4.8 Transportation and Circulation

This section analyzes the potential for the proposed project to cause significant impacts to traffic and transportation facilities in the Carmel Valley area. The analysis in this section is based on a traffic study prepared for the project by Keith Higgins Traffic Engineer (KHTE) in December 2017 (KHTE 2017). The full study is provided in Appendix G of this EIR.

4.8.1 Summary

Table 32 summarizes the identified environmental impacts, proposed Mitigation Measures, and residual impacts of the proposed project with regard to transportation and circulation. Additional detail is provided in Section 4.8.3, Impact Analysis.

Table 32 Impact and Mitigation Summary: Transportation and Circulation

Impact	Mitigation Measures	Residual Impact
Impact T-1. Project-generated traffic would cause LOS at two study intersections and six road segments to significantly degrade relative to existing conditions. This impact would be significant and unavoidable.	**T-1 Intersection 3: Highway 1/Rio Road Improvements** Concurrent with development of the shopping center**,** the developer shall lengthen the existing eastbound left-turn lane at Rio Road and Crossroads Boulevard, which would provide access to the project's main entrance, from 170 feet (130 feet of striping) to approximately 265 feet. Extending the length of the existing left turn lane will require the existing 265-foot westbound left turn lane onto southbound Highway 1 to be shortened by an equal 95 feet. In addition, Caltrans and the TAMC are completing the design of a second northbound lane on Highway 1 that will widen Highway 1 by about 30 feet to the east. This will also reduce the length of the westbound Rio Road left turn lane by an equivalent amount. The result will be that the left turn lane will be shortened by a total of 125 feet to about 140 feet, assuming a 60-foot bay taper separating the eastbound left turn lane into the Rio Ranch Shopping Center and the westbound left turn lane onto southbound Highway 1. Consequently, the developer shall also add a second Rio Road westbound left-turn lane onto Highway 1. This will require a 90-foot bay taper, resulting in two left turn lanes each with a length of about 115 feet. The addition of the second left turn lane will require widening Rio Road 11 feet to the south between Highway 1 and the westerly Crossroads driveway, located about 170 feet east of Highway 1. A transition shall be provided to match the existing Rio Road southerly curb line on the east side of the middle Crossroads Shopping Center driveway about 250 feet to the east. Modifications along Rio Road will need to be coordinated with Caltrans and TAMC. **Monitoring Action:** Prior to issuance of grading or building permits, the applicant shall obtain all required approvals for road improvements from Caltrans and TAMC. Evidence of the approval shall be submitted to the RMA-Public Works. The required roadway improvements shall be installed prior to occupancy or final of building permits, whichever occurs first.	Impacts would be significant and unavoidable.

Impact	Mitigation Measures	Residual Impact
Impact T-2. Project-generated traffic would cause LOS at four study intersections and seven road segments to significantly degrade relative to background conditions. Impacts would be significant and unavoidable.	**T-1 Intersection 3: Highway 1/Rio Road Improvement** (see above)	Impacts would be significant and unavoidable.
Impact T-3. Project access and internal circulation as currently designed would pose potential safety hazards to on- and off-site traffic and delivery service employees. Impacts would be significant, but mitigable.	**T-3 Internal Circulation and Project Access Design Improvements.** The developer shall incorporate the recommended Mitigation Measures in the traffic study to address the potential impacts to project access and internal circulation. Mitigation would be incorporated into the final site plan and submitted for County review prior to the issuance of building permits. The following recommended measures shall be incorporated: a. Install a stop sign on the project exit at the Barnyard parking lot. b. Install all-way stop control at the four-legged intersection immediately south of the connection to the existing adjacent lodging use. c. Either relocate the loading facility in front of Store B to the on-site parking lot near Stores A and B, or design the loading facility to the satisfaction of the Monterey County Public Works Department. **Monitoring Action:** Prior to the issuance of grading or building permits, plans illustrating the location of stop signs, intersection controls, and loading areas for all proposed buildings shall be submitted to RMA-Public Works for review and approval.	Impacts would be less than significant.
Impact T-4. The project would provide sufficient access to emergency vehicles, would be required to comply with local and State standards for fire safety, and would undergo plan review for compliance with fire code standards. impacts would be less than significant.	No mitigation is required	Impacts would be less than significant.
Impact T-5. The project would not conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities. The project would have temporary, short-term impacts to public transit and pedestrian facilities during project construction. Impacts would be less than significant.	No mitigation is required.	Impacts would be less than significant.

Impact	Mitigation Measures	Residual Impact
Cumulative Impact. Project-generated traffic would cause LOS at six study intersections and seven road segments to significantly degrade relative to cumulative conditions. Impacts would be significant and unavoidable.	**T-1 Intersection 3: Highway 1/Rio Road Improvements** (see above)	Impacts would be significant and unavoidable.

4.8.2 Setting

a. Existing Street System

Highway 1

State Route (Highway) 1 provides regional access to the project site. Highway 1 is a major north-south roadway that connects the Monterey Peninsula with San Luis Obispo County to the south, and with Santa Cruz County and the San Francisco Bay Area to the north. Highway 1 is a four-lane freeway north of Carpenter Street, a four- to five-lane roadway between Carpenter Street and Ocean Avenue, a three-lane roadway (two lanes northbound and one lane southbound) between Ocean Avenue and Carmel Valley Road, and a two-lane roadway south of Carmel Valley Road. Highway 1 is part of the Monterey County Congestion Management Program (CMP) highway network and is designated as a State Scenic Highway. The speed limit on Highway 1 in the vicinity of the project is 45 miles per hour.

Local access to the site is provided by Carmel Valley Road, Rio Road, and Carmel Rancho Boulevard. These roadways are described below:

Carmel Valley Road

Carmel Valley Road is an east-west roadway that begins at Highway 1 and continues east to the City of Greenfield. Carmel Valley Road has four lanes from Highway 1 to approximately 1,800 feet west of Rancho San Carlos Road and two lanes east of Rancho San Carlos Road. Carmel Valley Road is classified as a major arterial and has a speed limit of 45 miles per hour in the vicinity of the project site.

Rio Road

Rio Road includes two discontinuous segments of roadway east and west of the project site. The eastern part is a short north-south two-lane segment that connects to Carmel Valley Road and provides access to Carmel Middle School and the Community Church of the Monterey Peninsula. The western part is an east-west roadway with two lanes between Highway 1 and Junipero Street, and four lanes between Highway 1 and Val Verde Drive. The speed limit on Rio Road in the vicinity of the project site is 25 miles per hour.

Carmel Rancho Boulevard

Carmel Rancho Boulevard is a four-lane north-south roadway that extends from Carmel Valley Road to Rio Road. It provides access to various commercial developments and also serves through traffic

between Carmel Valley Road and Highway 1 south of Rio Road. The speed limit on Carmel Rancho Boulevard in the vicinity of the project site is 35 miles per hour.

c. Existing Bicycle, Pedestrian, and Transit Facilities

The County of Monterey adopted the Monterey County Bikeway Plan in 2008 and the Transportation Agency for Monterey County (TAMC) adopted their Bicycle and Pedestrian Master Plan in 2011. These documents designate routes along roadways that can be used by bicycling commuters and recreational riders for safe access to major employers, shopping centers, and schools. Consistent with State and Federal designations, there are three basic types of bicycle facilities:

- **Bike Path (Class I).** A completely separate right-of-way designed for the exclusive use of cyclists and pedestrians, with minimal crossings for motorists.
- **Bike Lane (Class II).** A lane on a regular roadway, separated from the motorized vehicle right-of-way by paint striping, designated for the exclusive or semi-exclusive use of bicycles. Bike lanes allow one-way bike travel. Through travel by motor vehicles or pedestrians is prohibited, but crossing by pedestrians and motorists is permitted.
- **Bike Route (Class III).** Provides shared use of the roadway with motorists, designated by signs or permanent markings.

In the vicinity of the project site, Class II bike lanes are provided on the north side of Carmel Valley Road east of Carmel Rancho Boulevard, and on the south side Carmel Valley Road east of Carmel Middle School.

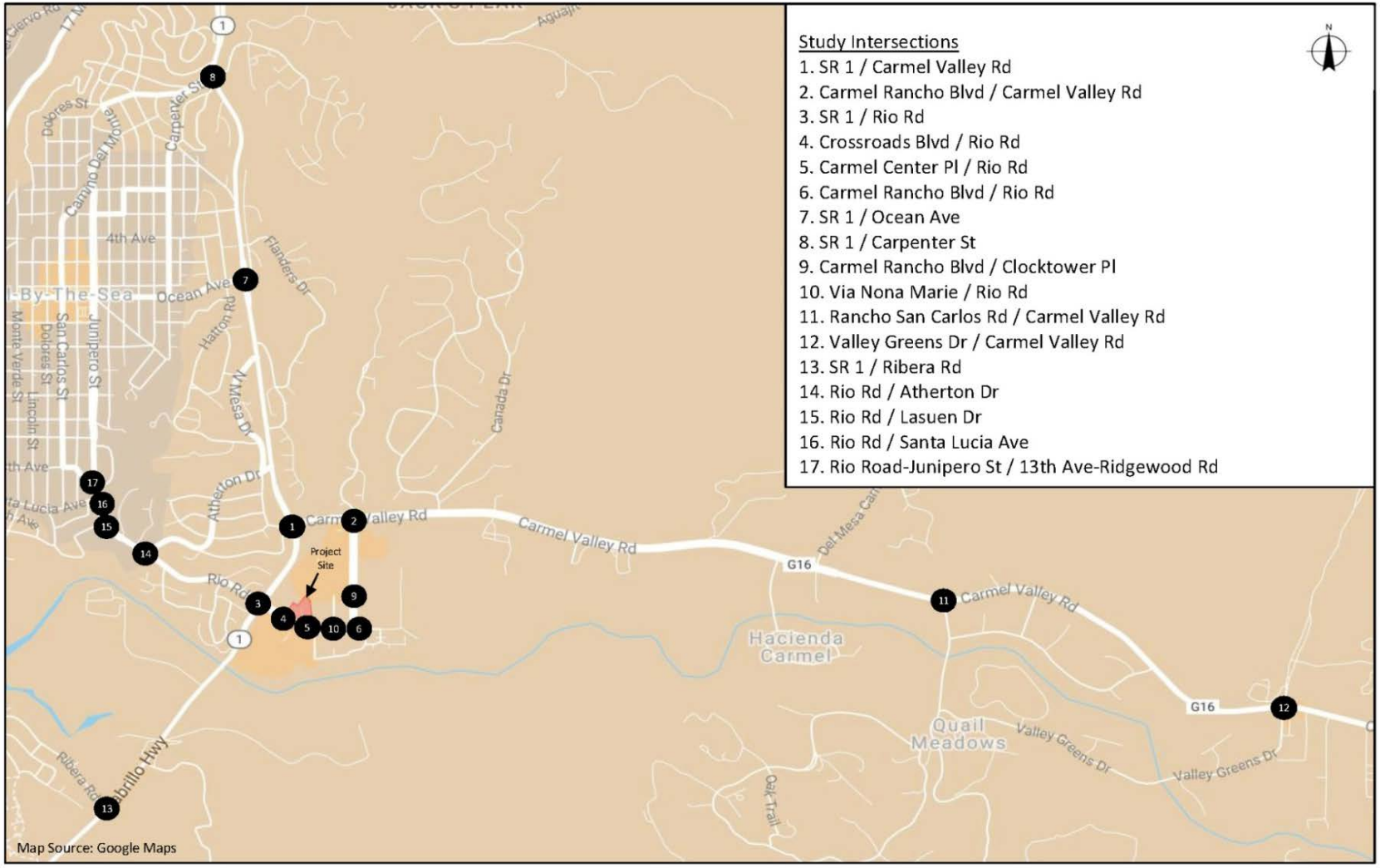
Sidewalks are provided continuously along Rio Road between Highway 1 and Carmel Rancho Boulevard Highway 1 and a Class I multi-use path is provided on the east side of Highway 1 beginning at the Crossroads Shopping Center and continuing north to Canyon Drive.

The primary public transit service in the County of Monterey is the bus service provided by Monterey-Salinas Transit (MST). In the vicinity of the project site, MST Route 24 provides bus service along Rio Road, Carmel Rancho Boulevard, and Carmel Valley Road between Carmel Valley Village and the Monterey Transit Plaza with 60-minute headways during weekday peak hours. MST Route 94 provides bus service along Rio Road and Carmel Rancho Boulevard to and from Carmel-by-the-Sea with about 30 minute headways during weekday mornings between about 7:00 AM and 9:00 AM. Bus stops within the study area are located on Carmel Rancho Boulevard between Carmel Valley Road and Rio Road and on Rio Road between Carmel Center Place and Via Nona Marie.

d. Existing Traffic Conditions

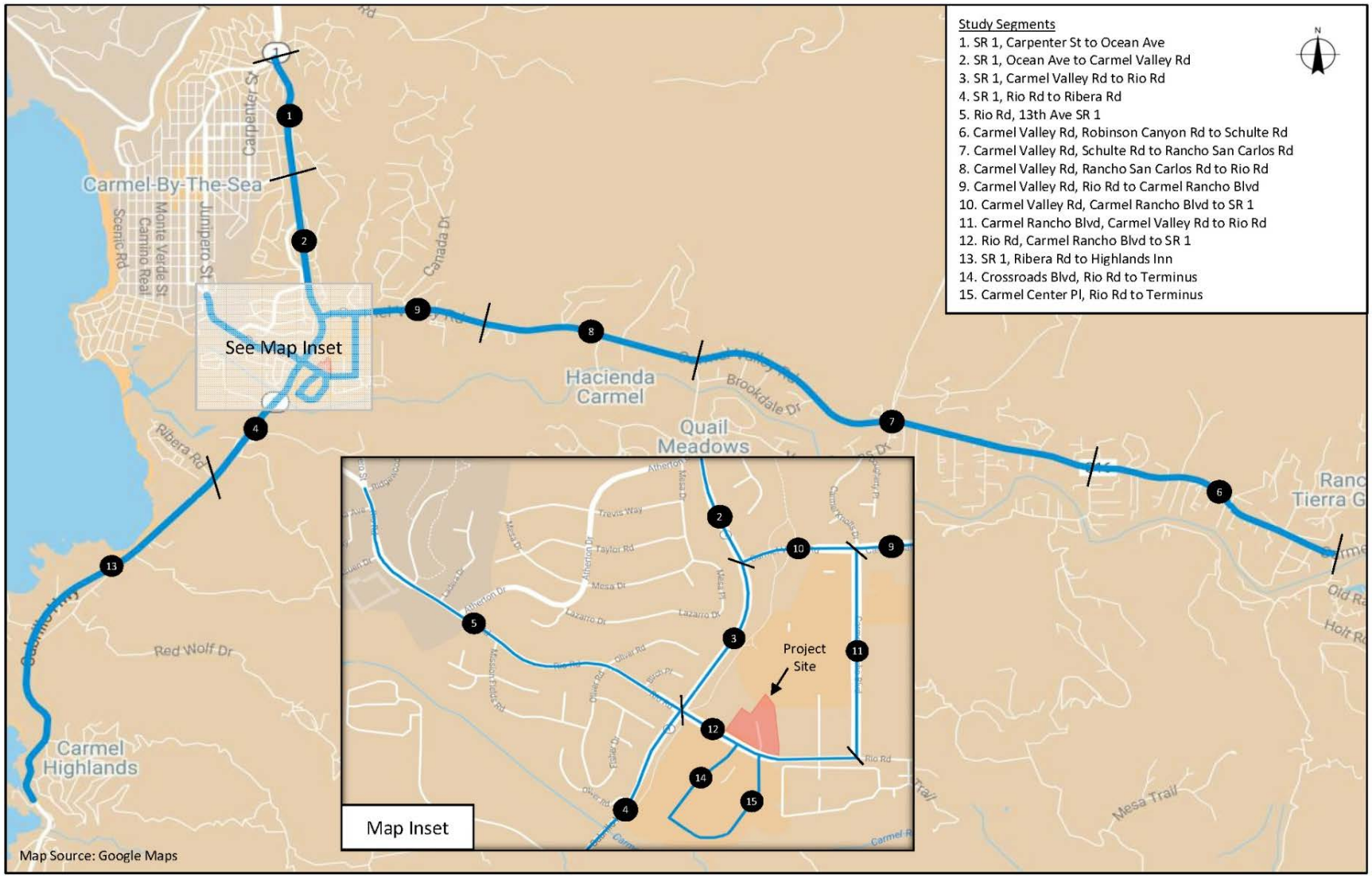
The traffic study included an evaluation of 17 study intersections and 15 roadway segments, which are listed below along with their jurisdiction (in parentheses). Figure 25 and Figure 26 display the study intersections and study segments, respectively. Intersection turning movement counts of vehicles, bicycles, and pedestrians were collected during the weekday AM peak period and PM peak period and the Saturday peak hour at each study intersection in May, September, and November 2017. Peak hour traffic volumes at the commercial driveways along Rio Road between Highway 1 and Carmel Rancho Boulevard were also counted. Detailed data sheets showing the results of the intersection counts are provided in the traffic study (Appendix G).

Figure 25 Study Intersections



Source: KHTE 2017

Figure 26 Study Segments



Source: KHTE 2017

Study Intersections

1. Highway 1/Carmel Valley Road (Caltrans)
2. Carmel Rancho Boulevard/Carmel Valley Road (Monterey County)
3. Highway 1/ Rio Road (Caltrans)
4. Crossroads Boulevard/Rio Road (Monterey County)
5. Carmel Center Place/Rio Road (Monterey County)
6. Carmel Rancho Boulevard/Rio Road (Monterey County)
7. Highway 1/Ocean Avenue (Caltrans)
8. Highway 1/Carpenter Street (Caltrans)
9. Carmel Rancho Boulevard/Clocktower Place (Monterey County)
10. Via Nona Marie/Rio Road (Monterey County)
11. Rancho San Carlos Boulevard/Carmel Valley Road (Monterey County)
12. Valley Greens Drive/Carmel Valley Road (Monterey County)
13. Highway 1/Ribera Road (Caltrans)
14. Rio Road/Atherton Drive (Monterey County and City of Carmel)
15. Rio Road/Lasuen Drive (City of Carmel)
16. Rio Road/Santa Lucia Avenue (City of Carmel)
17. Rio Road-Junipero Street/13th Avenue-Ridgewood Road (City of Carmel)

Study Road Segments

1. Highway 1: Carpenter Street to Ocean Avenue (Caltrans)
2. Highway 1: Ocean Avenue to Carmel Valley Road (Caltrans)
3. Highway 1: Carmel Valley Road to Rio Road (Caltrans)
4. Highway 1: Rio Road to Ribera Road (Caltrans)
5. Rio Road: 13th Avenue to Highway 1 (Monterey County and Carmel)
6. Carmel Valley Road: Robinson Canyon Road to Schulte Road (Monterey County)
7. Carmel Valley Road: Schulte Road to Rancho San Carlos Road (Monterey County)
8. Carmel Valley Road: Rancho San Carlos Road to Rio Road (Monterey County)
9. Carmel Valley Road: Rio Road to Carmel Rancho Boulevard (Monterey County)
10. Carmel Valley Road: Carmel Rancho Boulevard to Highway 1 (Monterey County)
11. Carmel Rancho Boulevard: Carmel Valley Road to Rio Road (Monterey County)
12. Rio Road: Carmel Rancho Boulevard to Highway 1(Monterey County)
13. Highway 1: Ribera Road to Highlands Inn (Caltrans)
14. Crossroads Boulevard: Rio Road to Carmel Center Place (Monterey County)
15. Carmel Center Place: Rio Road to Crossroads Boulevard (Monterey County)

Existing traffic conditions at the study area intersections and segments were evaluated based on the Level of Service (LOS) concept, and the LOS standard adopted by the jurisdiction within which the intersection is located. LOS is a qualitative description of an intersection's operation, ranging from LOS A to LOS F. LOS "A" represents free flow un-congested traffic conditions. LOS "F" represents

highly congested traffic conditions with what is commonly considered unacceptable delay to vehicles at intersections. The intermediate LOS represents incremental levels of congestion and delay between these two extremes.

Intersection traffic operations were evaluated using the Synchro analysis software (Version 9) which is based on the *Highway Capacity Manual (HCM) 2010* methodologies for signalized and un-signalized intersections. HCM 2000 methods were used in cases where the HCM 2010 methods do not allow the analysis of specific lane configurations or signal phasing.

Signalized and all-way stop controlled intersection operations are based on the average vehicular delay at the intersection. The average delay is then correlated to a LOS. For one-way and two-way stop controlled intersections, the vehicular delay for side street traffic is analyzed. LOS for each side street movement is based on the distribution of gaps in the major street traffic stream and driver judgment in selecting gaps. Improvements are warranted when a side street approach reaches LOS F for two-way stop controlled intersections. LOS descriptions for signalized intersections are included as Appendix A of the traffic study; LOS descriptions for one-way and two-way stop controlled intersections are included as Appendix B of the traffic study; and LOS descriptions for all-way stop controlled intersections are included as Appendix C of the study (refer to Appendix G in this EIR).

Arterial road segment operations are based on travel speed as a percentage of free flow speed, per Exhibit 17-2 of the 2010 HCM (KHTE 2017). Two-lane highway segment operations are based on percent time spent following (PTSF), per Exhibit 15-3 of the 2010 HCM. Multi-lane highway segment operations are based on density in passenger cars per mile per lane (pc/mi/ln) per Exhibit 14-4 of the 2010 HCM. LOS descriptions for arterial, two-lane highway, and multi-lane highway road segments are included as Appendix D of the traffic study (Appendix G). The CVMP also provides the following average daily traffic (ADT) volume thresholds for the study segments along Carmel Valley Road (segments 6 – 12), which are provided in Table 33.

Table 33 Carmel Valley Road ADT Thresholds

CVMP Segment Number	Segment	CVMP Threshold
6	CVR between Robinson Canyon Road & Schulte Road	15,499
7	CVR between Schulte Road & Rancho San Carlos Road	16,340
8	CVR between Rancho San Carlos Road & Rio Road	48,487
9	CVR between Rio Road & Carmel Rancho Blvd	51,401
10	CVR between Carmel Rancho Blvd & Highway 1	27,839
11	Carmel Rancho Blvd between CVR & Rio Road	33,495
13	Rio Road between Carmel Rancho Blvd & Highway 1	33,928

CVR = Carmel Valley Road

Source: County of Monterey 2013b

Existing Intersection Operations

The weekday AM peak hour and PM peak hour LOS and the Saturday peak hour LOS at each study intersection is shown in Table 34. Figure 27 and Figure 28 provide weekday AM and PM peak hour traffic volumes and Saturday PM peak hour traffic volumes at study intersections, respectively.

Table 34 Existing Conditions Intersection LOS

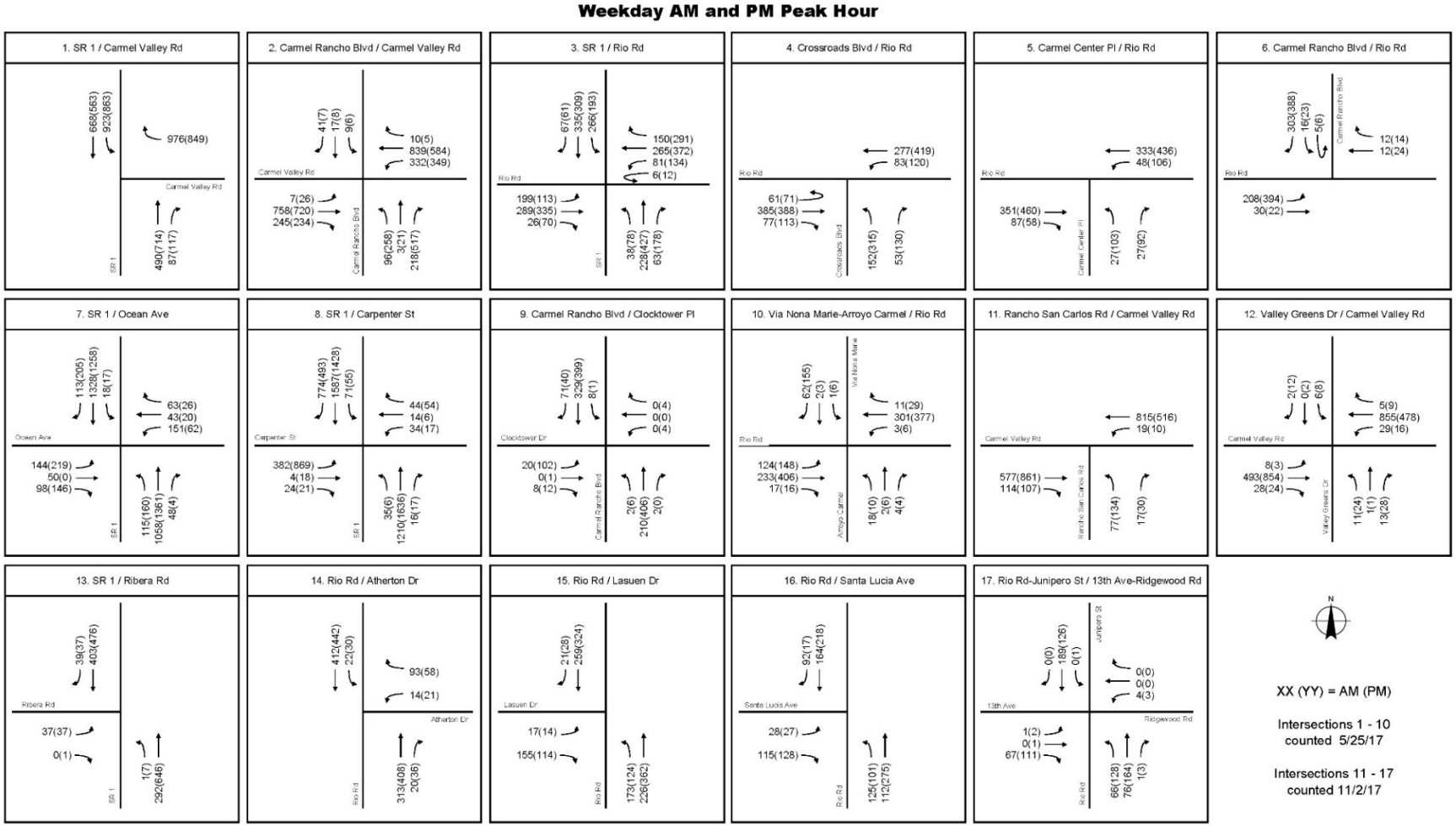
	Intersection	Control Type	Jurisdiction	LOS Standard[1]	AM Peak Hour		PM Peak Hour		Saturday Peak Hour	
					Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
1	Highway 1/Carmel Valley Road	Signal	Caltrans	C/D	12.2	B	13.2	B	11.5	B
2	Carmel Rancho Blvd/Carmel Valley Road	Signal	Monterey County	C	21.1	C	24.0	C	18.1	B
3	Highway 1/ Rio Road	Signal	Caltrans	C/D	35.0	C	48.9	**D**	59.9	**E**
4	Crossroads Blvd/Rio Road	Signal	Monterey County	C	11.8	B	13.2	B	14.1	B
5	Carmel Center Place/Rio Road	Signal	Monterey County	C	8.9	A	7.7	A	7.2	A
6	Carmel Rancho Blvd/Rio Road	Two-Way Stop	Monterey County	C or E	11.0	B	17.1	C	14.4	B
7	Highway 1/Ocean Ave	Signal	Caltrans	C/D	29.7	C	26.5	C	26.8	C
8	Highway 1/Carpenter St	Signal	Caltrans	C/D	22.3	C	37.1	**D**	20.4	C
9	Carmel Rancho Blvd/Clocktower Place	Two-Way Stop	Monterey County	E	13.8	B	22.6	C	17.2	C
10	Via Nona Marie/Rio Road	Two-Way Stop	Monterey County	E	19.0	C	29.9	D	22.7	C
11	Rancho San Carlos Boulevard/Carmel Valley Road	Signal	Monterey County	C	9.5	A	10.2	B	9.3	A
12	Valley Greens Drive/Carmel Valley Road	Two-Way Stop	Monterey County	C or E	42.3	E	39.1	E	27.2	D
13	Highway 1/Ribera Road	One-Way Stop	Caltrans	E	16.3	C	26.1	D	37.0	E
14	Rio Road/Atherton Drive	One-Way Stop	Monterey County and City of Carmel	E	14.7	B	14.9	B	13.8	B
15	Rio Road/Lasuen Drive	One-Way Stop	City of Carmel	E	16.8	C	13.6	B	12.0	B
16	Rio Road/Santa Lucia Avenue	One-Way Stop	City of Carmel	E	12.9	B	12.6	B	11.9	B
17	Rio Road-Junipero Street/13th Avenue-Ridgewood Road	All-Way Stop	City of Carmel	C	8.9	A	9.5	A	9.2	A

1. Intersections 2, 4, 5, 6, 9, 10, 11, and 12 fall within the CVMP and are subject to CVMP LOS standards.

2. LOS given in bold with a grey background indicates an exceedance of the applicable LOS standard.

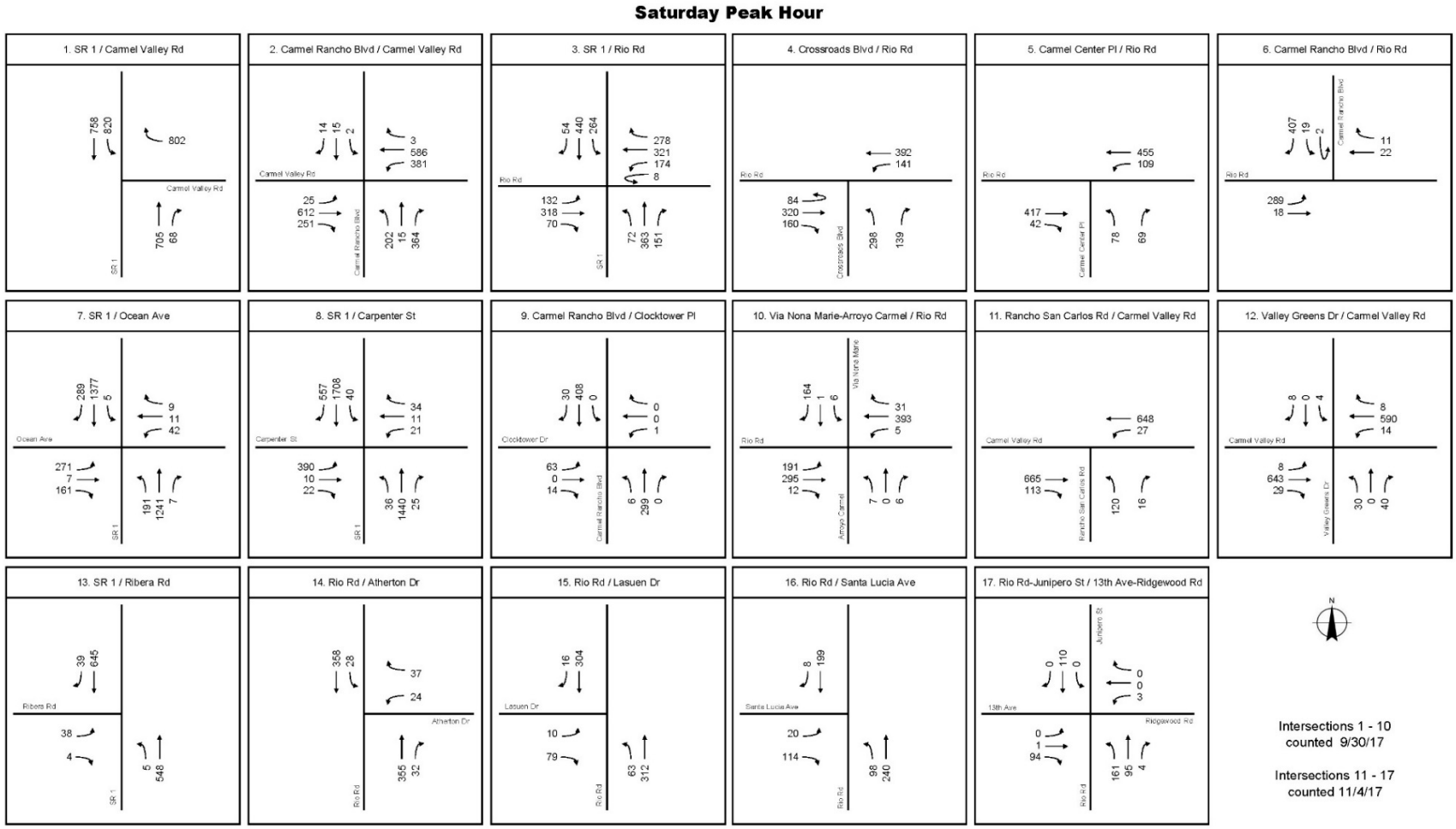
Source: KHTE 2017

Figure 27 Existing Conditions Weekday Peak Hour Volumes



Source: KHTE 2017

Figure 28 Existing Conditions Saturday Peak Hour Volumes



Source: KHTE 2017

Based on the LOS standards for each jurisdiction, the following study intersections operate at unacceptable LOS under existing conditions:

- Intersection 3 – Highway 1/Rio Road (Caltrans)
- Intersection 8 – Highway 1/Carpenter Street (Caltrans). The provision of a third northbound through lane would improve traffic operations to an acceptable level. However, no improvements are currently planned at this intersection.

Existing Road Segment Operations

Peak hour segment volumes along Highway 1, Rio Road, Crossroads Boulevard, and Carmel Center Place were derived from the traffic counts described above. Carmel Valley Road peak hour and Average Daily Traffic (ADT) volumes were obtained from Monterey County Department of Public Works staff. ADT volumes on Carmel Rancho Boulevard and Rio Road were also obtained from Monterey County staff.

Road segment LOS is summarized below in Table 35. Except for segment 7, the ADT on the roadways included in the CVMP are below the CVMP ADT thresholds under existing conditions.

Based on the LOS standards, the following study road segments operate at unacceptable LOS during the weekday AM, PM, and/or Saturday peak hours:

- Segment 2 – Southbound (SB) Highway 1: Ocean Ave to Carmel Valley Road
- Segment 3 – Northbound (NB) & SB Highway 1: Carmel Valley Road to Rio Road
- Segment 4 – NB & SB Highway 1: Rio Road to Ribera Road
- Segment 6 – Eastbound (EB) & Westbound (WB) Carmel Valley Road: Robinson Canyon Road to Schulte Road
- Segment 7 – EB & WB Carmel Valley Road: Schulte Road to Rancho San Carlos Road
- Segment 12 – WB Rio Road: Carmel Rancho Blvd to Highway 1
- Segment 13 – NB & SB Highway 1: Ribera Road to Highlands Inn

These road segments operate at an unacceptable LOS D, E, or F under existing traffic conditions.

e. Background Conditions

This section describes the analyses of the study road network under background traffic conditions. Background conditions model traffic conditions with traffic from approved but not yet constructed developments added to the study intersections and road segments; background conditions do not include traffic from the proposed project. A list of approved projects and a map showing their locations are provided in Appendix I and J of the traffic study, respectively. The full traffic study is provided in Appendix G of this document.

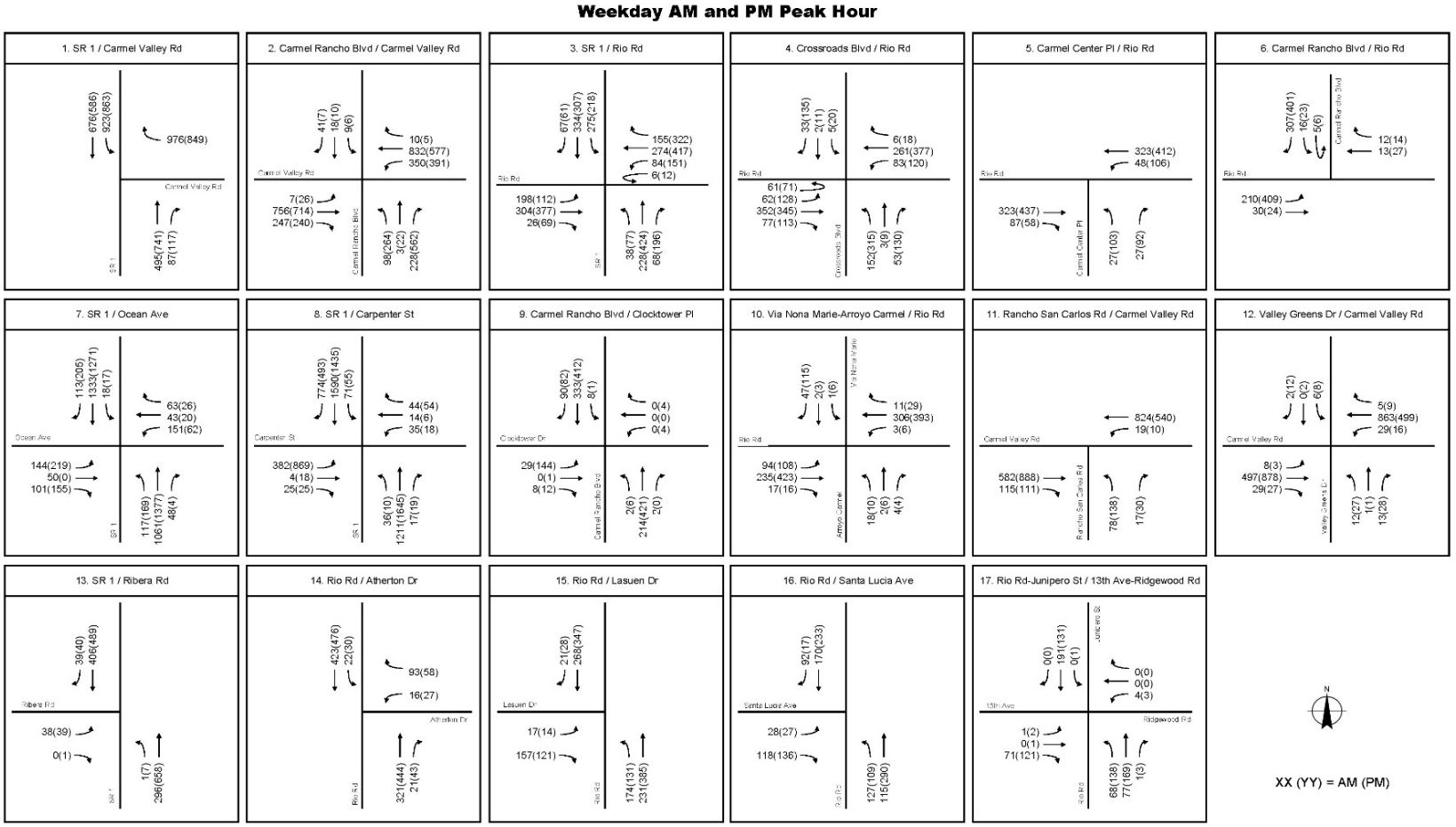
AM and PM peak hour traffic generated by projects approved for development, but not yet constructed or occupied, was estimated based on trip generation rates in the ITE *Trip Generation* handbook, 9th Edition, 2012. The trips generated by the approved, but not yet built or occupied, projects were assigned to the road network and combined with the existing peak hour volumes to obtain background traffic volumes. Weekday AM and PM, and Saturday peak hour traffic volumes at the study intersections are shown below in Figure 29 and Figure 30, respectively.

Table 35 Existing Conditions Road Segment Levels of Service

Segment		From	To	CVMP ADT Threshold	ADT	Direction	AM Peak Hour LOS	PM Peak Hour LOS	Saturday Peak Hour LOS
1	Highway 1	Carpenter St	Ocean Ave	N/A	N/A	NB	B	C	C
						SB	C	B	C
2	Highway 1	Ocean Ave	Carmel Valley Road	N/A	N/A	NB	C	C	C
						SB	**F**	**F**	**F**
3	Highway 1	Carmel Valley Road	Rio Road	N/A	N/A	NB	**D**	**E**	**E**
						SB	**D**	**D**	**D**
4	Highway 1	Rio Road	Ribera Road	N/A	N/A	NB	C	**D**	**D**
						SB	**D**	**D**	**D**
5	Rio Road	13th Ave	Highway 1	N/A	N/A	EB	B	B	B
						WB	B	B	B
6	Carmel Valley Road	Robinson Canyon Road	Schulte Road	15,499	14,975	EB	C	**E**	**D**
						WB	**E**	C	**D**
7	Carmel Valley Road	Schulte Road	Rancho San Carlos Road	16,340	**16,621**	EB	**D**	E	**D**
						WB	E	**D**	**D**
8	Carmel Valley Road	Rancho San Carlos Road	Rio Road	48,487	19,117	EB	A	A	A
						WB	A	A	A
9	Carmel Valley Road	Rio Road	Carmel Rancho Blvd	51,401	24,558	EB	A	B	A
						WB	B	A	A
10	Carmel Valley Road	Carmel Rancho Blvd	Highway 1	27,839	22,654	EB	A	A	A
						WB	B	A	A
11	Carmel Rancho Blvd	Carmel Valley Road	Rio Road	33,495	10,135	NB	A	A	A
						SB	A	B	B
12	Rio Road	Carmel Rancho Blvd	Highway 1	33,928	12,099	NB	C	C	C
						SB	**D**	**D**	**D**
13	Highway 1	Ribera Road	Highlands Inn	N/A	N/A	NB	C	**D**	**D**
						SB	**D**	**D**	**D**
14	Crossroads Blvd	Rio Road	Terminus	N/A	N/A	NB	C	C	C
						SB	C	C	C
15	Carmel Center Place	Rio Road	Terminus	N/A	N/A	NB	A	A	A
						SB	A	A	A

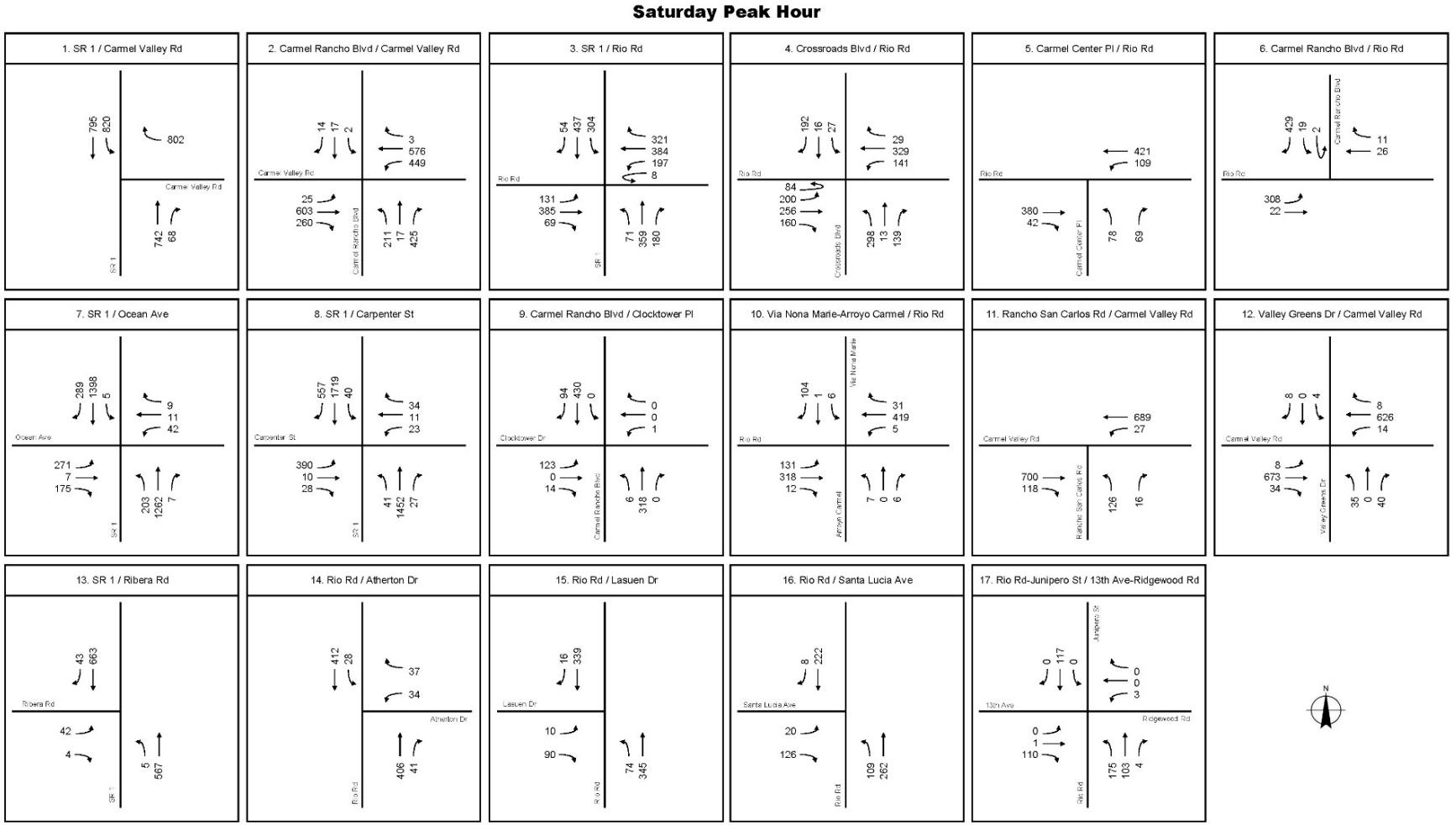
Notes: Entries given in bold with a grey background indicates an exceedance of the applicable LOS standard or CVMP ADT threshold.
Source: KHTE 2017

Figure 29 Background Conditions Weekday AM and PM Peak Hour Volumes



Source: KHTE 2017

Figure 30 Background Conditions Saturday Peak Hour Volumes



Source: KHTE 2017

Background Intersection Operations

Intersection LOS under background conditions are summarized in Table 36. Based on the applicable LOS standards, all the study intersections are projected to operate at acceptable LOS under background conditions with the following exceptions:

- Intersection 3 – Highway 1/Rio Road
- Intersection 8 – Highway 1/Carpenter Street
- Intersection 12 – Valley Greens Drive/Carmel Valley Road

Table 36 Background Conditions Intersection LOS

Intersection		Control Type	Jurisdiction	LOS Standard[1]	AM Peak Hour		PM Peak Hour		Saturday Peak Hour	
					Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
1	Highway 1/ Carmel Valley Road	Signal	Caltrans	C/D	13.2	B	15.1	B	12.9	B
2	Carmel Rancho Blvd/Carmel Valley Road	Signal	Monterey County	C	24.0	C	31.2	C	21.0	C
3	Highway 1/ Rio Road	Signal	Caltrans	C/D	41.3	**D**	52.9	**D**	63.7	**E**
4	Crossroads Blvd/Rio Road	Signal	Monterey County	C	11.9	B	13.6	B	15.8	B
5	Carmel Center Place/Rio Road	Signal	Monterey County	C	8.8	A	7.5	A	8.9	A
6	Carmel Rancho Blvd/Rio Road	Two-Way Stop	Monterey County	C or E	11.7	B	19.6	C	16.4	C
7	Highway 1/Ocean Ave	Signal	Caltrans	C/D	32.6	C	27.7	C	30.9	C
8	Highway 1/ Carpenter St	Signal	Caltrans	C/D	23.4	C	39.6	**D**	22.1	C
9	Carmel Rancho Blvd/Clocktower Place	Two-Way Stop	Monterey County	E	14.4	B	24.7	C	18.4	C
10	Via Nona Marie/Rio Road	Two-Way Stop	Monterey County	E	19.8	C	31.9	D	24.0	C
11	Rancho San Carlos Boulevard/Carmel Valley Road	Signal	Monterey County	C	9.5	A	11.4	B	9.2	A
12	Valley Greens Drive/Carmel Valley Road	Two-Way Stop	Monterey County	C or E	47.7	E	76.5	**F**	45.3	E
13	Highway 1/Ribera Road	One-Way Stop	Caltrans	E	16.4	C	27.0	D	29.1	D
14	Rio Road/Atherton Drive	One-Way Stop	Monterey County and City of Carmel	E	14.7	B	15.0	B	13.8	B

Intersection		Control Type	Jurisdiction	LOS Standard[1]	AM Peak Hour		PM Peak Hour		Saturday Peak Hour	
					Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
15	Rio Road/Lasuen Drive	One-Way Stop	City of Carmel	E	16.9	C	13.7	B	12.1	B
16	Rio Road/Santa Lucia Avenue	One-Way Stop	City of Carmel	E	13.0	B	13.1	B	11.9	B
17	Rio Road-Junipero Street/13th Avenue-Ridgewood Road	All-Way Stop	City of Carmel	C	8.9	A	9.6	A	9.3	A

1. Intersections 2, 4, 5, 6, 9, 10, 11, and 12 fall within the CVMP and are subject to CVMP LOS standards. Intersections under the jurisdiction of the City of Carmel are subject to Monterey County LOS standards.

2. LOS given in bold with a grey background indicates an exceedance of the applicable LOS standard.

Source: KHTE 2017

Background Road Segment Operations

Road segment LOS under background conditions are summarized in Table 37. Except for segments 6 and 7, the ADTs on the roadways included in the CVMP are projected to be below the CVMP ADT thresholds under background conditions. Based on the LOS standards, the following study road segments are projected to operate at unacceptable LOS during the weekday AM, PM, and/or Saturday peak hours:

- Segment 2 – SB Highway 1: Ocean Ave to Carmel Valley Road
- Segment 3 – NB & SB Highway 1: Carmel Valley Road to Rio Road
- Segment 4 – NB & SB Highway 1: Rio Road to Ribera Road
- Segment 6 – EB & WB Carmel Valley Road: Robinson Canyon Road to Schulte Road
- Segment 7 – EB & WB Carmel Valley Road: Schulte Road to Rancho San Carlos Road
- Segment 12 – WB Rio Road: Carmel Rancho Blvd to Highway 1
- Segment 13 – NB & SB Highway 1: Ribera Road to Highlands Inn

These road segments are projected to operate at an unacceptable LOS D, E, or F under background traffic conditions. These are same segments with deficiencies under existing conditions.

Table 37 Background Conditions Road Segment LOS

Segment		From	To	CVMP ADT Threshold	ADT	Direction	AM Peak Hour LOS	PM Peak Hour LOS	Saturday Peak Hour LOS
1	Highway 1	Carpenter St	Ocean Ave	N/A	N/A	NB	B	C	C
						SB	C	C	C
2	Highway 1	Ocean Ave	Carmel Valley Road	N/A	N/A	NB	C	C	C
						SB	**F**	**F**	**F**
3	Highway 1	Carmel Valley Road	Rio Road	N/A	N/A	NB	**D**	**E**	**D**
						SB	**D**	**D**	**D**
4	Highway 1	Rio Road	Ribera Road	N/A	N/A	NB	C	**D**	**D**
						SB	**D**	**D**	**D**
5	Rio Road	13th Ave	Highway 1	N/A	N/A	EB	B	B	B
						WB	B	B	B
6	Carmel Valley Road	Robinson Canyon Road	Schulte Road	15,499	**16,305**	EB	C	**E**	**D**
						WB	**E**	**D**	**D**
7	Carmel Valley Road	Schulte Road	Rancho San Carlos Road	16,340	**18,121**	EB	**D**	**E**	**E**
						WB	**E**	**D**	**D**
8	Carmel Valley Road	Rancho San Carlos Road	Rio Road	48,487	21,117	EB	A	B	A
						WB	A	**A**	A
9	Carmel Valley Road	Rio Road	Carmel Rancho Blvd	51,401	27,558	EB	B	B	A
						WB	B	B	A
10	Carmel Valley Road	Carmel Rancho Blvd	Highway 1	27,839	24,984	EB	B	A	A
						WB	B	A	A
11	Carmel Rancho Blvd	Carmel Valley Road	Rio Road	33,495	10,815	NB	A	A	A
						SB	A	B	B
12	Rio Road	Carmel Rancho Blvd	Highway 1	33,928	12,219	NB	C	C	C
						SB	**D**	**D**	**D**
13	Highway 1	Ribera Road	Highlands Inn	N/A	N/A	NB	C	**D**	**D**
						SB	**D**	C	**D**
14	Crossroads Blvd	Rio Road	Terminus	N/A	N/A	NB	C	C	A
						SB	C	C	C
15	Carmel Center Place	Rio Road	Terminus	N/A	N/A	NB	A	A	A
						SB	A	A	A

Notes: Entries given in bold with a grey background indicates an exceedance of the applicable LOS standard or CVMP ADT threshold.

Source: KHTE 2017

f. Cumulative Conditions

Cumulative Intersection Operations

This section describes the analyses of the study area road network under cumulative traffic conditions. Cumulative traffic conditions were assigned to individual roadways using one of two modeling scenarios: 1) 2035 traffic volume forecasts from the 2014 AMBAG Regional Traffic Demand Model (RTDM), or 2) background condition traffic volumes combined with trips generated by proposed but not yet approved (i.e., pending) projects in Carmel Valley; a list of pending projects and a map showing pending project locations are provided in Appendix K and Appendix L of the traffic study. Traffic increases due to the list of pending projects were generally given precedence over the RTDM forecasts in the vicinity of the project because they are local in nature, result in higher volume forecasts than the RTDM, can be assigned to the network more accurately than a regional model, and provide a more conservative estimate of future traffic volumes. The RTDM forecasts were used in areas where the addition of traffic from pending projects resulted in lower volumes than the RTDM forecasts, again providing a more conservative analysis.

Weekday AM, PM, and Saturday peak hour traffic generated by pending projects was estimated based on trip generation rates in the ITE Trip Generation handbook, 9th Edition (ITE 2012). Trips generated by the cumulative projects were assigned to the road network and combined with the background traffic volumes to estimate cumulative traffic volumes. Weekday AM and PM peak hours, and Saturday peak hour traffic volumes at the study intersections are shown in Figure 31 and Figure 32, respectively.

Intersection LOS is summarized in Table 38. Based on the LOS standards, all the study intersections are forecasted to operate at acceptable LOS under cumulative conditions with the following exceptions:

- Intersection 3 – Highway 1/Rio Road
- Intersection 7 – Highway 1/Ocean Avenue
- Intersection 8 – Highway 1/Carpenter Street
- Intersection 12 – Valley Greens Drive/Carmel Valley Road
- Intersection 13 – Highway 1/Ribera Road

These intersections are projected to operate at an unacceptable LOS D, E, or F under cumulative traffic conditions.

Table 38 Cumulative Conditions Intersection LOS

	Intersection	Control Type	Jurisdiction	LOS Standard[1]	AM Peak Hour Delay (sec)	AM Peak Hour LOS	PM Peak Hour Delay (sec)	PM Peak Hour LOS	Saturday Peak Hour Delay (sec)	Saturday Peak Hour LOS
1	Highway 1/Carmel Valley Road	Signal	Caltrans	C/D	16.8	B	25.1	C	20.1	C
2	Carmel Rancho Blvd/Carmel Valley Road	Signal	Monterey County	C	28.4	C	34.7	C	22.1	C
3	Highway 1/ Rio Road	Signal	Caltrans	C/D	44.9	**D**	68.6	**E**	73.0	**E**
4	Crossroads Blvd/Rio Road	Signal	Monterey County	C	11.9	B	13.7	B	15.2	B
5	Carmel Center Place/Rio Road	Signal	Monterey County	C	5.0	A	7.4	A	6.6	A
6	Carmel Rancho Blvd/Rio Road	Two-Way Stop	Monterey County	C or E	13.3	B	22.9	C	18.8	C
7	Highway 1/Ocean Ave	Signal	Caltrans	C/D	41.9	**D**	33.5	C	40.2	**D**
8	Highway 1/Carpenter St	Signal	Caltrans	C/D	25.4	C	49.8	**D**	24.7	C
9	Carmel Rancho Blvd/Clocktower Place	Two-Way Stop	Monterey County	E	14.8	B	27.8	D	19.8	C
10	Via Nona Marie/Rio Road	Two-Way Stop	Monterey County	E	21.6	C	36.6	E	27.2	D
11	Rancho San Carlos Boulevard/Carmel Valley Road	Signal	Monterey County	C	9.1	A	12.3	B	9.6	A
12	Valley Greens Drive/Carmel Valley Road	Two-Way Stop	Monterey County	C or E	53.9	**F**	94.9	**F**	53.7	**F**
13	Highway 1/Ribera Road	One-Way Stop	Caltrans	E	21.5	C	47.3	E	52.1	**F**
14	Rio Road/Atherton Drive	One-Way Stop	Monterey County and City of Carmel	E	15.1	C	15.1	C	14.0	B
15	Rio Road/Lasuen Drive	One-Way Stop	City of Carmel	E	17.2	C	13.9	B	12.2	B
16	Rio Road/Santa Lucia Avenue	One-Way Stop	City of Carmel	E	13.1	B	12.8	B	12.1	B

	Intersection	Control Type	Jurisdiction	LOS Standard[1]	AM Peak Hour Delay (sec)	AM Peak Hour LOS	PM Peak Hour Delay (sec)	PM Peak Hour LOS	Saturday Peak Hour Delay (sec)	Saturday Peak Hour LOS
17	Rio Road-Junipero Street/13th Avenue-Ridgewood Road	All-Way Stop	City of Carmel	C	9.0	A	9.6	**A**	9.4	A

Notes:

1. Intersections 2, 4, 5, 6, 9, 10, 11, and 12 fall within the CVMP and are subject to CVMP LOS standards. Intersections under the jurisdiction of the City of Carmel are subject to Monterey County LOS standards.

2. LOS given in bold with a grey background indicates an exceedance of the applicable LOS standard.

Source: KHTE 2017

Cumulative Road Segment Operations

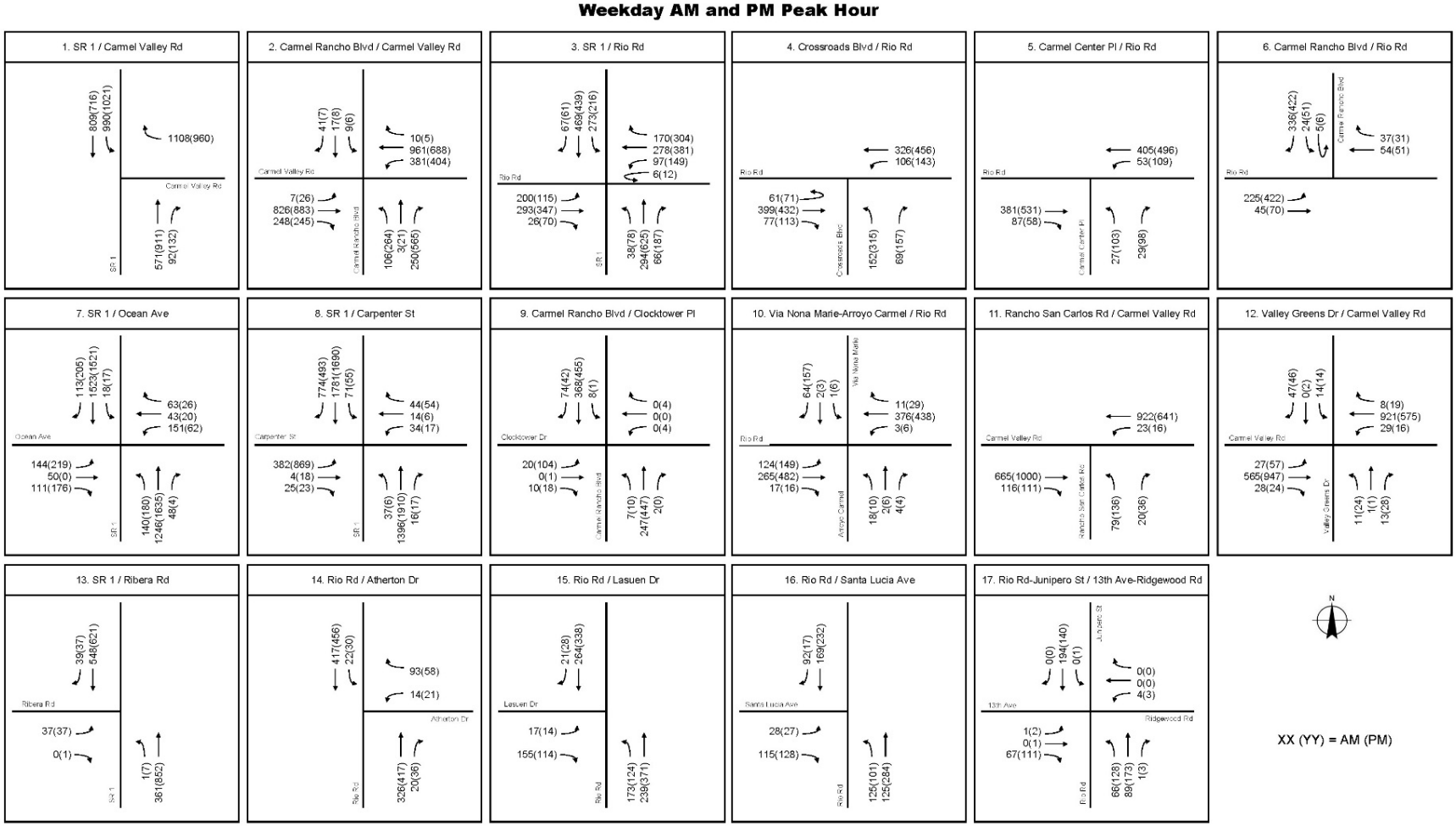
Road segment LOS are summarized in Table 39. Except for segments 6 and 7, the ADTs on the roadways included in the CVMP are projected to be below the CVMP ADT thresholds under cumulative conditions.

Based on the LOS standards, the following study road segments are projected to operate at unacceptable LOS during the weekday AM, PM, and/or Saturday peak hours:

- Segment 2 – SB Highway 1: Ocean Ave to Carmel Valley Road
- Segment 3 – NB & SB Highway 1: Carmel Valley Road to Rio Road
- Segment 4 – NB & SB Highway 1: Rio Road to Ribera Road
- Segment 6 – EB & WB Carmel Valley Road: Robinson Canyon Road to Schulte Road
- Segment 7 – EB & WB Carmel Valley Road: Schulte Road to Rancho San Carlos Road
- Segment 12 – WB Rio Road: Carmel Rancho Blvd to Highway 1
- Segment 13 – NB & SB Highway 1: Ribera Road to Highlands Inn

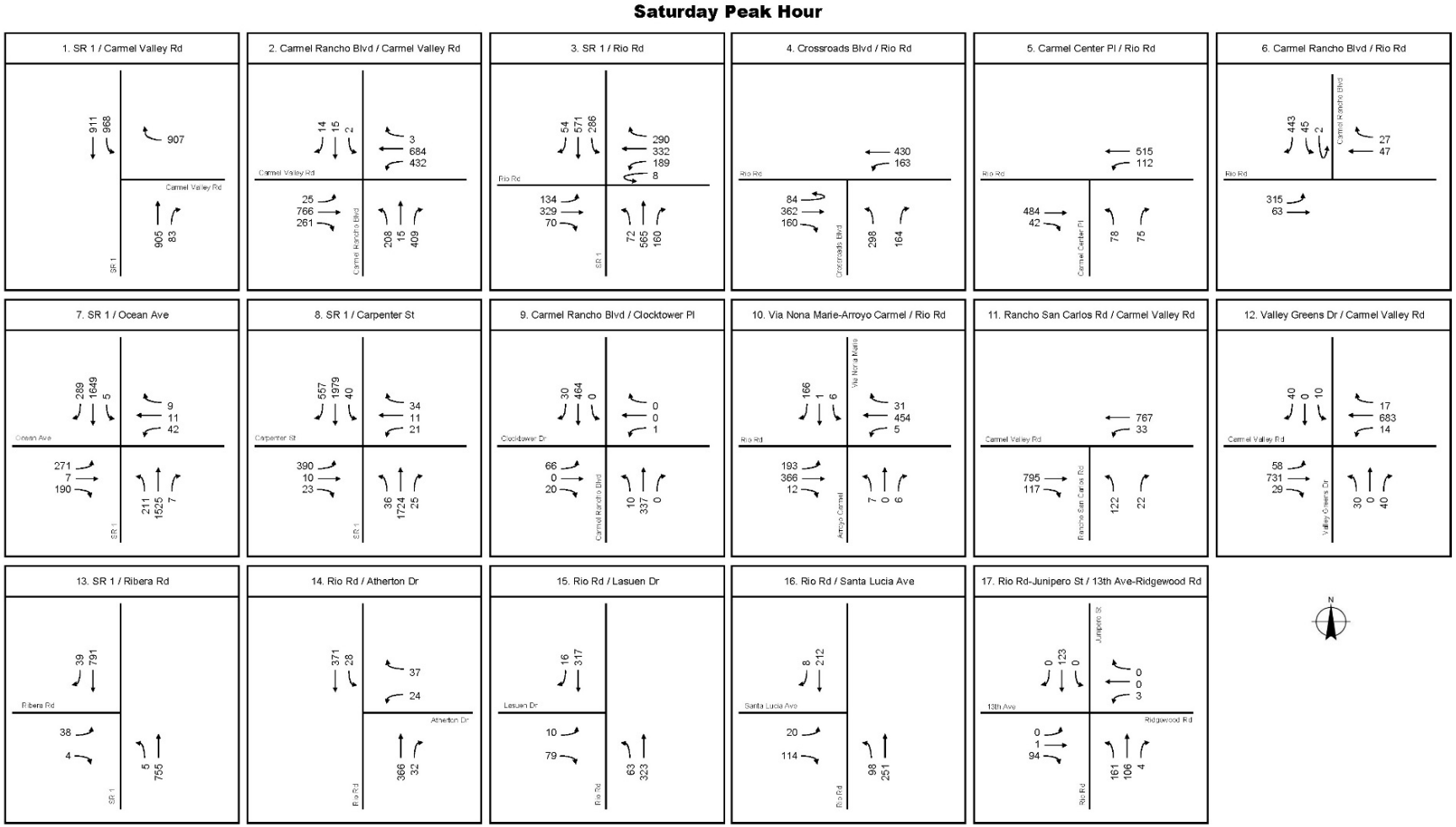
These road segments are projected to operate at an unacceptable LOS D, E, or F under cumulative traffic conditions.

Figure 31 Cumulative Conditions Weekday Peak Hour Volumes



Source: KHTE 2017

Figure 32 Cumulative Conditions Saturday Peak Hour Volumes



Source: KHTE 2017

Table 39 Cumulative Conditions Road Segment LOS

Segment		From	To	CVMP ADT Threshold	ADT	Direction	AM Peak Hour LOS	PM Peak Hour LOS	Saturday Peak Hour LOS
1	Highway 1	Carpenter St	Ocean Ave	N/A	N/A	NB	C	C	C
						SB	C	C	C
2	Highway 1	Ocean Ave	Carmel Valley Road	N/A	N/A	NB	C	C	C
						SB	**F**	**F**	**F**
3	Highway 1	Carmel Valley Road	Rio Road	N/A	N/A	NB	**D**	**E**	**E**
						SB	**D**	**D**	**E**
4	Highway 1	Rio Road	Ribera Road	N/A	N/A	NB	C	**E**	**D**
						SB	**D**	**D**	**D**
5	Rio Road	13th Ave	Highway 1	N/A	N/A	EB	B	B	B
						WB	B	B	B
6	Carmel Valley Road	Robinson Canyon Road	Schulte Road	15,499	**17,035**	EB	C	**E**	**E**
						WB	**E**	**D**	**D**
7	Carmel Valley Road	Schulte Road	Rancho San Carlos Road	16,340	**18,851**	EB	**D**	**E**	**E**
						WB	**E**	**D**	**E**
8	Carmel Valley Road	Rancho San Carlos Road	Rio Road	48,487	21,817	EB	A	B	A
						WB	A	**A**	A
9	Carmel Valley Road	Rio Road	Carmel Rancho Blvd	51,401	28,258	EB	B	B	B
						WB	C	B	A
10	Carmel Valley Road	Carmel Rancho Blvd	Highway 1	27,839	25,504	EB	B	B	A
						WB	B	A	A
11	Carmel Rancho Blvd	Carmel Valley Road	Rio Road	33,495	11,335	NB	A	A	A
						SB	A	B	B
12	Rio Road	Carmel Rancho Blvd	Highway 1	33,928	12,909	NB	C	C	C
						SB	**D**	**D**	**D**
13	Highway 1	Ribera Road	Highlands Inn	N/A	N/A	NB	C	**E**	**D**
						SB	**D**	D	**D**
14	Crossroads Blvd	Rio Road	Terminus	N/A	N/A	NB	C	C	C
						SB	C	C	C
15	Carmel Center Place	Rio Road	Terminus	N/A	N/A	NB	A	A	A
						SB	A	A	A

Notes: Entries given in bold with a grey background indicates an exceedance of the applicable LOS standard or CVMP ADT threshold.

Source: KHTE 2017

g. Regulatory Setting

This section includes a discussion of the applicable federal, state, and local laws, ordinances, regulations, and standards governing transportation and traffic, which must be adhered to before and during implementation of the proposed project.

State Senate Bill (SB) 743

California's SB 743 will eventually alter how transportation and traffic impacts are analyzed under State CEQA Guidelines. SB 743 requires the Office of Planning and Research to amend the *CEQA Guidelines* to provide an alternative to LOS as the metric for evaluating transportation impacts. However, because amendments required by SB 743 have not been adopted, this EIR was based on the existing *CEQA Guidelines* and therefore relies on the existing LOS criteria to evaluate potential transportation impacts.

Carmel Valley Traffic Impact Improvement Program

The Carmel Valley Traffic Improvement Program (CVTIP) includes a list of projects to relieve congestion and improve traffic operations on Carmel Valley Road. The County collects fees from new developments to contribute to these improvements. The traffic fees apply to projects within Carmel Valley and to projects in the Greater Carmel Valley Area that will add traffic to Carmel Valley Road. As stated in Section 18.60.030 of the County's municipal code, the fee amount is established by the Board of Supervisors by resolution.

TAMC Fee

The TAMC and its member jurisdictions have adopted a countywide, regional impact fee to cover the costs for studies and construction of many improvements throughout Monterey County. This impact fee, which went into effect on August 27, 2008, is applied to all new development within Monterey County. The governing document for the fee is the Regional Impact Fee Nexus Study Update, which was last updated in 2013 (TAMC 2013).

Monterey County General Plan

The 2010 Monterey County General Plan includes the following policies relevant to transportation and circulation:

- **Policy C-1.3.** Circulation improvements that mitigate Traffic Tier 1 direct on-site and off-site project impacts shall be constructed concurrently [as defined in subparagraph (a) only of the definition for "concurrency"] with new development. Off-site circulation improvements that mitigate Traffic Tier 2 or Traffic Tier 3 impacts either shall:
  a. Be constructed concurrently with new development, or
  b. A fair share payment pursuant to Policy C-1.8 (County Traffic Impact Fee), Policy C-1.11 (Regional Development Impact Fee), and/or other applicable traffic fee programs shall be made at the discretion of the County.
- **Policy C-1.4.** Notwithstanding Policy C-1.3, projects that are found to result in reducing a County road below the acceptable LOS standard shall not be allowed to proceed unless the construction of the development and its associated improvements are phased in a manner that will maintain the acceptable LOS for all affected County roads. Where the LOS of a County road impacted by a specific project currently operates below LOS D and is listed on

the CIFP as a high priority, Policy C-1.3 shall apply. Where the LOS of a County road impacted by a specific project currently operates below LOS D and is not listed on the CIFP as a high priority, development shall mitigate project impacts concurrently. The following are exempt from this Policy except that they shall be required to pay any applicable fair share fee pursuant to Policies C-1.8, C-1.11, and/or other applicable traffic fee programs:

a. First single-family dwelling on a lot of record;
b. Allowable non-habitable accessory structures on an existing lot of record;
c. Accessory units consistent with other policies and State Second Unit Housing law;
d. Any use in a non-residential designation for which a discretionary permit is not required or for which the traffic generated is equivalent to no more than that generated by a single family residence (10 ADT); and
e. Minimal use on a vacant lot in a non-residential designation sufficient to enable the owner to derive some economically viable use of the parcel.

- **Policy C-1.8.** Development proposed in cities and adjacent counties shall be carefully reviewed to assess the proposed development's impact on the County's circulation system. The County, in consultation with TAMC and Monterey County cities shall, within 18 months of adoption of the General Plan, develop a County Traffic Impact fee that addresses Tier 2 impacts of development in cities and unincorporated areas. From the time of adoption of the General Plan until the time of adoption of a County Traffic Impact Fee, the County shall impose an ad hoc fee on its applicants based upon a fair share traffic impact fee study.
- **Policy C-1.9.** All available public and private sources shall be used for the funding of road and highway development, improvement and maintenance.
- **Policy C-1.10.** The County, in coordination with TAMC and other affected agencies, shall continue efforts to improve traffic congestion at critical locations.
- **Policy C-1.11.** In addition to the County Traffic Impact Fee established in Policy C-1.8, the County shall require new development to pay a Regional Traffic Impact Fee developed collaboratively between TAMC, the County, and other local and state agencies to ensure a funding mechanism for regional transportation improvements mitigating Traffic Tier 3 impacts.

The CVMP, adopted in 2010 and amended February 2013, includes numerous policies related to circulation. The following policies apply to the project:

- **CV-2.3.** All new road work or major work on existing roads within the commercial core areas shall provide room for use of bicycles and separate pedestrian walkways. The County shall provide bicycle routes on the shoulders between development areas throughout the Carmel Valley.
- **CV-2.14.** New major developments with access adjacent to Carmel Valley Road shall be required to provide space for the transit buses to stop, the parking of cars, and facilities for the safe storage of bicycles.
- **CV-2.17(f).** The traffic standards (LOS as measured by peak hour conditions) for the CVMP Area shall be as follows:
  - Signalized Intersections – LOS of "C" is the acceptable condition.
  - Unsignalized Intersections – LOS of "F" or meeting of any traffic signal warrant are defined as unacceptable conditions.

- Carmel Valley Road Segment Operations:
  - a) LOS of "C" and ADT below its 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 its threshold specified in Policy CV-2.17(a) for Segments 3, 4, 5, 6, and 7 is an acceptable condition.

- Applicable segments from CV-2.17(a):
  - Segment 6. Carmel Valley Road (CVR) between Robinson Canyon Road and Schulte Road
  - Segment 7. CVR between Schulte Road and Rancho San Carlos Road
  - Segment 8. CVR between Rancho San Carlos Road and Rio Road
  - Segment 9. CVR between Rio Road and Carmel Rancho Boulevard
  - Segment 10. Carmel Valley Road from Carmel Rancho Boulevard to Highway 1
  - Segment 11. Carmel Rancho Boulevard between Carmel Valley Road and Rio Road
  - Segment 13. Rio Road between Carmel Rancho Boulevard and SR1

4.8.3 Impact Analysis

a. Methodology

Traffic Operation Evaluation Methodologies

The traffic study (Appendix G) used trip generation rates published by the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 9th Edition (2012) to estimate the trips that would be generated by the proposed project. The *Trip Generation Manual* is an industry-accepted tool for determining an estimated number of vehicles trips that would be generated based on particular land use types. The trip generation rate for the "Shopping Center" land use type (ITE land use 820) was used for this analysis. Given that the type and square footage of uses proposed for the Rio Ranch Marketplace shopping center is preliminary and subject to change, the ITE "Shopping Center" trip generation rate is appropriate for this project. The ITE "Shopping Center" land use only applies one trip generation rate for the shopping center rather than for each use, is a more conservative estimate of trip generation, and would allow flexibility to modify the mix of uses without being inconsistent with the traffic analysis (KHTE 2017). It was assumed in the traffic study that 15 percent of project trips would be pass-by trips (i.e., vehicles who happen to stop in while already traveling along Rio Road) and diverted linked trips (i.e., vehicles who were in the area already and changed their route by a block or two to patronize the site), and 10 percent would consist of trips to and from nearby existing retail uses.

Trip distribution is a process that determines in what proportion vehicles would travel between a project site and various destinations outside the project site. The process of trip assignment determines the various routes that vehicles would take from the project site to each destination using the calculated trip distribution. For this analysis, project trips were distributed along area roadways based on existing traffic volume data and land use patterns in the area, as shown below in Figure 33.

The trip distribution was combined with the trip generation to derive the project trip assignment. Project trip assignments, including for pass-by, linked trips, and trips to and from nearby retail uses, are provided in Exhibits 11 to 13, respectively, of the traffic study (Appendix G). It was also assumed that some existing traffic would be redistributed from the Via Nona Marie/ Rio Road intersection to the new project access point at the Crossroads Boulevard/ Rio Road intersection; trip redistribution

is shown in Exhibit 14 of the traffic study. Figure 34 and Figure 35 below show the net project trip assignments along area roadways for the weekday AM and PM peak hours and Saturday peak hour, respectively.

The trip assignment was added to the existing traffic volumes, background traffic volumes, and cumulative traffic volumes to create the traffic volumes that would occur under Existing Plus Project Conditions, Background Plus Project Conditions, and Cumulative Plus Project Conditions, respectively. As described in the traffic study, Existing Plus Project Conditions are traffic conditions with existing traffic volumes plus the additional trips generated by the project. Background Plus Project Conditions are the conditions when existing traffic volumes, traffic volumes from projects approved but not yet constructed, and trips generated by the proposed project are combined. Cumulative Plus Project Conditions is similar to Background Plus Project Conditions, but also includes traffic volumes from projects that have been proposed through submittal of an application, but have not yet been approved.

Level of Service Standards

As described above, intersection and road segment traffic operations were evaluated based on the LOS concept, and the LOS standard adopted by the jurisdiction within which the intersection is located. As described previously, LOS is a qualitative description of an intersection's operation, ranging from LOS A to LOS F. LOS "A" represents free flow un-congested traffic conditions. LOS "F" represents highly congested traffic conditions with what is commonly considered unacceptable delay to vehicles at intersections. The intermediate LOS represents incremental levels of congestion and delay between these two extremes.

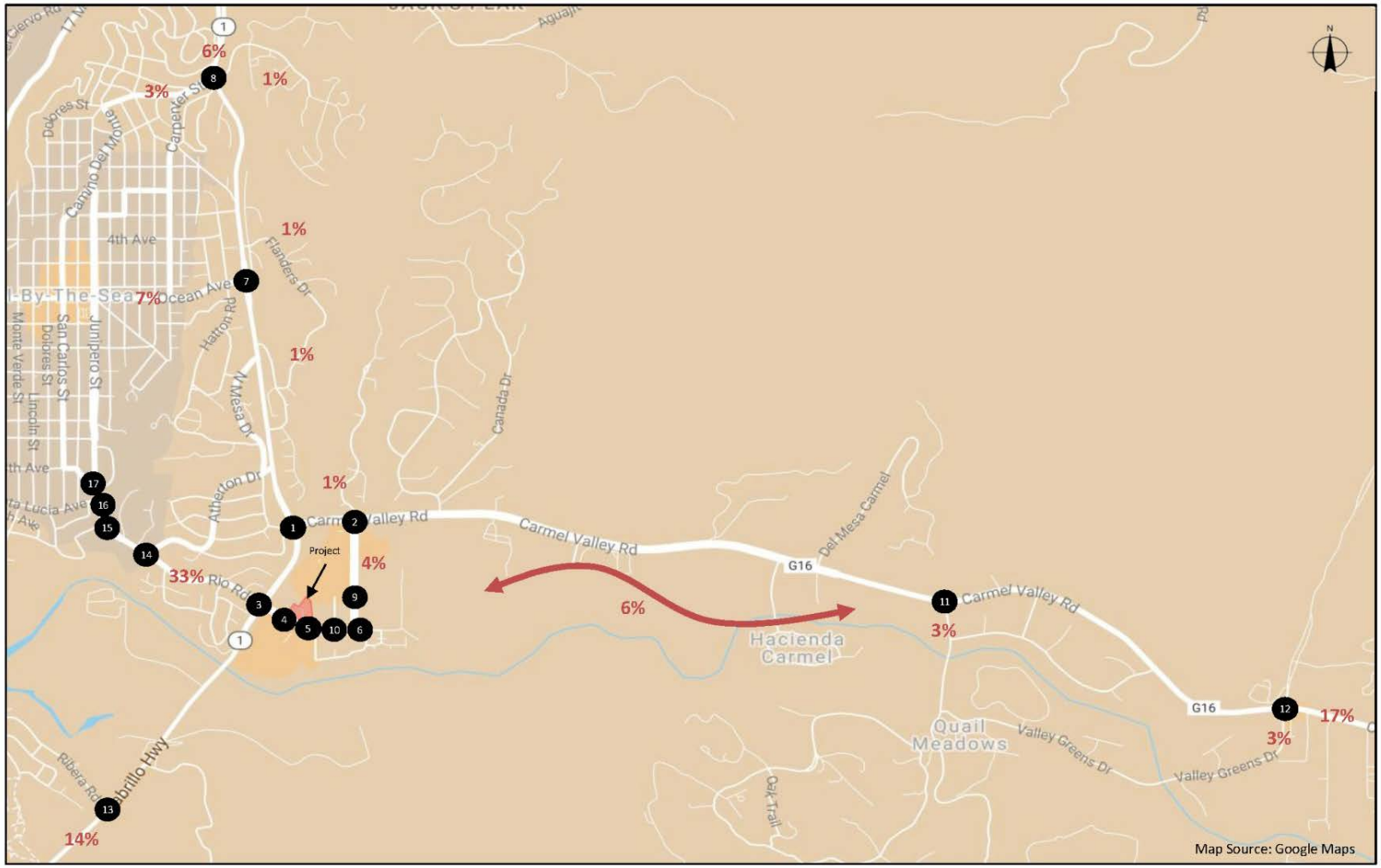
Arterial road segment operations are based on travel speed as a percentage of free flow speed, per Exhibit 17-2 of the 2010 HCM (KHTE 2017). Two-lane highway segment operations are based on percent time spent following (PTSF), per Exhibit 15-3 of the 2010 HCM. Multi-lane highway segment operations are based on density in passenger cars per mile per lane (pc/mi/ln) per Exhibit 14-4 of the 2010 HCM. LOS descriptions for arterial, two-lane highway, and multi-lane highway road segments are included as Appendix D of the traffic study (Appendix G). The CVMP also provides average daily traffic (ADT) volume thresholds for the study segments along Carmel Valley Road (segments 6 – 12), which are provided in Table 33.

The study area intersections and road segments, as listed in Section 4.8.2(c), fall under the jurisdiction of Monterey County, Caltrans, or the City of Carmel-by-the-Sea. In addition, Intersections 2, 4, 5, 6, 9, 10, 11, and 12 fall within the CVMP and are subject to CVMP LOS standards.

Monterey County

The Monterey County Public Works Department has established LOS D as the minimum acceptable LOS for signalized intersections and road segments in their jurisdiction. For un-signalized intersections, LOS E is considered the maximum acceptable LOS for the worst movement/approach. Improvements are warranted when the minor street approach operates at LOS F and any traffic control is warranted.

Figure 33 Project Trip Distribution



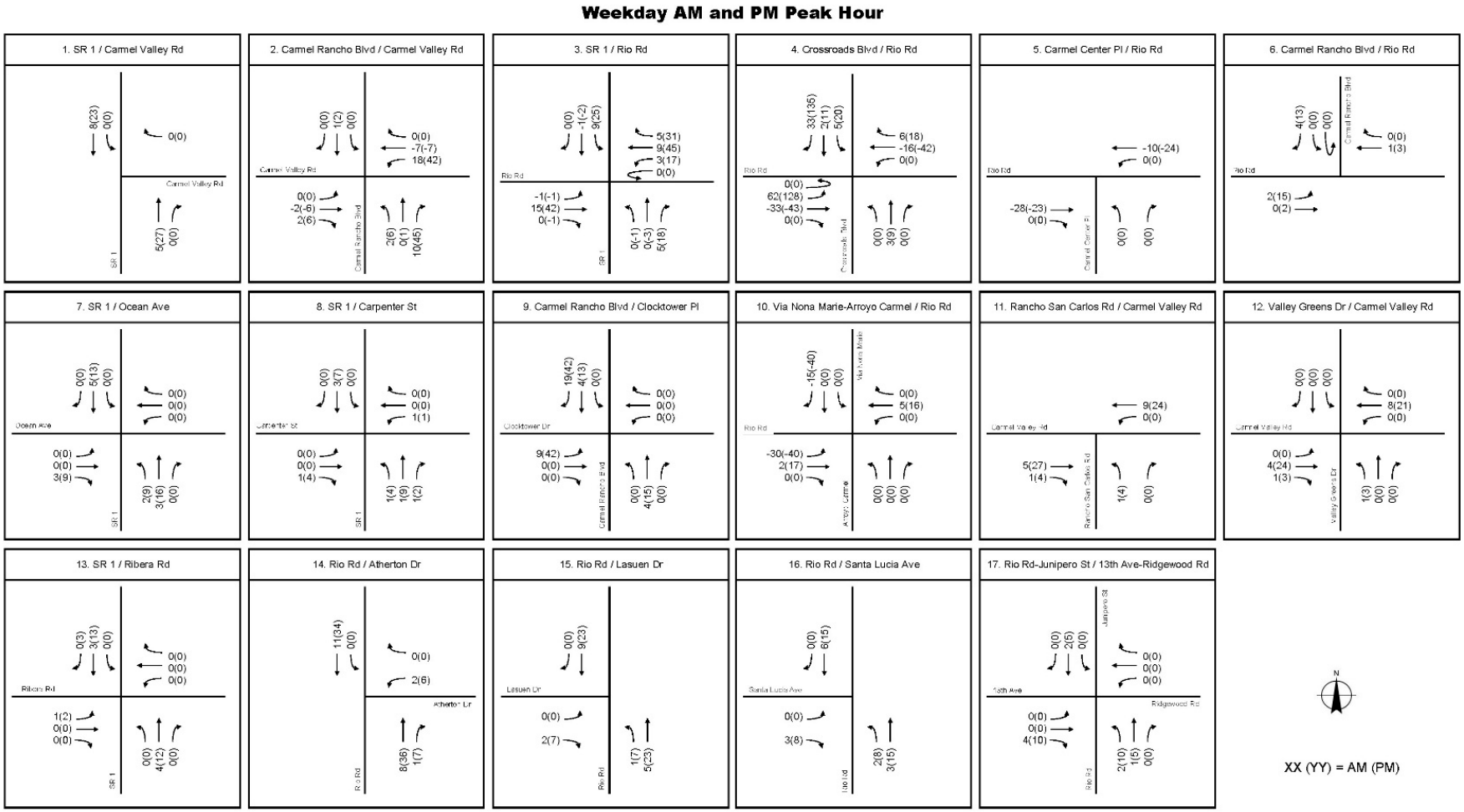
Legend

X Study Intersection #

X% Trip Distribution %

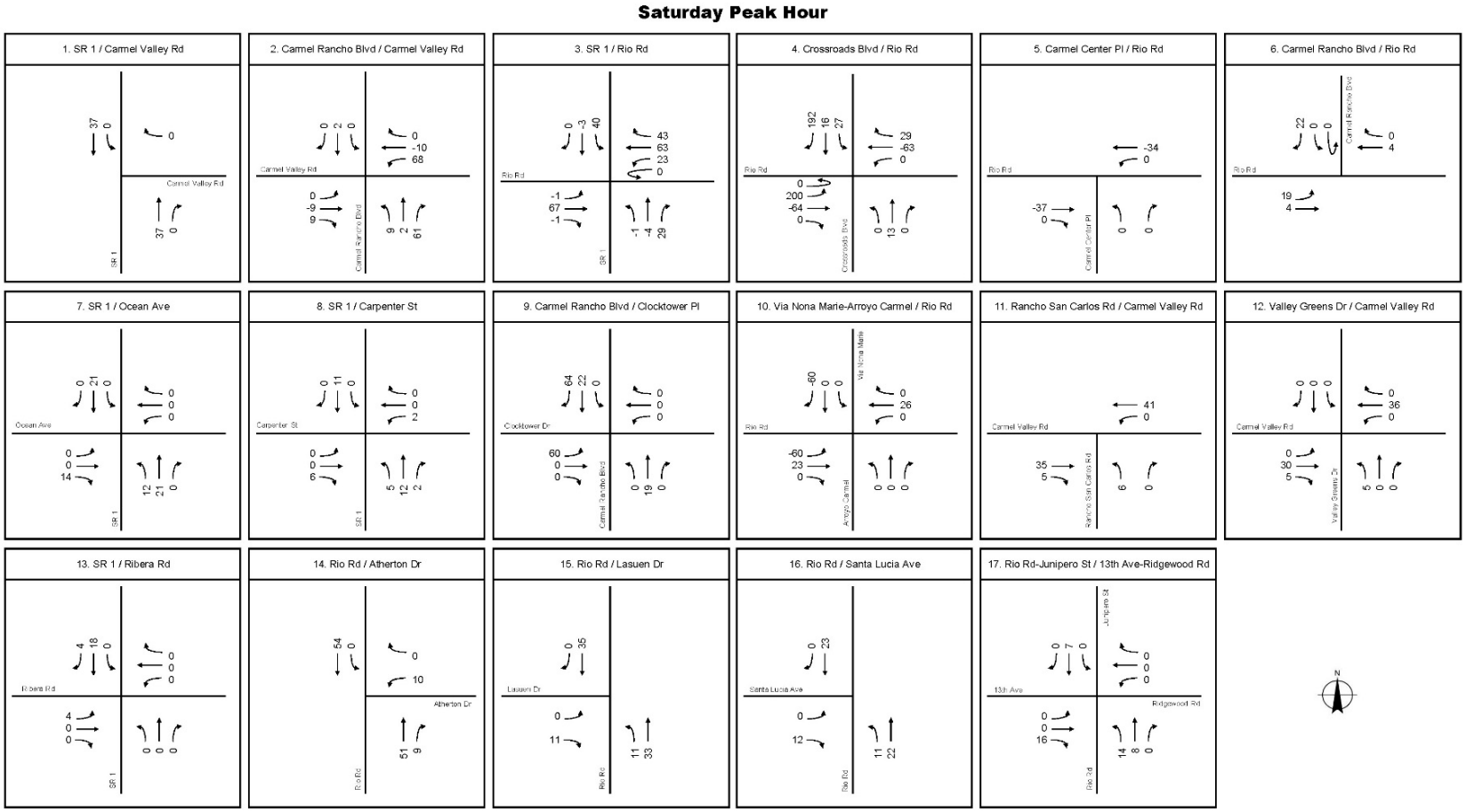
Source: KHTE 2017

Figure 34 Project Trip Assignment Weekday AM and PM Peak Hours



Source: KHTE 2017

Figure 35 Project Trip Assignment Saturday Peak Hour



Source: KHTE 2017

Carmel Valley Master Plan

Except for some road segments along Carmel Valley Road, the CVMP establishes LOS C as the minimum acceptable LOS for signalized roadways and intersections within Carmel Valley. Per CVMP Policy 2.18, LOS D has been established as the minimum acceptable LOS for study segments 6 and 7, and LOS C has been established as the minimum acceptable LOS for study segments 9, 10, 11 and 12.

City of Carmel-by-the-Sea

The LOS standard for the City of Carmel-by-the-Sea is LOS C.

Caltrans

Per the Caltrans "Guide for Preparation of Traffic Impact Studies" publication, "Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than the appropriate target LOS, the existing MOE should be maintained." MOE refers to the measures of effectiveness which are used to describe the measures best suited for analyzing State highway facilities.

Significance Thresholds

Pursuant to Appendix G of the *State CEQA Guidelines,* impacts related to transportation and circulation would be potentially significant if the proposed project would:

1. Conflict with an applicable plan, ordinance, or policy establishing a measure of effectiveness for the performance of a circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit
2. Conflict with an applicable congestion management program, including, but not limited to, LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways
3. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks
4. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
5. Result in inadequate emergency access
6. Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities

As explained more fully in Section 4.9, *Effects Found Not to be Significant*, implementation of the proposed project would not result in a change in air traffic patterns. Therefore, no further discussion of threshold 3 is included in this section. Further discussion of this issue can be found in Section 4.9, *Effects Found Not to Be Significant.* Thresholds 1, 2, 4, 5, and 6 are discussed below.

Traffic Impact Criteria

The study area falls within multiple jurisdictions and planning areas that set forth criteria for analyzing traffic impacts, including Monterey County and the CVMP. The impact criteria for the relevant jurisdictions and planning areas are listed below and have been applied to the analysis results.

Monterey County

A significant impact at a signalized study intersection is defined to occur under the following conditions:

- A significant impact would occur if an intersection operating at LOS A, B, C or D degrades to E or F. For intersections already operating at unacceptable LOS E, a significant impact would occur if a project adds 0.01 or more during peak hours to the critical movement's volume-to-capacity ratio. If the intersection is already operating at LOS F, any increase (one vehicle) in the critical movement's volume-to-capacity ratio is considered significant.

A significant impact at an unsignalized study intersection is defined to occur under the following conditions:

- A significant impact would occur if any traffic movement has LOS F or any traffic signal warrant is met.

A significant impact at a study road segment is defined to occur under the following conditions:

- A significant impact would occur if a roadway segment operating at LOS A through LOS D degrades to LOS E or F. If a segment is already operating at LOS E, any measurable degradation further into LOS E or decline to LOS F is considered significant. If a segment is already operating at LOS F, any increase during the peak hour (one vehicle) is considered significant.

Carmel Valley Master Plan (CVMP)

The Monterey County significance criteria were applied to the study intersections that are within the CVMP Area (intersections 2, 4, 5, 6, 9, 10, 11, & 12) as follows:

A significant impact at a signalized study intersection is defined to occur under the following conditions:

- A significant impact would occur if an intersection operating at LOS A, B or C degrades to LOS D, E or F. For intersections already operating at unacceptable level D or E, a significant impact would occur if a project adds 0.01 or more during peak hours to the critical movement's volume-to-capacity ratio. If the intersection is already operating at LOS F, any increase (one vehicle) in the critical movement's volume-to-capacity ratio is considered significant.

A significant impact at an unsignalized study intersection is defined to occur under the following conditions:

- An impact would occur if an all-way stop controlled or roundabout controlled intersection, based on the average delay, operates at LOS F or any traffic signal warrant is met.
- An impact would occur if a two-way stop controlled intersection, based on the worst approach delay, operates at LOS F or any traffic signal warrant is met.

A significant impact on a study road segment would occur if operations degrade from LOS C or better to LOS D, E or F (segments 8, 9, 10, 11, 12) or if operations degrade from LOS D or better to LOS E or F (segments 6, 7); or if project traffic worsens the LOS of a segment operating at LOS E; or if project traffic is added to a segment operating at LOS F; or if the CVMP ADT threshold is exceeded.

Caltrans

Caltrans perceives an impact when there is any degradation in the performance measure below the cusp of C/D. If a facility is currently operating at or below LOS D, then any trips added represent a potential impact, and the performance measure should be brought back to predevelopment conditions. While a single trip added to a degraded facility is not usually reflected in the performance measure, Caltrans reserves the ability to consider a single trip as an impact. Any increase in delay if the facility is operating at LOS D or below is considered an impact in this analysis.

b. Projects Impacts and Mitigation Measures

Threshold 1:	Conflict with an applicable plan, ordinance, or policy establishing a measure of effectiveness for the performance of a circulation system, taking into account all modes of transportation, including mass transit and nonmotorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit
Threshold 2:	Conflict with an applicable congestion management program, including, but not limited to, LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways

Impact T-1 PROJECT-GENERATED TRAFFIC WOULD CAUSE LEVELS OF SERVICE AT TWO STUDY INTERSECTIONS AND SIX ROAD SEGMENTS TO SIGNIFICANTLY DEGRADE RELATIVE TO EXISTING CONDITIONS. THIS IMPACT WOULD BE SIGNIFICANT AND UNAVOIDABLE.

As shown in Table 40, the proposed project is estimated to generate 3,883 gross trips, with 2,913 primary trips, 582 pass-by and diverted linked trips, and 388 trips to and from existing retail. The project would generate 69 new trips in the AM peak hour, 252 trips during the PM peak hour, and 375 new trips during the Saturday peak hour.

Intersection Operations

The proposed project traffic volumes were added to the existing traffic volumes to obtain existing plus project traffic volumes. Intersection LOS is summarized in Table 41. Existing plus project traffic volumes for the weekday AM and PM peak hours and Saturday peak hour are presented in Figure 36 and Figure 37, respectively.

Based on the LOS standards described in Section 4.8.2(b), Significance Thresholds, the following intersections are projected to operate at an unacceptable LOS under existing plus project conditions:

- Intersection 3 – Highway 1/Rio Road
- Intersection 8 – Highway 1 /Carpenter Street

Table 40 Project Trip Generation Volumes

Land Use Category	ITE Code	Rate Unit (sf)	Project Size (sf)	Daily Trips	AM Peak Hour				PM Peak Hour				Saturday Peak Hour			
					Peak Hour Trips	% of ADT	In %	Out %	Peak Hour Trips	% of ADT	In %	Out %	Peak Hour Trips	% of ADT	In %	Out %
Shopping Center	820	1,000	42,310	3,883	92	2	57	35	337	9	162	175	5,374	500	260	240
Pass-by and Diverted Linked Trips (15% of Gross Trips)				582	14	2	9	5	51	9	24	27	806	75	39	36
Trips to and from Existing Retail (10% of Gross Trips)				388	9	2	6	3	34	9	16	18	537	50	26	24
Primary Trips (75% of Gross Trips)				2,913	69	2	42	27	252	9	122	130	4,031	375	195	180

Source: KHTE 2017

Table 41 Existing Plus Project Intersection LOS

Intersection		Control Type	Jurisdiction	LOS Standard[1]	AM Peak Hour Delay (sec)	AM Peak Hour LOS	PM Peak Hour Delay (sec)	PM Peak Hour LOS	Saturday Peak Hour Delay (sec)	Saturday Peak Hour LOS
1	Highway 1/ Carmel Valley Road	Signal	Caltrans	C/D	11.6	B	13.8	B	12.0	B
2	Carmel Rancho Blvd/Carmel Valley Road	Signal	Monterey County	C	21.8	C	27.0	C	20.4	C
3	Highway 1/ Rio Road	Signal	Caltrans	C/D	37.9	**D**	57.7	**E**	73.0	**E**
	With RTP improvements and 2nd westbound left lane				26.1	C	31.3	**C**	32.9	**C**
4	Crossroads Blvd/Rio Road	Signal	Monterey County	C	14.1	B	20.6	C	25.0	C
5	Carmel Center Place/Rio Road	Signal	Monterey County	C	7.3	A	10.5	B	14.2	B
6	Carmel Rancho Blvd/Rio Road	Two-Way Stop	Monterey County	C or E	11.1	B	18.5	C	16.4	C
7	Highway 1/ Ocean Ave	Signal	Caltrans	C/D	30.1	C	27.3	C	28.3	C
8	Highway 1/Carpenter St	Signal	Caltrans	C/D	22.4	C	37.7	**D**	20.6	C
	With NB RT Lane				22.3	C	37.0	**D**	20.4	C
	With 3rd NBT									
9	Carmel Rancho Blvd/Clocktower Place	Two-Way Stop	Monterey County	E	14.7	B	32.1	D	26.0	D
10	Via Nona Marie/Rio Road	Two-Way Stop	Monterey County	E	17.1	C	25.6	D	18.4	C
11	Rancho San Carlos Boulevard/ Carmel Valley Road	Signal	Monterey County	C	9.6	A	10.7	B	9.1	A
12	Valley Greens Drive/Carmel Valley Road	Two-Way Stop	Monterey County	C or E	43.2	E	45.5	E	34.0	D
13	Highway 1/Ribera Road	One-Way Stop	Caltrans	E	16.4	C	27.6	D	30.8	D

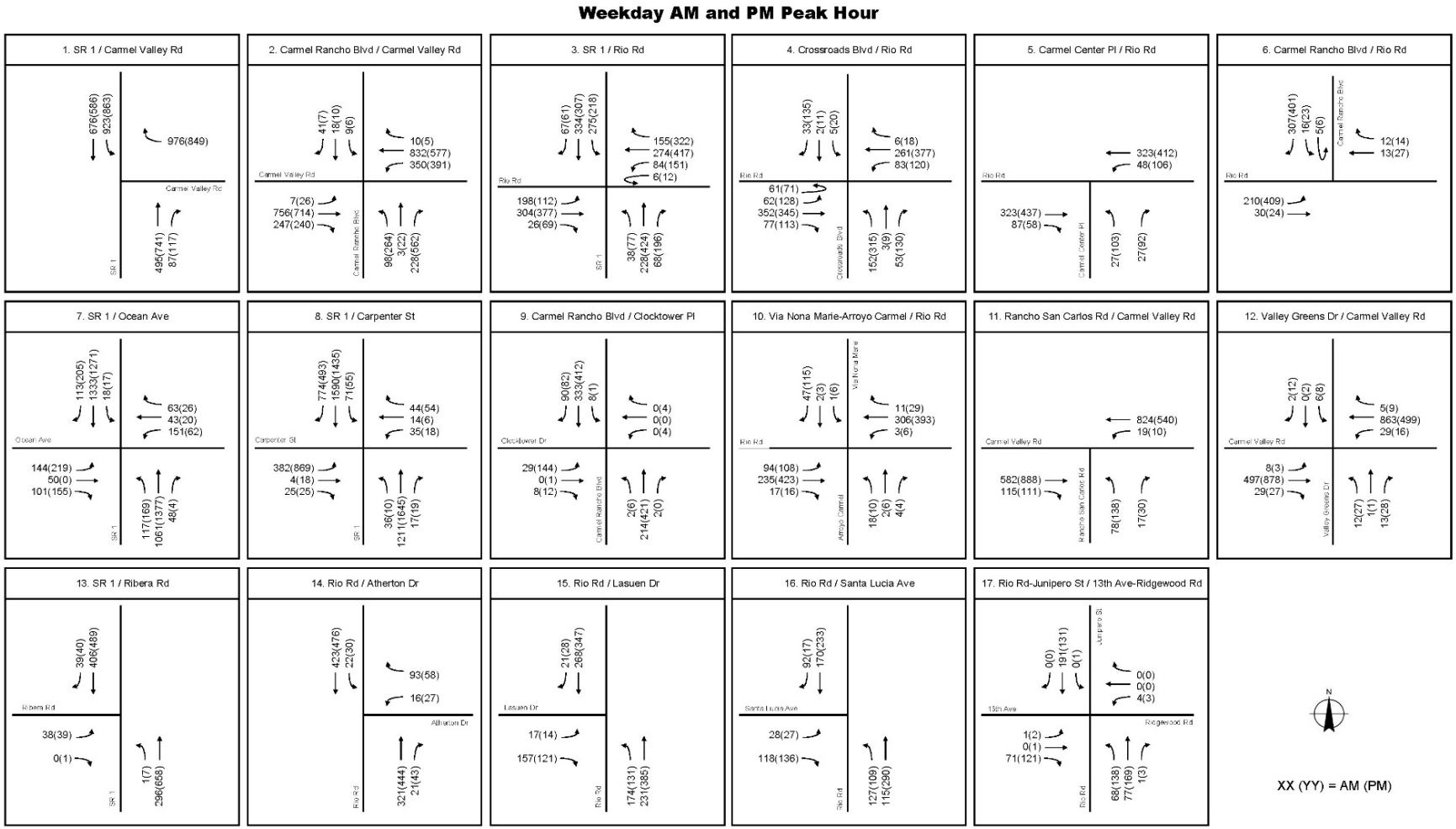
Intersection		Control Type	Jurisdiction	LOS Standard[1]	AM Peak Hour Delay (sec)	AM Peak Hour LOS	PM Peak Hour Delay (sec)	PM Peak Hour LOS	Saturday Peak Hour Delay (sec)	Saturday Peak Hour LOS
14	Rio Road/ Atherton Drive	One-Way Stop	Monterey County and City of Carmel	E	15.3	C	16.9	C	16.2	C
15	Rio Road/Lasuen Drive	One-Way Stop	City of Carmel	E	17.3	C	14.3	B	12.7	B
16	Rio Road/Santa Lucia Avenue	One-Way Stop	City of Carmel	E	13.1	B	13.0	B	12.4	B
17	Rio Road-Junipero Street/13th Avenue-Ridgewood Road	All-Way Stop	City of Carmel	C	8.9	A	9.8	A	9.5	A

[1] Intersections 2, 4, 5, 6, 9, 10, 11, and 12 fall within the CVMP and are subject to CVMP LOS standards.

[2] LOS given in bold with a grey background indicates an exceedance of the applicable LOS standard.

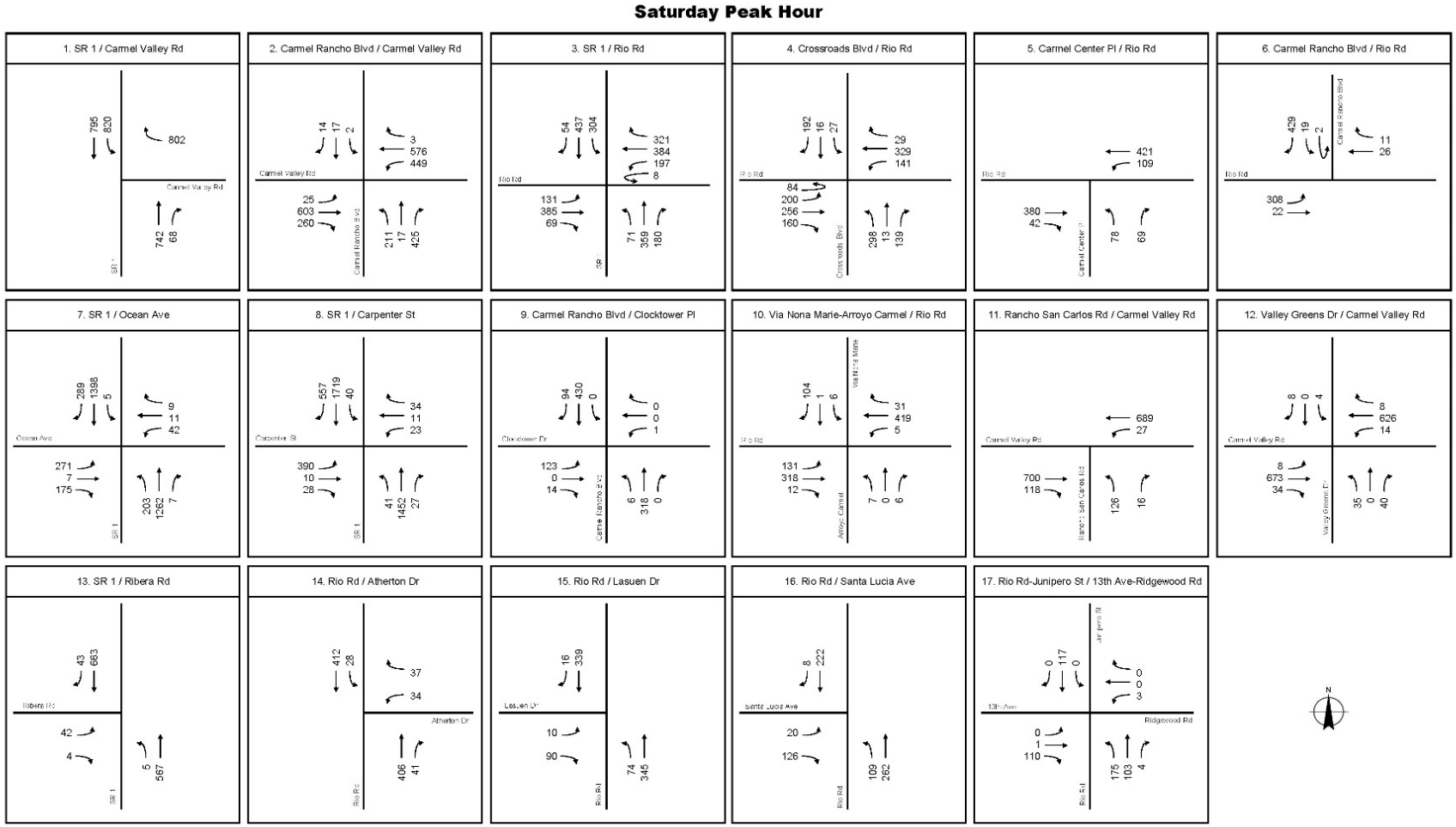
Source: KHTE 2017

Figure 36 Existing Plus Project Weekday AM and PM Peak Hour Volumes



Source: KHTE 2017

Figure 37 Existing Plus Project Saturday Peak Hour Volumes



Source: KHTE 2017

Road Segment Operations

Road segment LOS are summarized in Table 42.

As shown in Table 42, the ADTs on the Carmel Valley Road study segments are projected to be below the CVMP ADT thresholds under existing plus project conditions, except for Segment 7. Based on the LOS standards described in Section 4.8.2(b), Significance Thresholds, the following road segments are projected to operate at unacceptable LOS under existing plus project conditions:

- Segment 2 – SB Highway 1: Ocean Ave to Carmel Valley Road
- Segment 3 – NB & SB SR Highway 1: Carmel Valley Road to Rio Road
- Segment 4 – NB & SB SR Highway 1: Rio Road to Ribera Road
- Segment 6 – EB & WB Carmel Valley Road: Robinson Canyon Road to Schulte Road
- Segment 7 – EB & WB Carmel Valley Road: Schulte Road to Rancho San Carlos Road
- Segment 12 – EB & WB Rio Road: Carmel Rancho Blvd to SR Highway 1
- Segment 13 – NB & SB SR Highway 1: Ribera Road to Highlands Inn

Table 42 Existing Plus Project Road Segment LOS

Segment		From	To	CVMP ADT Threshold	ADT	Direction	AM Peak Hour LOS	PM Peak Hour LOS	Saturday Peak Hour LOS
1	Highway 1	Carpenter St	Ocean Ave	N/A	N/A	NB	B	C	C
						SB	C	B	C
2	Highway 1	Ocean Ave	Carmel Valley Road	N/A	N/A	NB	C	C	C
						SB	**F**	**F**	**F**
3	Highway 1	Carmel Valley Road	Rio Road	N/A	N/A	NB	**D**	**E**	**E**
						SB	**D**	**D**	**D**
4	Highway 1	Rio Road	Ribera Road	N/A	N/A	NB	C	**D**	**D**
						SB	**D**	**D**	**D**
5	Rio Road	13th Ave	Highway 1	N/A	N/A	EB	B	B	B
						WB	B	B	B
6	Carmel Valley Road	Robinson Canyon Road	Schulte Road	15,499	15,436	EB	C	**E**	**D**
						WB	**E**	C	**D**
7	Carmel Valley Road	Schulte Road	Rancho San Carlos Road	16,340	**17,209**	EB	**D**	**E**	**D**
						WB	**E**	**D**	**E**
8	Carmel Valley Road	Rancho San Carlos Road	Rio Road	48,487	19,797	EB	A	A	A
						WB	A	A	A
9	Carmel Valley Road	Rio Road	Carmel Rancho Blvd	51,401	25,411	EB	A	B	A
						WB	B	A	A
10	Carmel Valley Road	Carmel Rancho Blvd	Highway 1	27,839	22,654	EB	A	A	A
						WB	B	A	A
11	Carmel Rancho Blvd	Carmel Valley Road	Rio Road	33,495	11,310	NB	A	A	A
						SB	A	B	B
12	Rio Road	Carmel Rancho Blvd	Highway 1	33,928	14,150	NB	C	**D**	C
						SB	**D**	**D**	**D**
13	Highway 1	Ribera Road	Highlands Inn	N/A	N/A	NB	C	**D**	**D**
						SB	**D**	**D**	**D**
14	Crossroads Blvd	Rio Road	Terminus	N/A	N/A	NB	B	B	B
						SB	B	B	B
15	Carmel Center Place	Rio Road	Terminus	N/A	N/A	NB	A	A	A
						SB	A	A	A

Notes: Entries given in bold with a grey background indicates an exceedance of the applicable LOS standard or CVMP ADT threshold.

Source: KHTE 2017

Project Impacts

The project would have a potentially significant impact to the following study intersections:

- **Intersection 3 – Highway 1 /Rio Road (Caltrans).** Under existing traffic conditions, this intersection operates at LOS C, D, and E during the AM, PM, and Saturday midday peak hours, respectively. Under existing plus project conditions, it would operate at LOS D, E, and E, respectively. Based on Caltrans impact criteria, the project would have a potentially significant impact during the weekday AM, PM, and Saturday peak hours.
- **Intersection 8 – Highway 1/Carpenter Street (Caltrans).** This intersection would operate at an LOS D during the PM peak hour under existing conditions and project-generated traffic would add a delay of 0.6 second. Based on Caltrans impact criteria, the project would have a potentially significant impact during the weekday PM peak hour.

The project would have a potentially significant impact to the following study road segments:

- **Segment 2 – South Bound Highway 1 between Ocean Ave and Carmel Valley Road (Caltrans).** Under existing traffic conditions, this segment operates at LOS F in the southbound direction during all three study peak hours. Project-generated traffic would increase road segment volumes during all three peak hours. Based on Caltrans impact criteria, the project would have a potentially significant impact during all three study peak hours.
- **Segment 3 – Highway 1 between Carmel Valley Road and Rio Road (Caltrans).** Under existing traffic conditions, this segment operates at LOS D and E in the northbound direction and LOS D in the southbound direction during the peak hours. Under existing plus project conditions, it would continue to operate at LOS D and E, but the percent time spent following (PTSF) measure of effectiveness would increase. Based on Caltrans impact criteria, the project would have a potentially significant impact during peak hours.
- **Segment 4 – Highway 1 between Rio Road and Ribera Road (Caltrans).** Under existing traffic conditions, this segment operates at LOS D in the northbound and southbound directions during the peak hours. Under existing plus project conditions, it would continue to operate at LOS D, but the percent time spent following (PTSF) measure of effectiveness would increase. Based on Caltrans impact criteria, the project would have a potentially significant impact during peak hours.
- **Segment 7 – Carmel Valley Road between Schulte Road and Rancho San Carlos Road (CVMP).** Under existing traffic conditions, the ADT volumes on this segment exceed the CVMP ADT threshold, and it operates at LOS D and E in the eastbound and westbound directions during the peak hours. Under existing plus project conditions, it would continue to operate at LOS D and E during the weekday AM and PM peak hours. This segment would degrade from LOS D to LOS E in the westbound direction during the Saturday peak hour. Based on the CVMP impact criteria, the project would potentially impact this segment on an ADT basis and in the westbound direction during the Saturday peak hour.
- **Segment 12 – Rio Road between Carmel Rancho Blvd and Highway 1 (CVMP).** Under existing traffic conditions, this segment operates at LOS D in the westbound direction during the peak hours. Under existing plus project conditions, it would continue to operate at LOS D in the westbound direction. This segment would degrade from LOS C to LOS D in the eastbound direction during the weekday PM peak hour. Based on the CVMP impact criteria, the project would potentially impact this segment in the eastbound direction during the weekday PM peak hour.

- **Segment 13 – Highway 1 between Ribera Road and Highlands Inn (Caltrans).** Under existing traffic conditions, this segment operates at LOS D in the northbound and southbound directions during the peak hours. Under existing plus project conditions, it would continue to operate at LOS D, but the percent time spent following (PTSF) measure of effectiveness would increase. Based on Caltrans impact criteria, the project would have a potentially significant impact during peak hours.

Existing Plus Project Conditions Summary

Table 43 summarizes the project's traffic impacts relative to existing conditions and potential Mitigation Measures provided in the traffic study to address impacted roadways. As indicated in the table, all roadways that would operate at unacceptable levels with the project already operate at unacceptable levels under existing conditions. Two intersections and six road segments would be further degraded to a potentially significant degree by the project.

Table 43 Existing Conditions: Project Impacts to Degraded Roadways and Potential Mitigation

Study Intersection/ Road Segments	Unacceptable LOS Under Existing Conditions	Unacceptable LOS Under Existing + Project	Potentially Significant Project Impact	Potential Mitigation Provided in Traffic Study
Intersection 3 – Highway 1/ Rio Road (Caltrans)	X	X	X	TAMC planned improvements at the Highway 1/Rio Road intersection include converting the northbound Highway 1 right-turn lane to a shared through/right-turn lane, and an additional southbound through lane. These improvements, in addition to a second westbound left-turn lane, would result in acceptable operations at this intersection under existing plus project traffic conditions.
Intersection 8 – Highway 1/ Carpenter Street (Caltrans)	X	X	X	The addition of a dedicated northbound SR 1 right-turn lane would improve operations to better than pre-project conditions. This improvement is not planned or funded.
Segment 2 – SB Highway 1: Ocean Ave to Carmel Valley Rd (Caltrans)	X	X	X	The construction of a second southbound lane on SR 1 between Ocean Avenue and Carmel Valley Road would result in acceptable traffic operations. However, this improvement is not planned or funded.
Segment 3 – NB & SB Highway 1: Carmel Valley Rd to Rio Rd (Caltrans)	X	X	X	TAMC planned improvements at the Highway 1/Rio Road intersection include converting the northbound Highway 1 right-turn lane to a shared through/right-turn lane, and an additional southbound through lane. This would improve traffic operations to an acceptable level.

Study Intersection/ Road Segments	Unacceptable LOS Under Existing Conditions	Unacceptable LOS Under Existing + Project	Potentially Significant Project Impact	Potential Mitigation Provided in Traffic Study
Segment 4 – NB & SB Highway 1: Rio Road to Ribera Road (Caltrans)	X	X	X	Widening this segment to four lanes would improve operations to an acceptable level. However, this improvement is not planned or funded. It also would not be consistent with California Coastal Act Policy 30254 which states that "it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road."
Segment 6 – EB & WB Carmel Valley Rd: Robinson Canyon Rd to Schulte Rd (CVMP)	X	X		
Segment 7 – EB & WB Carmel Valley Rd: Schulte Rd to Rancho San Carlos Rd (CVMP)	X	X	X	Widening this segment to two lanes in each direction would result in acceptable traffic operations. However, this improvement is not planned or funded.
Segment 12 – WB Rio Road: Carmel Rancho Blvd to Highway 1 (CVMP)	X	X	X	The construction of a third eastbound lane on Rio Road between Carmel Rancho Boulevard and SR 1 would result in acceptable traffic operations. However, this improvement is not planned or funded. Traffic signal optimization along Rio Road, including the SR 1 intersection, will partially mitigate this impact. However, this improvement is not planned or funded.
Segment 13 – NB & SB Highway 1: Ribera Rd to Highlands Inn (Caltrans)	X	X	X	Widening this segment to four lanes would improve operations to an acceptable level. However, this improvement is not planned or funded. It also would not be consistent with California Coastal Act Policy 30254 which states that "it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road."

Source: KHTE 2017

Mitigation Measures

Based on the impact analysis in the traffic study summarized above, two intersections and six roadway segments require mitigation under existing plus project conditions.

Planned Improvements

The TAMC Regional Transportation Plan (RTP) includes a list of projects to improve traffic operations within the project study area, including the following:

- The construction of a northbound climbing lane on Highway 1 between Rio Road and Carmel Valley Road and improvements at the Highway 1 /Rio Road intersection. The planned improvements at the Highway 1/ Rio Road intersection include converting the northbound right-turn lane to a shared through/right-turn lane, and an additional southbound through lane.

The project applicant would be responsible for a fair share contribution towards funding of this improvement, which it would contribute through payment of the TAMC impact fee.

Unplanned Improvements

As stated in Table 43, there are no additional planned or funded improvements that would mitigate project impacts to the study intersections and road segments. Thus, there is no mechanism into which the applicant could pay a fair share to ensure these improvements are constructed. Furthermore, improvements to Intersection 8 and Segments 2, 3, 4, and 13 would be within Caltrans jurisdiction, and would therefore be beyond the control of the project applicant and/or the County of Monterey. For these reasons, this traffic study-identified mitigation is considered infeasible and is not included herein.

T-1 Intersection 3: Highway 1/Rio Road Improvements

Concurrent with the development of the shopping center, the developer shall lengthen the existing eastbound left-turn lane at Rio Road and Crossroads Boulevard, which would provide access to the project's main entrance, from 170 feet (130 feet of striping) to approximately 265 feet. Extending the length of the existing left turn lane will require the existing 265-foot westbound left turn lane onto southbound Highway 1 to be shortened by an equal 95 feet. In addition, Caltrans and the TAMC are completing the design of a second northbound lane on Highway 1 that will widen Highway 1 by about 30 feet to the east. This will also reduce the length of the westbound Rio Road left turn lane by an equivalent amount. The result will be that the left turn lane will be shortened by a total of 125 feet to about 140 feet, assuming a 60-foot bay taper separating the eastbound left turn lane into the Rio Ranch Shopping Center and the westbound left turn lane onto southbound Highway 1. Consequently, the developer shall also add a second Rio Road westbound left-turn lane onto Highway 1. This will require a 90-foot bay taper, resulting in two left turn lanes each with a length of about 115 feet. The addition of the second left turn lane will require widening Rio Road 11 feet to the south between Highway 1 and the westerly Crossroads driveway, located about 170 feet east of Highway 1. A transition shall be provided to match the existing Rio Road southerly curb line on the east side of the middle Crossroads Shopping Center driveway about 250 feet to the east. Modifications along Rio Road will need to be coordinated with Caltrans and TAMC.

MONITORING ACTION

Prior to issuance of grading or building permits, the applicant shall obtain all required approvals for road improvements from Caltrans and TAMC. Evidence of the approval shall be submitted to the RMA-Public Works. The required roadway improvements shall be installed prior to occupancy or final of building permits, whichever occurs first.

Significance After Mitigation

Implementation of MM T-1(a) along with planned improvements in the TAMC RTP would eliminate the project's impacts to Intersection 3 in the northbound direction, as well as Segment 3 under existing plus project conditions. However, the construction of these planned improvements is dependent on STIP funding, which is not guaranteed at this time. Participation in funding these improvements – as is required through payment of TAMC impact fees – would partially reduce impacts. However, because complete funding cannot be guaranteed and timing of the planned improvements cannot be assured, impacts would remain significant and unavoidable. As discussed above, improvements to Intersection 8 (Highway 1/Carpenter Street), Segments 2 (Highway 1: Ocean Avenue to Carmel Valley Road), 4 (Highway 1: Rio Road to Ribera Road), 7 (Carmel Valley Road: Schulte Road to Rancho San Carlos Road), 12 (Rio Road: Carmel Rancho Boulevard to Highway 1), and 13 (Highway 1) would be infeasible because there is no available mechanism for the project to fund these improvements; they are not included in the TAMC or Carmel Valley Traffic Improvement Program (CVTIP) project list. Impacts to these intersections and road segments would remain significant and unavoidable.

To summarize, project impacts to the following intersections and road segments would remain significant and unavoidable under existing plus project conditions:

- Intersection 3 – Highway 1 /Rio Road
- Intersection 8 – Highway 1/Carpenter Street
- Segment 2 – Southbound Highway 1: Ocean Ave to Carmel Valley Road
- Segment 3 – Highway 1: Carmel Valley Road to Rio Road
- Segment 4 – Highway 1: Rio Road to Ribera Road
- Segment 7 – Carmel Valley Road: Schulte Road to Rancho San Carlos Road
- Segment 12 – Rio Road: Carmel Rancho Blvd to Highway 1
- Segment 13 – Highway 1: Ribera Road to Highlands Inn

Threshold 1:	Conflict with an applicable plan, ordinance, or policy establishing a measure of effectiveness for the performance of a circulation system, taking into account all modes of transportation, including mass transit and nonmotorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit
Threshold 2:	Conflict with an applicable congestion management program, including, but not limited to, LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways

Impact T-2 PROJECT-GENERATED TRAFFIC WOULD CAUSE LEVELS OF SERVICES AT FOUR STUDY INTERSECTIONS AND SEVEN ROAD SEGMENTS TO SIGNIFICANTLY DEGRADE RELATIVE TO BACKGROUND CONDITIONS. THIS IMPACT WOULD BE SIGNIFICANT AND UNAVOIDABLE.

Intersection Operations

The proposed project traffic assignments were added to the background traffic volumes to obtain background plus project traffic volumes. Intersection LOS are summarized in Table 44. Background plus project traffic volumes for the weekday AM and PM peak hours and Saturday peak hour are presented in Figure 38 and Figure 39, respectively.

Based on the LOS standards described in Section 4.17.2(b) (Methodology and Significance Thresholds), the following intersections are projected to operate at unacceptable LOS under background plus project conditions:

- Intersection 2 – Carmel Rancho Boulevard/Carmel Valley Road
- Intersection 3 – SR 1/Rio Road
- Intersection 8 – SR 1/Carpenter Street
- Intersection 12 – Valley Greens Drive/Carmel Valley Road

Table 44 Background Plus Project Intersection LOS

Intersection		Control Type	Jurisdiction	LOS Standard[1]	AM Peak Hour		PM Peak Hour		Saturday Peak Hour	
					Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
1	Highway 1/Carmel Valley Road	Signal	Caltrans	C/D	13.2	B	16.1	B	13.7	B
2	Carmel Rancho Blvd/Carmel Valley Road	Signal	Monterey County	C	25.7	C	37.4	**D**	24.2	C
	With eastbound right turn only				24.7	C	35.6	**D**	22.7	C
3	Highway 1/ Rio Road	Signal	Caltrans	C/D	42.8	**D**	61.6	**E**	77.3	**E**
	With RTP improvements and 2nd westbound left lane				26.3	C	32.9	**C**	33.7	**C**
4	Crossroads Blvd/Rio Road	Signal	Monterey County	C	14.6	B	20.7	C	25.5	C
5	Carmel Center Place/Rio Road	Signal	Monterey County	C	5.9	A	10.2	B	13.9	B
6	Carmel Rancho Blvd/Rio Road	Two-Way Stop	Monterey County	C or E	11.8	B	21.5	C	18.7	C
7	Highway 1/Ocean Ave	Signal	Caltrans	C/D	33.1	C	29.1	C	32.9	C
8	Highway 1/Carpenter St	Signal	Caltrans	C/D	23.5	C	40.5	**D**	22.4	C
	With 3rd northbound through lane				22.5	C	30.9	**C**	20.8	C
9	Carmel Rancho Blvd/Clocktower Place	Two-Way Stop	Monterey County	E	15.4	C	37.0	E	29.1	D
10	Via Nona Marie/Rio Road	Two-Way Stop	Monterey County	E	17.7	C	27.4	D	19.3	C
11	Rancho San Carlos Boulevard/Carmel Valley Road	Signal	Monterey County	C	9.6	A	12.2	B	9.7	A
12	Valley Greens Drive/Carmel Valley Road	Two-Way Stop	Monterey County	C or E	51.1	F	97.9	**F**	62.9	F
	With roundabout				8.0	A	8.7	**A**	7.6	A

Intersection		Control Type	Jurisdiction	LOS Standard[1]	AM Peak Hour		PM Peak Hour		Saturday Peak Hour	
					Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
13	Highway 1/Ribera Road	One-Way Stop	Caltrans	E	18.8	C	28.3	D	31.6	D
14	Rio Road/Atherton Drive	One-Way Stop	Monterey County and City of Carmel	E	15.4	C	16.9	C	16.4	C
15	Rio Road/Lasuen Drive	One-Way Stop	City of Carmel	E	17.4	C	14.3	B	12.7	B
16	Rio Road/Santa Lucia Avenue	One-Way Stop	City of Carmel	E	13.1	B	13.1	B	12.5	B
17	Rio Road-Junipero Street/13th Avenue-Ridgewood Road	All-Way Stop	City of Carmel	C	9.0	A	9.8	A	9.6	A

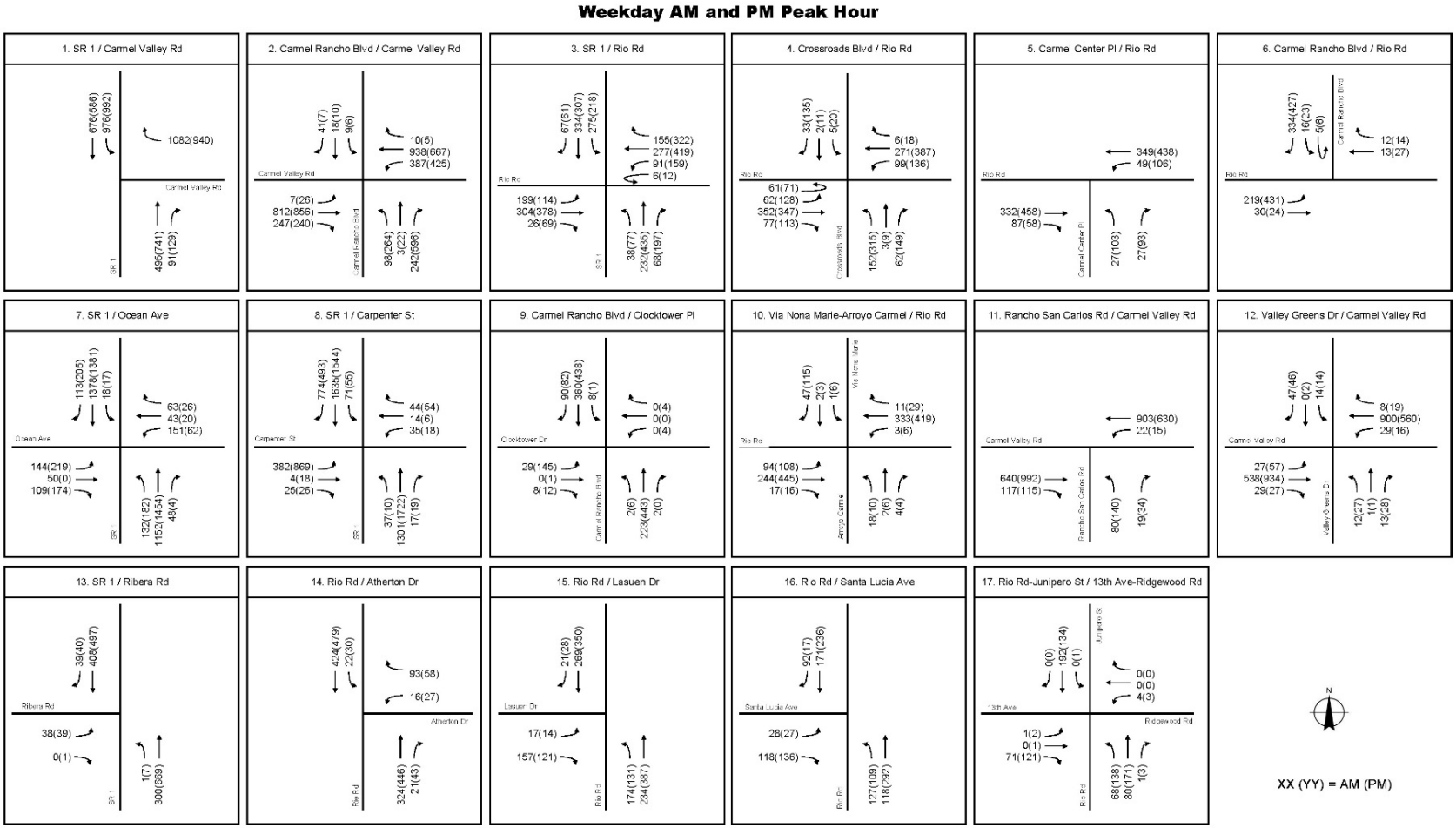
Notes:

1. Intersections 2, 4, 5, 6, 9, 10, 11, and 12 fall within the CVMP and are subject to CVMP LOS standards.

2. LOS given in bold with a grey background indicates an exceedance of the applicable LOS standard.

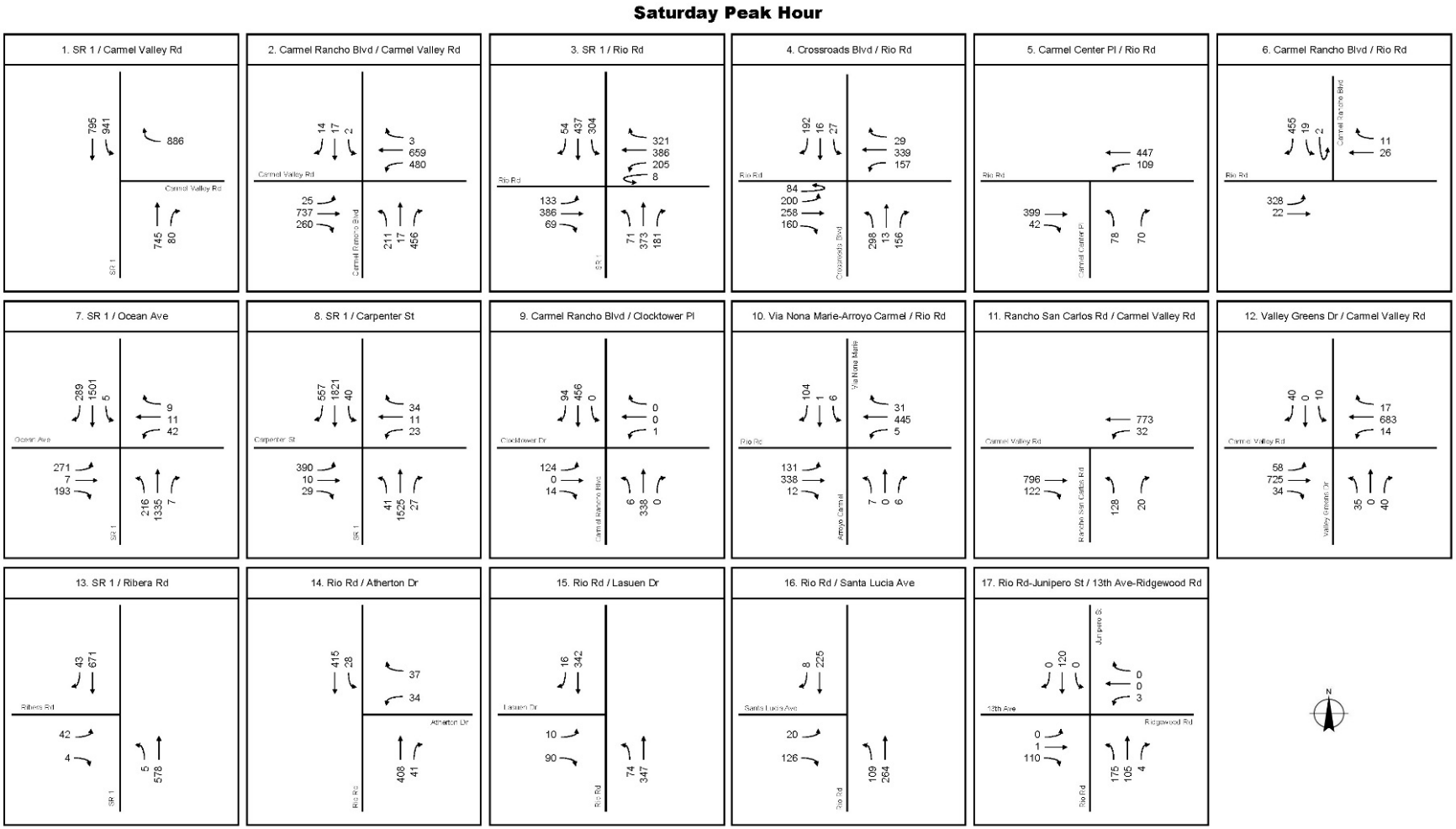
Source: KHTE 2017

Figure 38 Background Plus Project Weekday AM and PM Peak Hour Volumes



Source: KHTE 2017

Figure 39 Background Plus Project Saturday Peak Hour Volumes



Source: KHTE 2017

Road Segment Operations

Road segment LOS are summarized in Table 45. Except for segments 6 and 7, the ADTs on the roadways included in the CVMP are projected to be below the CVMP ADT thresholds under background plus project conditions.

Based on the LOS standards described in Section 4.17.2(b) (Methodology and Significance Thresholds), the following road segments are projected to operate at unacceptable LOS under background plus project conditions:

- Segment 2 – SB SR 1: Ocean Ave to Carmel Valley Road
- Segment 3 – NB & SB SR 1: Carmel Valley Road to Rio Road
- Segment 4 – NB & SB SR 1: Rio Road to Ribera Road
- Segment 6 – EB & WB Carmel Valley Road: Robinson Canyon Road to Schulte Road
- Segment 7 – EB & WB Carmel Valley Road: Schulte Road to Rancho San Carlos Road
- Segment 12 – EB & WB Rio Road: Carmel Rancho Blvd to SR 1
- Segment 13 – NB & SB SR 1: Ribera Road to Highlands Inn

Table 45 Background Plus Project Road Segment LOS

Segment		From	To	CVMP ADT Threshold	ADT	Direction	AM Peak Hour LOS	PM Peak Hour LOS	Saturday Peak Hour LOS
1	Highway 1	Carpenter St	Ocean Ave	N/A	N/A	NB	B	C	C
						SB	C	C	C
2	Highway 1	Ocean Ave	Carmel Valley Road	N/A	N/A	NB	C	C	C
						SB	**F**	**F**	**F**
3	Highway 1	Carmel Valley Road	Rio Road	N/A	N/A	NB	**D**	**E**	**D**
						SB	**D**	**D**	**D**
4	Highway 1	Rio Road	Ribera Road	N/A	N/A	NB	C	**D**	**D**
						SB	**D**	**D**	**D**
5	Rio Road	13th Ave	Highway 1	N/A	N/A	EB	B	B	B
						WB	B	B	B
6	Carmel Valley Road	Robinson Canyon Road	Schulte Road	15,499	**16,766**	EB	C	**E**	**D**
						WB	**E**	**D**	**D**
7	Carmel Valley Road	Schulte Road	Rancho San Carlos Road	16,340	**18,709**	EB	**D**	**E**	**E**
						WB	**E**	**D**	**E**
8	Carmel Valley Road	Rancho San Carlos Road	Rio Road	48,487	21,797	EB	A	B	A
						WB	A	A	A
9	Carmel Valley Road	Rio Road	Carmel Rancho Blvd	51,401	28,411	EB	B	B	B
						WB	C	B	B
10	Carmel Valley Road	Carmel Rancho Blvd	Highway 1	27,839	15,984	EB	B	A	A
						WB	B	A	A
11	Carmel Rancho Blvd	Carmel Valley Road	Rio Road	33,495	11,990	NB	A	A	A
						SB	A	B	B
12	Rio Road	Carmel Rancho Blvd	Highway 1	33,928	14,270	NB	C	**D**	C
						SB	**D**	**D**	**D**
13	Highway 1	Ribera Road	Highlands Inn	N/A	N/A	NB	C	**D**	**D**
						SB	**D**	**D**	**D**
14	Crossroads Blvd	Rio Road	Terminus	N/A	N/A	NB	B	B	B
						SB	B	B	B
15	Carmel Center Place	Rio Road	Terminus	N/A	N/A	NB	A	A	A
						SB	A	A	A

Notes: Entries given in bold with a grey background indicates an exceedance of the applicable LOS standard or CVMP ADT threshold.
Source: KHTE 2017

Project Impacts

The project would have a potentially significant impact to the following study intersections:

- **Intersection 2 – Carmel Rancho Boulevard/Carmel Valley Road (Caltrans).** Under background traffic conditions, this intersection is projected to operate at LOS C during the peak hours. Under background plus project conditions, it would operate at LOS C during the AM and Saturday peak hours and LOS D during the PM peak hour. This intersection is under Caltrans jurisdiction. Based on the impact criteria, the project would have a potentially significant impact during the weekday PM peak hour.
- **Intersection 3 – Highway 1/Rio Road (Caltrans).** Under background traffic conditions, this intersection is projected to operate at LOS D during the AM and PM peak hours and LOS E during the Saturday peak hour. Under background plus project conditions, it would operate at LOS D during the AM peak hour and LOS E during the PM and Saturday peak hours and would increase delay during all peak hours. Based on Caltrans impact criteria, the project the project would have a potentially significant impact during all study peak hours.
- **Intersection 8 – Highway 1/Carpenter Street (Caltrans).** Under background traffic conditions, this intersection is projected to operate at LOS C during the AM and Saturday peak hours and LOS D during the PM peak hour. Under background plus project conditions, it would continue to operate at LOS C during the AM and Saturday peak hours and LOS D during the PM peak hour and would increase the delay during peak hours. Based on the impact criteria, the project would have a potentially significant impact during the weekday PM peak hour.
- **Intersection 12 – Valley Greens Drive/Carmel Valley Road (CVMP).** Under background traffic conditions, this intersection is projected to operate at LOS E during the AM and Saturday peak hours and LOS F during the PM peak hour. Under background plus project conditions, it would operate at LOS F during the AM, PM, and Saturday peak hours. Project-generated traffic would increase the volumes during peak hours. Based on the CVMP impact criteria, the project would have a potentially significant impact during the weekday AM, PM, and Saturday peak hours.

The project would have a potentially significant impact to the following road segments:

- **Segment 2 – Southbound Highway 1 between Ocean Ave and Carmel Valley Road (Caltrans).** Under background traffic conditions, this segment is projected to operate at LOS F in the southbound direction during the peak hours. Under background plus project conditions, it would continue to operate at LOS F and traffic volume would be increased. Based on Caltrans impact criteria, the project would have a potentially significant impact in the southbound direction during the weekday AM, PM, and Saturday peak hours.
- **Segment 3 – Highway 1 between Carmel Valley Road and Rio Road (Caltrans).** Under background traffic conditions, this segment is projected to operate at LOS D and E in the northbound direction and LOS D in the southbound direction during the peak hours. Under background plus project conditions, it would continue to operate at LOS D and E, but the PTSF measure of effectiveness would increase. Based on Caltrans impact criteria, the project would have a potentially significant impact.
- **Segment 4 – Highway 1 between Rio Road and Ribera Road (Caltrans).** Under background traffic conditions, this segment is projected to operate at LOS D in the northbound and southbound directions during the peak hours. Under background plus project conditions, it would continue to operate at LOS D, but the PTSF measure of effectiveness would increase. Based on Caltrans impact criteria, the project would have a potentially significant impact.

- **Segment 6 – Carmel Valley Road between Robinson Canyon Road and Schulte Road (CVMP).** Under background traffic conditions, the Average Daily Traffic (ADT) volumes on this segment are projected to exceed the CVMP ADT threshold, and it would operate at LOS D and E in the eastbound and westbound directions during the peak hours. Under background plus project conditions, it would continue to exceed the ADT threshold and would operate at LOS D and E during the peak hours. Based on CVMP impact criteria, the project would have a potentially significant impact on an ADT basis.
- **Segment 7 – Carmel Valley Road between Schulte Road and Rancho San Carlos Road (CVMP).** Under background traffic conditions, the Average Daily Traffic (ADT) volumes on this segment are projected to exceed the CVMP ADT threshold, and it would operate at LOS D and E in the eastbound and westbound directions during the peak hours. Under background plus project conditions, it would continue to exceed the ADT threshold and would operate at LOS D and E during the weekday AM and PM peak hours. This segment would degrade from LOS D to LOS E in the westbound direction during the Saturday peak hour. Based on CVMP impact criteria, the project have a potentially significant impact on an ADT basis and in the westbound direction during the Saturday peak hour.
- **Segment 12 – Rio Road between Carmel Rancho Blvd and Highway 1 (CVMP).** Under background traffic conditions, this segment is projected to operate at LOS D in the westbound direction during the peak hours. Under background plus project conditions, it would continue to operate at LOS D in the westbound direction. This segment would degrade from LOS C to LOS D in the eastbound direction during the weekday PM peak hour. Based on CVMP impact criteria, the project have a potentially significant impact during the weekday PM peak hour.
- **Segment 13 – Highway 1 between Ribera Road and Highlands Inn (Caltrans).** Under background traffic conditions, this segment is projected to operate at LOS D in the southbound direction and LOS C in the northbound direction in the AM peak hour, LOS C in the southbound direction and LOS D in the northbound direction in the PM peak hour, and LOS D in the Saturday peak hour. Under background plus project conditions, it would degrade from LOS C to LOS D in the southbound direction during the PM peak hour. In addition, it would increase the PTSF measure of effectiveness in the PM and Saturday peak hours. This segment is under Caltrans jurisdiction. Based on Caltrans impact criteria, the project would have a potentially significant impact to this segment in the southbound direction during the PM peak hour, as well as the Saturday peak hour.

Background Plus Project Conditions Summary

Table 46 summarizes the project's traffic impacts relative to background conditions and potential Mitigation Measures provided in the traffic study to address impacted roadways. As indicated in the table, all roadways that would operate at unacceptable levels under background conditions with the project would already operate at unacceptable levels under background conditions except for Intersection 2 (Carmel Rancho Boulevard/Carmel Valley Road). Three intersections and seven road segments would be further degraded to a potentially significant degree by the project. Compared to existing plus project conditions, background plus project conditions would additionally impact Intersections 2 and 12 and Segment 4.

Table 46 Background Conditions: Project Impacts to Degraded Roadways and Potential Mitigation

Study Intersection/ Road Segments	Unacceptable LOS under Background Conditions	Unacceptable LOS under Background + Project Conditions	Potentially Significant Project Impact	Potential Mitigation Provided in Traffic Study
Intersection 2 – Carmel Rancho Boulevard/Carmel Valley Road (CVMP)		X	X	The addition of an eastbound right-turn overlap phase would reduce delay at this intersection, but it would still operate at a deficient LOS D during the PM peak hour under background plus project traffic conditions. This improvement would only partially mitigate this impact. There would be a remaining unmitigated significant impact.
Intersection 3 – Highway 1/ Rio Road (Caltrans)	X	X	X	TAMC planned improvements at the Highway 1/Rio Road intersection include converting the northbound Highway 1 right-turn lane to a shared through/right-turn lane, and an additional southbound through lane. These improvements, in addition to a second westbound left-turn lane, would result in acceptable operations at this intersection under background plus project traffic conditions.
Intersection 8 – Highway 1/ Carpenter Street (Caltrans)	X	X	X	With the addition of a third northbound through lane, this intersection would operate at an acceptable LOS C during the weekday AM, PM, and Saturday peak hours under background plus project traffic conditions. This improvement is not planned or funded.
Intersection 12 – Valley Greens Drive/Carmel Valley Road (CVMP)	X	X	X	Converting this intersection from two-way stop control to a roundabout would result in acceptable traffic operations during the weekday AM, PM, and Saturday peak hours under cumulative plus project traffic conditions. This improvement is planned and funded through payment of CVTIP impact fees. A traffic signal is an alternative improvement.

Study Intersection/ Road Segments	Unacceptable LOS under Background Conditions	Unacceptable LOS under Background + Project Conditions	Potentially Significant Project Impact	Potential Mitigation Provided in Traffic Study
Segment 2 – SB Highway 1: Ocean Ave to Carmel Valley Rd (Caltrans)	X	X	X	The construction of a second southbound lane on Highway 1 between Ocean Avenue and Carmel Valley Road would result in acceptable traffic operations. However, this improvement is not planned or funded.
Segment 3 – NB & SB SR 1: Carmel Valley Rd to Rio Rd (Caltrans)	X	X	X	TAMC planned improvements at the Highway 1/Rio Road intersection include converting the northbound Highway 1 right-turn lane to a shared through/right-turn lane, and an additional southbound through lane. This would improve traffic operations to an acceptable level.
Segment 4 – NB & SB Highway 1: Rio Road to Ribera Road (Caltrans)	X	X	X	Widening this segment to four lanes would improve operations to an acceptable level. However, this improvement is not planned or funded. It also would not be consistent with California Coastal Act Policy 30254 which states that "it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road."
Segment 6 – EB & WB Carmel Valley Rd: Robinson Canyon Rd to Schulte Rd (CVMP)	X	X	X	Widening this segment to two lanes in each direction would result in acceptable traffic operations. However, this improvement is not planned or funded.
Segment 7 – EB & WB Carmel Valley Rd: Schulte Rd to Rancho San Carlos Rd (CVMP)	X	X	X	Widening this segment to two lanes in each direction would result in acceptable traffic operations. However, this improvement is not planned or funded.
Segment 12 – WB Rio Road: Carmel Rancho Blvd to Highway 1 (CVMP)	X	X	X	The construction of a third eastbound lane on Rio Road between Carmel Rancho Boulevard and Highway 1 would result in acceptable traffic operations. However, this improvement is not planned or funded.

Study Intersection/ Road Segments	Unacceptable LOS under Background Conditions	Unacceptable LOS under Background + Project Conditions	Potentially Significant Project Impact	Potential Mitigation Provided in Traffic Study
Segment 13 – NB & SB Highway 1: Ribera Rd to Highlands Inn (Caltrans)	X	X	X	Widening this segment to four lanes would improve operations to an acceptable level. However, this improvement is not planned or funded. It also would not be consistent with California Coastal Act Policy 30254 which states that "it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road."

Source: KHTE 2017

Mitigation Measures

Based on the impact analysis in the traffic study summarized above, four intersections and seven road segments require mitigation under background plus project conditions. Incorporation of Mitigation Measure T-1 would be required to reduce project impacts on area traffic.

Significance After Mitigation

While the proposed project's impact to Intersection 3 in the northbound direction and Segment 3 would be eliminated with planned improvements in the TAMC RTP and implementation of MM T-1 under background plus project conditions, the construction of these planned improvements is dependent on STIP funding, which is not guaranteed at this time. Participation in funding these improvements – as is required through payment of TAMC impact fees – would partially reduce impacts. However, because complete funding cannot be guaranteed and timing of the planned improvements cannot be assured, impacts would remain significant and unavoidable.

The conversion of Intersection 12 (Valley Greens Drive/Carmel Valley Road) from a two-way stop control to a roundabout is already planned by the County and the project would be required to make a fair share contribution to this improvement through payment of the CVTIP impact fee. This would reduce the project's impact to this intersection to a less than significant level.

Improvements to Intersection 2 (Carmel Rancho Boulevard/Carmel Valley Road), Intersection 8 (Highway 1/Carpenter Street), Intersection 12 (Valley Greens Drive/Carmel Valley Road), Segment 2 (Highway 1: Ocean Avenue to Carmel Valley Road), Segment 4 (Highway 1: Rio Road to Rivera Road), Segment 6 (Carmel Valley Road: Robinson Canyon Road to Schulte Road), Segment 7 (Carmel Valley Road: Schulte Road to Rancho San Carlos Road), Segment 12 (Rio Road: Carmel Rancho Boulevard to Highway 1), and Segment 13 (Highway 1: Ribera Road to Highlands Inn) would be infeasible because there is no available mechanism for the project to fund these improvements as they are not included in the TAMC or Carmel Valley Traffic Improvement Program (CVTIP) project list. Impacts to these road segments would remain significant and unavoidable.

To summarize, project impacts to the following intersections and road segments would remain significant and unavoidable under background plus project conditions:

- Intersection 2 – Carmel Rancho Boulevard/Carmel Valley Road
- Intersection 3 – Highway 1/Rio Road
- Intersection 8 – Highway 1/Carpenter Street
- Segment 2 – Southbound Highway 1: Ocean Ave to Carmel Valley Road
- Segment 3 – Highway 1: Carmel Valley Road to Rio Road
- Segment 4 – Highway 1: Rio Road to Ribera Road
- Segment 6 – Carmel Valley Road: Robinson Canyon Road to Schulte Road),
- Segment 7 – Carmel Valley Road: Schulte Road to Rancho San Carlos Road
- Segment 12 – Rio Road: Carmel Rancho Blvd to Highway 1
- Segment 13 – Highway 1: Ribera Road to Highlands Inn

Threshold 4: Substantially increase hazards due to a design feature or incompatible uses.

Impact T-3 PROJECT ACCESS AND INTERNAL CIRCULATION AS CURRENTLY DESIGNED WOULD POSE POTENTIAL SAFETY HAZARDS TO ON- AND OFF-SITE TRAFFIC AND DELIVERY SERVICE EMPLOYEES. IMPACTS WOULD BE SIGNIFICANT, BUT MITIGABLE.

As described in Section 2.5, Site Access and Parking, the project site would have a primary access point along Rio Road that aligns with Crossroads Boulevard, as well as three secondary access points: one from the main parking lot area of the existing adjacent lodging use/inn, a second from the lodging/inn roundabout area to the north of the main parking lot, and a third at the northern corner of the site that would connect with the existing Barnyard Shopping Village parking lot. The lodging/inn parking lot is accessible from an existing driveway along Rio Road to the west of the site that serves both the Chevron gas station and the Inn. Figure 6 shows the site plan with access points and internal roadways.

Potential hazards associated with the current design of the access points and internal road have been identified:

- The existing left-turn lane on Rio Road at Crossroads Boulevard would have insufficient queuing length to support project traffic turning into the main entrance. The project will add 128 left turns to the existing volume of 71 (199 total) in the weekday PM peak hour and 200 left turns to the existing volume of 84 (284 total) vehicles in the Saturday peak hour. This would result in overflow onto Rio Road.
- The internal roadway running parallel to the north and northwest boundary of the site would provide vehicles with direct access from westbound Rio Road to the Barnyard Shopping Village via the lodging/inn driveway and vice versa. This would accommodate through-traffic, which would potentially result in traffic speeds above levels considered acceptable in a parking lot.
- The two roadways extending from the two lodging/inn access points would intersect, creating a four-way intersection that lacks traffic control. This would pose a potential roadway hazard.
- A loading turnout is proposed on the north side of Rio Road in front of Store B. Delivery trucks would contribute to traffic congestion and delivery truck drivers would be exposed to roadway traffic when exiting the truck and loading and unloading activities would take place partially in Rio Road.

Mitigation Measures

Project access and internal circulation as currently designed would pose potential safety hazards to on and off-site traffic and delivery service employees. The project would incorporate Mitigation Measure T-1, which would address the insufficient queueing length of the eastbound Rio Road left-turn lane. The following Mitigation Measure would address the other potential design hazards identified above.

T-3 Internal Circulation and Project Access Design Improvements

The developer shall incorporate the recommended Mitigation Measures in the traffic study that address the potential impacts to project access and internal circulation. Mitigation would be incorporated into the final site plan and submitted for County review prior to the issuance of building permits.

The following recommended measures shall be incorporated:

a. Install a stop sign on the project exit at the Barnyard parking lot.
b. Install all-way stop control at the four-legged intersection immediately south of the connection to the existing adjacent lodging use.
c. Either relocate the loading facility in front of Store B to the on-site parking lot near Stores A and B, or design the loading facility to the satisfaction of the Monterey County Public Works Department.

MONITORING ACTION

Prior to the issuance of grading or building permits, plans illustrating the location of stop signs, intersection controls, and loading areas for all proposed buildings shall be submitted to RMA-Public Works for review and approval.

Significance After Mitigation

Implementation of Mitigation Measure T-1 and Mitigation Measure T-3 would reduce potentially significant project impacts resulting from design hazards to a less than significant level.

Threshold 4: Result in inadequate emergency access.

Impact T-4 THE PROJECT WOULD PROVIDE SUFFICIENT ACCESS TO EMERGENCY VEHICLES, WOULD BE REQUIRED TO COMPLY WITH LOCAL AND STATE STANDARDS FOR FIRE SAFETY, AND WOULD UNDERGO PLAN REVIEW FOR COMPLIANCE WITH FIRE CODE STANDARDS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Emergency vehicles would be able to access the site from the four access points described above under Impact T-3. The project design would be required to conform with requirements contained in the California Building Code and any local amendments to the Fire Code contained in the County's municipal code that specify adequate emergency access measures. The project site plan would also undergo review by the Cypress Fire Protection District for compliance with the Fire Code and local ordinances (Cypress Fire District 2017). In addition, the project would not require any permanent street closures and is situated next door to the Cypress Fire Protection District Station. Therefore, project impacts to traffic flow would not impede access to the site via off-site roadways by emergency vehicles. Impacts would be less than significant.

Mitigation Measures

This impact would be less than significant. No mitigation is required.

Threshold 5:	Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities.

Impact T-5 THE PROJECT WOULD NOT CONFLICT WITH ADOPTED POLICIES, PLANS, OR PROGRAMS REGARDING PUBLIC TRANSIT, BIKEWAYS, OR PEDESTRIAN FACILITIES. THE PROJECT WOULD HAVE TEMPORARY, SHORT-TERM IMPACTS TO PUBLIC TRANSIT AND PEDESTRIAN FACILITIES DURING PROJECT CONSTRUCTION. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Bike and Pedestrian Facilities

Neither the project, nor any Mitigation Measures included in this document, would impact existing bike facilities or conflict with the County's Bikeway Plan. The project would, however, remove and replace existing sidewalk along the project site's Rio Road frontage. Any loss of sidewalk would be temporary and of short duration. Mitigation Measure T-3 would also remove the existing painted crosswalk that crosses Rio Road at the Chevron gas station. However, a signalized pedestrian cross-walk is provided nearby at Crossroads Boulevard. Therefore, there would be adequate pedestrian crossings providing access to the site.

Transit Facilities

The primary public transit service in the County of Monterey is bus service provided by Monterey-Salinas Transit (MST). Near the project site, MST Route 24 provides bus service along Rio Road, Carmel Rancho Boulevard and Carmel Valley Road between Carmel Valley Village and the Monterey Transit Plaza with 60-minute headways during weekday peak hours. Bus stops within the study area are located on Carmel Rancho Boulevard north and south of Clock Tower Lane and on Rio Road between Carmel Center Place and Via Nona Marie.

The project would relocate an existing bus stop located on the north side of Rio Road immediately west of the Crossroads Boulevard/Rio Road intersection. As the main project access would be constructed in this location, the bus stop and pullout would be relocated approximately 100 feet to the east, approximately mid-way between Crossroads Boulevard and Carmel Center Place. The loss of the bus pullout and shelter structure would be temporary and of short duration. This impact would be less than significant.

Mitigation Measures

Impacts would be less than significant without mitigation.

4.8.4 Cumulative Impacts

a. Traffic

Cumulative Plus Project Intersection Operations

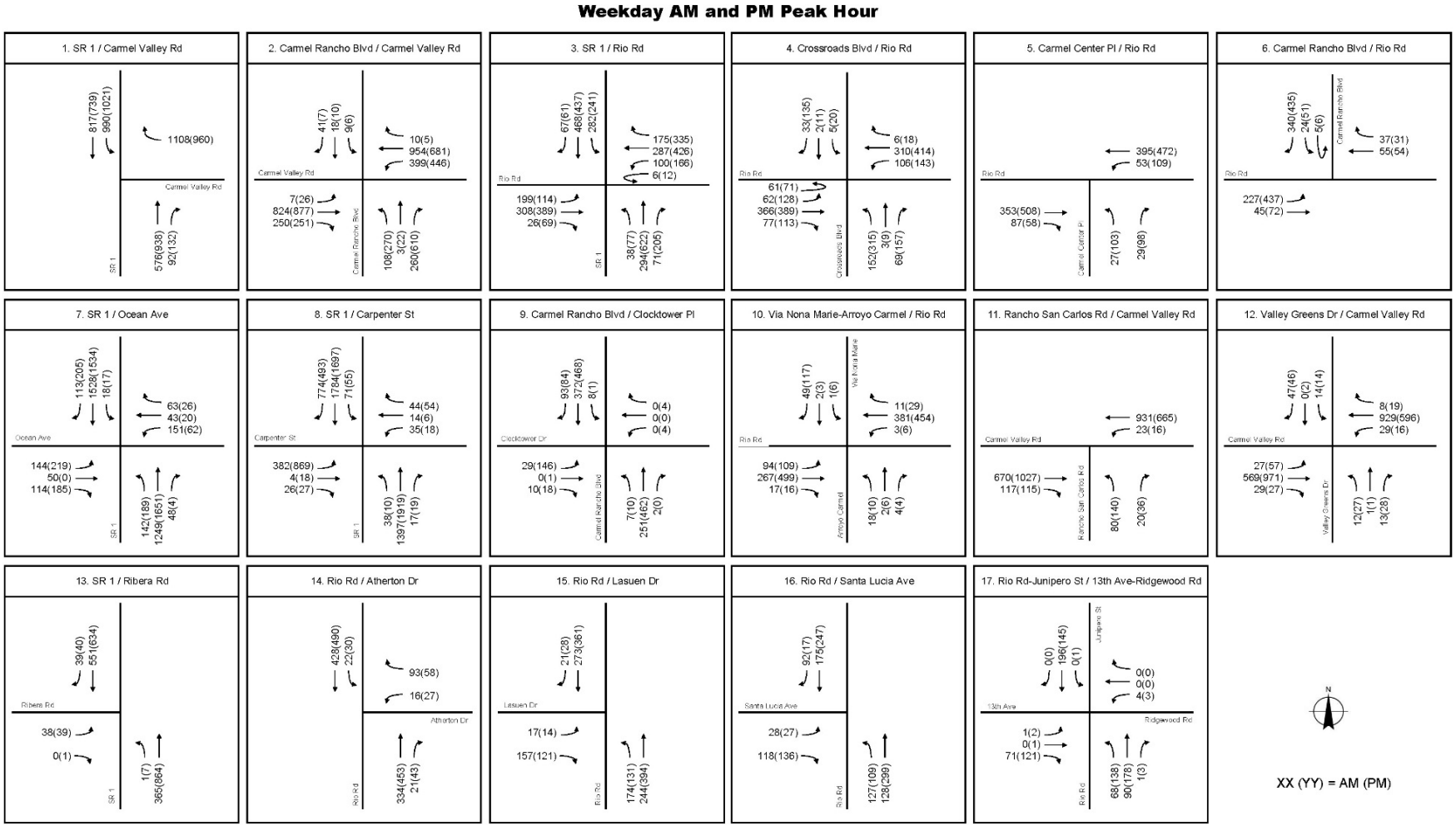
The trips generated by the project were combined with the cumulative volumes to obtain cumulative plus project conditions traffic volumes. Cumulative plus project weekday AM, PM, and

Saturday peak hour traffic volumes are shown in Figure 40 and Figure 41, respectively. Intersection LOS are summarized in Table 47.

Based on the LOS standards described in Section 4.17.2(b) (Methodology and Significance Thresholds), all the study intersections are projected to operate at acceptable LOS under cumulative plus project conditions with the following exceptions:

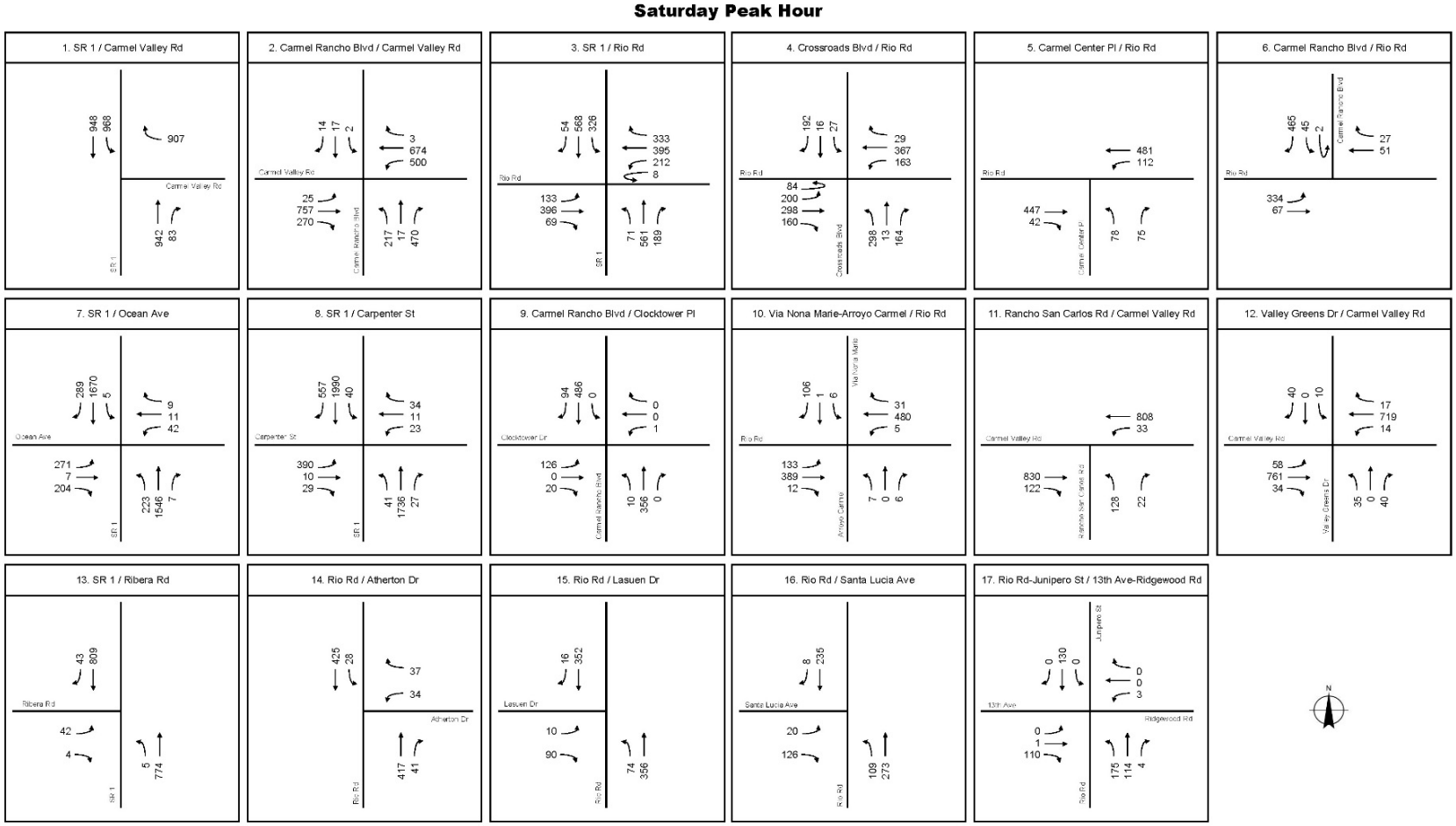
- Intersection 2 – Carmel Rancho Boulevard/Carmel Valley Road
- Intersection 3 – Highway 1/Rio Road
- Intersection 7 – Highway 1/Ocean Avenue
- Intersection 8 – Highway 1/Carpenter Street
- Intersection 12 – Valley Greens Drive/Carmel Valley Road
- Intersection 13 – Highway 1/Ribera Road

Figure 40 Cumulative Plus Project Weekday AM and PM Peak Hour Volumes



Source: KHTE 2017

Figure 41 Cumulative Plus Project Saturday Peak Hour Volumes



Source: KHTE 2017

Table 47 Cumulative Plus Project Intersection LOS

Intersection		Control Type	Jurisdiction	LOS Standard[1]	AM Peak Hour Delay (sec)	AM Peak Hour LOS	PM Peak Hour Delay (sec)	PM Peak Hour LOS	Saturday Peak Hour Delay (sec)	Saturday Peak Hour LOS
1	Highway 1/Carmel Valley Road	Signal	Caltrans	C/D	17.1	B	27.2	C	22.7	C
2	Carmel Rancho Blvd/Carmel Valley Road	Signal	Monterey County	C	31.3	C	41.6	**D**	25.6	C
	With eastbound right turn only				30.3	C	39.8	**D**	23.9	C
3	Highway 1/ Rio Road	Signal	Caltrans	C/D	46.0	**D**	76.9	**E**	88.2	**F**
	With RTP improvements and 2nd westbound left lane				28.3	C	36.6	**D**	40.0	**D**
4	Crossroads Blvd/Rio Road	Signal	Monterey County	C	14.4	B	21.5	C	25.4	C
5	Carmel Center Place/Rio Road	Signal	Monterey County	C	5.6	A	10.4	B	11.9	B
6	Carmel Rancho Blvd/Rio Road	Two-Way Stop	Monterey County	C or E	13.5	B	25.4	D	21.6	C
7	Highway 1/Ocean Ave	Signal	Caltrans	C/D	42.8	D	35.6	**D**	45.7	**D**
8	Highway 1/Carpenter St	Signal	Caltrans	C/D	25.6	C	50.8	**D**	26.4	C
	With 3rd northbound through lane				24.2	C	34.6	C	23.9	C
9	Carmel Rancho Blvd/Clocktower Place	Two-Way Stop	Monterey County	E	16.0	C	44.7	E	34.3	D
10	Via Nona Marie/Rio Road	Two-Way Stop	Monterey County	E	19.1	C	31.1	D	21.4	C
11	Rancho San Carlos Boulevard/Carmel Valley Road	Signal	Monterey County	C	9.2	A	13.3	B	10.3	B
12	Valley Greens Drive/Carmel Valley Road	Two-Way Stop	Monterey County	C or E	59.5	F	126.2	**F**	77.0	**F**
	With roundabout				8.3	A	9.1	A	7.9	A

Intersection		Control Type	Jurisdiction	LOS Standard[1]	AM Peak Hour		PM Peak Hour		Saturday Peak Hour	
					Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
13	Highway 1/Ribera Road	One-Way Stop	Caltrans	E	21.8	C	51.0	**F**	59.6	**F**
14	Rio Road/Atherton Drive	One-Way Stop	Monterey County and City of Carmel	E	15.7	C	17.2	C	16.6	C
15	Rio Road/Lasuen Drive	One-Way Stop	City of Carmel	E	17.7	C	14.6	B	12.9	B
16	Rio Road/Santa Lucia Avenue	One-Way Stop	City of Carmel	E	13.3	B	13.3	B	12.7	B
17	Rio Road-Junipero Street/13th Avenue-Ridgewood Road	All-Way Stop	City of Carmel	C	9.0	A	9.9	A	9.8	A

Notes:

1. Intersections 2, 4, 5, 6, 9, 10, 11, and 12 fall within the CVMP and are subject to CVMP LOS standards.

2. LOS given in bold with a grey background indicates an exceedance of the applicable LOS standard.

Source: KHTE 2017

Cumulative Plus Project Road Segment Operations

Cumulative plus project conditions road segment LOS are summarized in Table 48.

Except for segments 6 and 7, the ADT on the roadways included in the CVMP are projected to be below the CVMP ADT thresholds under cumulative plus project conditions. Based on the LOS standards described in Section 4.17.2(b) (Methodology and Significance Thresholds), the following study road segments are projected to operate at unacceptable LOS during the weekday AM, PM, and/or Saturday peak hours:

- Segment 2 – SB Highway 1: Ocean Ave to Carmel Valley Road
- Segment 3 – NB & SB Highway 1: Carmel Valley Road to Rio Road
- Segment 4 – NB & SB Highway 1: Rio Road to Ribera Road
- Segment 6 – EB & WB Carmel Valley Road: Robinson Canyon Road to Schulte Road
- Segment 7 – EB & WB Carmel Valley Road: Schulte Road to Rancho San Carlos Road
- Segment 12 – EB & WB Rio Road: Carmel Rancho Blvd to Highway 1
- Segment 13 – NB & SB Highway 1: Ribera Road to Highlands Inn

Table 48 Cumulative Plus Project Road Segment LOS

Segment		From	To	CVMP ADT Threshold	ADT	Direction	AM Peak Hour LOS	PM Peak Hour LOS	Saturday Peak Hour LOS
1	Highway 1	Carpenter St	Ocean Ave	N/A	N/A	NB	C	C	C
						SB	C	C	C
2	Highway 1	Ocean Ave	Carmel Valley Road	N/A	N/A	NB	C	C	C
						SB	**F**	**F**	**F**
3	Highway 1	Carmel Valley Road	Rio Road	N/A	N/A	NB	**D**	**E**	**E**
						SB	**D**	**D**	**E**
4	Highway 1	Rio Road	Ribera Road	N/A	N/A	NB	C	**E**	**E**
						SB	**D**	**D**	**D**
5	Rio Road	13th Ave	Highway 1	N/A	N/A	EB	B	B	B
						WB	B	B	B
6	Carmel Valley Road	Robinson Canyon Road	Schulte Road	15,499	**17,496**	EB	C	**E**	**E**
						WB	**E**	**D**	**D**
7	Carmel Valley Road	Schulte Road	Rancho San Carlos Road	16,340	**19,439**	EB	**D**	**E**	**E**
						WB	**E**	**E**	**E**
8	Carmel Valley Road	Rancho San Carlos Road	Rio Road	48,487	22,497	EB	A	B	**A**
						WB	A	A	A
9	Carmel Valley Road	Rio Road	Carmel Rancho Blvd	51,401	29,111	EB	B	B	B
						WB	C	B	B
10	Carmel Valley Road	Carmel Rancho Blvd	Highway 1	27,839	25,504	EB	B	B	A
						WB	B	A	A
11	Carmel Rancho Blvd	Carmel Valley Road	Rio Road	33,495	12,510	NB	A	A	A
						SB	A	B	B
12	Rio Road	Carmel Rancho Blvd	Highway 1	33,928	14,960	NB	C	**D**	C
						SB	**D**	**D**	**D**
13	Highway 1	Ribera Road	Highlands Inn	N/A	N/A	NB	C	**E**	**D**
						SB	**D**	**D**	**D**

Segment		From	To	CVMP ADT Threshold	ADT	Direction	AM Peak Hour LOS	PM Peak Hour LOS	Saturday Peak Hour LOS
14	Crossroads Blvd	Rio Road	Terminus	N/A	N/A	NB	B	B	**B**
						SB	B	B	B
15	Carmel Center Place	Rio Road	Terminus	N/A	N/A	NB	A	A	A
						SB	A	A	A

Notes: Entries given in bold with a grey background indicates an exceedance of the applicable LOS standard or CVMP ADT threshold.
Source: KHTE 2017

Project Impacts

The project would have a potentially significant impact to the following study intersections:

- **Intersection 2 – Carmel Rancho Boulevard/Carmel Valley Road (Caltrans).** Under cumulative traffic conditions, this intersection is projected to operate at LOS C during the peak hours. Under cumulative plus project conditions, it would operate at LOS C during the AM and Saturday peak hours and LOS D during the PM peak hour. Based on Caltrans impact criteria, the project would have a potentially significant impact to this intersection during the weekday PM peak hour.
- **Intersection 3 – Highway 1/Rio Road (Caltrans).** Under cumulative traffic conditions, this intersection is projected to operate at LOS D during the AM peak hour and LOS E during the PM and Saturday peak hours. Under cumulative plus project conditions, it would operate at LOS D during the AM peak hour, LOS E during the PM peak hour, and LOS F during the Saturday peak hour. This intersection is under Caltrans jurisdiction. Based on Caltrans impact criteria, the project would have a potentially significant impact to this intersection during the weekday AM, PM, and Saturday peak hours.
- **Intersection 7 – Highway 1/Ocean Avenue (Caltrans).** Under cumulative traffic conditions, this intersection is projected to operate at LOS D during the AM and Saturday peak hours. Under cumulative plus project conditions, it would continue to operate at LOS D during the AM, PM, and Saturday peak hours, but with increased delay in the PM and Saturday peak hours. Based on Caltrans impact criteria, the project would have a potentially significant impact to this intersection during the weekday PM and Saturday peak hours.
- **Intersection 8 – Highway 1/Carpenter Street (Caltrans).** Under cumulative traffic conditions, this intersection is projected to operate at LOS C during the AM and Saturday peak hours and LOS D during the PM peak hour. Under cumulative plus project conditions, it would continue to operate at LOS C during the AM and Saturday peak hours and LOS D during the PM peak hour, but with an increase in delay during the PM peak hour. Based on Caltrans impact criteria, the project would have a potentially significant impact to this intersection during the weekday PM peak hour.
- **Intersection 12 – Valley Greens Drive/Carmel Valley Road (CVMP).** Under cumulative traffic conditions, this intersection is projected to operate at LOS F during the AM, PM, and Saturday peak hours. Under cumulative plus project conditions, it would continue to operate at LOS F during the AM, PM, and Saturday peak hours. Based on CVMP impact criteria, the project would

have a potentially significant impact to this intersection during the weekday AM, PM, and Saturday peak hours.

- **Intersection 13 – Highway 1/Ribera Road (Caltrans).** Under cumulative traffic conditions, the worst approach of this intersection is projected to operate at an acceptable LOS C and an unacceptable LOS E during the AM and PM peak hours, respectively, and an unacceptable LOS F during the Saturday peak hour. Under cumulative plus project conditions, it would continue to operate at LOS C during the AM and would operate at an unacceptable LOS F during the PM and Saturday peak hours and the project would increase delay during all peak hours. Based on Caltrans impact criteria, the project would have a potentially significant impact to this intersection during the weekday PM and Saturday peak hours.

The project would have a potentially significant impact to the following study intersections:

- **Segment 2 – Southbound Highway 1 between Ocean Ave and Carmel Valley Road (Caltrans).** Under cumulative traffic conditions, this segment is projected to operate at LOS F in the southbound direction during the peak hours. Under cumulative plus project conditions, it would continue to operate at LOS F, but with an increased PTSF measure of effectiveness. Based on Caltrans impact criteria, the project would have a potentially significant impact to this segment in the southbound direction during the weekday AM, PM, and Saturday peak hours.
- **Segment 3 – Highway 1 between Carmel Valley Road and Rio Road (Caltrans).** Under cumulative conditions, this segment is projected to operate at LOS D and E in the northbound and southbound directions during the peak hours. Under cumulative plus project conditions, it would continue to operate at LOS D and E, but with an increased PTSF measure of effectiveness. Based on Caltrans impact criteria, the project would have a potentially significant impact to this segment during all peak hours.
- **Segment 4 – Highway 1 between Rio Road and Ribera Road (Caltrans).** Under cumulative traffic conditions, this segment is projected to operate at LOS D or E in the northbound and southbound directions during the peak hours. Under cumulative plus project conditions, it would degrade from LOS D to LOS E in the northbound direction during the Saturday peak hour. The project would also increase the PTSF measure of effectiveness in the PM and Saturday peak hours. Based on Caltrans impact criteria, the project would have a potentially significant impact to this segment.
- **Segment 6 – Carmel Valley Road between Robinson Canyon Road and Schulte Road (CVMP).** Under cumulative traffic conditions, the ADT volumes on this segment are projected to exceed the CVMP ADT threshold, and it would operate at LOS D and E in the eastbound and westbound directions during the peak hours. Under cumulative plus project conditions, it would continue to exceed the ADT threshold and would operate at LOS D and E during the peak hours. Based on CVMP impact criteria, the project would have a potentially significant impact to this segment on an ADT basis.
- **Segment 7 – Carmel Valley Road between Schulte Road and Rancho San Carlos Road (CVMP).** Under cumulative traffic conditions, the ADT volumes on this segment are projected to exceed the CVMP ADT threshold, and it would operate at LOS D and E in the eastbound and westbound directions during the peak hours. Under cumulative plus project conditions, it would degrade from LOS D to LOS E in the westbound direction during the PM peak hour and would continue to exceed the ADT threshold. Based on CVMP impact criteria, the project would have a potentially significant impact to this segment on an ADT basis and in the westbound direction during the PM peak hour.

- **Segment 12 – Rio Road between Carmel Rancho Blvd and Highway 1 (CVMP).** Under cumulative traffic conditions, this segment is projected to operate at LOS D in the westbound direction during the peak hours. Under cumulative plus project conditions, it would continue to operate at LOS D in the westbound direction. This segment would degrade from LOS C to LOS D in the eastbound direction during the weekday PM peak hour. Based on CVMP impact criteria, the project would have a potentially significant impact to this segment in the eastbound direction during the weekday PM peak hour.
- **Segment 13 – Highway 1 between Ribera Road and Highlands Inn (Caltrans).** Under cumulative traffic conditions, this segment is projected to operate at LOS D and E in the northbound and southbound directions during the peak hours. Under cumulative plus project conditions, it would continue to operate at LOS D and E, with an increased PTSF measure of effectiveness. Based on Caltrans impact criteria, the project would have a potentially significant impact to this segment during all peak hours.

Cumulative Plus Project Conditions Summary

Table 49 summarizes the project's traffic impacts relative to cumulative conditions and potential Mitigation Measures provided in the traffic study to address impacted roadways. As indicated in the table, all roadways that would operate at unacceptable levels with the project already operate at unacceptable levels under cumulative conditions except for Intersection 2. A total of six intersections and seven road segments would be degraded to a potentially significant degree by the project. Compared to existing plus project conditions, cumulative plus project conditions would additionally impact Intersections 2, 7, 12, and 13, and Segment 4; compared to background plus project conditions, cumulative plus project conditions would additionally impact Intersections 7 and 13.

Table 49 Cumulative Conditions: Project Impacts to Degraded Roadways and Potential Mitigation

Study Intersection/ Road Segments	Unacceptable LOS under Cumulative Conditions	Unacceptable LOS under Cumulative + Project Conditions	Potentially Significant Project Impact	Potential Mitigation Provided in Traffic Study
Intersection 2 – Carmel Rancho Boulevard/Carmel Valley Road		X	X	The addition of an eastbound right-turn overlap phase would reduce delay at this intersection, but it would still operate at a deficient LOS D during the PM peak hour under cumulative plus project traffic conditions.
Intersection 3 – Highway 1/Rio Road (Caltrans)	X	X	X	TAMC planned improvements at the Highway 1/Rio Road intersection include converting the northbound Highway 1 right-turn lane to a shared through/right-turn lane, and an additional southbound through lane. With these improvements, in addition to a second westbound left-turn lane (MM T-1), the intersection would still operate at a deficient LOS D during the PM and Saturday peak hours, but would

Study Intersection/ Road Segments	Unacceptable LOS under Cumulative Conditions	Unacceptable LOS under Cumulative + Project Conditions	Potentially Significant Project Impact	Potential Mitigation Provided in Traffic Study
				have less delay than under existing conditions.
Intersection 7 – Highway 1/Ocean Avenue	X	X	X	There are no planned or funded improvements at this intersection.
Intersection 8 – Highway 1/ Carpenter Street (Caltrans)	X	X	X	With the addition of a third northbound through lane, this intersection would operate at an acceptable LOS C during the weekday AM, PM, and Saturday peak hours under cumulative plus project traffic conditions. This improvement is not planned or funded.
Intersection 12 – Valley Greens Drive/Carmel Valley Road (CVMP)	X	X	X	Converting this intersection from two-way stop control to a roundabout would result in acceptable traffic operations during the weekday AM, PM, and Saturday peak hours under cumulative plus project traffic conditions. This improvement is planned and funded through payment of CVTIP impact fees. A traffic signal is an alternative improvement.
Intersection 13 – Highway 1/Ribera Road	X	X	X	There are no planned or funded improvements at this intersection.
Segment 2 – SB Highway 1: Ocean Ave to Carmel Valley Rd (Caltrans)	X	X	X	The construction of a second southbound lane on SR 1 between Ocean Avenue and Carmel Valley Road would result in acceptable traffic operations. However, this improvement is not planned or funded.
Segment 3 – NB & SB SR 1: Carmel Valley Rd to Rio Rd (Caltrans)	X	X	X	TAMC planned improvements at the Highway 1/Rio Road intersection include converting the northbound Highway 1 right-turn lane to a shared through/right-turn lane, and an additional southbound through lane. This would improve traffic operations to an acceptable level.
Segment 4 – NB & SB Highway 1: Rio Road to Ribera Road (Caltrans)	X	X	X	Widening this segment to four lanes would improve operations to an acceptable level. However, this improvement is not planned or funded. It also would not be consistent with California Coastal

Study Intersection/ Road Segments	Unacceptable LOS under Cumulative Conditions	Unacceptable LOS under Cumulative + Project Conditions	Potentially Significant Project Impact	Potential Mitigation Provided in Traffic Study
				Act Policy 30254 which states that "it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road."
Segment 6 – EB & WB Carmel Valley Rd: Robinson Canyon Rd to Schulte Rd (CVMP)	X	X	X	Widening this segment to two lanes in each direction would result in acceptable traffic operations. However, this improvement is not planned or funded.
Segment 7 – EB & WB Carmel Valley Rd: Schulte Rd to Rancho San Carlos Rd (CVMP)	X	X	X	Widening this segment to two lanes in each direction would result in acceptable traffic operations. However, this improvement is not planned or funded.
Segment 12 – WB Rio Road: Carmel Rancho Blvd to Highway 1 (CVMP)	X	X	X	The construction of a third eastbound lane on Rio Road between Carmel Rancho Boulevard and Highway 1 would result in acceptable traffic operations. However, this improvement is not planned or funded.
Segment 13 – NB & SB Highway 1: Ribera Rd to Highlands Inn	X	X	X	Widening this segment to four lanes would improve operations to an acceptable level. However, this improvement is not planned or funded. It also would not be consistent with California Coastal Act Policy 30254 which states that "it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road."

Source: KHTE 2017

Mitigation Measures

Based on the impact analysis in the traffic study summarized above, four intersections and seven road segments require mitigation under cumulative plus project conditions. Incorporation of Mitigation Measure T-1 would be required to reduce project impacts on area traffic.

Significance After Mitigation

While the proposed project's impact to Intersection 3 in the northbound direction and Segment 3 would be eliminated with planned improvements in the TAMC RTP and implementation of Mitigation Measure T-1 under conditional plus project conditions, the construction of these planned improvements is dependent on STIP funding, which is not guaranteed at this time. Participation in funding these improvements – as is required through payment of TAMC impact fees – would

partially reduce impacts. However, because complete funding cannot be guaranteed and timing of the planned improvements cannot be assured, impacts would remain significant and unavoidable.

The conversion of Intersection 12 (Valley Greens Drive/Carmel Valley Road) from a two-way stop control to a roundabout is already planned by the County and the project would be required to make a fair share contribution to this improvement through payment of the CVTIP impact fee. This would reduce the project's impact to this intersection to a less than significant level. Improvements to the remaining intersections and road segments would be infeasible because there is no available mechanism for the project to fund these improvements. Impacts to these road segments would remain significant and unavoidable.

To summarize, project impacts to the following intersections and road segments would remain significant and unavoidable under cumulative plus project conditions:

- Intersection 2 – Carmel Rancho Boulevard/Carmel Valley Road
- Intersection 3 – Highway 1/Rio Road
- Intersection 7 – Highway 1/Ocean Avenue
- Intersection 8 – Highway 1/Carpenter Street
- Intersection 13 – Highway 1/Ribera Road
- Segment 2 – Southbound Highway 1: Ocean Ave to Carmel Valley Road
- Segment 3 – Highway 1: Carmel Valley Road to Rio Road
- Segment 4 – Highway 1: Rio Road to Ribera Road
- Segment 6 – Carmel Valley Road: Robinson Canyon Road to Schulte Road),
- Segment 7 – Carmel Valley Road: Schulte Road to Rancho San Carlos Road
- Segment 12 – Rio Road: Carmel Rancho Blvd to Highway 1
- Segment 13 – Highway 1: Ribera Road to Highlands Inn

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