

Carmel Valley Road Five-Year Traffic Monitoring - 2025

Monterey County, California

Prepared For:

County of Monterey
1441 Schilling Place, 2nd Floor
Salinas, California 93901

Date: November 26, 2025

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County of Monterey
1441 Schilling Place, 2nd Floor
Salinas, California 93901

November 26, 2025

Subject: Carmel Valley Road Five-Year Traffic Monitoring - 2025
Monterey County, California

Dear Mr. Sanchez:

1.0 INTRODUCTION

This report presents the results of traffic counts and analyses for the Carmel Valley Road Five-Year Traffic Monitoring program in Monterey County, California. The five-year monitoring was last performed in 2020. It should be noted that stay-at-home orders related to the COVID-19 pandemic were in place during the 2020 monitoring; therefore, the 2020 results may not reflect those of a typical year. Traffic conditions in 2025 are considered to have returned to more typical conditions.

2.0 BACKGROUND

The 2010 Monterey County General Plan dated October 26, 2010 contains Area Master Plans, including the Carmel Valley Master Plan (CVMP) under Chapter 9-B for the unincorporated Carmel Valley Area with a Supplemental Policy Amendment dated February 12, 2013 (SPA). Section “2.0 Circulation” of the SPA contains a directive to Public Works related to the care of the following 13 road segments:

Carmel Valley Road

1. East of Holman Road
2. Between Esquiline Road and Holman Road
3. Between Ford Road and Esquiline Road
4. Between Laureles Grade and Ford Road
5. Between Robinson Canyon Road and Laureles Grade
6. Between Schulte Road and Robinson Canyon Road
7. Between Rancho San Carlos Road and Schulte Road
8. Between Village Park Road (formerly Rio Road) and Rancho San Carlos Road
9. Between Carmel Rancho Boulevard and Village Park Road (formerly Rio Road)
10. Between SR 1 and Carmel Rancho Boulevard

Carmel Rancho Boulevard

11. Between Carmel Valley Road and Rio Road

Rio Road

12. Between Carmel Rancho Boulevard and Val Verde Drive
13. Between SR 1 and Carmel Rancho Boulevard

The general vicinity of study locations is presented in the attached Figure 1, Site Vicinity Map, following the text of this report. The specific study locations are presented in Figure 2, Study Location Map.

Policy CV-2.17(a) of the SPA requires monitoring by Public Works two times per year (in June and October) of peak-hour traffic volumes and daily traffic volumes on segments 3, 4, 5, 6, 7, and 10 of Carmel Valley Road, with at least one of the annual monitoring periods occurring when local schools are in session.

Policy CV-2.17(b) of the SPA requires that an annual evaluation report be prepared by the Public Works Department in December that shall report on traffic along the six (6) road segments identified in Policy CV-2.17(a). The report shall evaluate traffic using the percent-time-spent-following (PTSF) methodology (or such other methodology as may be appropriate for a given segment in the opinion of the Public Works Department), and the average daily traffic (ADT) methodology. ADT thresholds for each segment as presented in the SPA are presented in Table 1. The Public Works Department is required to annually establish appropriate PTSF or other methodology thresholds for each of the six (6) segments listed above.

Table 1
ADT Thresholds

Segment No.	Road	Segment	ADT Threshold
1	Carmel Valley Road	East of Holman Road	8,487
2	Carmel Valley Road	Between Esquiline Road and Holman Road	6,835
3	Carmel Valley Road	Between Ford Road and Esquiline Road	9,065
4	Carmel Valley Road	Between Laureles Grade and Ford Road	11,600
5	Carmel Valley Road	Between Robinson Canyon Road and Laureles Grade	12,752
6	Carmel Valley Road	Between Schulte Road and Robinson Canyon Road	15,499
7	Carmel Valley Road	Between Rancho San Carlos Road and Schulte Road	16,340
8	Carmel Valley Road	Between Village Park Road and Rancho San Carlos Road	48,487
9	Carmel Valley Road	Between Carmel Rancho Boulevard and Village Park Road	51,401
10	Carmel Valley Road	Between SR 1 and Carmel Rancho Boulevard	27,839
11	Carmel Rancho Boulevard	Between Carmel Valley Road and Rio Road	33,495
12	Rio Road	Between Carmel Rancho Boulevard and Val Verde Drive	6,416
13	Rio Road	Between SR 1 and Carmel Rancho Boulevard	33,928

Reference: CVMP Supplemental Policy Amendment dated February 12, 2013

Bold type indicates road segments currently included in the annual monitoring report.

Policy CV-2.17(c) of the SPA requires that a public hearing before the Board of Supervisors be held in January immediately following the December report if the ADT on a segment is within 100 trips of the threshold, or where the PTSF (or other methodology) for a segment exceeds or is within one percent (1%) of the value that would cause a decrease in the LOS.

Policy CV-2.17(d) of the SPA requires that, at five-year intervals, the County shall monitor all segments listed in Policy CV-2.17(a) and the annual report described in Policy CV-2.17(b) shall include a report on all segments. Any segment not previously part of the annual report that is found to have an ADT within twenty percent (20%) of the ADT threshold shall thereafter be included in the annual monitoring and reporting.

Policy CV-2.17(e) of the SPA makes reference to Level of Service (LOS). The Transportation Research Board *Highway Capacity Manual*, 2010, (HCM2010) defines LOS as, “A quantitative stratification of a performance measure or measures that represent quality of service, measured on an A-F scale, with LOS A representing the best operating conditions from the traveler’s perspective and LOS F the worst.” Automobile mode LOS characteristics for both unsignalized and signalized intersections are presented in Tables 2 and 3.

Table 2
Level of Service Characteristics for Unsignalized Intersections

Level of Service	Average Vehicle Delay (seconds)
A	0-10
B	>10-15
C	>15-25
D	>25-35
E	>35-50
F	>50

Reference: *Highway Capacity Manual*, Transportation Research Board, 2010

Table 3
Level of Service Characteristics for Signalized Intersections

Level of Service	Description	Average Vehicle Delay (seconds)
A	Volume-to-capacity ratio is low. Progression is exceptionally favorable or the cycle length is very short.	≤10
B	Volume-to-capacity ratio is low. Progression is highly favorable or the cycle length is very short.	>10-20
C	Volume-to-capacity ratio is no greater than 1.0. Progression is favorable or cycle length is moderate.	>20-35
D	Volume-to-capacity ratio is high but no greater than 1.0. Progression is ineffective or cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	>35-55
E	Volume-to-capacity ratio is high but no greater than 1.0. Progression is unfavorable and cycle length is long. Individual cycle failures are frequent.	>55-80
F	Volume-to-capacity ratio is greater than 1.0. Progression is very poor and cycle length is long. Most cycles fail to clear the queue.	>80

Reference: *Highway Capacity Manual*, Transportation Research Board, 2010

Automobile LOS characteristics for roadways are described in Table 4. Table 4 also presents the PTSF range corresponding to each LOS for Class II two-lane highways.

Table 4
Level of Service Characteristics for Road Segments

Level of Service	Description	PTSF - Class II Highways
A	High operating speeds with a small amount of platooning.	≤40
B	Speed reductions are present and platooning is noticeable.	>40-55
C	Most vehicles traveling in platoons with speeds noticeably curtailed.	>55-70
D	Platooning increases significantly.	>70-85
E	Demand approaching capacity. Speeds seriously curtailed.	>85
F	Demand exceeds capacity and heavy congestion exists.	Not defined

Reference: *Highway Capacity Manual*, Transportation Research Board, 2010

Policy CV-2.17(e) requires that, at five-year intervals, the County shall examine the degree to which estimated changes in LOS in the Carmel Valley Master Plan Area may be occurring earlier than predicted in the General Plan Environmental Impact Report (EIR). If the examination indicates that LOS are likely to fall to a lower letter grade than predicted for 2030, then the County shall consider adjustments to the cap on new residential units established in Policy CV-1.6, adjustments to the cap on new visitor-serving units established in Policy CV-1.15, or other measures that may reduce the impacts.

Policy CV-2.17(f) of the SPA specifies the traffic standards (LOS as measured by peak-hour conditions) for the CVMP Area shall be as follows:

- 1) Signalized intersections: LOS of C is the acceptable condition.
- 2) Unsignalized intersections: LOS of F or meeting of any traffic signal warrant are defined as unacceptable conditions.
- 3) Carmel Valley Road segment operations:
 - a. LOS of C and ADT below the threshold specified in Policy CV-2.17(a) for Segments 1, 2, 8, 9, 10, 11, 12 and 13 is an acceptable condition;
 - b. LOS of D and ADT below the threshold specified in Policy CV-2.17(a) for Segments 3, 4, 5, 6, and 7 is an acceptable condition.

3.0 TRAFFIC COUNTS

To estimate the ADT, 24-hour road segment volumes were determined by installing video cameras on the 13 study road segments and manually counting vehicles during observation of the video. The traffic counts were performed on Tuesday, June 17, 2025 and on Tuesday, October 7, 2025. The results are presented in Table 5 and the data sheets are presented in Appendix A.

Construction of the roundabout at Carmel Valley Road and Laureles Grade was underway during the October counts. Traffic delineators were observed, but no full lane closures were in place.

Table 5
2025 ADT

Segment No.	Road	Segment	2025 ADT	
			June	October
1	Carmel Valley Road	East of Holman Road	2,865	2,918
2	Carmel Valley Road	Between Esquiline Road and Holman Road	3,239	3,367
3	Carmel Valley Road	Between Ford Road and Esquiline Road	5,628	5,813
4	Carmel Valley Road	Between Laureles Grade and Ford Road	11,138	11,118
5	Carmel Valley Road	Between Robinson Canyon Road and Laureles Grade	10,982	9,873
6	Carmel Valley Road	Between Schulte Road and Robinson Canyon Road	14,664	14,280
7	Carmel Valley Road	Between Rancho San Carlos Road and Schulte Road	15,080	14,776
8	Carmel Valley Road	Between Village Park Road and Rancho San Carlos Road	21,402	20,581
9	Carmel Valley Road	Between Carmel Rancho Boulevard and Village Park Road	21,688	20,711
10	Carmel Valley Road	Between SR 1 and Carmel Rancho Boulevard	20,108	20,123
11	Carmel Rancho Boulevard	Between Carmel Valley Road and Rio Road	15,956	14,192
12	Rio Road	Between Carmel Rancho Boulevard and Val Verde Drive	829	840
13	Rio Road	Between SR 1 and Carmel Rancho Boulevard	8,993	8,563

Bold type indicates road segments currently included in the annual monitoring report.

Traffic counts were performed at the following study intersections on Tuesday, June 17, 2025 and on Tuesday, October 7, 2025.

1. State Route (SR) 1 / Carmel Valley Road (signalized)
2. Carmel Rancho Boulevard / Carmel Valley Road (signalized)
3. Rio Vista Drive / Carmel Valley Road (one-way stop)
4. Carmel Middle School / Carmel Valley Road (signalized)
5. Village Park Road / Carmel Valley Road (one-way stop)
6. Via Mallorca / Carmel Valley Road (signalized)
7. Rancho San Carlos Road / Carmel Valley Road (signalized)
8. Schulte Road / Carmel Valley Road (one-way stop)
9. Robinson Canyon Road / Carmel Valley Road (left-turns yield)
10. Robinson Canyon Road / Carmel Valley Road off ramp (one-way stop)
11. Laureles Grade / Carmel Valley Road (one-way stop, roundabout under construction)
12. Ford Road / Carmel Valley Road (one-way stop)
13. Esquiline Road / Carmel Valley Road (one-way stop)
14. Holman Road / Carmel Valley Road (one-way stop)
15. SR 1 / Rio Road (signalized)
16. Crossroads Boulevard / Rio Road (signalized)
17. Carmel Rancho Boulevard / Rio Road (two-way stop)

Existing peak-hour traffic volumes at the study intersections (including automobiles, heavy vehicles, pedestrians, and bicycles) were determined by performing manual turning-movement counts of video recordings between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. The existing peak-hour vehicle turning movement volumes are presented in Figure 3, Existing Peak-Hour Traffic Volumes – June 2025 and Figure 4, Existing Peak-Hour Traffic Volumes – October 2025. The data sheets are presented in Appendix A.

4.0 LANE CONFIGURATIONS AND INTERSECTION CONTROL

The lane configurations and intersection control at the study intersections as of the June traffic counts are presented in Figure 5, Existing Lane Configurations and Intersection Control. For purposes of these analyses, Carmel Valley Road is considered to run in the east-west direction at all locations.

5.0 OPERATIONAL ANALYSES

5.1 – Road Segment Levels of Service and Percent Time Spent Following

The most recent edition of the Highway Capacity Manual, the 7th Edition published in 2022 by the Transportation Research Board (HCM 7th Edition), completely revised the methodology for analyzing two-lane highways. PTSF, which measured the proportion of time vehicles were impeded by slower traffic ahead, was replaced by a new performance measure called Follower Density (FD). This shift addressed limitations in PTSF, such as difficulties in direct field measurement and inconsistencies in application across configurations like Class I and class II highways. FD is defined as the number of vehicles in a “follower state” per mile per lane, providing a more reliable and consistent indicator of operational performance. However, to maintain consistency with previous Carmel Valley Road monitoring analyses, a legacy version of Highway Capacity Software (HCS Two Lane version 7.7) was utilized to determine the LOS and

PTSF on the two-lane roadway segments. In the future, the County will need to consider revising the analysis requirement from PTSF to FD as software with PTSF output likely will no longer be available.

The LOS and PTSF on the two-lane study road segments were determined using McTrans HCS7 Two Lane software, which is based on the Highway Capacity Manual, 6th Edition (HCM 6th Edition) procedures for calculating road segment LOS. The LOS on multi-lane road segments was determined using McTrans HCS2025 software based on the HCM 7th Edition. The road segment analysis sheets are presented in Appendix B.

According to the HCM 6th Edition, Class I two-lane highways are highways where motorists expect to travel at high speeds and that are typically major inter-city routes, primary connectors of major traffic generators, daily commuter routes, or major links in state or national highway networks.

Class II two-lane highways are highways where motorists do not necessarily expect to travel at high speeds. These highways typically function as access routes to Class I highways, scenic or recreational routes (not primary arterials), or passing through rugged terrain where high-speed operation would be impossible. Class II facilities most often serve relatively short trips, the beginning or ending portions of longer trips, or trips for which sightseeing plays a significant role.

Class III two-lane highways are highways serving moderately-developed areas and may be portions of Class I or Class II highways that pass through small towns or developed recreation areas. On such segments, local traffic often mixes with through traffic and the density of unsignalized roadside access points is noticeable higher than in a purely rural area. Class III highways may also be longer segments passing through more spread-out recreational areas, also with increased roadside densities. Such segments are often accompanied by reduced speed limits that reflect the higher activity level.

For purposes of these analyses, the two-lane study road segments were assumed to be Class II two-lane highways with relatively level terrain. It should be noted that PTSF criteria do not apply to Class III highways in terms of defining LOS, and PTSF criteria are not utilized for multi-lane highways.

Tables 6 and 7 present the results of the road segment analyses. The calculations are directional. The governing LOS for the direction with the greatest volume is presented for each scenario. Levels of service worse than the target LOS are underlined.

Table 6
Road Segment PTSF and LOS Summary – June 2025

Segment No.	Road	Segment	A.M. Peak Hour		P.M. Peak Hour	
			PTSF	LOS	PTSF	LOS
1	Carmel Valley Road	East of Holman Road	55.3	C	54.9	B
2	Carmel Valley Road	Between Esquiline Road and Holman Road	55.9	C	57.2	C
3	Carmel Valley Road	Between Ford Road and Esquiline Road	71.3	D	74.6	D
4	Carmel Valley Road	Between Laureles Grade and Ford Road	77.6	D	77.8	D
5	Carmel Valley Road	Between Robinson Canyon Road and Laureles Grade	80.0	D	90.0	<u>E</u>
6	Carmel Valley Road	Between Schulte Road and Robinson Canyon Road	83.4	D	89.4	<u>E</u>
7	Carmel Valley Road	Between Rancho San Carlos Road and Schulte Road	83.1	D	90.1	<u>E</u>
8	Carmel Valley Road	Between Village Park Road and Rancho San Carlos Road (two-lane portion)	87.6	<u>E</u>	92.8	<u>E</u>
9	Carmel Valley Road	Between Carmel Rancho Boulevard and Village Park Road	N/A	A	N/A	B
10	Carmel Valley Road	Between SR 1 and Carmel Rancho Boulevard	N/A	A	N/A	A
11	Carmel Rancho Boulevard	Between Carmel Valley Road and Rio Road	N/A	A	N/A	A
12	Rio Road	Between Carmel Rancho Boulevard and Val Verde Drive	35.8	A	36.4	A
13	Rio Road	Between SR 1 and Carmel Rancho Boulevard	N/A	A	N/A	A

Bold type indicates road segments currently included in the annual monitoring report.

Underlines indicate an LOS worse than the target LOS.

N/A: Not applicable.

Table 7
Road Segment PTSF and LOS Summary – October 2025

Segment No.	Road	Segment	A.M. Peak Hour		P.M. Peak Hour	
			PTSF	LOS	PTSF	LOS
1	Carmel Valley Road	East of Holman Road	53.2	B	61.2	C
2	Carmel Valley Road	Between Esquiline Road and Holman Road	55.4	C	57.1	C
3	Carmel Valley Road	Between Ford Road and Esquiline Road	74.2	D	75.4	D
4	Carmel Valley Road	Between Laureles Grade and Ford Road	77.8	D	79.0	D
5	Carmel Valley Road	Between Robinson Canyon Road and Laureles Grade	78.5	D	87.6	<u>E</u>
6	Carmel Valley Road	Between Schulte Road and Robinson Canyon Road	80.7	D	87.7	<u>E</u>
7	Carmel Valley Road	Between Rancho San Carlos Road and Schulte Road	85.2	<u>E</u>	89.9	<u>E</u>
8	Carmel Valley Road	Between Village Park Road and Rancho San Carlos Road (two-lane portion)	87.9	<u>E</u>	89.3	<u>E</u>
9	Carmel Valley Road	Between Carmel Rancho Boulevard and Village Park Road	N/A	A	N/A	A
10	Carmel Valley Road	Between SR 1 and Carmel Rancho Boulevard	N/A	A	N/A	A
11	Carmel Rancho Boulevard	Between Carmel Valley Road and Rio Road	N/A	A	N/A	A
12	Rio Road	Between Carmel Rancho Boulevard and Val Verde Drive	33.6	A	37.6	A
13	Rio Road	Between SR 1 and Carmel Rancho Boulevard	N/A	A	N/A	A

Bold type indicates road segments currently included in the annual monitoring report.

Underlines indicate an LOS worse than the target LOS.

N/A: Not applicable.

5.2 – Intersection Levels of Service and Traffic Signal Warrants

The levels of service at the study intersections were determined using the computer program Synchro 12, which is based on HCM procedures for calculating levels of service.

The California State Transportation Agency and California Department of Transportation *California Manual on Uniform Traffic Control Devices, 2014 Edition (Revision 9 effective April 1, 2025)* (CMUTCD) presents various criteria (warrants) for determining the need for traffic signals. The CMUTCD states that an engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location. For purposes of this study, Warrant 3, Peak Hour, was analyzed at the unsignalized intersections (with the exception of the intersection of Laureles Grade and Carmel Valley Road, which is currently being converted to a roundabout).

Tables 8 and 9 present the results of the intersection operational analyses. Levels of service worse than the target LOS, and the corresponding delays, are indicated in bold type and are underlined. The results of the peak-hour traffic signal warrants analyses at the unsignalized study intersections are also presented. The intersection analysis sheets, including the peak-hour traffic signal warrants output, are presented in Appendix C.

Table 8
Intersection LOS and Peak-Hour Warrant Summary – June 2025

Intersection	Control	A.M. Peak Hour			P.M. Peak Hour		
		Delay (sec)	LOS	Warrant	Delay (sec)	LOS	Warrant
SR 1 / Carmel Valley	Signals	5.8	A		8.4	A	
Carmel Rancho Blvd / Carmel Valley	Signals	16.0	B		20.4	C	
Rio Vista Drive / Carmel Valley	One-way stop	23.5	C	Not met	24.1	C	Not met
Carmel Middle School / Carmel Valley	Signals	7.1	A		6.4	A	
Village Park / Carmel Valley	One-way stop	36.0	E	Not met	51.1	F	Not met
Via Mallorca / Carmel Valley	Signals	6.3	A		6.2	A	
Rancho San Carlos / Carmel Valley	Signals	7.6	A		12.9	B	
Schulte / Carmel Valley	One-way stop	27.9	D	Not met	31.6	D	Not met
Robinson Canyon / Carmel Valley	Yield	10.0	A	Not met	17.3	C	Not met
Robinson Canyon / Carmel Valley off ramp	One-way stop	8.8	A	Not met	8.8	A	Not met
Laureles Grade / Carmel Valley	One-way stop*	26.6	D		>300	F	
Ford / Carmel Valley	One-way stop	13.2	B	Not met	12.7	B	Not met
Esquiline / Carmel Valley	One-way stop	12.2	B	Not met	11.2	B	Not met
Holman / Carmel Valley	One-way stop	7.6	A	Not met	9.0	A	Not met
SR 1 / Rio Road	Signals	17.9	B		23.4	C	
Crossroads Blvd / Rio Road	Signals	10.2	B		11.6	B	
Carmel Rancho Blvd / Rio Road	Two-way stop	11.7	B	Not met	12.5	B	Not met

* Peak-hour warrants not analyzed - roundabout under construction.

Table 9
Intersection LOS and Peak-Hour Warrant Summary – October 2025

Intersection	Control	A.M. Peak Hour			P.M. Peak Hour		
		Delay (sec)	LOS	Warrant	Delay (sec)	LOS	Warrant
SR 1 / Carmel Valley	Signals	7.5	A		5.8	A	
Carmel Rancho Blvd / Carmel Valley	Signals	21.0	C		16.1	B	
Rio Vista Drive / Carmel Valley	One-way stop	24.8	C	Not met	36.7	E	Not met
Carmel Middle School / Carmel Valley	Signals	7.2	A		12.1	B	
Village Park / Carmel Valley	One-way stop	43.0	E	Not met	32.8	D	Not met
Via Mallorca / Carmel Valley	Signals	6.0	A		6.2	A	
Rancho San Carlos / Carmel Valley	Signals	11.4	B		7.9	A	
Schulte / Carmel Valley	One-way stop	33.5	D	Met	31.1	D	Not met
Robinson Canyon / Carmel Valley	Yield	15.6	C	Not met	10.1	B	Not met
Robinson Canyon / Carmel Valley off ramp	One-way stop	8.8	A	Not met	8.9	A	Not met
Laureles Grade / Carmel Valley	One-way stop*	38.9	E**		29.5	D**	
Ford / Carmel Valley	One-way stop	11.2	B	Met	19.7	C	Not met
Esquiline / Carmel Valley	One-way stop	11.0	B	Not met	13.1	B	Not met
Holman / Carmel Valley	One-way stop	9.3	A	Not met	9.4	A	Not met
SR 1 / Rio Road	Signals	21.4	C		18.6	B	
Crossroads Blvd / Rio Road	Signals	11.1	B		10.0	B	
Carmel Rancho Blvd / Rio Road	Two-way stop	11.7	B	Not met	12.2	B	Not met

* Peak-hour warrants not analyzed - roundabout under construction.

** Traffic control devices present; no full lane closures.

6.0 EVALUATION AND DISCUSSION

Policy CV-2.17(a) was addressed by performing traffic counts in June and October 2025, with the analyses presented in the following sections of this report.

Policies CV-2.17(b), CV-2.17(c), and CV-2.17(d) have been addressed by performing road segment operational analyses to determine the PTSF and by comparing both ADT and PTSF to threshold values. Table 10 presents a comparison of the 2025 ADT values with the threshold values. Table 11 presents a comparison of the 2025 PTSF values with the threshold values.

With respect to Policy CV-2.17(c), no road segments previously subject to annual monitoring are within 100 trips of the threshold. However, Segments 5, 6, and 7 were found to operate at LOS E with PTSF above the threshold. Therefore, a public hearing is triggered with respect to Policy CV-2.17(c). The other segments subject to annually monitoring (Segments 3, 4, and 10) are not within the 1% threshold.

With respect to Policy CV-2.17(d), none of the five-year monitoring segments is within the 20% threshold. Therefore, no new road segments are required to be added to the annual monitoring program.

Policy CV-2.17(e) requires a judgment as to whether changes in the LOS may be occurring earlier than previously predicted. Table 12 presents a comparison of the General Plan EIR baseline and cumulative conditions with available LOS and ADT data presented in the 2008 and 2020 volume reports, as well as the new 2025 counts and analyses. The data presented in Table 12 is presented in graphical form for each road segment in Figures 6 through 18. The results provide no evidence that LOS changes are occurring earlier than predicted in the General Plan EIR.

With respect to Policy CV-2.17(f), all but two of the study intersections and all but four of the study road segments are operating at, or better than, the specified LOS. Peak-hour traffic signal warrants are met at two of the study intersections during the a.m. peak hour in October only, but those intersections are operated at an acceptable LOS.

The intersection of Village Park Road and Carmel Valley Road operated at LOS F during the p.m. peak hour in June, but traffic signal warrants are not satisfied for the 15 vehicles making the left turn to Carmel Valley Road.

The intersection of Laureles Grade and Carmel Valley Road operated at LOS F during the p.m. peak hour in June, and the County has initiated construction of a roundabout at that intersection.

Peak-hour traffic signal warrants are met at the intersections of Schulte Road/Carmel Valley Road and Ford Road/Carmel Valley Road during the a.m. peak hour in October; however, those intersections are operating at acceptable LOS.

Segments 5, 6, and 7, and the two-lane portion of Segment 8, are operating worse than the LOS thresholds established in Policy CV-2.17(f). These segments comprise all of the two-lane segments of Carmel Valley Road west of Laureles Grade to the point where Carmel Valley Road becomes a four-lane roadway near Via Petra. (A majority of Segment 8 is a four-lane highway; however, the easternmost portion of the segment between Via Petra and Rancho San Carlos Road is approximately 2,000 feet long and is a two-lane highway).

It should be noted that LOS F was calculated for the intersection of Laureles Grade and Carmel Valley Road during the p.m. peak hour in June, and the County has initiated construction of a roundabout at that intersection.

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Table 10
ADT Comparisons

Segment No.	Road	Segment	ADT Threshold	June 2025			October 2025		
				ADT	Percent of Threshold	Difference	ADT	Percent of Threshold	Difference
1	Carmel Valley Road	East of Holman Road	8,487	2,865	34%	5,622	2,918	34%	5,569
2	Carmel Valley Road	Between Esquiline Road and Holman Road	6,835	3,239	47%	3,596	3,367	49%	3,468
3	Carmel Valley Road	Between Ford Road and Esquiline Road	9,065	5,628	62%	3,437	5,813	64%	3,252
4	Carmel Valley Road	Between Laureles Grade and Ford Road	11,600	11,138	96%	462	11,118	96%	482
5	Carmel Valley Road	Between Robinson Canyon Road and Laureles Grade	12,752	10,982	86%	1,770	9,873	77%	2,879
6	Carmel Valley Road	Between Schulte Road and Robinson Canyon Road	15,499	14,664	95%	835	14,280	92%	1,219
7	Carmel Valley Road	Between Rancho San Carlos Road and Schulte Road	16,340	15,080	92%	1,260	14,776	90%	1,564
8	Carmel Valley Road	Between Rio Road and Rancho San Carlos Road	48,487	21,402	44%	27,085	20,581	42%	27,906
9	Carmel Valley Road	Between Carmel Rancho Boulevard and Rio Road	51,401	21,688	42%	29,713	20,711	40%	30,690
10	Carmel Valley Road	Between SR 1 and Carmel Rancho Boulevard	27,839	20,108	72%	7,731	20,123	72%	7,716
11	Carmel Rancho Boulevard	Between Carmel Valley Road and Rio Road	33,495	15,956	48%	17,539	14,192	42%	19,303
12	Rio Road	Between Carmel Rancho Boulevard and Val Verde Drive	6,416	829	13%	5,587	840	13%	5,576
13	Rio Road	Between SR 1 and Carmel Rancho Boulevard	33,928	8,993	27%	24,935	8,563	25%	25,365

Bold type indicates road segments currently included in the annual monitoring report.

Table 11
PTSF Comparisons

Segment No.	Road	Segment	LOS Required	PTSF Threshold	June 2025		October 2025	
					Worst-Case PTSF	Difference	Worst-Case PTSF	Difference
1	Carmel Valley Road	East of Holman Road	C	70	55.3	14.7	61.2	8.8
2	Carmel Valley Road	Between Esquiline Road and Holman Road	C	70	55.9	14.1	57.1	12.9
3	Carmel Valley Road	Between Ford Road and Esquiline Road	D	85	74.6	10.4	75.4	9.6
4	Carmel Valley Road	Between Laureles Grade and Ford Road	D	85	77.8	7.2	79.0	6.0
5	Carmel Valley Road	Between Robinson Canyon Road and Laureles Grade	D	85	90.0	-5.0	87.6	-2.6
6	Carmel Valley Road	Between Schulte Road and Robinson Canyon Road	D	85	89.4	-4.4	87.7	-2.7
7	Carmel Valley Road	Between Rancho San Carlos Road and Schulte Road	D	85	90.1	-5.1	89.9	-4.9
8	Carmel Valley Road	Between Village Park Road and Rancho San Carlos Road (two-lane portion)	C	70	92.8	-22.8	89.3	-19.3
9	Carmel Valley Road	Between Carmel Rancho Boulevard and Village Park Road	C	N/A	N/A	N/A	N/A	N/A
10	Carmel Valley Road	Between SR 1 and Carmel Rancho Boulevard	C	N/A	N/A	N/A	N/A	N/A
11	Carmel Rancho Boulevard	Between Carmel Valley Road and Rio Road	C	N/A	N/A	N/A	N/A	N/A
12	Rio Road	Between Carmel Rancho Boulevard and Val Verde Drive	C	70	36.4	33.6	37.6	32.4
13	Rio Road	Between SR 1 and Carmel Rancho Boulevard	C	N/A	N/A	N/A	N/A	N/A

Bold type indicates road segments currently included in the annual monitoring report.
 N/A: Not applicable. PTSF methodology is not applicable to multi-lane roadways.

Table 12
Volume and LOS Comparison

No.	Road	Segment	2008		2020				2025				General Plan (Cumulative)	
			ADT*	LOS*	June		October		June		October		ADT	LOS
					ADT	LOS	ADT	LOS	ADT	LOS	ADT	LOS		
1	Carmel Valley Road	East of Holman Road	3,235	A	3,084	B	2,791	C	2,865	C	2,918	C	10,400	D
2	Carmel Valley Road	Between Esquiline Road and Holman Road	3,673	A	3,211	B	2,926	C	3,239	C	3,367	C	6,100	D
3	Carmel Valley Road	Between Ford Road and Esquiline Road	10,816	B/C	8,058	C	7,913	C	5,628	D	5,813	D	13,200	F
4	Carmel Valley Road	Between Laureles Grade and Ford Road	-	C	9,196	D	9,064	D	11,138	D	11,118	D	22,600	F
5	Carmel Valley Road	Between Robinson Canyon Road and Laureles Grade	11,521	C/D	9,732	D	9,551	D	10,982	E	9,873	E	27,400	F
6	Carmel Valley Road	Between Schulte Road and Robinson Canyon Road	14,163	D	13,072	D	13,279	D	14,664	E	14,280	E	33,200	F
7	Carmel Valley Road	Between Rancho San Carlos Road and Schulte Road	15,984	D	13,513	D	13,649	D	15,080	E	14,776	E	36,600	F
8	Carmel Valley Road	Between Village Park Road and Rancho San Carlos Road	19,655	A	18,013	D**	18,205	D**	21,402	E**	20,581	E**	35,800	F
9	Carmel Valley Road	Between Carmel Rancho Boulevard and Village Park Rd.	24,655	A/B	18,173	A	18,326	A	21,688	B	20,711	A	41,800	F
10	Carmel Valley Road	Between SR 1 and Carmel Rancho Boulevard	23,160	A/B	18,698	A	18,962	A	20,108	A	20,123	A	40,200	F
11	Carmel Rancho Boulevard	Between Carmel Valley Road and Rio Road	11,015	-	12,122	A	12,522	A	15,956	A	14,192	A	18,600	D
12	Rio Road	Between Carmel Rancho Boulevard and Val Verde Drive	-	-	902	A	875	A	829	A	840	A	-	-
13	Rio Road	Between SR 1 and Carmel Rancho Boulevard	12,270	-	6,965	A	6,980	A	8,993	A	8,563	A	18,100	D

Bold type indicates road segments currently included in the annual monitoring report.

* 2008 ADT from 2008 CVMP Volume Report; 2008 ADT from General Plan EIR baseline.

** 2025 LOS is for the two-lane portion of Segment 8. The four-lane portion is operating at LOS A.

7.0 CONCLUSIONS

This study was performed to fulfill the requirements of the Monterey County General Plan and CVMP Policy CV-2.17 for both annual traffic monitoring and five-year traffic monitoring. Generally-accepted traffic engineering principles and methods were applied to the traffic counts and analyses performed for this study to arrive at the following conclusions:

- No large special events were held while the counts were being performed.
- Construction of the roundabout at Carmel Valley Road and Laureles Grade was underway during the October counts. Traffic delineators were observed, but no full lane closures were in place.
- The counts and analyses reveal that no road segments previously subject to annual monitoring are within 100 trips of the threshold with respect to Policy CV-2.17(c).
- Annual monitoring segments 3, 4, and 10 are not within the 1% threshold with respect to Policy CV-2.17(c).
- Segments 5, 6, and 7 were found to operate at LOS E with PTSF above the threshold. Therefore, a public hearing is triggered with respect to Policy CV-2.17(c).
- None of the five-year monitoring segments is within the 20% threshold; therefore, no new road segments are required to be added to the annual monitoring program with respect to Policy CV-2.17(d).
- In accordance with Policy CV-2.17(e), the required comparisons do not suggest that LOS changes are occurring earlier than predicted in the General Plan EIR.
- With respect to Policy CV-2.17(f), all but two of the study intersections and all but four of the study road segments are operating at, or better than, the specified LOS. Peak-hour traffic signal warrants are met at two of the study intersections during the a.m. peak hour in October only.
 - The intersection of Village Park Road and Carmel Valley Road operated at LOS F during the p.m. peak hour in June, but traffic signal warrants are not satisfied for the 15 vehicles making the left turn to Carmel Valley Road.
 - The intersection of Laureles Grade and Carmel Valley Road operated at LOS F during the p.m. peak hour in June, and the County has initiated construction of a roundabout at that intersection.
 - Peak-hour traffic signal warrants are met at the intersections of Schulte Road/Carmel Valley Road and Ford Road/Carmel Valley Road during the a.m. peak hour in October; however, those intersections are operating at acceptable LOS.
 - Segments 5, 6, and 7, and the two-lane portion of Segment 8, are operating worse than the LOS thresholds established in Policy CV-2.17(f). These segments comprise all of the two-lane segments of Carmel Valley Road west of Laureles Grade to the point where Carmel Valley Road becomes a four-lane roadway near Via Petra. (A majority of Segment 8 is a four-lane highway; however, the easternmost portion of the segment between Via Petra and Rancho San Carlos Road is approximately 2,000 feet long and is a two-lane highway).

- Stay-at-home orders related to the COVID-19 pandemic were in place during the 2020 monitoring; however, counts were performed as required by the applicable policies. The traffic volumes counted during 2020 may not reflect those of a typical year. Traffic conditions in 2025 are considered to have returned to more typical conditions.

Thank you for the opportunity to perform these traffic analyses. Please feel free to contact our office if you have any questions.

PETERS ENGINEERING GROUP

John Rowland, PE, TE

Attachments: Figures 1 through 18
Appendix A - Traffic Count Data Sheets
Appendix B - Road Segment Analysis Sheets
Appendix C - Intersection Analysis Sheets

FIGURES



LEGEND

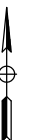
—— PROJECT AREA

SITE VICINITY MAP

Carmel Valley Road Five-Year Traffic Monitoring - 2025
Monterey County, California

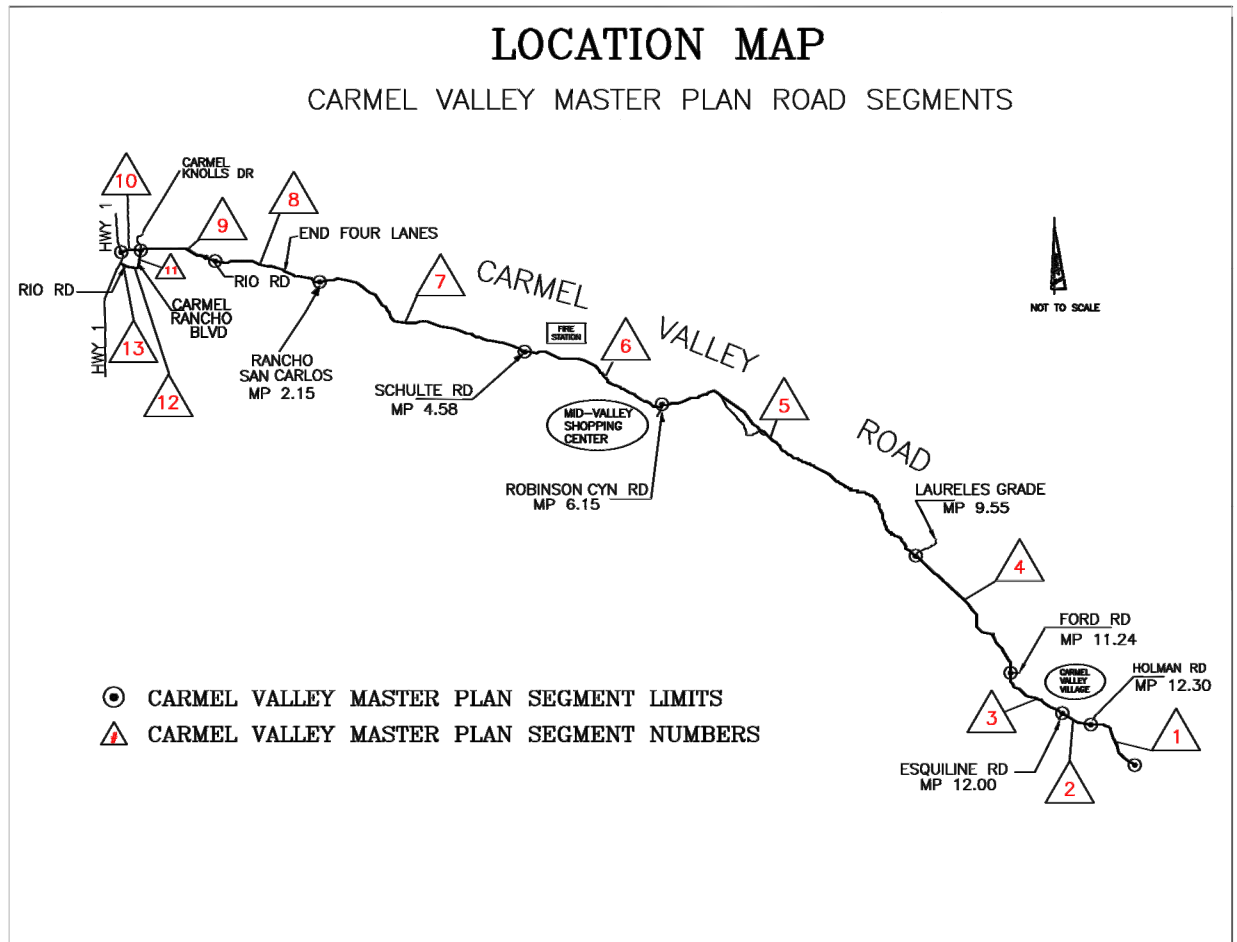


PETERS ENGINEERING GROUP



Not to Scale

Figure 1

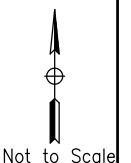


LEGEND

—— PROJECT AREA

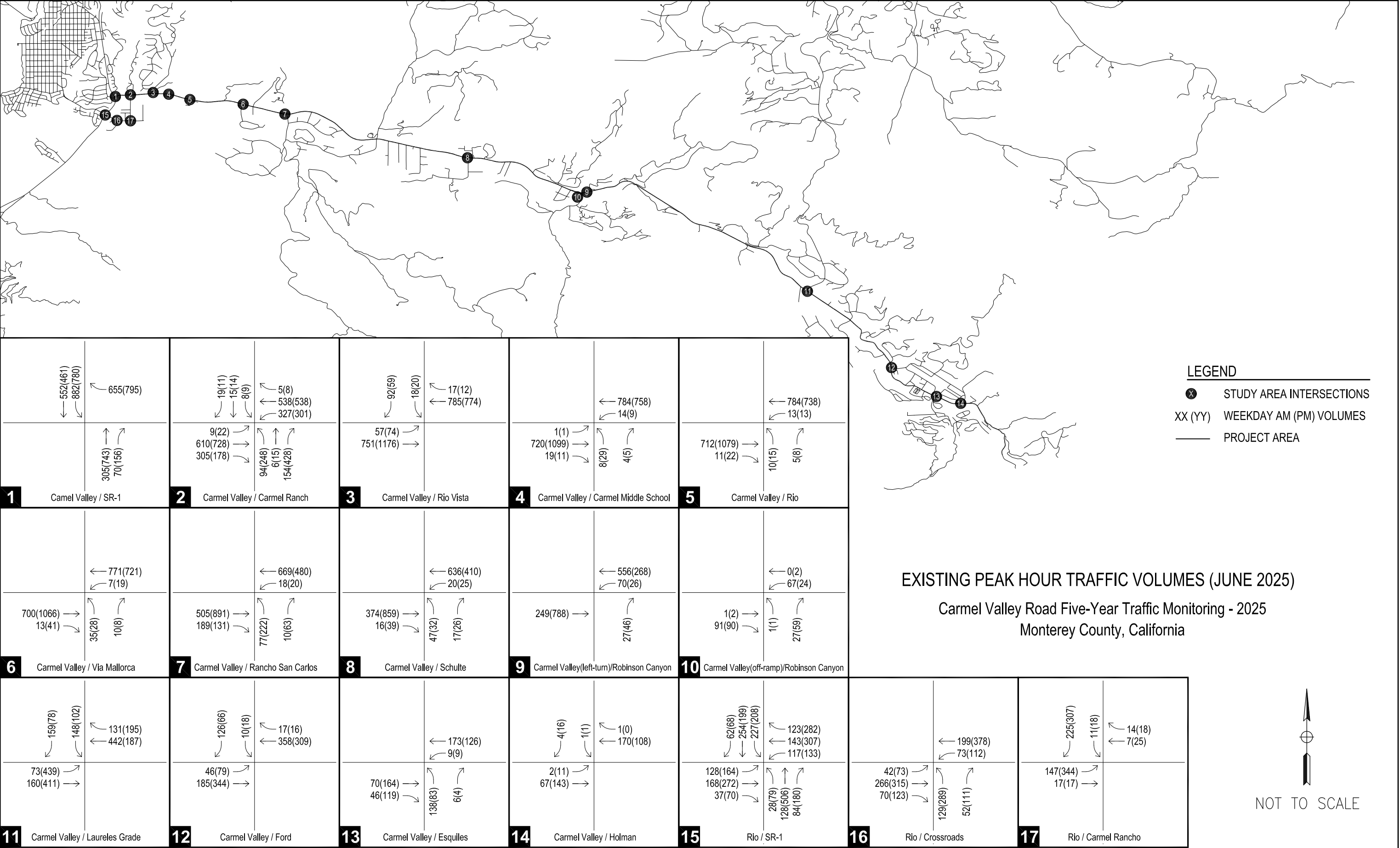
STUDY LOCATION MAP

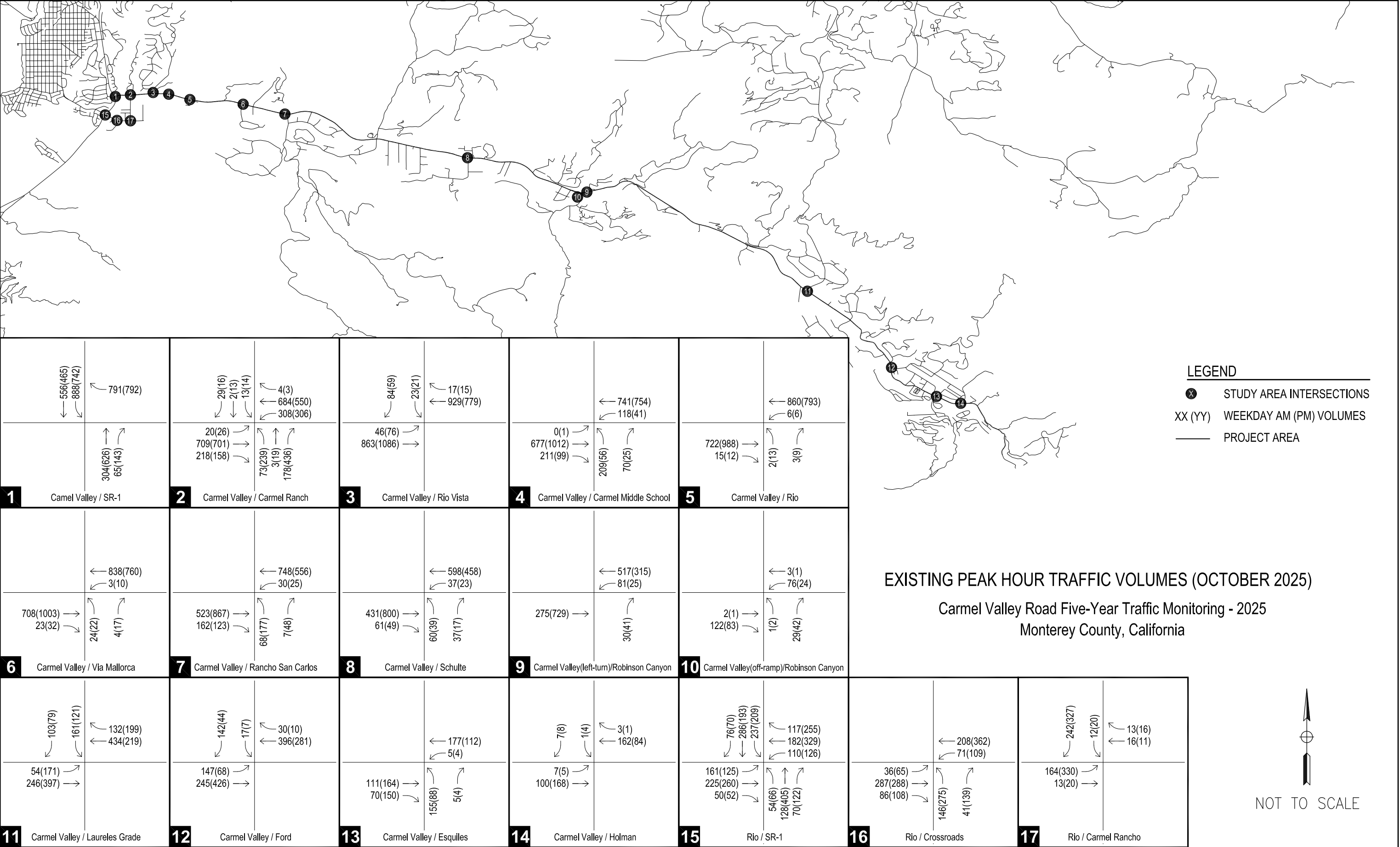
Carmel Valley Road Five-Year Traffic Monitoring - 2025
Monterey County, California

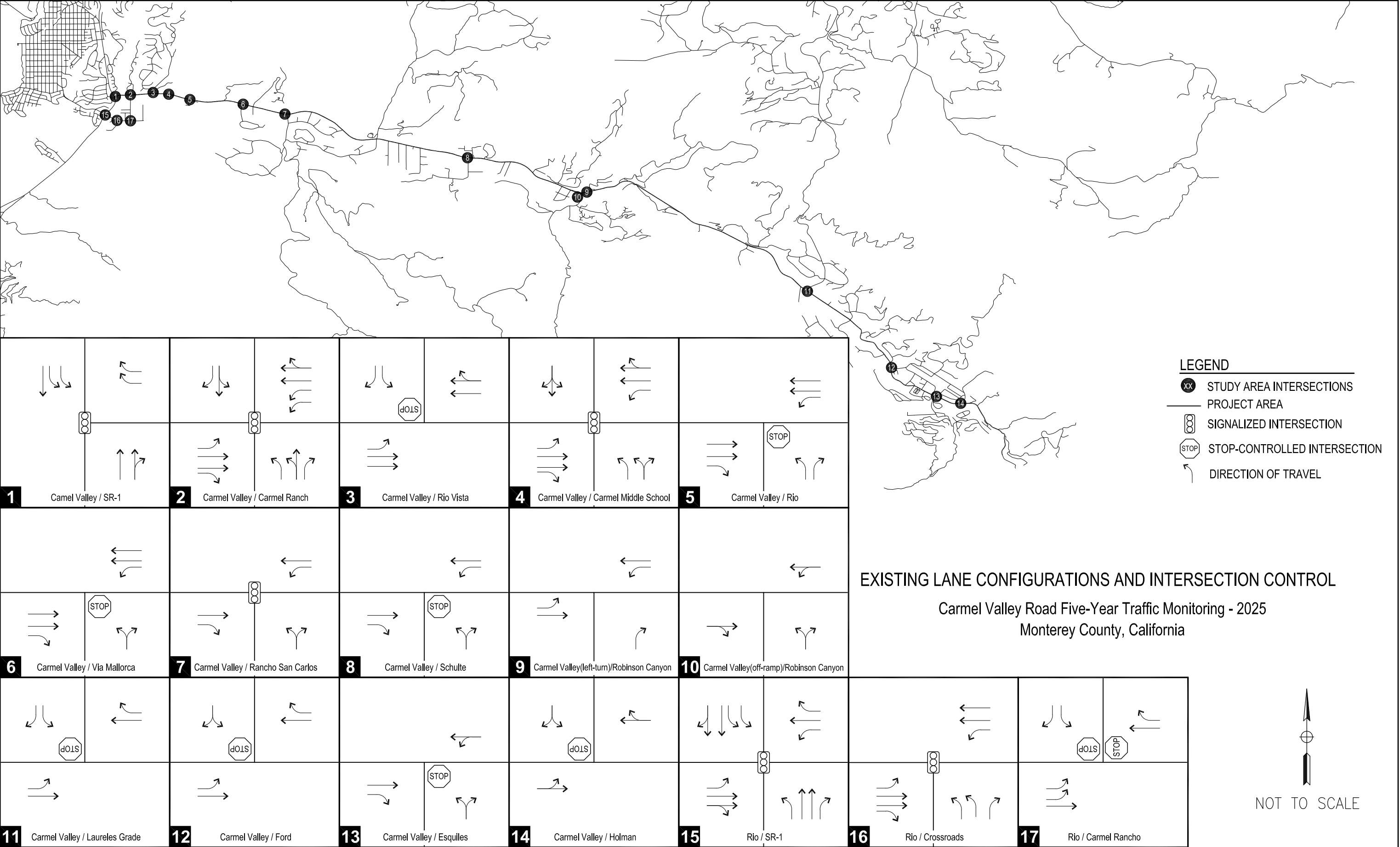


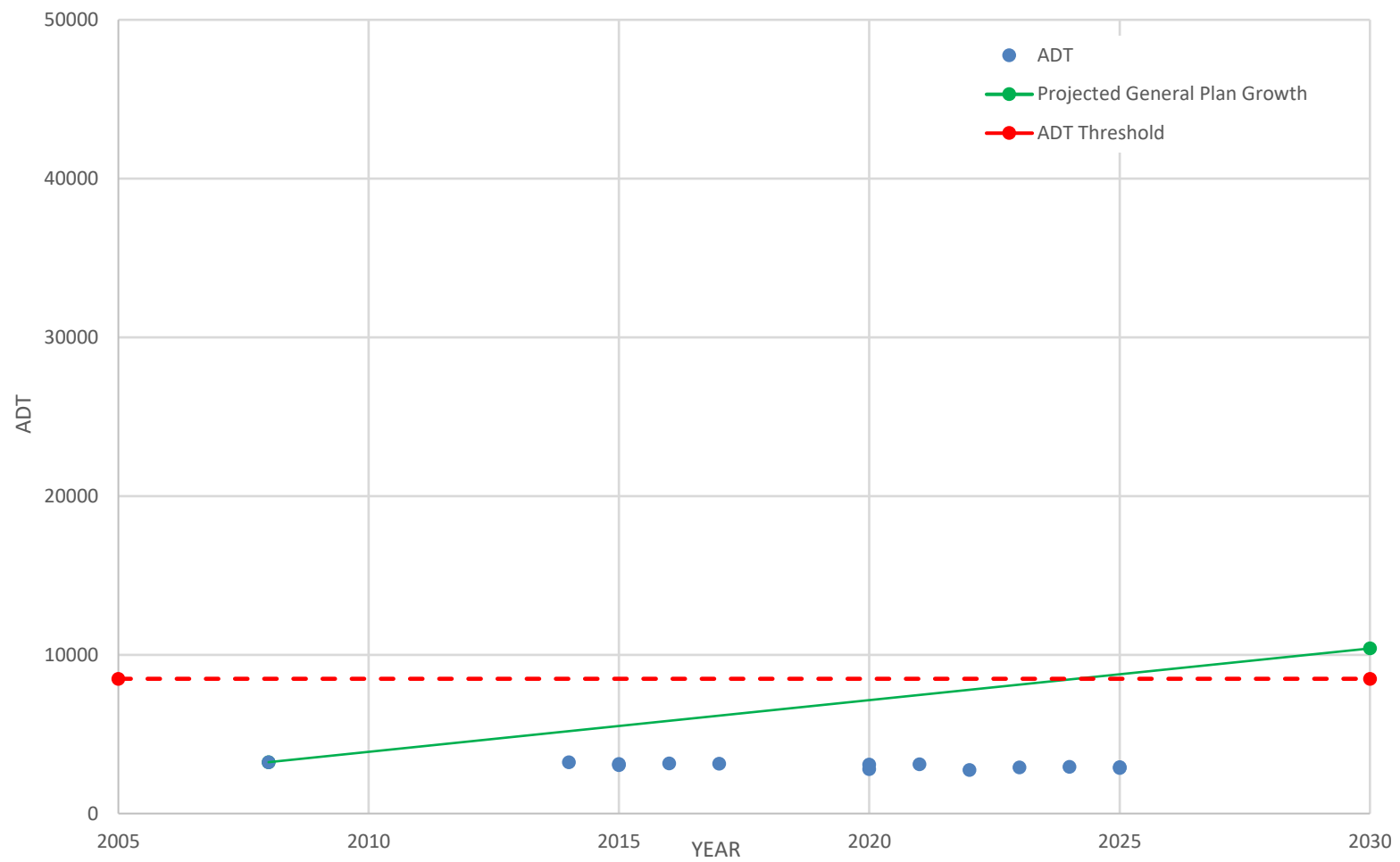
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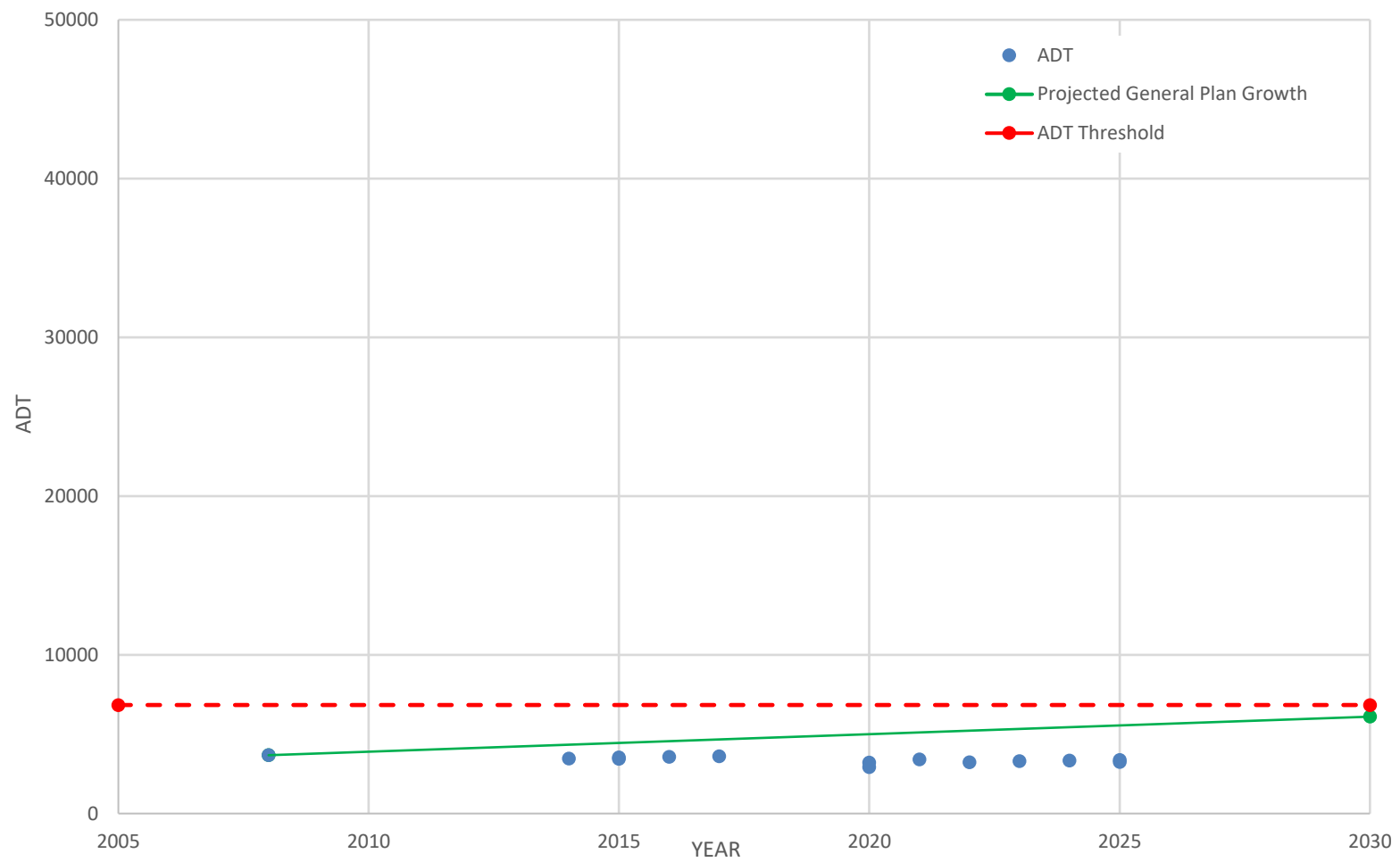




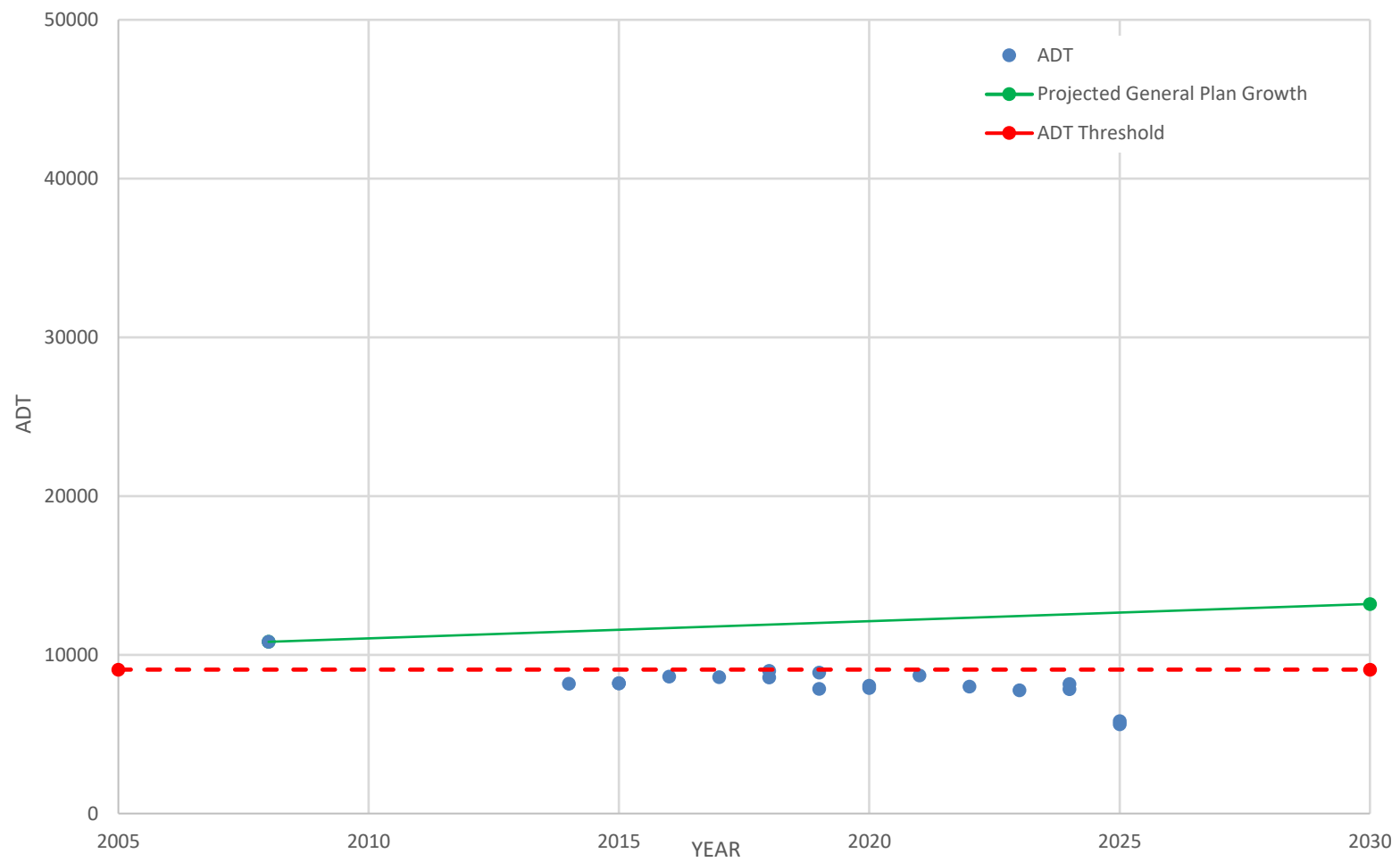




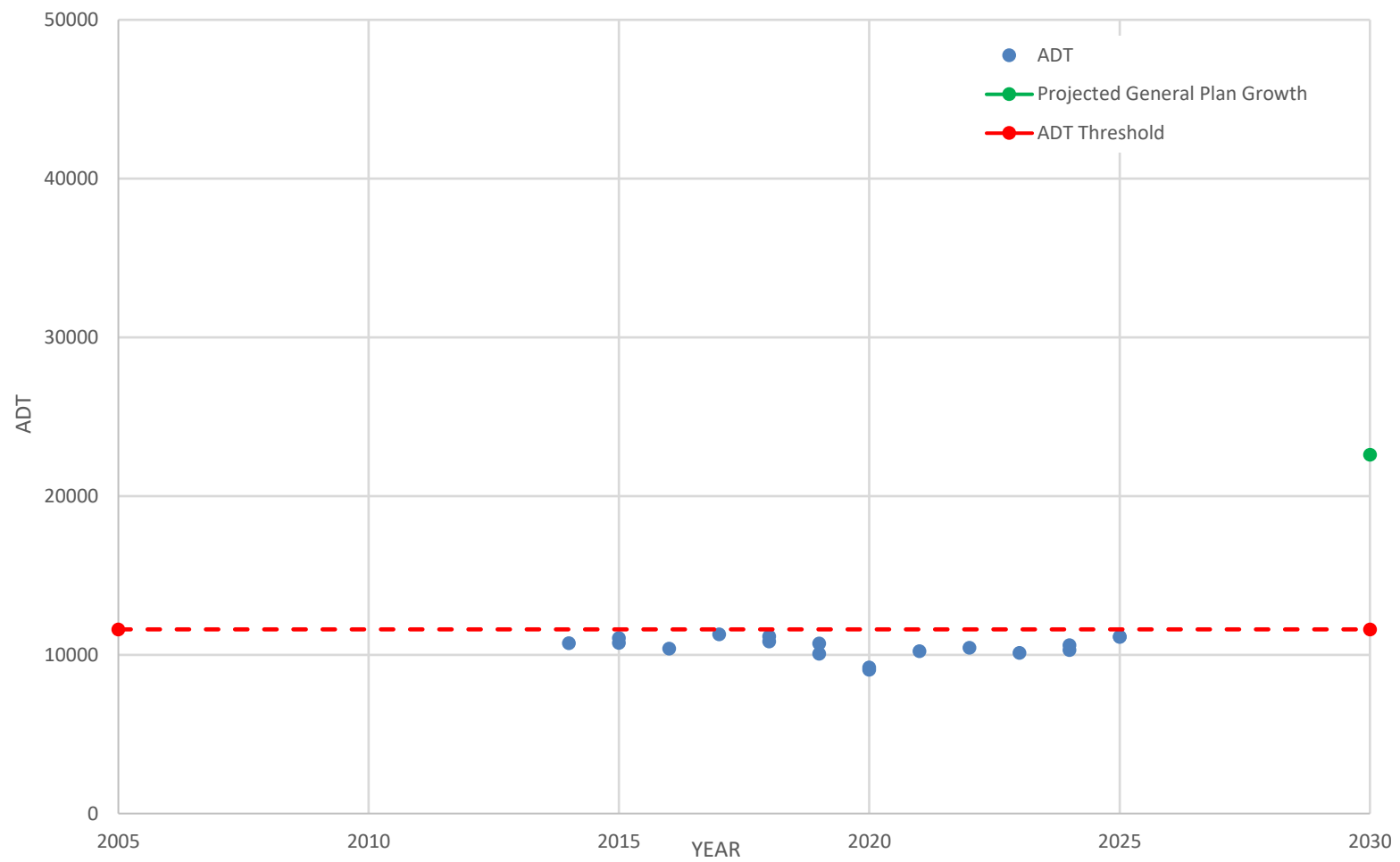
**CARMEL VALLEY ROAD
SEGMENT 1
East of Holman Road**



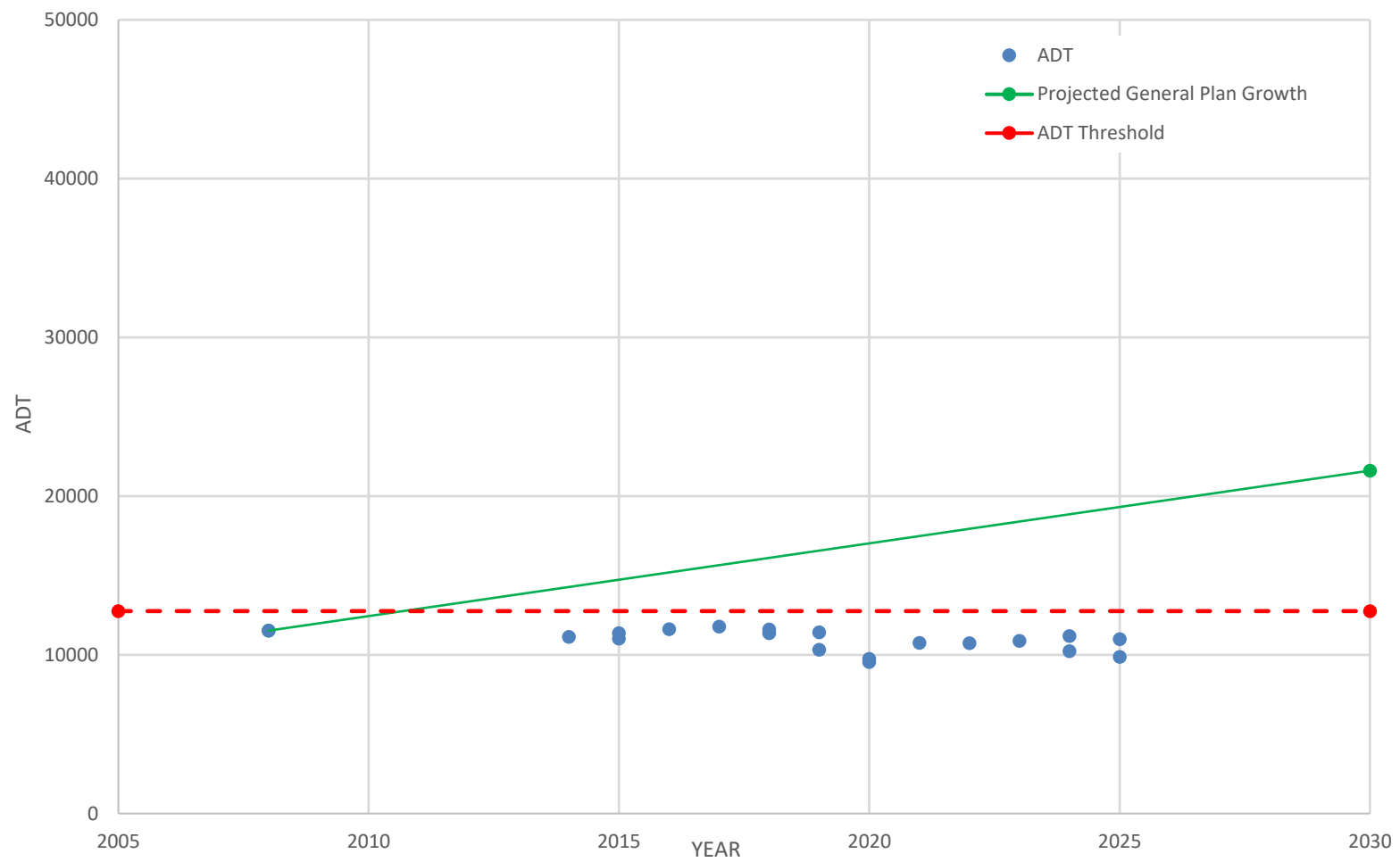
CARMEL VALLEY ROAD
SEGMENT 2
Between Esquiline Road and Holman Road



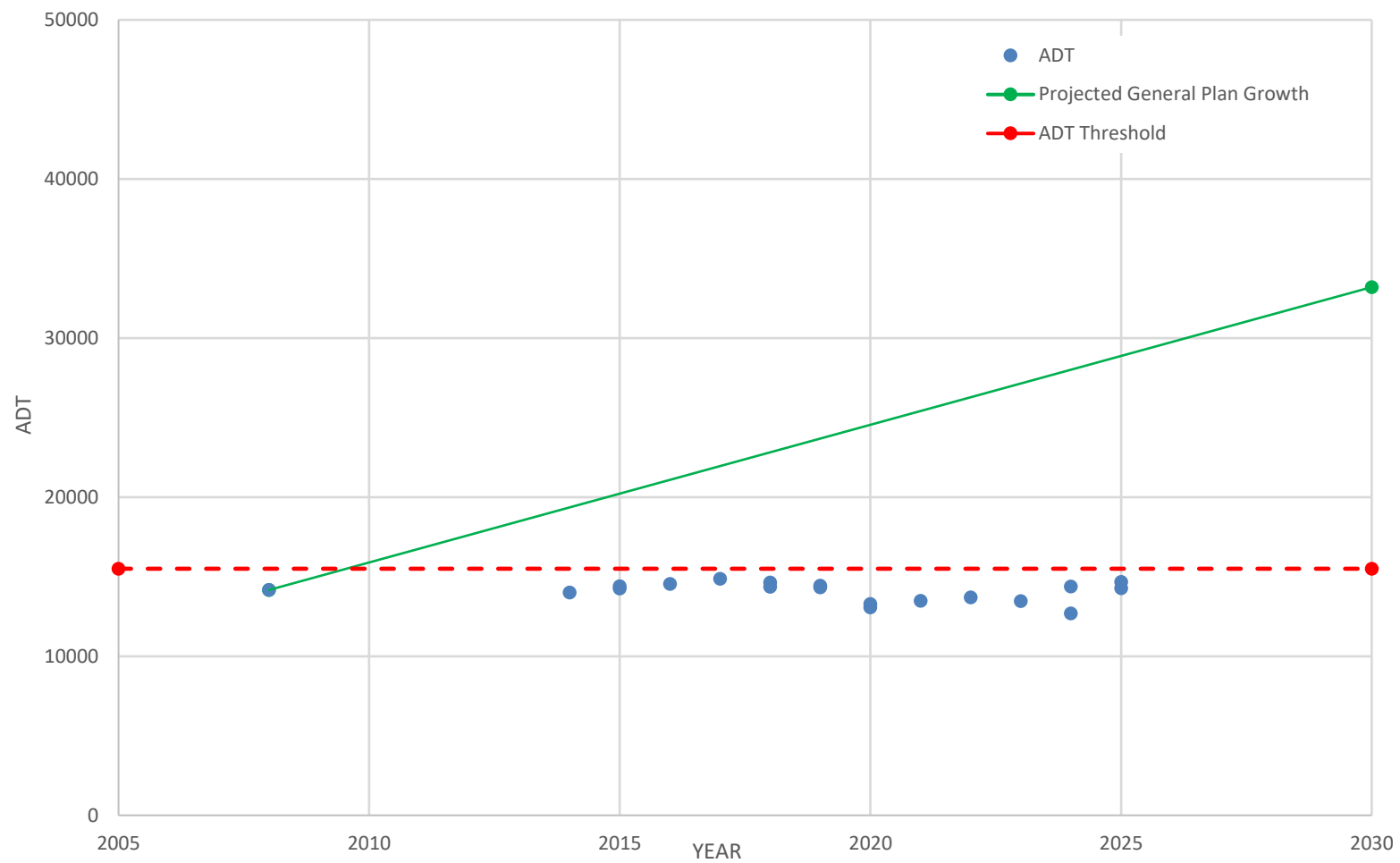
CARMEL VALLEY ROAD
SEGMENT 3
Between Ford Road and Esquiline Road



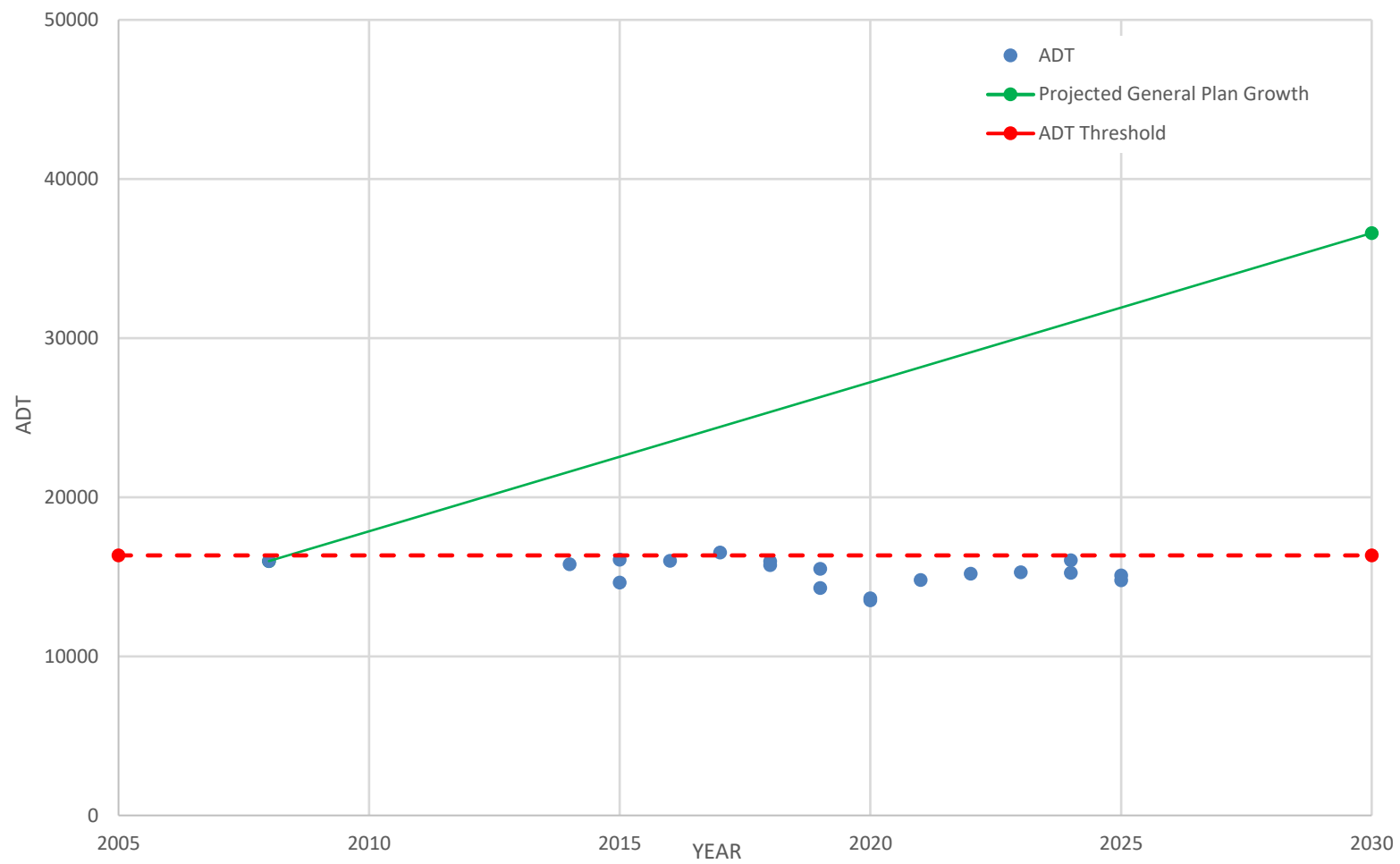
CARMEL VALLEY ROAD
SEGMENT 4
Between Laureles Grade and Ford Road



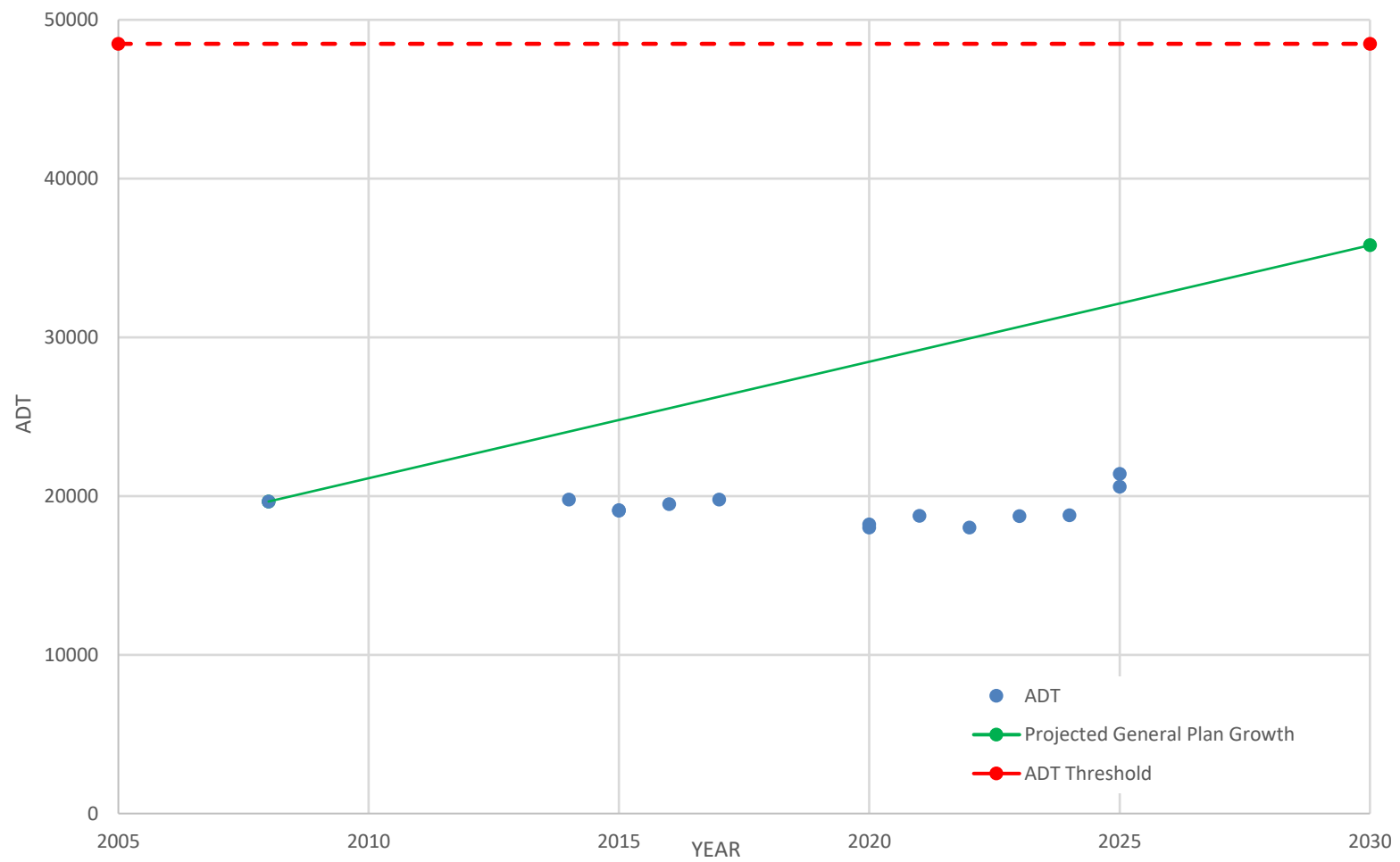
CARMEL VALLEY ROAD
SEGMENT 5
Between Robinson Canyon Road and Laureles Grade



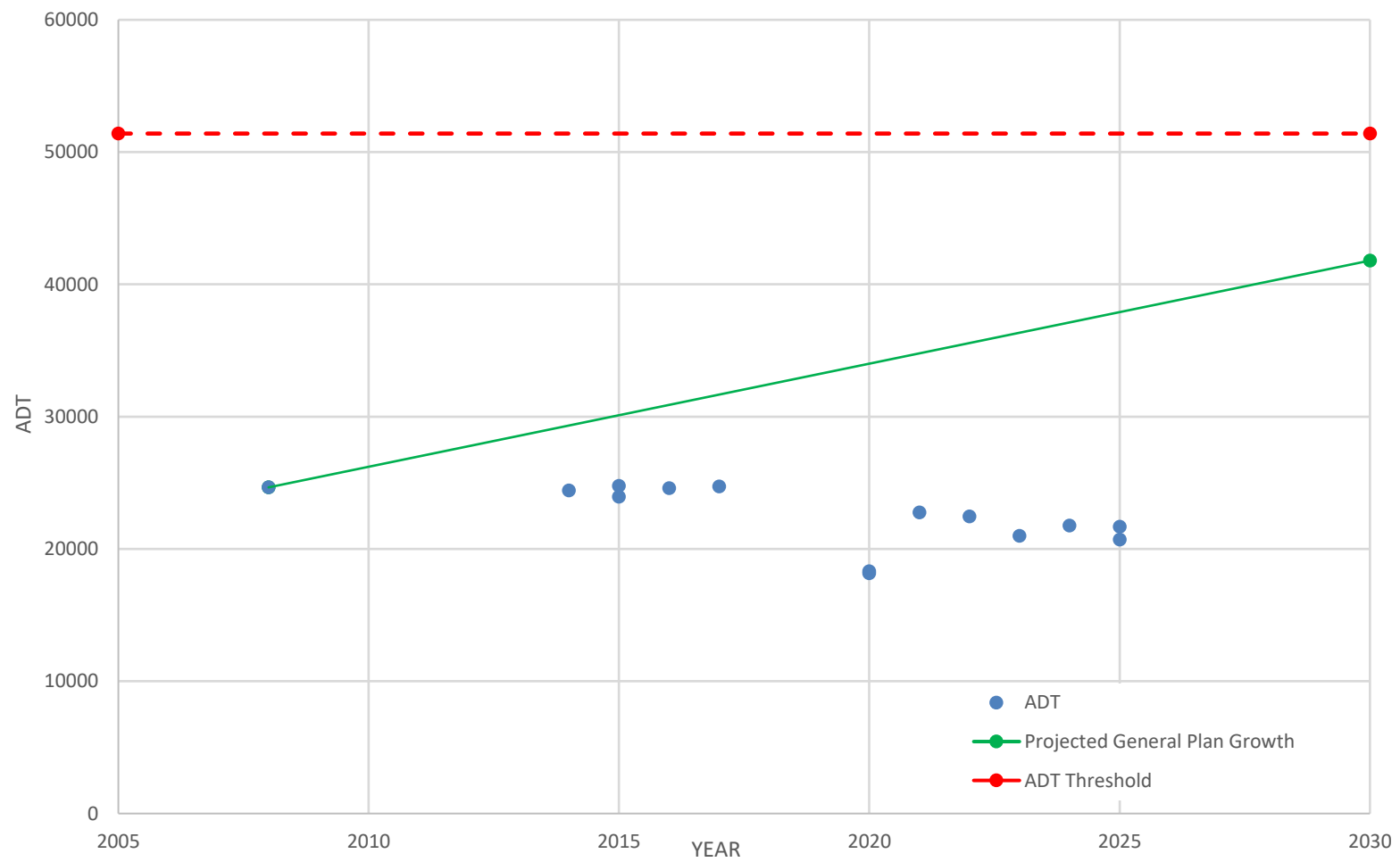
CARMEL VALLEY ROAD
SEGMENT 6
Between Schulte Road and Robinson Canyon Road



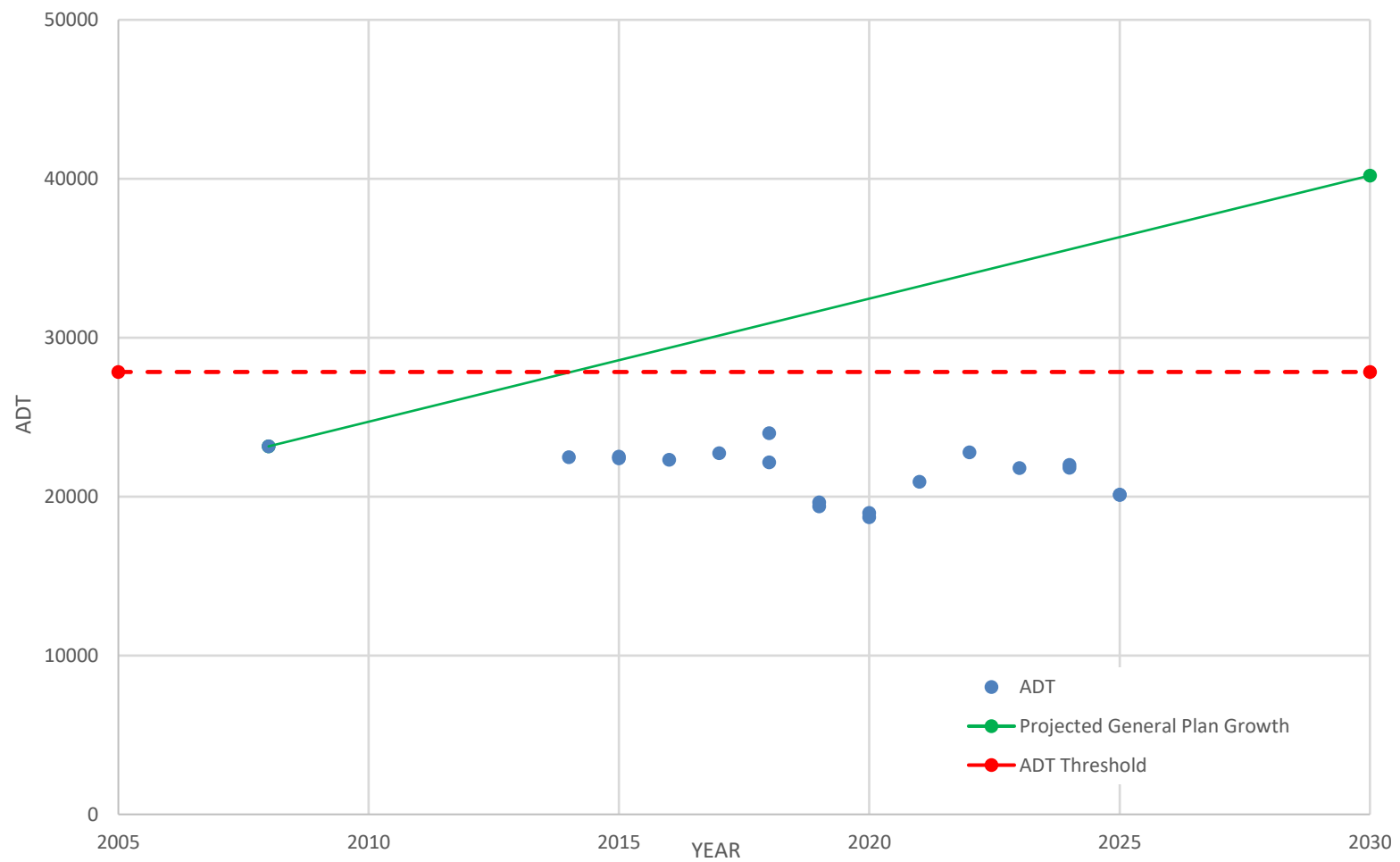
CARMEL VALLEY ROAD
SEGMENT 7
Between Rancho San Carlos Road and Schulte Road



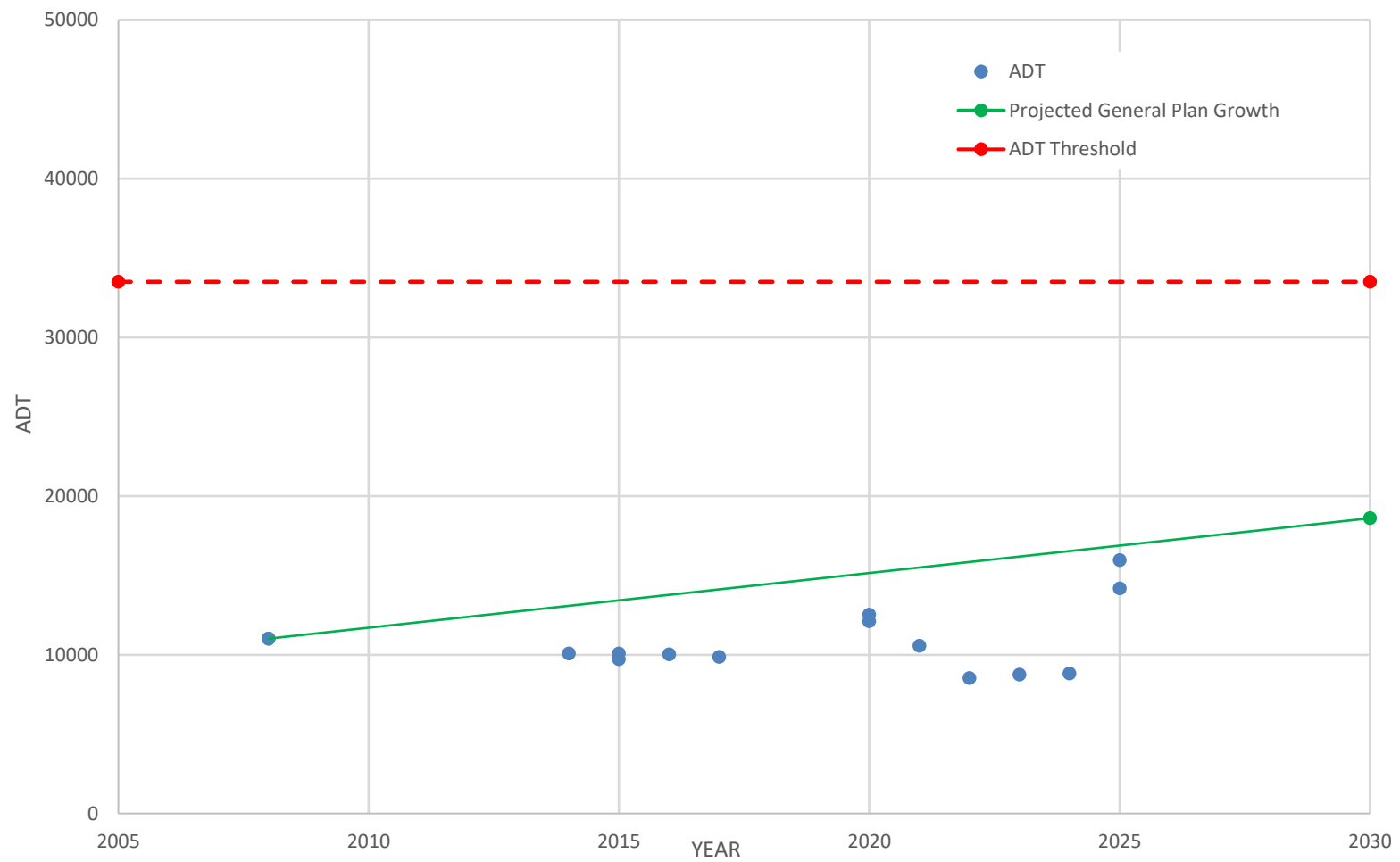
CARMEL VALLEY ROAD
SEGMENT 8
Between Village Park Road and Rancho San Carlos Road



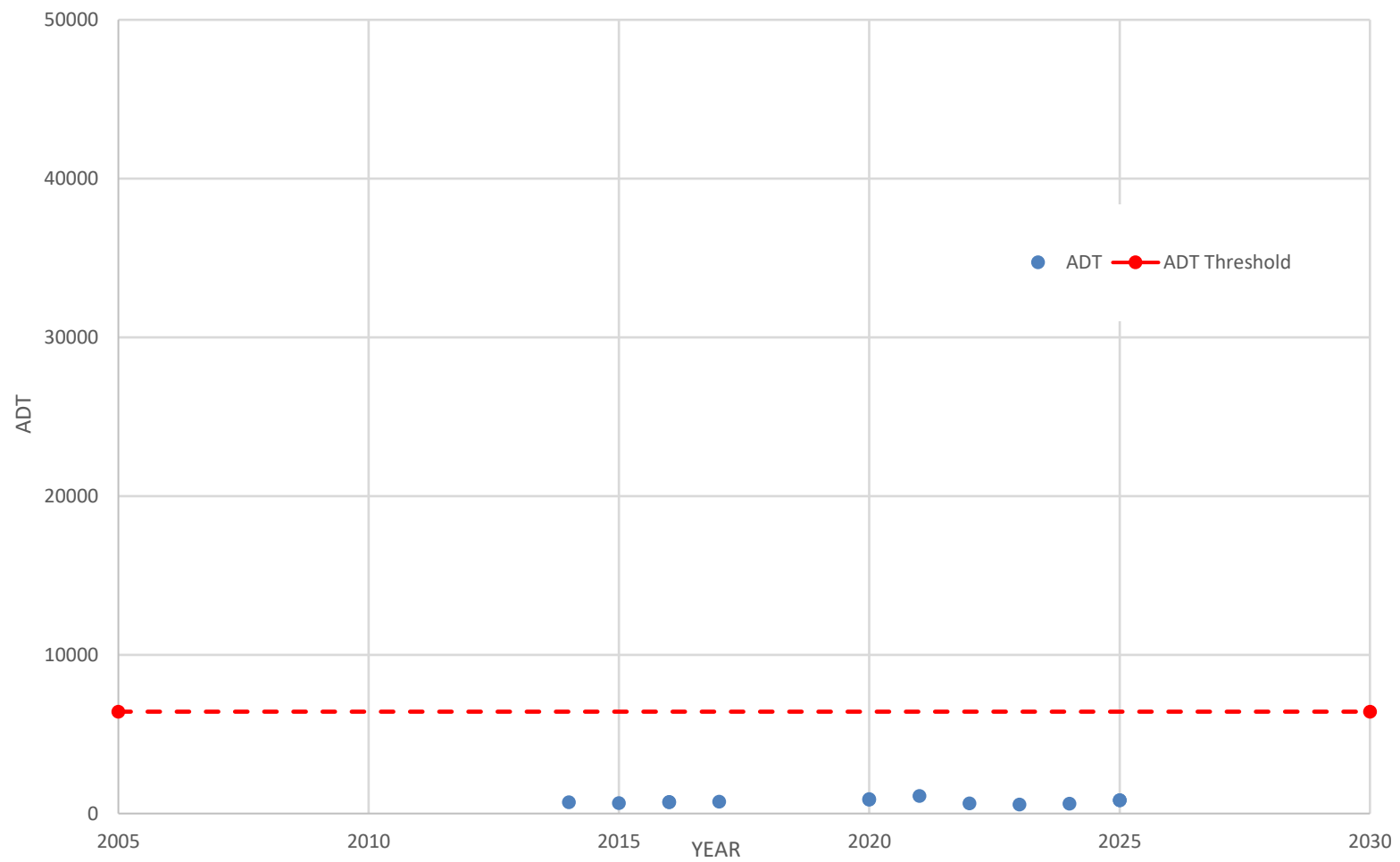
CARMEL VALLEY ROAD
SEGMENT 9
Between Carmel Rancho Boulevard and Village Park Road



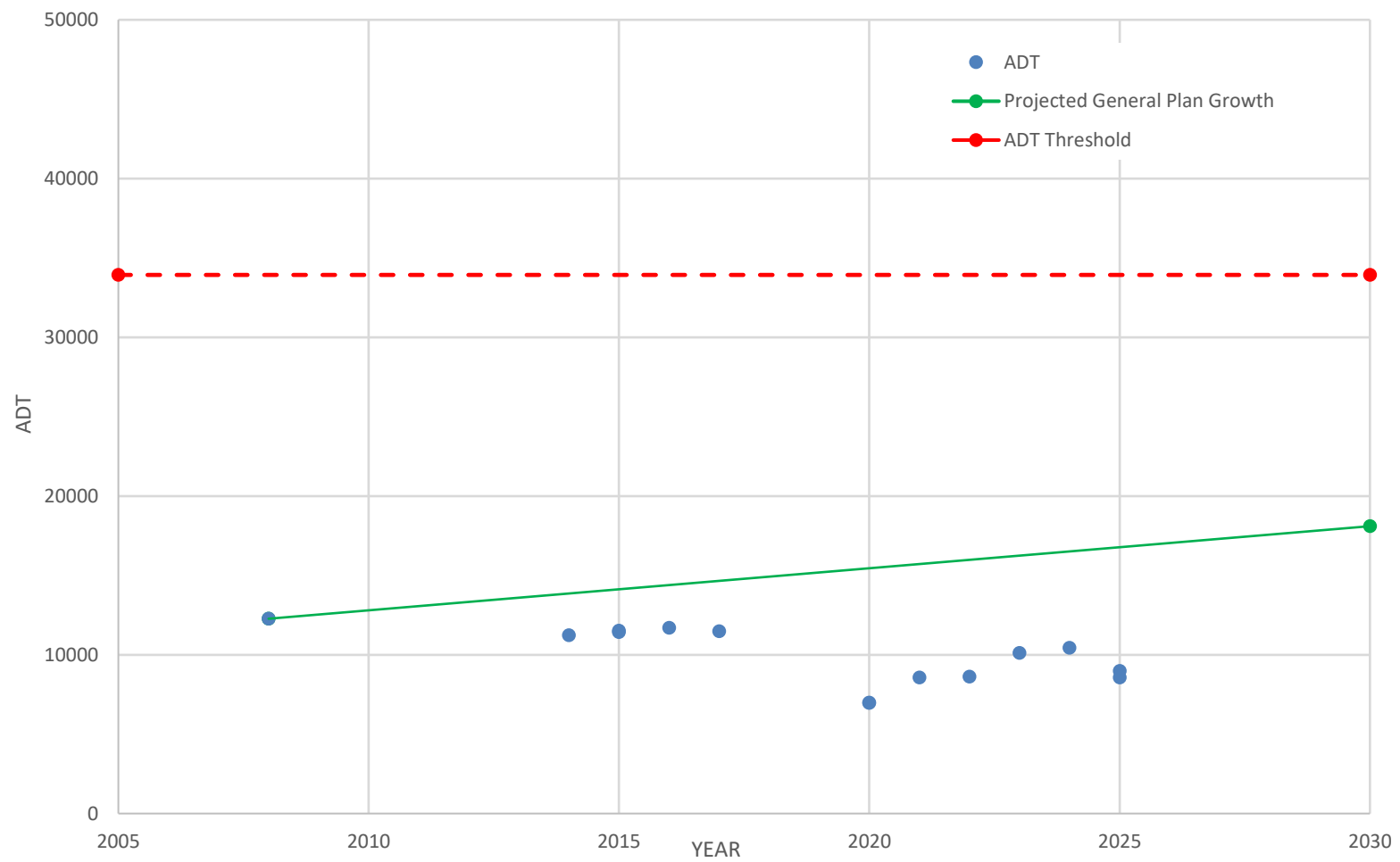
CARMEL VALLEY ROAD
SEGMENT 10
Between SR 1 and Carmel Rancho Boulevard



CARMEL RANCHO BOULEVARD
SEGMENT 11
Between SR 1 and Carmel Rancho Boulevard



RIO ROAD
SEGMENT 12
Between Carmel Rancho Boulevard and Val Verde Drive



**RIO ROAD
SEGMENT 13
Between SR 1 and Carmel Rancho Boulevard**