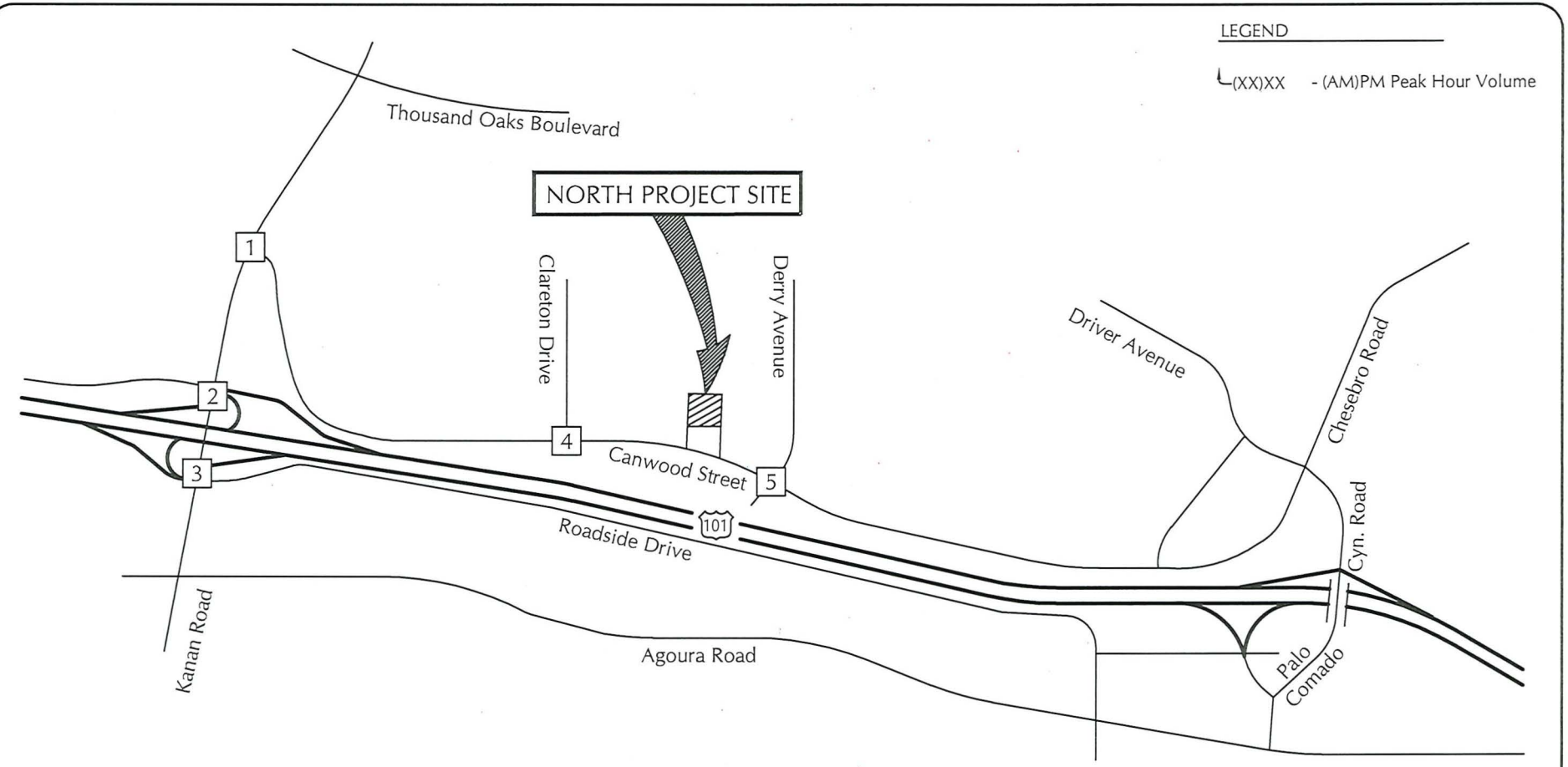


ASSOCIATED TRANSPORTATION ENGINEERS

APPROVED AND PENDING PROJECT TRAFFIC VOLUMES

FIGURE 8

GM- ATE#22020



ASSOCIATED TRANSPORTATION ENGINEERS

YEAR 2025 TRAFFIC VOLUMES

FIGURE 9

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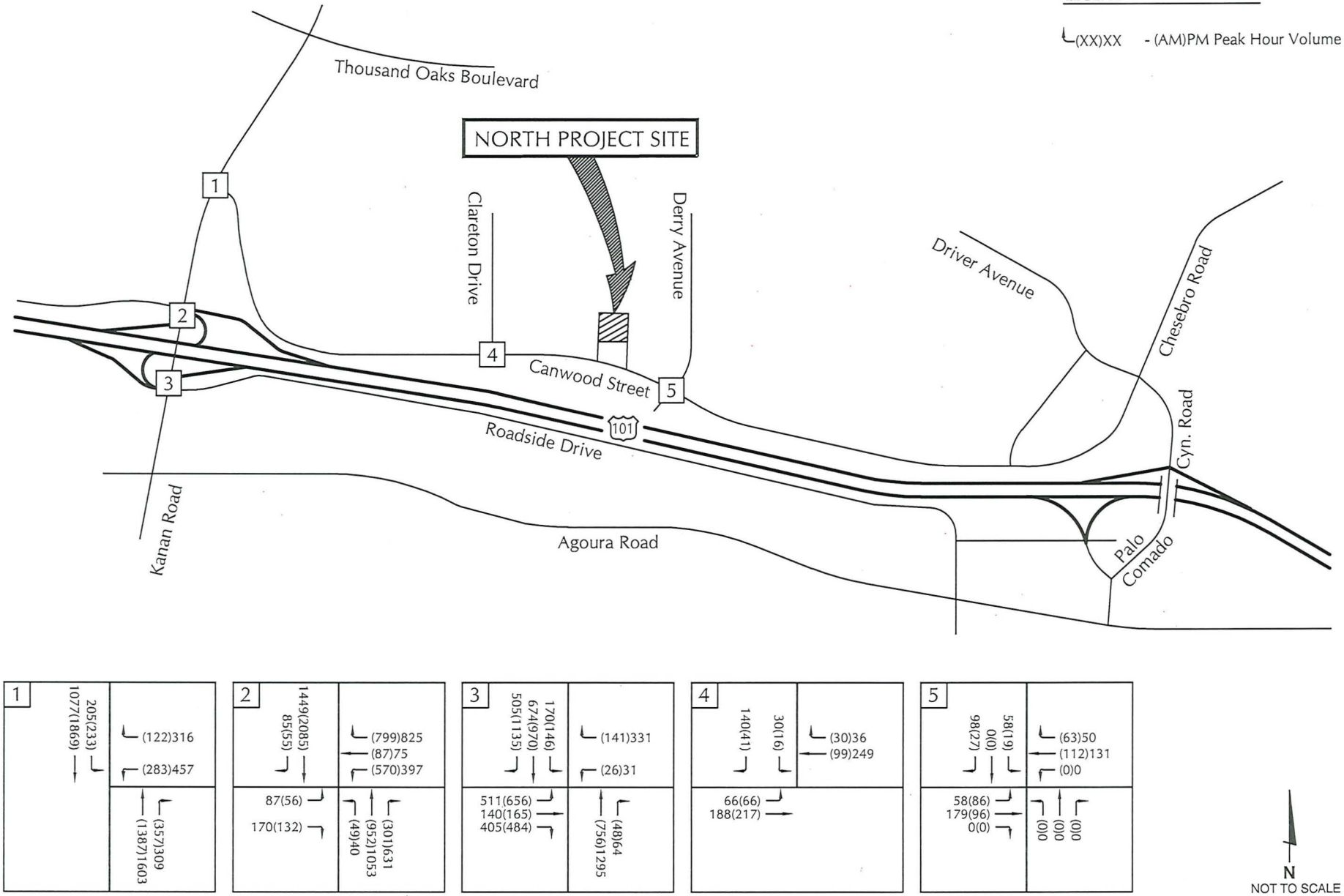

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YEAR 2025 + PROJECT TRAFFIC VOLUMES

FIGURE 10

GM- ATE#22020

Year 2025 + Project Intersection Levels of Service

Levels of service were calculated for the study-area intersections assuming the Year 2025 and Year 2025 + Project traffic volumes illustrated on Figures 9 and 10. Tables 11 and 12 compare the Year 2025 and Year 2025 + Project levels of service for the study-area intersections and identify near-term impacts based on City thresholds. The analysis completed for the Kanan Road/Agoura Road intersection assumes implementation of the new eastbound and northbound right-turn lanes that will be implemented at the intersection by the two adjacent development projects

Table 11
Year 2025 + Project AM Peak Hour Levels of Service

Intersection	2025		2025 + Project		Project Added	
	Delay	LOS	Delay	LOS	Delay	Exceed?
Canwood St./Kanan Rd(a)	11.2 Sec.	LOS B	11.2 Sec.	LOS B	0.0 Sec.	NO
US 101 NB Ramps - Canwood St./Kanan Rd.(a)	**40.8 Sec.**	**LOS D**	**40.6 Sec.**	**LOS D**	0.0 Sec.	NO
US 101 SB Ramps - Roadside Dr/Kanan Rd.(a)	31.7 Sec.	LOS C	32.1 Sec.	LOS C	0.4 Sec.	NO
Canwood St./Clareton Dr.(b)	10.3 Sec.	LOS B	10.5 Sec.	LOS B	0.2 Sec.	NO
Canwood St./Derry Ave.(b)	11.1 Sec.	LOS B	11.3 Sec.	LOS B	0.2 Sec.	NO

Bolded values exceed adopted LOS standards.
(a) LOS based on average seconds of delay per vehicle.
(b) LOS based on minor street approach with highest vehicle delay

Table 12
Year 2025 + Project PM Peak Hour Levels of Service

Intersection	2025		2025 + Project		Project Added	
	Delay	LOS	Delay	LOS	Delay	Exceed?
Canwood St./Kanan Rd.(a)	24.0 Sec.	LOS C	24.7 Sec.	LOS C	0.7 Sec.	NO
US 101 NB Ramps - Canwood St/Kanan Rd.(a)	33.7 Sec.	LOS C	33.6 Sec.	LOS C	0.0 Sec.	NO
US 101 SB Ramps - Roadside Dr/Kanan Rd.(a)	31.2 Sec.	LOS C	31.2 Sec.	LOS C	0.0 Sec.	NO
Canwood St./Clareton Dr.(b)	12.9 Sec.	LOS B	13.5 Sec.	LOS B	0.6 Sec.	NO
Canwood St./Derry Ave.(b)	15.1 Sec.	LOS C	15.4 Sec.	LOS B	0.3 Sec.	NO

Bolded values exceed adopted LOS standards.
(a) LOS based on average seconds of delay per vehicle.
(b) LOS based on minor street approach with highest vehicle delay

The data presented in Tables 11 and 12 indicate that the U.S. Highway 101 northbound ramps-Canwood Street/Kanan Road intersection would operate at LOS D during the AM peak hour period. The Project's traffic additions and resulting delay increase would not exceed the City's impact threshold. The remaining study-area intersections would operate acceptably in the LOS B - C range with Year 2025 + Project volumes. The Project would

not generate significant traffic impacts based on the City's thresholds of significance. It is noted that there are locations where the average intersection delays decrease slightly with the addition of Project traffic. This is due to the Project adding traffic to individual movements that have lower than average delays when compared to the intersection as a whole, therefore resulting in a decrease in overall average delay.

YEAR 2035 (LONG-TERM) ANALYSIS

The City's Traffic Impact Analysis guidelines require that intersections operations be analyzed assuming Long-Term (Year 2035) conditions.

Year 2035 Traffic Forecasts

Year 2035 traffic volumes were forecast assuming an ambient growth factor of 0.75 percent applied to the 2025 volumes for a 10-year period to represent Year 2035 traffic. The Future Year forecasts also include traffic generated by development of the approved and pending projects that will be built after the Year 2025. Figure 11 illustrates the Year 2035 traffic volume forecasts, and Figure 12 illustrates the Year 2035 + Project volumes.

Year 2035 + Project Roadway Levels of Service

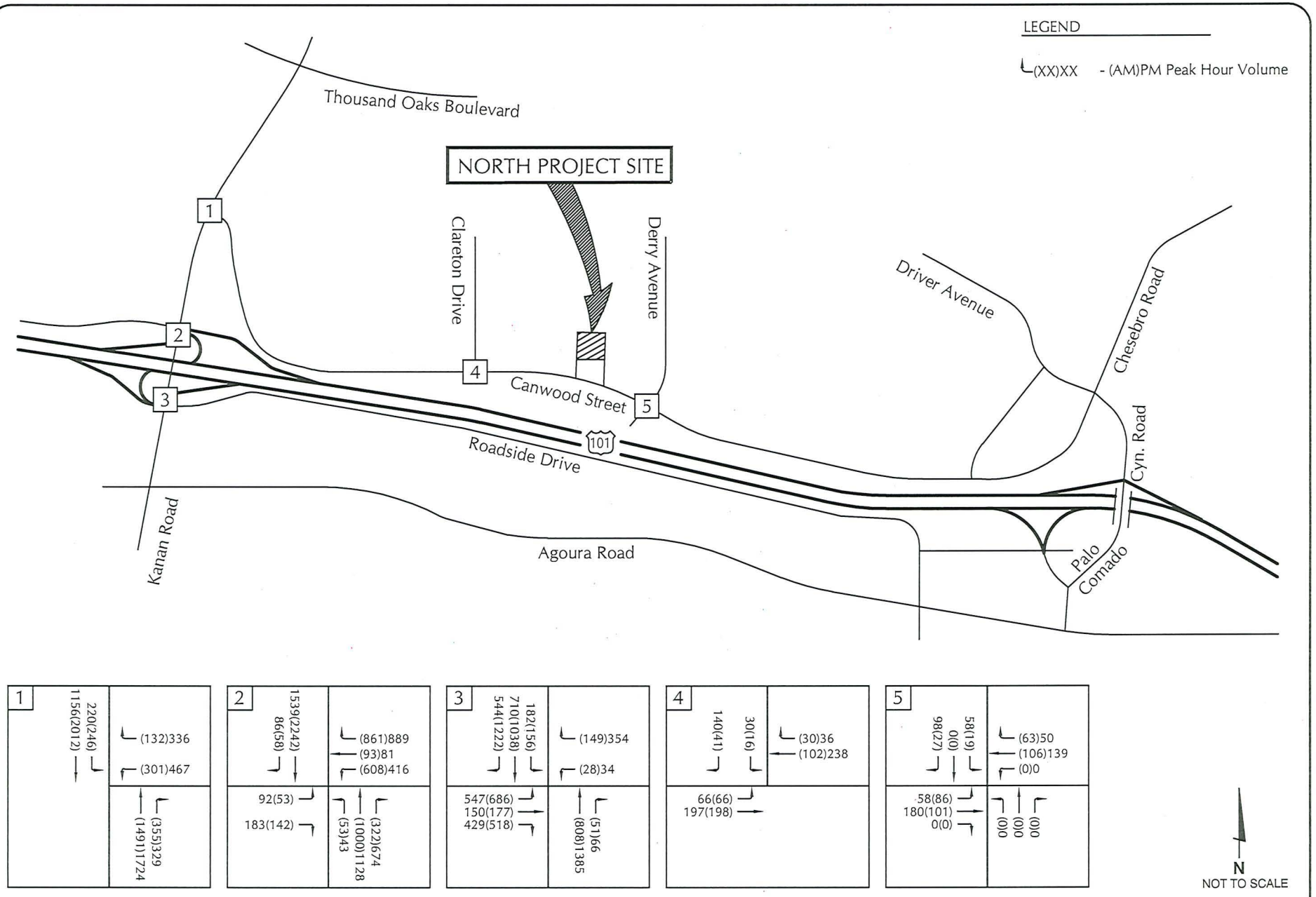
Levels of service were calculated for the study-area roadway assuming the Year 2035 + Project traffic volumes illustrated on Figure 11. Table 13 compares the Year 2035 and Year 2035 + Project levels of service and identifies impacts based on the applicable standards.

Table 13
Year 2035 + Project Roadway Levels of Service

Seg.	Roadway Segment	LOS "C" Capacity	2035	2035 + Project	LOS	V/C Change(a)	Exceed?
1.	Kanan Road n/o U.S. Highway 101	2,600	3,734	3,762	LOS D	0.01	NO
2.	Kanan Road n/o Agoura Road	2,600	2,623	2,625	LOS D	0.000	NO
3.	Canwood Street e/o Kanan Road	1,087	1,351	1,384	LOS D	0.03	NO
4.	Canwood Street e/o Derry Avenue	1,087	426	440	LOS C or better	NA	NO

Bolded values exceed adopted LOS C standard.
(a) V/C change based on theoretical capacity of street segment (LOS C threshold).

The data presented in Table 13 indicate that the sections of Kanan Road north and south of U.S. Highway 101 and the section of Canwood Street east of Kanan Road are forecast to operate at LOS D. The Project would add 28 peak hour trips to the section of Kanan Road north of U.S. Highway 101 which would increase the V/C ratio by 0.007. This V/C increase would be well below the City's impact threshold of 0.05. The Project would therefore not generate significant roadway impacts based on the City's thresholds of significance.

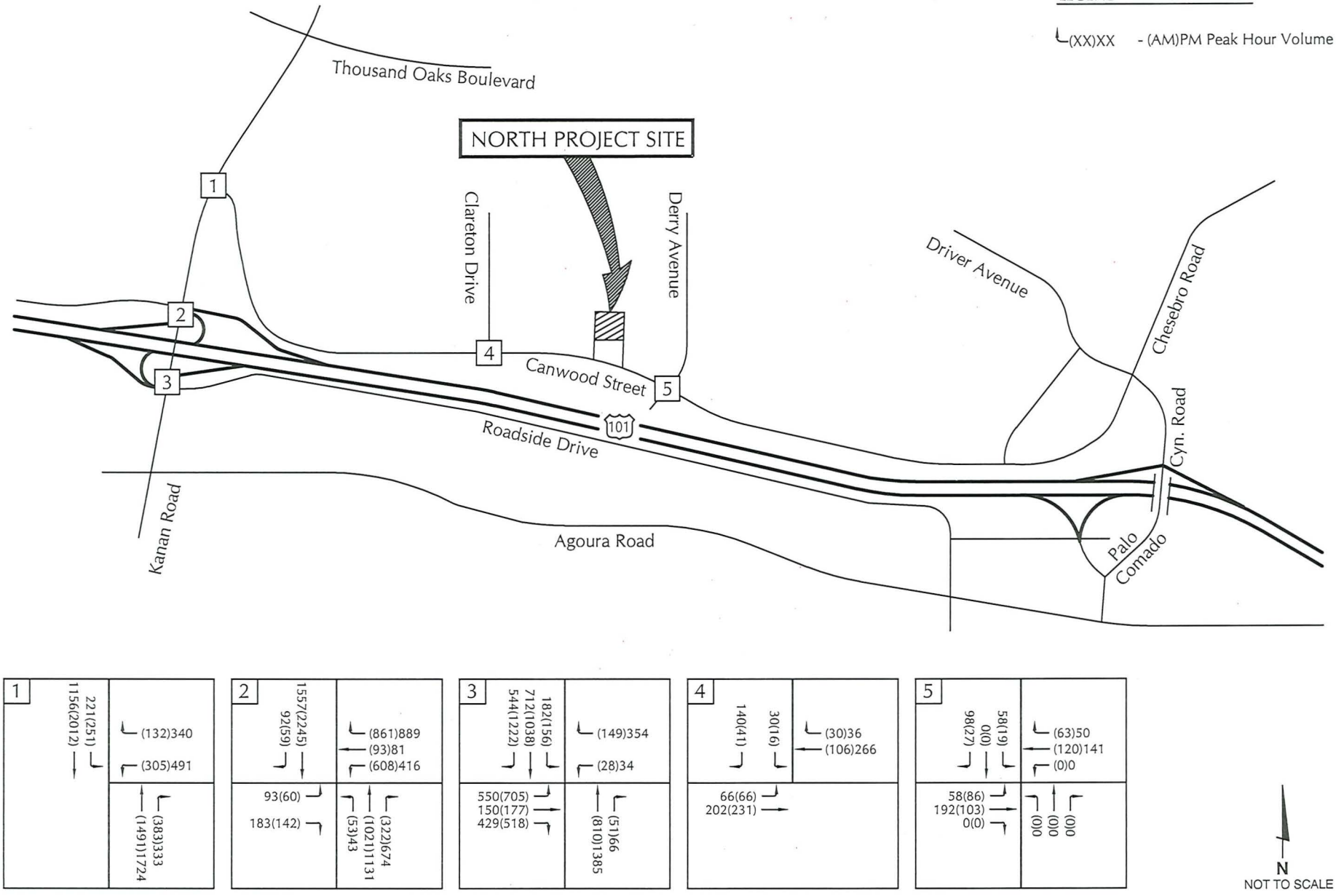


ASSOCIATED TRANSPORTATION ENGINEERS

YEAR 2035 TRAFFIC VOLUMES

FIGURE 11

GM- ATE#22020



ASSOCIATED TRANSPORTATION ENGINEERS

YEAR 2035 + PROJECT TRAFFIC VOLUMES

FIGURE 12

GM- ATE#22020

The Project would add 2 peak hour trips to the section of Kanan Road north of Agoura Road which would increase the V/C ratio by 0.005. This V/C increase would be well below the City's impact threshold of 0.05. The Project would therefore not generate significant roadway impacts based on the City's thresholds of significance. The Project would add 33 peak hour trips to the section of Canwood Street east of Kanan Road which would increase the V/C ratio by 0.017. This V/C increase would be well below the City's impact threshold of 0.05. The Project would therefore not generate significant roadway impacts based on the City's thresholds of significance.

Year 2035 + Project Intersection Levels of Service

Levels of service were calculated for the study-area intersections assuming the Year 2035 and Year 2035 + Project volumes which are illustrated in Figures 11 and 12. Tables 14 and 15 present the results of the calculations and identify the Project's consistency with City policies.

Table 14
Year 2035 + Project AM Peak Hour Levels of Service

Intersection	2035		2035 + Project		Project Added	
	Delay	LOS	Delay	LOS	Delay	Exceed?
Canwood St./Kanan Rd.(a)	11.5 Sec.	LOS B	11.5 Sec.	LOS B	0.0 Sec.	NO
US 101 NB Ramps - Canwood St/Kanan Rd.(a)	**41.1 Sec.**	**LOS D**	**40.9 Sec.**	**LOS D**	0.0 Sec.	NO
US 101 SB Ramps - Roadside Dr/Kanan Rd.(a)	33.6 Sec.	LOS C	33.2 Sec.	LOS C	0.0 Sec.	NO
Canwood St./Clareton Dr.(b)	10.5 Sec.	LOS B	10.6 Sec.	LOS B	0.1 Sec.	NO
Canwood St./Derry Ave.(b)	11.3 Sec.	LOS B	11.5 Sec.	LOS B	0.2 Sec.	NO

Bolded values exceed adopted LOS standards.
(a) LOS based on average seconds of delay per vehicle.
(b) LOS based on minor street approach with highest vehicle delay

Table 15
Year 2035 + Project PM Peak Hour Levels of Service

Intersection	2035		2035 + Project		Project Added	
	Delay	LOS	Delay	LOS	Delay	Exceed?
Canwood St./Kanan Rd.(a)	25.9 Sec.	LOS C	26.8 Sec.	LOS C	0.9 Sec.	NO
US 101 NB Ramps - Canwood St/Kanan Rd.(a)	**37.7 Sec.**	**LOS D**	**40.3 Sec.**	**LOS D**	**2.6 Sec.**	**NO**
US 101 SB Ramps - Roadside Dr/Kanan Rd.(a)	33.4 Sec.	LOS C	33.6 Sec.	LOS C	0.2 Sec.	NO
Canwood St./Clareton Dr.(b)	13.3 Sec.	LOS B	13.9 Sec.	LOS B	0.6 Sec.	NO
Canwood St./Derry Ave.(b)	15.7 Sec.	LOS C	16.0 Sec.	LOS C	0.3 Sec.	NO

Bolded values exceed adopted LOS standards.
(a) LOS based on average seconds of delay per vehicle.
(b) LOS based on minor street approach with highest vehicle delay

The data presented in Tables 14 and 15 indicate that the U.S. Highway 101 northbound ramps-Canwood Street/Kanan Road intersection would operate at LOS D during the AM and PM peak hour periods. The Project's traffic additions and resulting delay increase would not exceed the City's impact threshold. The remaining study-area intersections would operate acceptably in the LOS B - C range with Year 2035 + Project volumes. The Project would not generate significant traffic impacts based on the City's thresholds of significance. It is noted that there are locations where the average intersection delays decrease slightly with the addition of Project traffic. This is due to the Project adding traffic to individual movements that have lower than average delays when compared to the intersection as a whole, therefore resulting in a decrease in overall average delay.

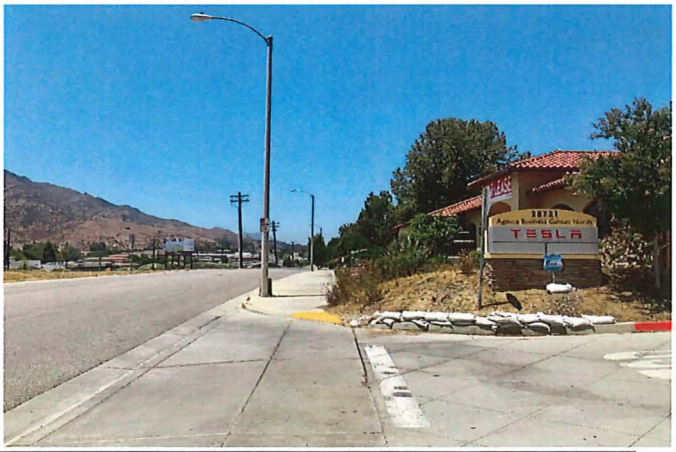
SITE ACCESS AND CIRCULATION



Access to the site would be provided via an existing driveway connection to Canwood Street (see Figure 2 - Project Site Plan). The driveway would be shared with the adjacent industrial/office building to the south of the Project on Canwood Street. The existing driveway was designed and constructed to City of Agoura Hills design standards.

Pedestrian and Bicycle Facilities

Currently there are pedestrian facilities (sidewalks etc.) located along Canwood Street in the study-area. Sidewalks are provided on Canwood Street adjacent to the Project site. The sidewalks connect the Project to the local transit service provided in the study-area. The nearest pedestrian crosswalk across Canwood Street is provided at the Kanan Road signalized intersection. The proposed Project would



not impact the existing pedestrian facilities. The Project site is served by the City of Agoura Hills Bikeway System. The existing bicycle facilities located in the study-area consist of Class III bike lanes along Canwood Street adjacent to the Project site. These Class III bike lanes connect the Project to employment and commercial areas east and west of the Project. The proposed Project would not impact the existing bicycle facilities.

Transit Facilities



The City of Agoura Hills traffic study guidelines require that impacts to fixed-route transit service with a bus stop within a ¼ mile of the Project be evaluated. The City of Agoura Hills is served by the LA Metro Route 161. The nearest bus stop is located at the Kanan Road/Canwood Street intersection which is more than a ¼ mile away from the Project site. LADOT operates two commuter express services between Thousand Oaks and downtown Los Angeles with stops in Agoura Hills. The stops nearest to the Project are more than a ¼ mile away on Kanan Road at Canwood Street. Thousand Oaks Transit operates a shuttle service in the City of Agoura Hills. The Kanan Shuttle interfaces with other regional transit service providers. The Kanan Shuttle website also provides transit trip planning for local and regional transit agencies. Thousand Oaks Transit also operates a Dial-A-Ride service in the City of Agoura Hills. Dial-A-Ride service is available to any resident of the City of Agoura Hills. The proposed Project has the potential to increase transit ridership and the demand for transit service in the area.

VEHICLE MILES TRAVELED ANALYSIS

The City of Agoura Hills has adopted a new set of transportation assessment guidelines[1], in compliance with Senate Bill 743, which are based on a Vehicle Miles Traveled (VMT) metric rather than the traditional Level of Service (LOS) metric. Per the State's Natural Resource Agency Updated Guidelines for the Implementation of the CEQA adopted in 2018, VMT has been designated as the most appropriate measure of transportation impacts. "Vehicle Miles Traveled" refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. For land use projects, vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact.

1 Transportation Assessment Guidelines, City of Agoura Hills, July 2020.

VMT Impact Criteria and Analysis Requirements

The City's adopted VMT thresholds of significance are presented in the transportation assessment guidelines and reviewed below.

Thresholds of Significance

When a project does not meet the screening criteria described in Section 1.2 of the guidelines, a CEQA VMT analysis will be required. This analysis is used to evaluate a project's VMT generation against the appropriate thresholds of significance. Table 16 presents the City's thresholds of significance for development projects.

Table 16
Thresholds of Significance for Development Projects (July 2021)

Land Use	Basis	Current Level	VMT Threshold
Residential	Project VMT per capita exceeds a level of 15% below existing Citywide average VMT per capita.	19.5 VMT/capita (Citywide Average)	16.6 VMT/capita
Office	Project VMT per employee exceeds a level of 15% below existing SCAG regional average VMT per employee	21.8 Work VMT/Employee (SCAG Regional Average)	18.5 Work VMT/Employee
Retail	Net increase in existing regional total VMT	SCAG Regional Total VMT	Net Increase

Project Impact Analysis

Most projects that require a CEQA VMT analysis will use one of the two methods for assessing a project's VMT generation (project VMT), if applicable: (1) City of Agoura Hills' VMT Calculator ("Sketch Tool") and (2) SCAG Travel Demand Model. For most residential and office projects, the sketch tool is the approved method to calculate Project VMT. For non-residential or non-office projects, very large projects, or projects that can potentially shift travel patterns, the sketch tool would not be appropriate or adequate for the CEQA VMT analysis. In such cases, the Southern California Association of Governments (SCAG) Regional Travel Demand Model may be required.

City of Agoura Hills' VMT Calculator

The City has developed the VMT Calculator to assess a project's potential VMT based on the project's description, location, and attributes. For most residential and office projects, the sketch tool is the approved method to calculate Project VMT. The City will provide the sketch tool for use by transportation consultants, developers, and others in assessing VMT for development projects and evaluating TDM plans. The sketch tool will be periodically updated by the Community Development Department Public Works Division as new

research on VMT reduction measures becomes available from the Office of Planning and Research (OPR) and the California Air Pollution Control Officers Association (CAPCOA).

VMT Calculations

The City's VMT Calculator sketch tool was used to develop the VMT estimates for the Project (calculator worksheet attached). Table 17 presents the results of the analysis and identifies Project impacts based on the City's thresholds of significance.

Table 17
Project VMT Comparison to City Threshold

Project VMT Estimate	City of Agoura Hills Threshold	Impact?
25.7 VMT Per Employee	18.5 VMT Per Employee	Yes

The data presented in Table 17 indicate that the Project would generate 25.7 VMT per employee which would exceed the City's threshold of 18.5 VMT per employee, a potentially significant impact.

MITIGATION MEASURES

Projects must propose measures to reduce Project VMT and mitigate a CEQA transportation impact. Projects may select a combination of measures from the reduction parent strategies. When the selected measures are included during the planning and design stage as part of the project description and project plans, as applicable, the measures are reflected in the assessment of Project VMT.

When Project VMT exceeds the threshold(s) of significance, the Project will need to mitigate its CEQA transportation impact. Measures from the seven VMT reduction parent strategies can be used as mitigation measures. A Project may propose mitigation measures that are not included in the list of approved VMT reduction measures as described in the California Air Pollution Control Officers Association (CAPCOA) greenhouse gas mitigation document. In order to be considered as mitigation measures, the transportation consultant must submit substantial evidence of their effect on reducing Project VMT or mitigating a CEQA transportation impact for review and approval by City staff. ATE has developed the following Transportation Demand Management Plan to address the Projects Vehicle Miles Traveled impacts and reduce the number of commuter trips.

The following outlines the Transportation Demand Management (TDM) Plan prepared for the Agoura Business Center North Project in the City of Agoura Hills. The components of the plan were developed based on the trip reduction guidelines from the Southern California Association of Governments (SCAG) Transportation Demand Management

(TDM) Strategic Plan Final report, City of Agoura Hills Transportation Assessment Guidelines and recommendations provided by the City of Agoura Hills staff. TDM measures which have been utilized successfully by other developments in Southern California have also been incorporated in this plan. The TDM Plan has been designed to reduce the number of commuter trips by the tenants.

TDM Trip Reduction Target

City staff have identified a trip reduction performance requirement for the Project. The City of Agoura Hills has formalized the TDM plan requirements. The Project is required to submit a "Transportation Demand Management Plan and Monitoring Program" to the City. City approval of the Final TDM Plan and Monitoring Program is required prior to issuance of occupancy permits. The Project is also required to submit a TDM Performance and Monitoring Report 12 months after first occupancy and agree to annual TDM compliance inspections by the City Director of Planning and Community Development.

TDM Coordinator

The provision of TDM information and materials to tenants is important in the success of a trip reduction program. Monitoring the program as needed is also important. To ensure success and to promote the utilization of alternative transportation modes, a TDM Coordinator is key. The following discusses the role and responsibilities of the TDM Coordinator.

> *TDM Coordinator.* The Agoura Business Center North will appoint a TDM Coordinator to implement and monitor the TDM Plan. The TDM Coordinator will work with City staff and administer the TDM Plan. The TDM Coordinator will be responsible for disseminating information and offering assistance to those tenants wishing to participate in the various components of the TDM Plan. The TDM Coordinator will also be responsible for monitoring the TDM plan.
>
> Responsible for establishing the *Tenant Transportation Information.* The Agoura Business Center North will provide tenant information and marketing data for the TDM Plan, including:
>
> - Current transit system maps and route schedules for the LA Metro transit line, LADOT Commuter Express, Kanan Shuttle and Dial-A-Ride which serve the City of Agoura Hills. Information regarding LA Metro, LADOT Commuter Express, Kanan Shuttle and Dial A Ride service should also be posted.
>
> - Rideshare promotional materials from Metro Rideshare "RideMatch" Program.

- Promotional materials for the Metro Rideshare Guaranteed Ride Home (GRH) program.

- Description of the on-site bicycle facilities provided and maps of the regional bike route system for the area.

- Description of the preferential parking program for carpools and vanpools.

- Description of the monetary savings and environmental benefits generated by tenants for transit use, carpooling/vanpooling, bicycling, and walking. This information will be posted on an employee's bulletin board.

New Employee Orientation. The TDM Coordinator will conduct an orientation meeting with new tenants to review the alternative travel mode resources that are available through the TDM Plan. This measure will provide new tenants with information on alternative travel options before they become accustomed to driving to work alone.

Rideshare Matching Services. The TDM Coordinator will develop ride matching service to assist tenants who wish to carpool/vanpool. The TDM Coordinator will also assist tenants in registering with the Metro ridesharing "Ride/Match" program which provides ride matching services for carpooling/vanpooling.

Personalized TDM Assistance. The TDM Coordinator will provide assistance to those tenants requesting information on alternative transportation measures. The TDM Coordinator will assist in reviewing transit routes and schedules, provide information on bike route locations, and assist tenants in registering with the ride matching program as well as the regional ridesharing program.

TDM Trip Reduction Measures

The following TDM trip reduction measures have been identified for implementation or incorporation into the site design for the Agoura Business Center North. The goal of the mitigation measures will be to promote utilization of alternative transportation modes.

Alternative Work Schedule/Telecommuting. Promote proposed work schedules will allow for flextime, a compressed work week, and staggered work shifts. For office tenants, telecommuting can be used as substitute for physical travel to work.

Transit. Los Angeles Metro provides transit service in the City of Agoura Hills. The Project site is served by transit route #161. Route #161 runs approximately every hour from the Thousand Oaks transit center to the Canoga "G" (Orange) Line Station. The Los Angeles Metro website provides online planning tools for public

transit trips. Los Angeles Metro interfaces with other regional transit service providers. The Metro Rideshare website also provides transit trip planning for local and regional transit agencies. LADOT Commuter Express provides commuter bus service in the City of Agoura Hills. The Project site is served by LADOT Commuter Express Route #422 and Route #423. The LADOT Commuter Express website provides online planning tools for public transit trips. LADOT Commuter Express interfaces with other regional transit service providers. The LADOT Commuter Express website also provides transit trip planning for local and regional transit agencies. Thousand Oaks Transit operates a shuttle service in the City of Agoura Hills. The Project site is served by the Kanan Shuttle. The Kanan Shuttle interfaces with other regional transit service providers. The Kanan Shuttle website also provides transit trip planning for local and regional transit agencies. Thousand Oaks Transit also operates a Dial-A-Ride service in the City of Agoura Hills. Dial-A-Ride service is available to any resident of the City of Agoura Hills.

Transit Incentives. The Agoura Business Center North will market the benefits of transit to all tenants. Transit ridership is an important component in a TDM Plan. The Project site is located near Metro Route #161 stop at the Kanan Road and Canwood Road intersection. The location and the proximity of transit stops near the Project site make transit a viable alternative for tenants. The Project will promote tenant subsidization of monthly transit passes as an incentive to use public transportation.

Carpooling. The Agoura Business Center North site design includes conveniently located parking spaces reserved for carpooling vehicles. The Project will market the economic and environmental benefits of carpooling to all tenants. The Metro Rideshare website provides carpooling resources for employers and tenants. The Project will encourage tenants to carpool in an effort to reduce daily trip generation.

Vanpooling. The Agoura Business Center North site design includes parking spaces reserved for vanpooling. Vanpooling is particularly attractive for long-distance commuters. The Project may participate in the programs administered by local transit agencies, the City or Metro Rideshare. The Project will market the economic and environmental benefits of vanpooling to all tenants. The Metro Rideshare website provides vanpooling resources for employers and tenants.

Guaranteed Ride Home. In the event that an emergency or work requirement interferes with tenant's normal alternative transportation arrangement, the Agoura Business Center North will assist tenants in enrolling in Metro Rideshare Guaranteed Ride home program.

Electric Vehicles. The site design includes charging stations for electric vehicles. The Project will market the economic and environmental benefits of electric vehicles to

all tenants.

Shared Vehicles. Zipcar offers shared vehicle services. Information on their service can be found on their website https:www.zipcar.com. Per City guidelines the car share program may include providing membership to an existing program located within ¼ mile, contracting with a third-party vendor to extend membership-based service to an area, or implementing a project-specific fleet that supports the employees on-site. The Project would seek to contract with a third-party vendor to extend membership service to the area.

Drop-Off/Pick-Up Area. A drop-off and pick-up area will be established on-site. This area will be used by carpools and vanpools to load and unload passengers.

Bicycling. The site design will provide bicycle storage (racks and lockers). The Project has connections to regional bicycle facilities. The existing bike lanes on roadways in the area surrounding the Project site will aid in promoting cycling. The Project will market the economic and environmental benefits of bicycling to all tenants.

The Metro Rideshare website provides resources for cyclist and online planning tools for bicycle commuter trips including the following:

- Bike route maps
- Location of lockers
- How to take your bike on public transit
- How to ride safely in traffic
- Tips on commuting
- Trip planning
- Bike to work day

On-Site Services. The inclusion of indoor and outdoor eating areas would act as an incentive for tenants to stay on-site, thus reducing the need for personal vehicles at work.

Trip Reductions

The Project is required to reduce its projected average daily traffic (ADT) of 351. Measures from trip reduction parent strategies published in the California Air Pollution Control Officers Association (CAPCOA) greenhouse gas mitigation document and the City of Agoura Hills Transportation Assessment Guidelines were reviewed to quantify the effectiveness of the proposed TDM Plan components. The CAPCOA document provides trip reduction strategies and estimated ranges of trip reduction effectiveness. The TDM Plan measures developed for the Agoura Business Center North and their estimated trip

reduction effectiveness are presented in Table 18. The trip reduction percentages presented in Table 18 in most cases are the maximum allowed by the City of Agoura Hills. It should be noted that the effectiveness of the individual trip reduction measures increases when combined with other measures and Project Design Features (PDFs).

Table 18
TDM Plan Measures Trip Reduction Estimates

Strategy #	MITIGATION MEASURES	CAPCOA VMT REDUCTION
#9	Transit Subsidies: The Project would promote subsidization of transit fare by occupants.	5%
#10	Promotions and Marketing: The Project would educate and inform occupants about site specific transportation options and the effects of their travel choices with passive educational and promotional materials.	4%
#11	Commute Trip Reduction: The Project would promote focused travel behavior changes that targets occupants' attitudes, goals, and travel behaviors, educates occupants on the impacts of their travel choices and opportunities to alter their habits	15%
#14	Promote Alternative Work Schedule: Flextime, Compressed Work Week (CWW) and staggered shifts.	5%
#17	Rideshare Program: The Project will provide ride-share matching services, designated preferred parking for ride-share participants designated adequate passengers loading/unloading and waiting areas for ride-share vehicles and providing message board to connect riders and coordinate rides.	10%
#22	Implement/Improve On-Street Bicycle Facility: The Project would strip "sharrows" along Canwood Street.	5%
#23	Bike Racks: The Project would provide on-site bike racks.	0.625%

Implementing the trip reduction measures in Table 18 would reduce the Project VMT/ADT.

Table 19 shows the reduction in project-generated ADT that would be achieved through the implementation of the identified TDM Plan measures. Note that the Required Commute Trip Reduction strategy (15% reduction) includes transit subsidies, promotions and marketing, alternative work schedules/telecommuting and bike racks.

Table 19
TDM Plan Measures VMT/ADT Reduction Estimates

Strategy #	VMT Mitigation Measures	Estimated Project Reduction	
		Percentage	ADT Reduction
#9	Transit Subsidies	-	-
#10	Promotions and Marketing	-	-
#11	Required Commute Trip Reduction	15%	52.65
#14	Alternative Work Schedule	-	-
#17	Ride-Share Program	10%	35.1
#22	Improve On-Street Bicycle Facility	5%	17.55
#23	Bike Racks	-	-
	Total Reduction:	30%	-105.30
	Project ADT **(Trip Cap)** with Mitigation:		**245.70**

As shown in Table 19, implementing mitigation measures would result in a total ADT reduction of 105.3. The Project generates 351 daily ADT, with mitigation the Project ADT is reduced to 245.7 ADT.

The City of Agoura Hill's threshold is 18.5 VMT per employee. With mitigation the Project VMT is reduced to 17.99 VMT per employee which is below the threshold of 18.5 VMT per employee. In addition to the VMT mitigation measures identified in Table 21 the Project site design incorporates 18 electric vehicle charging stations.

The City of Agoura Hills Is undergoing several studies for TIF and VMT Banking. Until those studies are complete, the City cannot accept funding for bike ways and traffic calming. The transportation assessment guidelines also indicate that the City is undertaking a nexus study to determine fees for projects exceeding the VMT thresholds. The proposed Project may be subject to the fees once the City adopts them.

Monitoring and Review

The TDM Coordinator would monitor the effectiveness of the TDM Plan and participate in TDM status reporting to the City of Agoura Hills. The TDM Coordinator shall submit a TDM Performance and Monitoring Report 12 months after 75 percent occupancy and agree to annual TDM compliance inspections by the City Director of Planning and Community Development. The annual report will summarize the results of the yearly commute survey, and TDM Plan activities for the previous calendar year. Monitoring

reports submitted to the City will note the effectiveness of the proposed trip reduction measures as compared to the initial performance target of 245.7 daily trips. The reports will also include descriptions of any new or modified programs to be introduced in the next year if the minimum trip reduction goal is not achieved through the measures and programs initially implemented. If necessary, modifications to the TDM Plan will be proposed to meet the target trip reduction performance.

The daily trips will be collected by the TDM Coordinator or a third-party collection agency for a minimum duration of 2 days. Data collection shall occur for 24-hours for two weekdays (Tuesday, Wednesday, or Thursday).

A 5-day commute survey will be conducted each year to evaluate and ensure the effectiveness of the TDM measures. Survey data can be used to focus TDM marketing and the efforts of the TDM Coordinator to maintain the Project's commitment to reduce vehicle trips at the site.

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REFERENCES AND PERSONS CONTACTED

Associated Transportation Engineers

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References

Transportation Assessment Guidelines, City of Agoura Hills, July 2020.

Highway Capacity Manual, Highway Research Board Special Report 209, Transportation Research Board, National Research Council, 2016.

Trip Generation, Institute of Transportation Engineers, 11th Edition, 2020.

2010 Draft Congestion Management Program for Los Angeles County, County of Los Angeles Metropolitan Transportation Authority.

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