City/County Association of Governments of San Mateo County

2025 CMP Monitoring Report

San Mateo County, California

Final Report

November 19, 2025

Table of Contents

TABLES

FIGURES

EXECUTIVE SUMMARY

US-101 during peak hour conditions

San Mateo County maintains a Congestion Management Program (CMP) through the City/County Association of Governments of San Mateo County (C/CAG), the designated Congestion Management Agency (CMA), as required by the California Government Code 65089. C/CAG is also required to monitor the implementation of all elements of the CMP and prepare a monitoring report every other year. This report fulfils the biennial monitoring task as required by the State.

This 2025 CMP Monitoring Report provides an insight into the performance of various freeways, multilane highways, two-lane highways, arterials and intersections throughout the County, and assists with key decisions on future investment of transportation dollars.

CMP and Companion Monitoring Network

C/CAG established the CMP Network in 1991 that included all state highways and principal arterials in the County. In total, the 464.7 directional miles of the CMP network includes 301.4 miles of arterials/highways and 163.3 miles of freeways. The CMP network also includes 16 arterial intersections. Each CMP segment and intersection has an adopted LOS standard, discussed further in Chapter 1. This CMP monitoring effort also includes the Companion Monitoring Network (Companion Network), which grew out of a desire to see additional locations monitored besides the CMP network. There are a total of 10 roadway segments and 38 intersections in this network. This network is not subject to the standards and are monitored for information only.

Data Collection and Congestion Analysis

The biennial monitoring task requires extensive data collection for all established CMP and Companion Network segments and intersections included in the network. With changing needs and technological advancements, the data collection methodology has evolved over the last three decades since the first CMP was adopted.

In order to collect accurate and useful data that is consistent with prior monitoring efforts, certain data collection methods were followed. The data was collected during April, May, and August 2025 only on normal commute travel days (i.e. Tuesdays, Wednesday, and Thursdays), while non-school days and days with any special events or incidents were eliminated. Available commercial speed data, 72-hour traffic counts, turning movement counts, and floating car surveys were utilized for the analysis. The commercial speed data was analyzed to obtain average speeds for

each freeway segment and convert to LOS using Highway Capacity Manual (HCM) 1994 methodologies. Arterials and highways were monitored using 72-hour traffic counts and turning movement counts which were used to calculate a volume/capacity (V/C) ratio and assign the LOS based on HCM 1994 procedures. Intersections were modeled in Synchro using either HCM 2000 or 7th Edition methodology. Further discussion on data collection efforts is included in Chapter 2.

Monitoring Results

A total of 53 roadway segments and 16 intersections were monitored in this report during the AM and PM peak periods. The worst case direction was chosen as the official LOS, and a summary of these monitoring results are provided in **Table 1.**

Table 1: 2025 CMP Network Monitoring Results

Roadway Type	# of CMP Segments	Before Interregional Exemption		After Interregional Exemption	
		LOS Standard Met	LOS Standard Not Met	LOS Standard Met	LOS Standard Not Met
Arterials	27	27	0	27	0
Multilane Highways	1	0	1	1	0
Two-Lane Highways	9	8	1	9	0
Freeways	16	6	10	16	0
Intersections	16	16	0	16	0
TOTAL	**69**	**57**	**12**	**69**	**0**

In the 2025 Monitoring Cycle, one multi-lane highway segment, one two-lane highway segment, and ten freeway segments falls below the LOS standard prior to the interregional exemption. During the 2023 monitoring cycle, all two-lane highway segments met the LOS standards. In 2025, traffic volumes showed a slight increase for the two-lane highway (SR-35, between I-280 and SR-92) compared to the 2023 cycle. However, all roadway segments met the LOS standard after interregional exemptions.

Multi-Modal Performance Measures

C/CAG monitors four multi-modal performance measures: LOS, multi-modal travel times, bicycle and pedestrian counts, and transit ridership/person throughput. LOS results are provided in Chapter 3. Multi-modal travel times along the US-101 corridor are reported with each biannual CMP monitoring effort. Travel times are measured from San Mateo County/Santa Clara County line to Grand Avenue/End of Express Lanes and to San Francisco County line/San Mateo County line on US-101 for four modes: single occupancy vehicle, express lanes, Caltrain, and SamTrans. Travel times for northbound vehicles in the express lanes on US-101 improved by approximately 10% compared to the 2023 CMP. Single occupant travel times slightly increased compared to 2023, but less than 2019 travel times. Caltrain travel times decreased slightly from 2023, while SamTrans travel times increased.

Bicycle/pedestrian planning efforts and counts with historical comparisons are summarized in this section, as is transit ridership for SamTrans, BART, and Caltrain. Overall, all three agencies have seen ridership increase since the pandemic decline as measured in FY 23. However, the increase is still significantly short of the ridership volume measured pre-pandemic in FY 19. This indicates that transit ridership is slowly recovering and still has more growth to return to pre-pandemic levels.

CHAPTER 1: INTRODUCTION

C/CAG has an established CMP to monitor the transportation network within the county. All roadways included in the CMP network are evaluated for conformity at least every two years by the agency, which is the designated CMA for San Mateo County. The goal of the monitoring program is to improve the performance of the transportation system by identifying congested areas and related transportation deficiencies. This information is then used to help prioritize transportation funding decisions in light of system performance, land use factors, multimodal characteristics, and other considerations.

CMP Intersection SR-82 at Whipple Avenue in Redwood City

Biennial monitoring provides an opportunity to monitor established LOS standards for the arterial, highway, and freeway segments, and identify appropriate strategies to employ when a segment fails to meet the established LOS standards. While the CMP is very critical to San Mateo County's transportation vision, it also supports the broader transportation goals of the Regional Transportation Plan (RTP) developed by the Metropolitan Transportation Commission (MTC), the San Francisco Bay Area's regional transportation planning agency. The San Mateo CMP roadway system is consistent with the RTP, as well as the CMPs of adjoining San Francisco, Alameda, and Santa Clara counties.

1.1: Designated CMP Network

Per state statute, all state highways are included in the CMP network. The current San Mateo County CMP network includes approximately 464.7 directional miles of freeways and arterials, as well as 16 highway and arterial intersections. The 53 roadway segments and 16 intersections are summarized below in **Tables 2** and **3**, and mapped in **Figure 1**.

Table 2: CMP Network Segments

Route	From	To	Facility Type
SR-1	San Francisco County Line	Linda Mar Boulevard	Multi-Lane Highway
SR-1	Linda Mar Boulevard	Frenchmans Creek Rd	Two-Lane Highway
SR-1	Frenchmans Creek Road	Miramontes Road	Two-Lane Highway
SR-1	Miramontes Rd	Santa Cruz County Line	Two-Lane Highway
SR-35	San Francisco County Line	Sneath Lane	Arterial
SR-35	Sneath Lane	I-280	Arterial
SR-35	I-280	SR-92	Two-Lane Highway
SR-35	SR-92	SR-84	Two-Lane Highway
SR-35	SR-84	Santa Clara County Line	Two-Lane Highway
SR-82	San Francisco County Line	John Daly Boulevard	Arterial
SR-82	John Daly Boulevard	Hickey Boulevard	Arterial
SR-82	Hickey Boulevard	I-380	Arterial
SR-82	I-380	Trousdale Drive	Arterial
SR-82	Trousdale Drive	3rd Avenue	Arterial
SR-82	3rd Ave	SR-92	Arterial
SR-82	SR-92	Hillsdale Avenue	Arterial
SR-82	Hillsdale Avenue	42nd Avenue	Arterial
SR-82	42nd Avenue	Holly Street	Arterial
SR-82	Holly Street	Whipple Avenue	Arterial
SR-82	Whipple Ave	SR-84	Arterial
SR-82	SR-84	Glenwood Avenue	Arterial
SR-82	Glenwood Avenue	Santa Cruz Avenue	Arterial
SR-82	Santa Cruz Avenue	Santa Clara County Line	Arterial
SR-84	SR-1	Portola Road	Two-Lane Highway
SR-84	Portola Road	I-280	Two-Lane Highway
SR-84	I-280	Alameda de las Pulgas	Arterial
SR-84	Alameda de las Pulgas	US-101	Arterial
SR-84	US-101	Willow Road	Arterial
SR-84	Willow Road	University Avenue	Arterial
SR-84	University Avenue	Alameda County Line	Arterial
SR-92	SR-1	I-280	Two-Lane Highway
SR-92	I-280	US-101	Freeway
SR-92	US-101	Alameda County Line	Freeway
US-101	San Francisco County Line	I-380	Freeway
US-101	I-380	Millbrae Avenue	Freeway
US-101	Millbrae Avenue	Broadway	Freeway
US-101	Broadway	Peninsula Avenue	Freeway

Route	From	To	Facility Type
US-101	Peninsula Avenue	SR-92	Freeway
US-101	SR-92	Whipple Avenue	Freeway
US-101	Whipple Avenue	Santa Clara County Line	Freeway
SR-109	Kavanaugh Drive	SR-84	Arterial
SR-114	US-101	SR-84	Arterial
I-280	San Francisco County Line	SR-1 (North)	Freeway
I-280	SR-1 (North)	SR-1 (South)	Freeway
I-280	SR-1 (South)	San Bruno Avenue	Freeway
I-280	San Bruno Avenue	SR-92	Freeway
I-280	SR-92	SR-84	Freeway
I-280	SR-84	Santa Clara County Line	Freeway
I-380	I-280	US-101	Freeway
I-380	US-101	Airport Access Road	Arterial
Mission St	San Francisco County Line	SR-82	Arterial
Geneva Ave	San Francisco County Line	Bayshore Boulevard	Arterial
Bayshore Blvd	San Francisco County Line	Geneva Avenue	Arterial

Table 3: CMP Network Intersections

ID	Jurisdiction	Intersection
1	Daly City/Brisbane	Bayshore Boulevard/Geneva Avenue
2	Daly City	SR-35/John Daly Boulevard
3	Daly City	SR-82/Hillside Boulevard /John Daly Boulevard
4	San Bruno	SR-82/San Bruno Avenue
5	Millbrae	SR-82/Millbrae Avenue
6	Burlingame	SR-82/Broadway
7	Burlingame/San Mateo	SR-82/Peninsula Avenue/Park Road
8	Belmont	SR-82/Ralston Avenue
9	San Carlos	SR-82/Holly Street
10	Redwood City	SR-82/Whipple Avenue
11	Menlo Park	University Avenue/SR-84
12	Menlo Park	Willow Road/SR-84
13	Menlo Park	Marsh Road/SR-84
14	Redwood City	Middlefield Road/SR-84
15	Half Moon Bay	SR-1/SR-92
16	Half Moon Bay	SR-92/Main Street

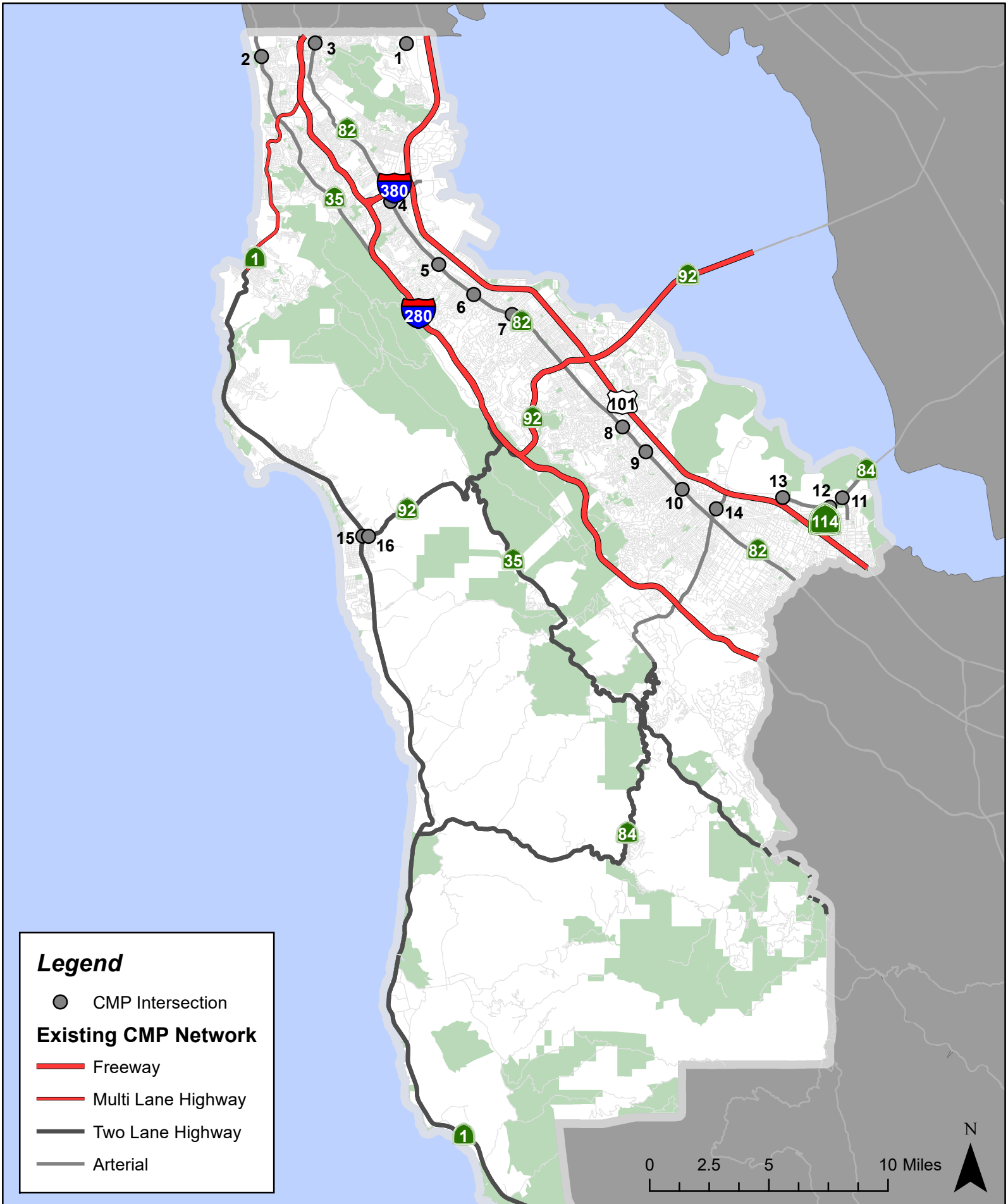


FIGURE 1

EXISTING CMP NETWORK

TJKM

C/CAG City/County Association of Governments of San Mateo County

1.2: Companion Network

The 2025 CMP Update continues with the monitoring of the Companion Network which was first developed in the 2021 CMP and has been tracked in subsequent updates.

As part of the 2025 CMP, C/CAG staff included 21 additional intersections identified as priority locations in the Countywide Local Roadway Safety Plan. These intersections are listed with Companion Network ID's, numbered 1 through 38, in the 2025 CMP update.

John Daly Boulevard in Daly City looking west from SR-82; one of the Companion Network segments

The purpose of this network is to monitor congestion in other areas of the county that may not be on the CMP network, such as local arterial roadways. The Companion Network includes roadway segments other than freeways and state routes (as these are already in the CMP network), however, intersections with state routes as the major street may be included as part of the Companion Network so long as they are not an existing CMP intersection. These locations are monitored for informational purposes.

The criteria used to select the Companion Network focused on C/CAG Local Roadway Safety Plan, and local agency safety plan.

The Companion Network is detailed in **Tables 4** and **5**, and mapped in **Figure 2**.

Table 4: CMP Companion Network Intersections

ID	Jurisdiction	Intersection
1	San Mateo	SR 82 / 3rd Avenue
2	Unincorporated San Mateo County	Skyline Boulevard (SR-35) / SR-92
3	San Carlos	Holly Street / Industrial Road
4	Redwood City	Whipple Avenue / Veterans Boulevard
5	Atherton	Middlefield Road / Marsh Road
6	Menlo Park	Sand Hill Road / Santa Cruz Avenue
7	East Palo Alto	Bay Road / University Avenue
8	Woodside/Redwood City	SR 84 / Alameda de las Pulgas
9	Portola Valley	Alpine Road / Portola Road
10	Unincorporated San Mateo County	SR 35 / SR 92
11	Colma	El Camino Real / Mission Road
12	Half Moon Bay	CA-1 / Main Street
13	South San Francisco	El Camino Real / Westborough Boulevard
14	Unincorporated San Mateo County (El Granada/Coastside)	SR 1 / Capistrano Boulevard
15	Unincorporated San Mateo County (SFO Airport)	S. Airport Boulevard / San Bruno Avenue
16	Pacifica	SR 1 / Reina del Mar Avenue
17	Unincorporated San Mateo County (Moss Beach/Coastside)	SR 1 / Cypress Avenue
18	Atherton	El Camino Real /Selby Lane
19	Belmont	Davis Drive /Ralston Avenue
20	Brisbane	Bayshore Boulevard / San Bruno Avenue
21	Colma	Serramonte Boulevard / NB Hwy 280 on-ramp
22	East Palo Alto	University Avenue / Weeks Street
23	Foster City	Chess Drive / Foster City Boulevard
24	Half Moon Bay	Highway 1 / Poplar Street
25	Hillsborough	Skyline / Skyfarm
26	San Carlos	Brittan Avenue / Cordilleras Avenue
27	Woodside	Woodside Road / Lindenbrook Road
28	Daly City	Mission Street /E. Market Street/San Pedro Road
29	Menlo Park	Willow Road/ O'Brien Drive
30	Millbrae	Rollins Road / Millbrae Avenue
31	Pacifica	Fasler Avenue / Highway 1
32	Portola Valley	Alpine Road / Golden Oak Drive
33	San Bruno	El Camino Real / Sneath Lane
34	San Mateo	Poplar/Humboldt

ID	Jurisdiction	Intersection
35	South San Francisco	Westborough Boulevard at I-280/Junipero Serra Boulevard
36	Burlingame	Old Bayshore Highway / Mahler Road
37	San Mateo County	Middlefield Road/ Fifth Avenue
38	Redwood City	El Camino Real / Jefferson Avenue

Table 5: CMP Companion Network Roadway Segments

ID	Jurisdiction	Name	Extent
R1	Belmont	Ralston Avenue	US-101 to Alameda de las Pulgas
R2	Unincorporated San Mateo County (North Fair Oaks), Atherton, Redwood City	Middlefield Road	SR-84 to Marsh Road
R3	Burlingame	California Drive	Broadway to Peninsula Avenue
R4	Brisbane	Bayshore Boulevard	Geneva Avenue to US-101 NB Off-Ramp
R5	Daly City	John Daly Boulevard	SR-35 to Mission Street
R6	Foster City	Foster City Boulevard	E. 3rd Avenue to Beach Park Boulevard
R7	Hillsborough	Chateau Drive/Ralston Avenue	I-280 to El Camino Real
R8	Millbrae	Millbrae Avenue	SR-82 to Old Bayshore Highway
R9	Pacifica	Sharp Park Boulevard	SR-1 to SR-35
R10	San Bruno	Sneath Lane	SR-35 to Huntington Avenue

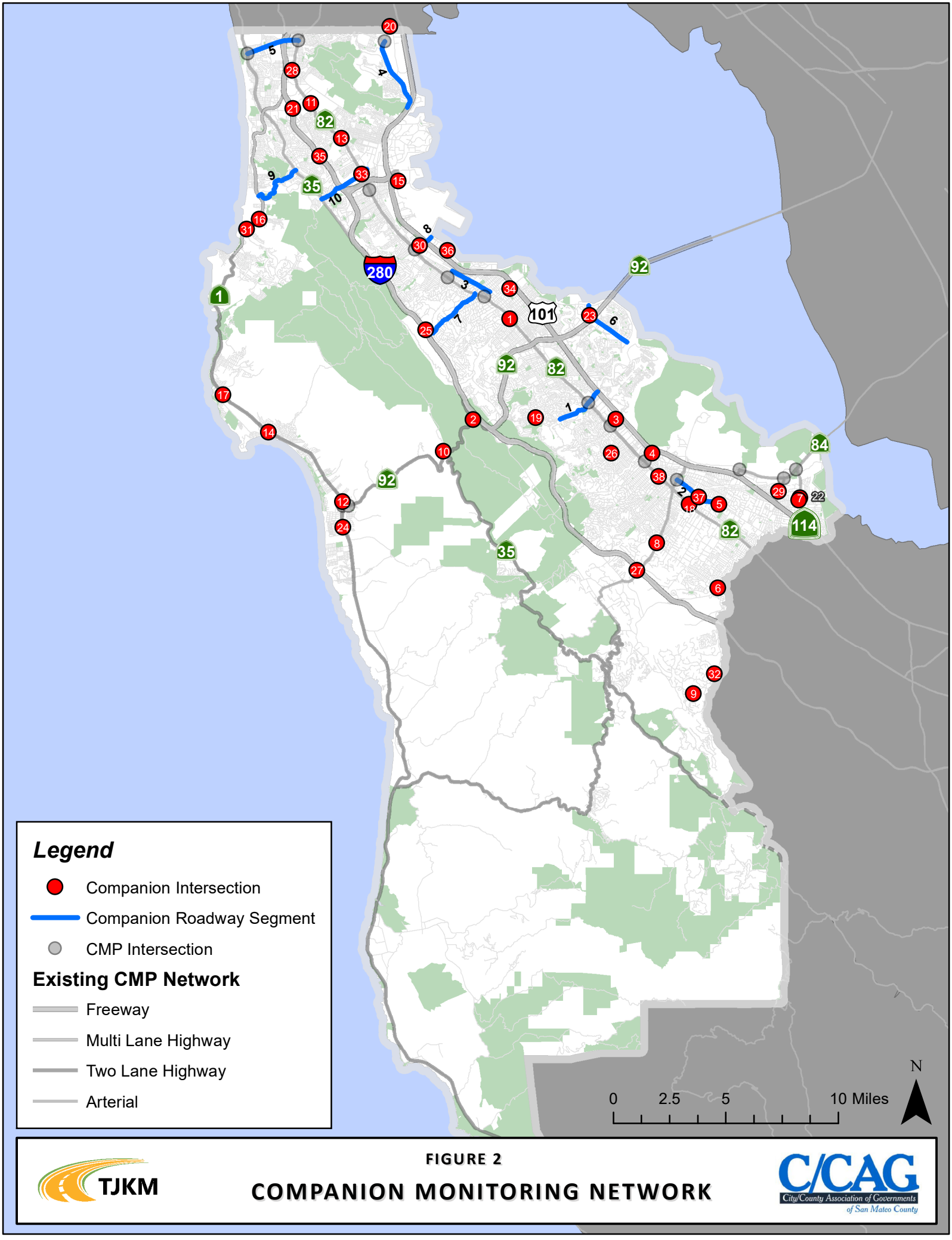


FIGURE 2

COMPANION MONITORING NETWORK

TJKM

C/CAG City/County Association of Governments of San Mateo County

1.3: Level of Service Standards

Level of service (LOS) is a qualitative term used to describe a roadway's operating condition. The LOS of a road or street is designated by a letter grade ranging from A to F, with LOS A representing free-flow conditions with little or no delay and LOS F representing forced flow with excessive delays. California Government Code Sections 65089.1 (A) and (B) requires that LOS standards be established by, in this case, C/CAG for the roadways and intersections designated to be in the CMP Roadway System. Furthermore, roadway levels of service (LOS) are to be measured by methods described in one of the following documents: The Transportation Research Board's *Circular 212*, the latest version of the HCM, or a uniform methodology adopted by the CMA that is consistent with the HCM. An explanation of the various levels of service is shown below in **Table 6.**

Table 6: LOS Definitions

LOS Level	Description
A	Free-flow conditions with unimpeded maneuverability.
B	Reasonably unimpeded operations with slightly restricted maneuverability.
C	Stable operations with somewhat more restrictions. Motorists will experience appreciable tension while driving.
D	Approaching unstable operations where small increases in volume produce substantial increases in delay and decreases in speed.
E	Unstable flow at or near capacity levels with poor levels of comfort and convenience.
F	Forced traffic flow in which the amount of traffic approaching a point exceeds the amount that can be served. Characterized by stop-and-go waves and poor travel times.

Sources: San Mateo CCAG Traffic LOS Calculation Methods, Highway Capacity Manual

The CMP legislation stipulates that the CMP's LOS standards can be set at any LOS - A through F. However, only roadway segments or intersections operating at LOS F when the CMP network was established may have a LOS F standard set for them. The LOS standards established for San Mateo County vary by roadway segment. By adopting LOS standards based on geographic differences, C/CAG signaled that it intends to use the CMP process to prevent future congestion levels in San Mateo County from getting worse than currently anticipated. At the same time, the variations in LOS standards by geographic area conform to current land use plans and development differences between the Coastside and Bayside, between older downtowns near Caltrain stations and other areas of San Mateo County.

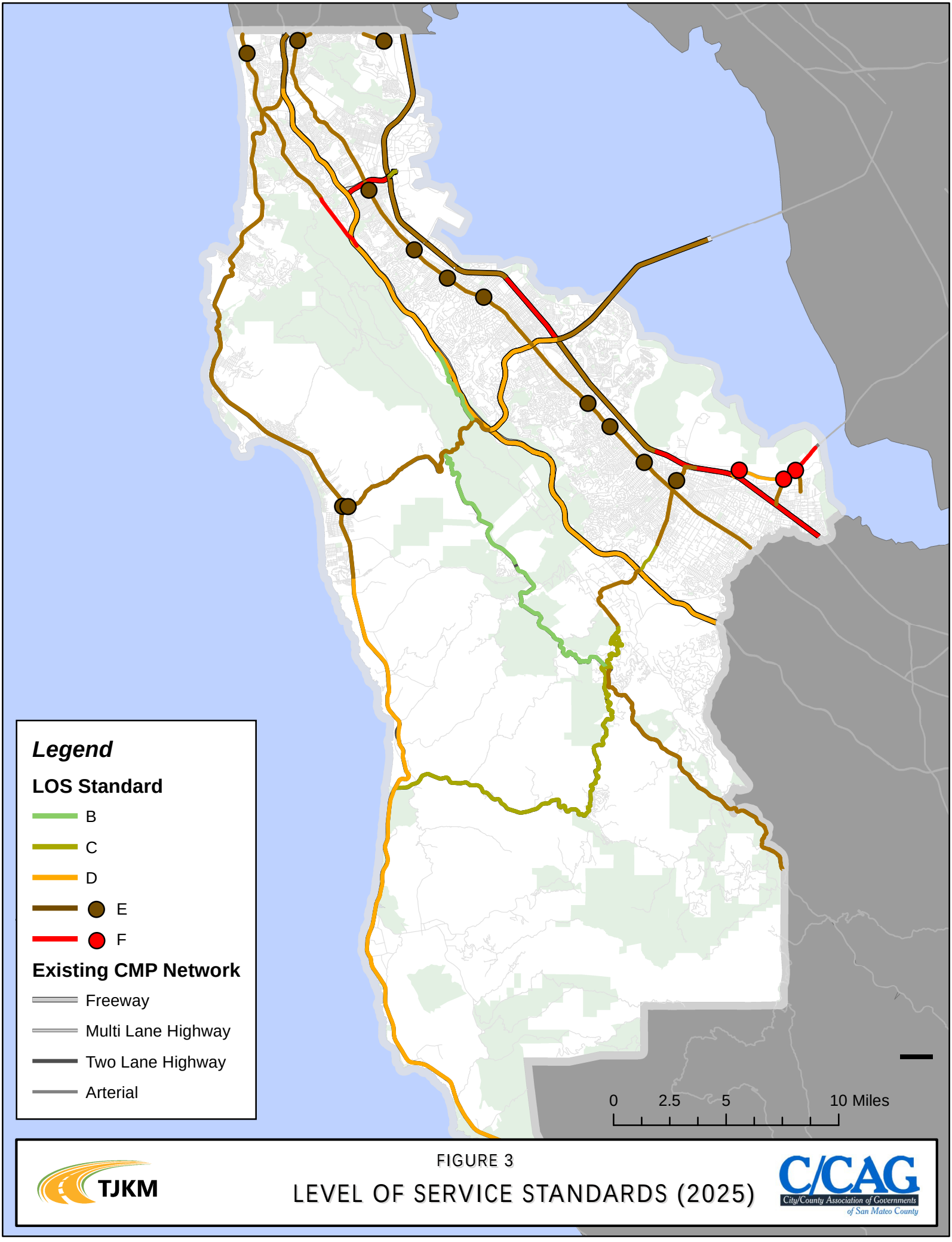
Based on data collected during the 1991 CMP monitoring process, the following LOS standards were selected for the roadway segments:

- If the existing (1990/91) LOS was F, then the standard was set to be LOS F.
- If the existing or future LOS was or will be E, then the standard was set to be LOS E.
- The standard for roadway segments near the San Francisco, Santa Clara, and Alameda County borders, with one exception,[1] was set to be LOS E to be consistent with the recommendations in those counties' 1991 CMPs. (This standard would apply unless those roadway segments were already operating at LOS F.)
- On SR-82 (El Camino Real), the standard was set to be LOS E.
- For the remaining roadway segments, the standard was set to be one letter designation worse than the LOS projected for the year 2000.

Intersection LOS standards were selected based on the following considerations:

- If the existing (1990/91) LOS is F, then the standard is set to be LOS F.
- If the existing or future LOS is or will be E, then the standard is also set to be E.
- The standard of the intersections near the San Francisco, Santa Clara, and Alameda Counties will be LOS E to be consistent with the LOS standards adopted in those counties.
- On SR-82 (El Camino Real), the standard is set to be LOS E to be consistent with the roadway segment standards.
- For the remaining intersections, the standard is set to be LOS E to correspond to the standard established for the adjacent roadway segment. (All the segments on which these intersections are located have standards set to LOS E).
- Note that as the Companion Network is not part of the CMP network, it does not have an established LOS standard and is monitored for informational purposes only. CMP and Companion Network locations monitored on weekends similarly have no adopted LOS standard and are also monitored for informational purposes only.
- The LOS standards for roadway segments and intersections is mapped below in **Figure 3**.

[1]For I-280 south of SR 84, the adopted standard is LOS D.



TJKM

FIGURE 3

LEVEL OF SERVICE STANDARDS (2025)

C/CAG City/County Association of Governments of San Mateo County

CHAPTER 2: STUDY METHODOLOGY

CMP Intersection of SR-92 and Main Street in Half Moon Bay

This section discusses the methodology utilized for measuring LOS on freeways, multi-lane highways, two-lane highways, arterials, and intersections throughout San Mateo County. The process begins with screening days within the monitoring period to ensure that only those expected to result in normal commuter traffic conditions are retained. Days that could produce lighter or heavier than usual traffic conditions, such as public holidays or special event days, were identified for removal.

2.1: Data Collection

This year's monitoring study was conducted during April, May, and August 2025 on mid-week days (Tuesday-Thursday) during the AM (7:00 AM – 9:00 AM) and PM (4:00 PM – 6:00 PM) peak periods. Note that in monitoring efforts prior to 2021, the PM peak period was listed as 4:00 PM – 7:00 PM; however, in practice the actual peak period used varied across locations. In order to ensure uniformity, the PM peak period was set to 4pm-6pm across all locations and methodologies.

The CMP data collection takes place under normal traffic conditions, including clear weather conditions and not during special events or holidays. It is unknown when or even if traffic conditions/patterns will return to pre-pandemic levels. This CMP will identify how traffic has changed compared to 2023, pandemic levels during the 2021 CMP Monitoring Report, and as well as compared to pre-pandemic levels during the 2019 CMP Monitoring Report.

This section describes the type of data used and their collection methods.

Travel Speed Data

This LOS Monitoring Study used the commercial speed data from INRIX for all freeways in San Mateo County. INRIX aggregates traffic data from GPS-enabled vehicles and mobile devices, traditional road sensors and hundreds of other sources.

Once collected from the INRIX database, the commercial speed data points will be associated with the appropriate CMP segment. Once reduced, the data will be averaged on each segment to determine the average speed for all selected data points. Only data points derived from observed, real-time sources will be used. The data will then be processed to present average speed and travel time on each CMP segment during the AM and PM peak periods.

72-Hour Traffic Counts

Two-lane highways and arterial segments are primarily monitored using data from 72-hour traffic counts, which are performed using pneumatic tubes that are laid in the road. Traffic counts were collected in April, May, and August 2025, during periods when schools were in session. The tubes record volumes, speeds, and vehicle classifications in each direction during the specified count period. These counts were conducted by TJKM and IDAX Data Solutions at 25 CMP locations and 10 Companion Network locations countywide. At four CMP locations on the Coastside (three on SR-1 and one on SR-92), these counts were also conducted on a Saturday to provide weekend monitoring of tourist traffic.

Intersection Turning Movement Counts

Turning movement counts (TMCs) record the total volume of vehicles, bicycles, and pedestrians that pass through an intersection observed periods. Typically, the data is recorded showing how many cars make each possible movement (left turn, proceed straight, right turn, etc.) as they approach the intersection from each direction. Bicycles are recorded in a similar manner, while pedestrians are recorded by how many use the crosswalk on each leg of the intersection. TMCs were conducted at 16 CMP intersections and 38 Companion Network intersections during the AM and PM peak period. At eight of the locations on the Coastside (two CMP and six Companion Network), TMCs were conducted on a Saturday during the AM, Mid-Day (11:00 AM – 1:00 PM), and PM peak periods.

General Purpose (GP) Lane Travel Time Runs

As part of C/CAG's efforts to monitor multi-modal travel times along the US-101 corridor, TJKM conducted travel time runs in the GP lanes on US-101 between the San Mateo County/Santa Clara County line and end of Express Lanes to San Francisco County line/San Mateo County line. Travel time data was collected during May and early

June 2025, while schools were in session. We conducted the travel time runs on US-101, dividing the route into two segments. Six runs per direction was completed in both the AM (7 AM-9 AM) and PM peak periods (4 PM-6 PM).

Northbound:

- Segment 1: US-101: SM/SC County Line to Grand Avenue/End of Express Lanes
- Segment 2: US-101: Grand Avenue/End of Express Lanes to SF/SM County Line

Southbound:

- Segment 1: US-101: SF/SM County Line to Grand Avenue/Beginning of Express Lanes
- Segment 2: US-101: Grand Avenue/Beginning of Express Lanes to SM/SC County Line

High-Occupancy Toll (HOT) Lane Travel Time Runs (Express Lanes)

Floating car surveys are a method by which average speed and travel time can be measured along a defined roadway segment. As INRIX does not separate out High-Occupancy Toll (HOT) lanes in their data, floating car surveys were conducted in the US-101 HOT lane between the San Mateo County/Santa Clara County line and end of Express Lanes. The surveys were completed using GPS technology to determine the travel time between the start and end of the segment. A minimum of six runs were completed for each peak period and in each direction of travel. Travel time data was collected during May and early June 2025, while schools were in session.

Northbound:

- Segment 1: US-101: SM/SC County Line to Grand Avenue/End of Express Lanes

Southbound:

- Segment 1: US-101: Grand Avenue/Beginning of Express Lanes to SM/SC County Line

Transit Ridership and Schedule Data

As part of the multi-modal performance element, transit ridership for all three major transit agencies serving San Mateo County (BART, Caltrain, and SamTrans) was collected for FY 25. Total ridership and average weekday ridership was reported. Transit schedules for Caltrain and SamTrans applicable during the monitoring period were obtained to calculate multi-modal travel times along the US-101 corridor.

Caltrans PeMS Data

To conduct an assessment of travel time reliability along San Mateo County freeway corridors, travel time index data was obtained from Caltrans Performance Monitoring System (PeMS).

2.2: LOS Methodology

All freeway segments in the network were monitored using the INRIX travel time data, which allows for determination of LOS on the basis of average operating speed. C/CAG primarily uses the 1994 and 2010 HCM methodology to monitor LOS on the CMP network. The specific methodologies used for monitoring freeway and arterial segments are listed below per HCM definitions:

Freeway and Multilane Highway Segments (HCM 1994 - Chapter 3) – All freeway and multilane highway segments were evaluated using the "basic freeway sections" and "multilane highways" methodology of HCM 1994 where the LOS for each freeway segment was determined using its average travel speed. Travel speed data was pulled from INRIX for April-May 2025, discussed above in Section 2.1. The routes that fall into this classification include:

- SR-1 from San Francisco County Line to Linda Mar Avenue
- SR-92 from I-280 to Alameda County Line
- US-101
- I-280
- I-380[2]

Two-Lane and Arterial Segments (HCM 1994 – Chapters 7, 8, and 11) – All non-freeway surface street segments were evaluated based on the volume to capacity ratio (V/C) dependent on the local free-flow speed, cross-section, number of lanes, % no-passing zones, and functional class.

Two-lane highways and arterials were evaluated primarily based on the current volumes as measured through 72-hour traffic counts at 35 CMP and Companion Network locations and turning movement counts at 10 locations throughout the county. These counts and resulting V/C were then compared to the applicable criteria in the HCM 1994 to determine the respective LOS. Companion Network segments were monitored using the same methodology as the CMP network.

The routes that fall into this classification include:

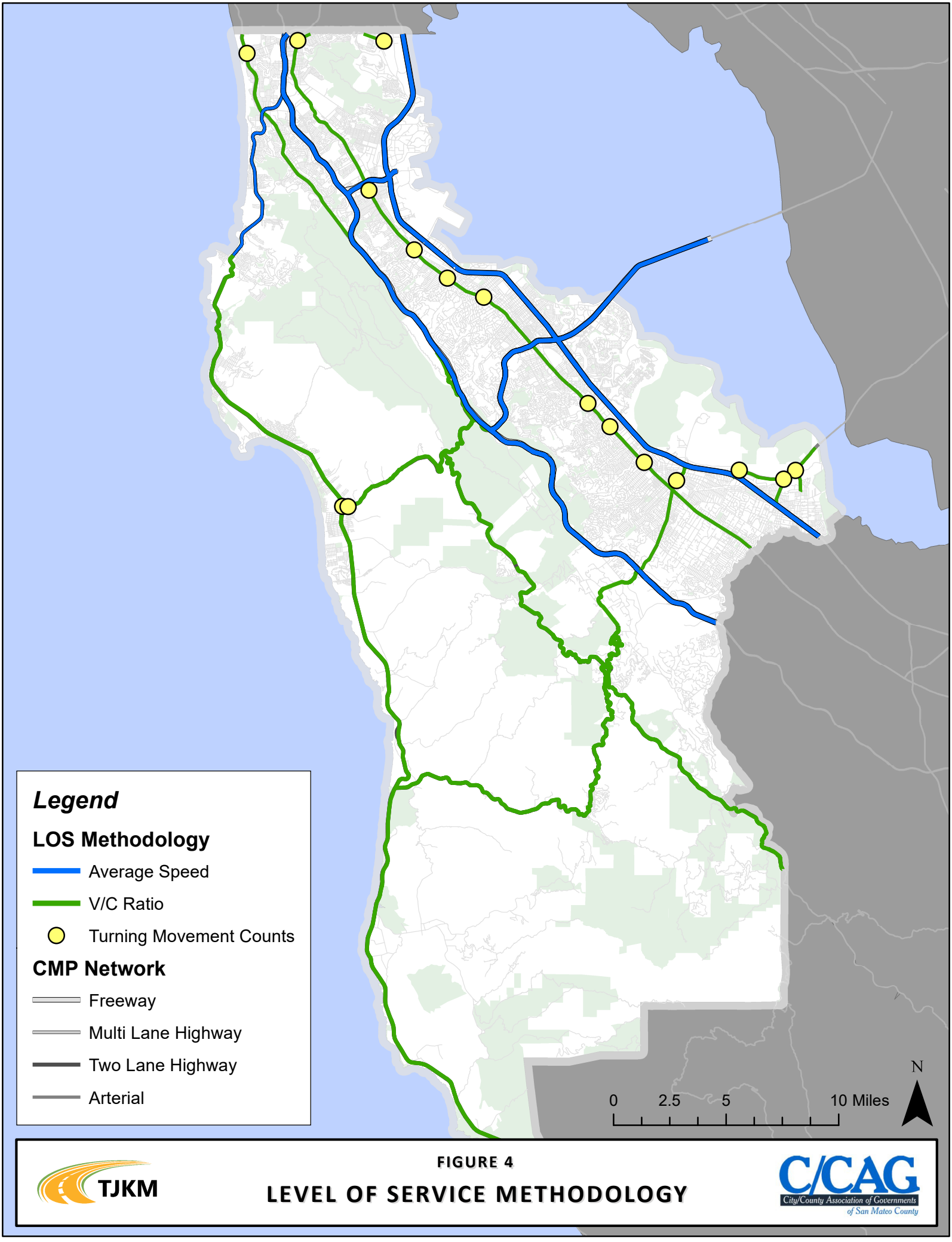
- SR-1 (south of Linda Mar Avenue)
- SR-35
- SR-109
- SR-114

[2] Although travel speed data is used to determine LOS on all segments of I-380, one segment (US-101 to Airport Access Road) is classified as an Arterial and as such the "Arterial" criteria in HCM 1994 is used.

- SR-82
- SR-84
- SR-92 (from SR-1 to I-280)
- Mission Street
- Geneva Avenue
- Bayshore Boulevard

Intersections – Turning movement counts were conducted at each CMP and Companion Network intersection during the AM and PM peak periods (for intersections that were analyzed on Saturday, mid-day peak period was also collected). These were modeled in Synchro 12 and used the HCM 7th Edition methodology. Where intersection parameters did not allow the use of HCM 7th Edition in Synchro (examples were split signal phasing, Leading Pedestrian Interval), HCM 2000 was used. The applicable methodology used is noted in the LOS results tables for intersections.

Figure 4 maps the CMP network with the applicable LOS methodology used. Detailed explanations of the LOS methodologies used is included in **Appendix B**.



TJKM

FIGURE 4

LEVEL OF SERVICE METHODOLOGY

C/CAG City/County Association of Governments of San Mateo County

2.3: Data Analysis

As has been previously mentioned, C/CAG uses three methodologies for monitoring the CMP and Companion Network in San Mateo County: Average Speed, V/C Ratio, and Turning Movement Counts. The methodology to analyze each is described below.

Average Speed – Commercial Speed Data (INRIX)

Once collected from the INRIX database, the commercial speed data points filtered to ensure a high quality data sample. Three grades (10, 20, or 30) are associated with INRIX data, with a grade of 10 representing low quality, historical speed data, 30 representing high-quality probe data, and 20 representing a mixture of the two. The collected datasets were graded and then filtered to ensure only grade 30 INRIX data was used in the analysis. The data was then associated with the appropriate CMP segment. Once reduced, the travel time data was extracted for each segment in seconds. This was then converted to an hour metric, and divided by the length of the INRIX segment, producing an average speed for the segment. This average speed was then compared against HCM 1994 methodologies to report the appropriate LOS. This methodology is consistent with past monitoring efforts. LOS is reported for both directions, however, only the worst case direction is listed. The official result is the worst case LOS between the AM and PM peak period.

Volume/Capacity Ratio

V/C ratios are used to calculate LOS on two-lane highway and arterial CMP and Companion Network segments. These ratios are calculated based on 72-hour traffic counts taken at 25 CMP locations and 10 Companion Network locations. Once the data had been received and quality checks had been performed on the data collected, the highest one hour traffic volume was calculated for each peak period in each direction across all three days. Consistent with past monitoring efforts, the highest one hour in each peak period and each direction across these three hours was selected as the official volume per hour to calculate the V/C ratio. On 10 segments, 72-hour counts were not conducted instead turning movement counts from intersections on that applicable segment were used. To extract the volumes, all movements approaching to moving away from the intersection in a certain direction during the intersection's peak one hour of traffic, were combined to form the official volume. For example, if volumes from north of an intersection were used, then the SBL, SBT, and SBR movements were used for southbound volumes, while NBT, WBL, and EBR movements were used for northbound movements. For arterials, LOS is reported for both directions, however, only the worst case direction is listed. Two-lane highways are reported as bi-directional LOS. The official result is the worst case LOS between the AM and PM peak period.

Consistent with past monitoring efforts and HCM methodology, the capacity of each segment was assumed to be 1,100 vehicles per lane, per hour; with the exception of two-lane highways, where the capacity was assumed to be 2,800 vehicles per hour in both directions combined. For arterials, the subsequent V/C was compared to the "Arterials" criteria under HCM 1994 to assign the appropriate LOS. For two-lane highways, two additional inputs are required: terrain (level, rolling, or mountainous), and percent no passing. These are used to find the correct criteria under HCM 1994 and assign the correct LOS.

Intersections

16 CMP intersections and 38 Companion Network intersections were analyzed as part of the 2025 LOS Monitoring. The performance measure for intersections is LOS, but different from freeways and highways, the HCM 7th Edition was used to determine the LOS (Note: where signal timing parameters prevented Synchro from using HCM 7th Edition, HCM 2000 was used). Turning movement counts were collected for each intersection on a weekday during the AM and PM peak periods and modeled in Synchro. For eight Coastside intersections, counts were also conducted on a Saturday in the AM, Mid-Day (11am-1pm) and PM peak periods. In addition to turning movement counts, pedestrian and bike counts were collected. The intersections were analyzed based on the current signal timing parameters. TJKM updated the Synchro file from past CMP monitoring years to more accurately reflect current signal parameters and also observed in timing sheets (for one example, the leading pedestrian interval (LPI), if it was observed in current conditions). This modification in signal timing changes the operation of the intersection in field and hence to reflect the current conditions this change was also modeled in Synchro. As such, the LOS at some intersections may be higher or lower than in previous years due to these changes.

CHAPTER 3: LOS MONITORING RESULTS

3.1: 2025 LOS Monitoring Results

This chapter discusses the 2025 LOS monitoring results for roadway segments and intersections based on the data collected for the project during April, and May 2025. Recovery from the COVID-19 pandemic has seen an increase in traffic volumes closer to pre-pandemic levels across San Mateo County. This is evidenced by the fact that in 2025 only 12 roadway segments were failing before interregional exemptions (all of which improved to an acceptable LOS after interregional exemptions). However, these 12 failing segments in 2025 does not reflect the same level of traffic congestion compared to pre-pandemic conditions since there were 19 segments that were failing in 2019.

In 2025, none of the CMP intersections experienced failing or unacceptable levels of service (LOS), unlike in the previous CMP assessments from 2023, 2021, and 2019.

The Companion Network includes 10 roadway segments and 38 intersections beyond the CMP network countywide. Additionally, weekend LOS monitoring is conducted at select locations on the Coastside. The Companion Network was designated in 2021 out of a desire to see additional locations monitored countywide which are not included in the CMP network. Weekend monitoring is done at select Coastside locations due to the high amounts of weekend tourist traffic experienced at these locations (causing traffic levels oftentimes greater than experienced on weekdays). These are presented alongside the CMP LOS monitoring results for informational purposes only.

Tables 7 and 8 list out the reported worst case direction LOS for each roadway segment on the CMP and Companion Networks. The CMP segments are then mapped in **Figure 5** (AM Peak Period) and **Figure 6** (PM Peak Period), while the Companion Network segments are mapped in **Figure 7** (AM Peak Period) and **Figure 8** (PM Peak Period). CMP and Companion Network intersection LOS is reported in **Tables 8** and **9**, and mapped in **Figure 9** (CMP AM), **Figure 10** (CMP PM), **Figure 11** (Companion Network AM), and **Figure 12** (Companion Network PM). Weekend LOS is reported in **Tables 10** and **11**, and mapped in **Figure 13** (AM), **Figure 14** (Mid-Day)**, and Figure 15** (PM). Lastly, roadway segments that are failing before interregional travel exemptions is mapped in **Figure 16**.

Table 7: 2025 CMP Roadway Segment LOS

Route	Roadway Segment	LOS Standard	2025 LOS	
			AM Peak Hour	PM Peak Hour
SR-1	San Francisco County Line to Linda Mar Blvd	E	F	F
SR-1	Linda Mar Blvd to Frenchmans Creek Rd	E	D	D
SR-1	Frenchmans Creek Road to Miramontes Rd	E	E	E
SR-1	Miramontes Rd to Santa Cruz County Line	D	B	C
SR-35	San Francisco Co Line to Sneath Ln	E	A	A
SR-35	Sneath Ln to I-280	F	F	D
SR-35	I-280 to SR-92	B	C	C
SR-35	SR-92 to SR-84	B	B	B
SR-35	SR-84 to Santa Clara County Line	E	B	B
SR-82	San Francisco County Line to John Daly Blvd	E	A	A
SR-82	John Daly Blvd to Hickey Blvd	E	A	A
SR-82	Hickey Blvd to I-380	E	A	A
SR-82	I-380 to Trousdale Dr	E	A	A
SR-82	Trousdale Dr to 3rd Ave	E	A	A
SR-82	3rd Ave to SR-92	E	A	A
SR-82	SR-92 to Hillsdale Ave	E	A	A
SR-82	Hillsdale Ave to 42nd Ave	E	A	A
SR-82	42nd Ave to Holly St	E	A	A
SR-82	Holly St to Whipple Ave	E	A	A
SR-82	Whipple Ave to SR-84	E	A	A
SR-82	SR-84 to Glenwood Ave	E	A	A
SR-82	Glenwood Ave to Santa Cruz Ave	E	A	B
SR-82	Santa Cruz Ave to Santa Clara County Line	E	A	A
SR-84	SR-1 to Portola Rd	C	C	C
SR-84	Portola Rd to I-280	E	B	B
SR-84	I-280 to Alameda de las Pulgas	C	C	C
SR-84	Alameda de las Pulgas to US-101	E	C	B
SR-84	US-101 to Willow Rd	D	B	A
SR-84	Willow Rd to University Ave	E	D	A
SR-84	University Ave to Alameda County Line	F	F	E
SR-92	SR-1 to I-280	E	E	E
SR-92	I-280 to US-101	D	F	F
SR-92	US-101 to Alameda County Line	E	F	F
US-101	San Francisco County Line to I-380	E	F	F
US-101	I-380 to Millbrae Ave*	E	E	F

Route	Roadway Segment	LOS Standard	2025 LOS	
			AM Peak Hour	PM Peak Hour
US-101	Millbrae Ave to Broadway*	E	E	F
US-101	Broadway to Peninsula Ave*	E	F	F
US-101	Peninsula Ave to SR-92*	F	F	F
US-101	SR-92 to Whipple Ave*	E	F	F
US-101	Whipple Ave to Santa Clara County Line	F	F	F
SR-109	Kavanaugh Dr to SR-84 (Bayfront Expwy.)	E	B	C
SR-114	US-101 to SR-84 (Bayfront Expressway)	E	A	B
I-280	San Francisco County Line to SR-1 (north)	E	E	E
I-280	SR-1 (north) to SR-1 (south)	E	E	E
I-280	SR-1 (south) to San Bruno Ave	D	F	F
I-280	San Bruno Ave to SR-92	D	A	D
I-280	SR-92 to SR-84	D	E	E
I-280	SR-84 to Santa Clara County Line	D	D	F
I-380	I-280 to US-101	F	F	F
I-380	US-101 to Airport Access Road	C	A	A
Mission St	San Francisco County Line to SR-82	E	A	A
Geneva Ave	San Francisco County Line to Bayshore Blvd	E	A	A
Bayshore Blvd	San Francisco County Line to Geneva Ave	E	A	A

Red shading indicates below LOS standard

Table 8: 2025 Companion Network Roadway Segment LOS

Route	Roadway Segment	2025 LOS	
		AM Peak Hour	PM Peak Hour
Ralston Ave	US-101 to Alameda de las Pulgas	A	A
Middlefield Rd	SR-84 to Marsh Rd	A	A
California Dr	Broadway to Peninsula Ave	A	A
Bayshore Blvd	Geneva Ave to US-101 NB Off Ramp	D	B
John Daly Blvd	SR-35 to Mission St	A	A
Foster City Blvd	E. 3rd Ave to Beach Park Dr	A	A
Chateau Dr/Ralston Ave	I-280 to El Camino Real	C	C
Millbrae Ave	SR-82 to Old Bayshore Hwy	A	C
Sharp Park Blvd	SR-1 to SR-35	A	A
Sneath Ln	SR-35 to Huntington Ave	A	A

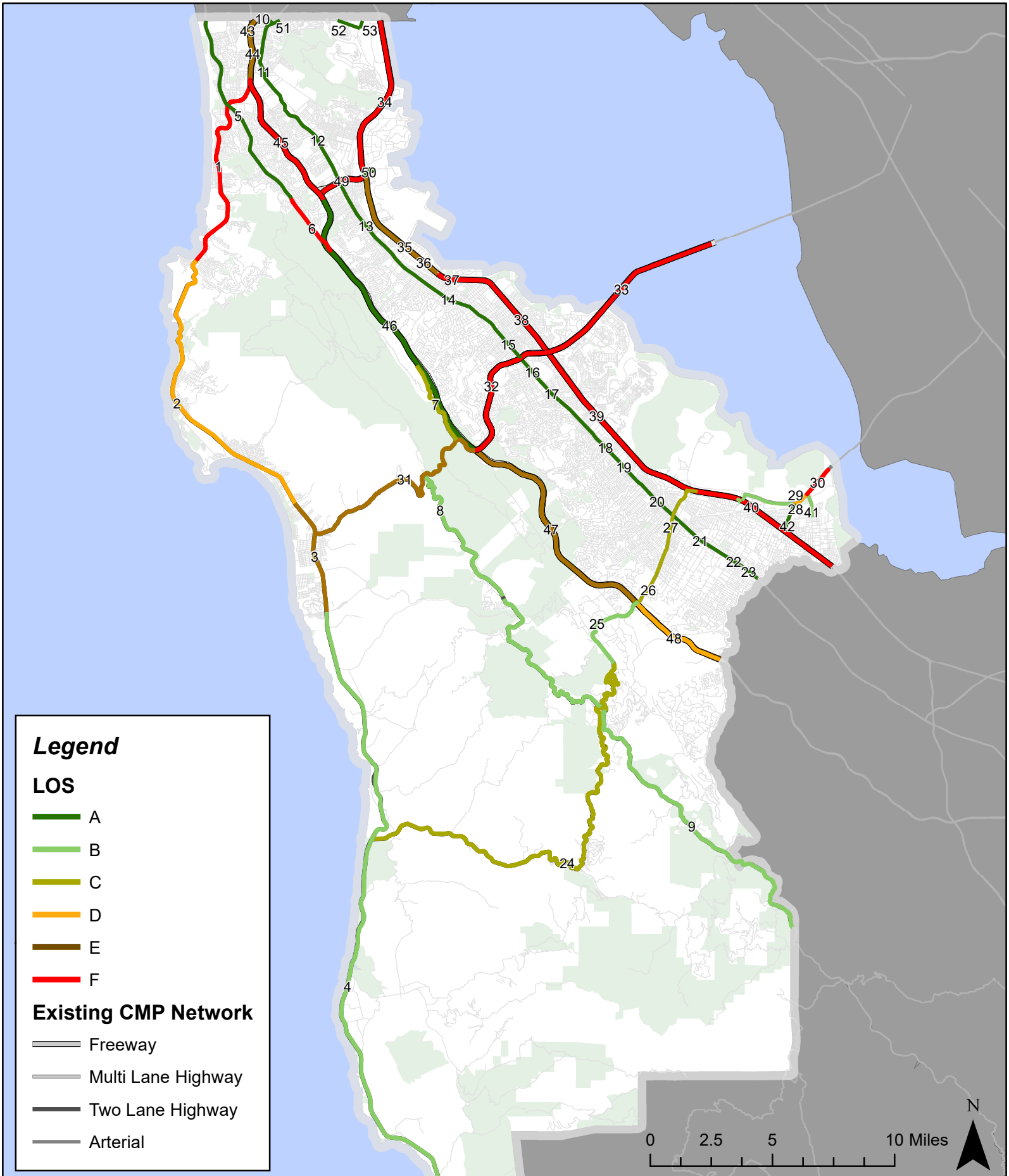


FIGURE 5

CMP ROADWAY SEGMENT LOS - AM PEAK PERIOD

(WITHOUT INTERREGIONAL EXEMPTION) (2025)

TJKM

C/CAG City/County Association of Governments of San Mateo County

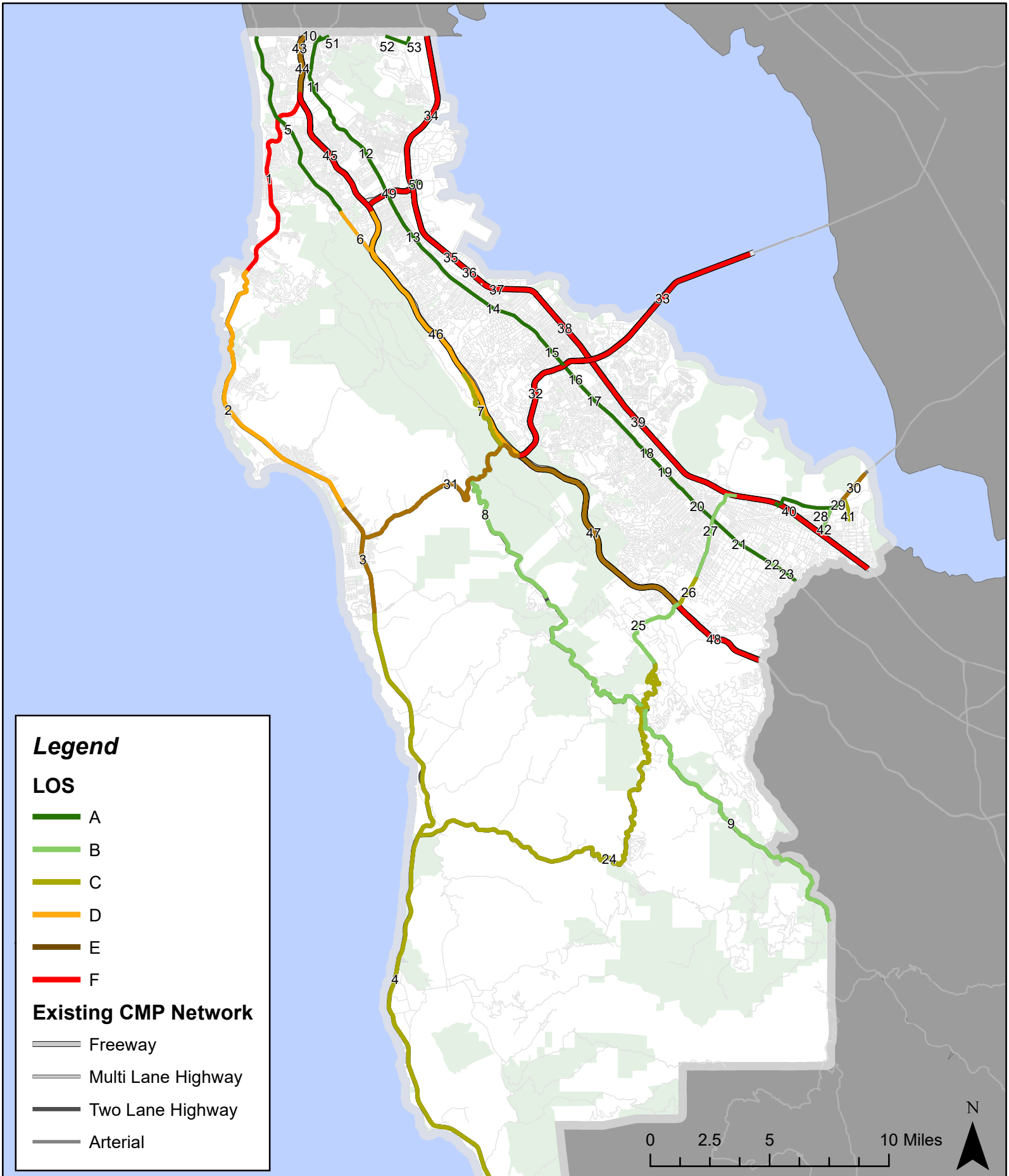


FIGURE 6

CMP ROADWAY SEGMENT LOS - PM PEAK PERIOD

(WITHOUT INTERREGIONAL EXEMPTION) (2025)

TJKM

C/CAG City/County Association of Governments of San Mateo County

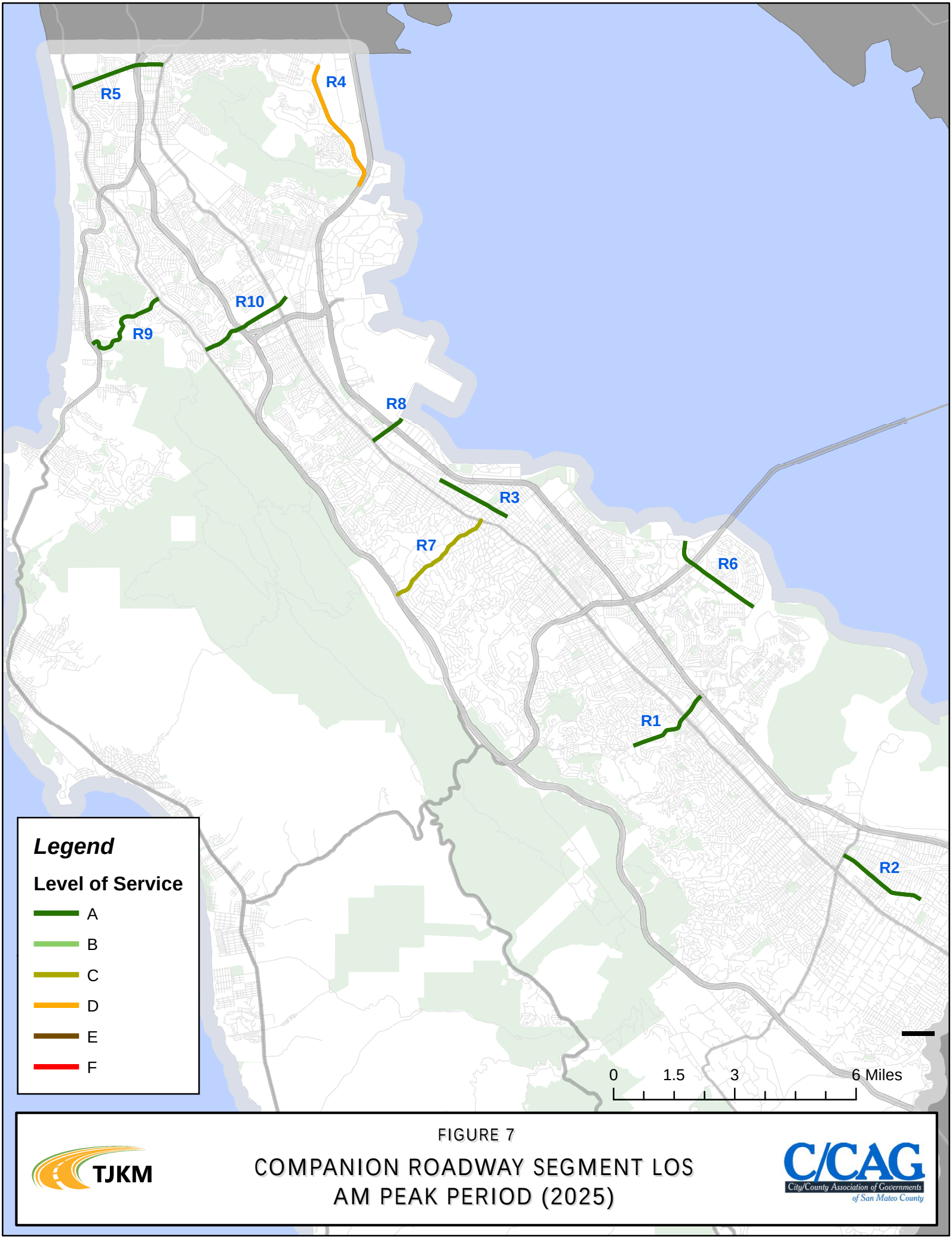


FIGURE 7

COMPANION ROADWAY SEGMENT LOS
AM PEAK PERIOD (2025)

TJKM

C/CAG
City/County Association of Governments
of San Mateo County

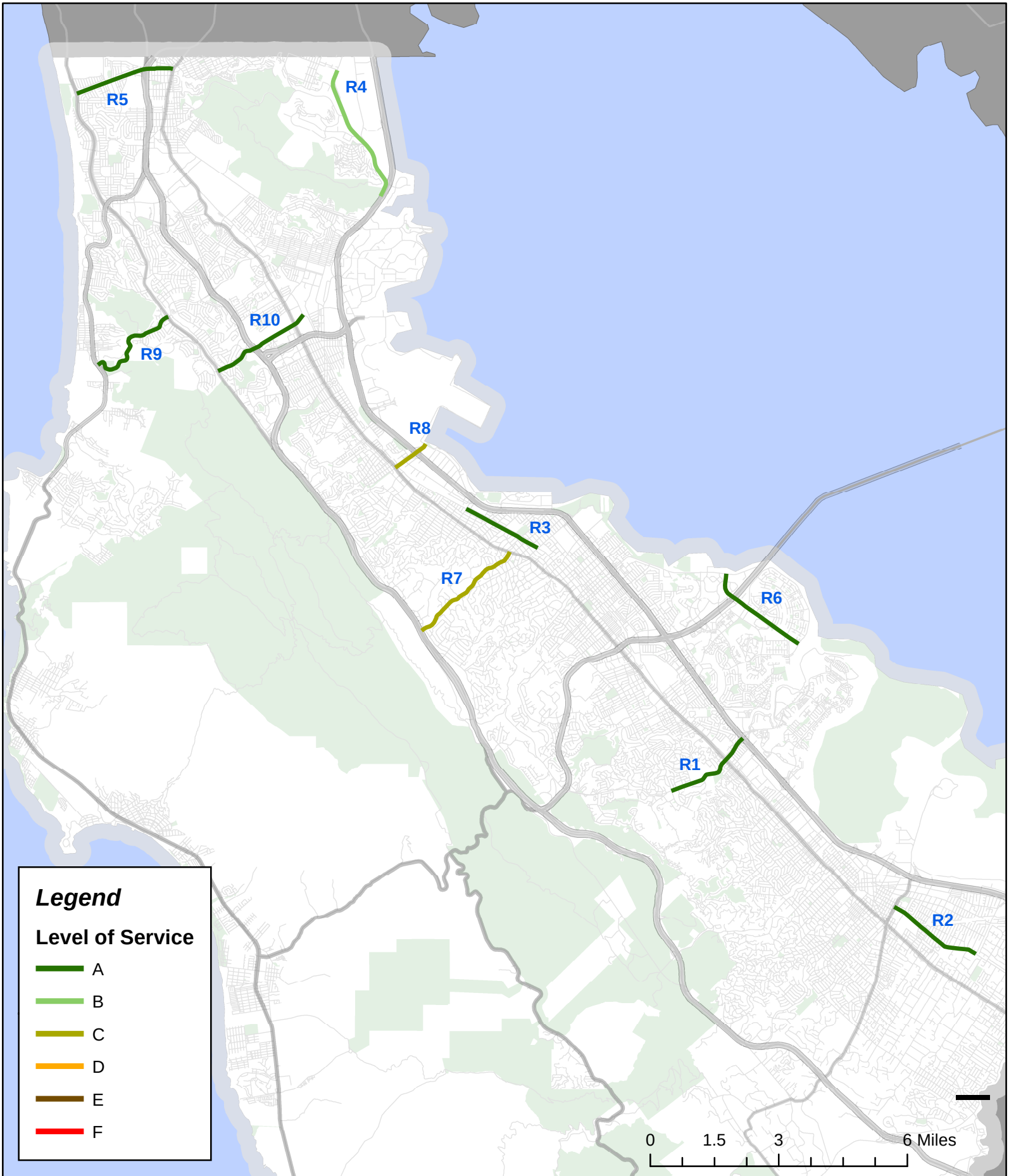


FIGURE 8

COMPANION ROADWAY SEGMENT LOS
PM PEAK PERIOD (2025)

TJKM

C/CAG
City/County Association of Governments
of San Mateo County

Table 9: 2025 CMP Intersection LOS

ID	Intersection	Methodology	LOS Standard	AM Peak Hour		PM Peak Hour	
				Delay (sec)	LOS	Delay (sec)	LOS
1	Bayshore Blvd/Geneva Ave	HCM 2000	E	32.2	C	24.1	C
2	SR-35/John Daly Blvd	HCM 2000	E	35.2	D	31.7	C
3	SR-82/John Daly Blvd/Hillside Ave	HCM 2000	E	34.1	C	32.7	C
4	SR-82/San Bruno Ave	HCM 2000	E	50.0	D	61.8	E
5	SR-82/Millbrae Ave	HCM 2000	E	34.2	C	60.4	E
6	SR-82/Broadway	HCM 2000	E	27.2	C	20.9	C
7	SR-82/Park Rd/Peninsula Ave	HCM 2000	E	20.3	C	18.9	B
8	SR-82/Ralston Ave	HCM 2000	E	63.5	E	63.7	E
9	SR-82/Holly St	HCM 2000	E	47.9	D	56.2	E
10	SR-82/Whipple Ave	HCM 2000	E	40.9	D	34.9	D
11	University Ave/SR-84	HCM 2000	F	31.9	C	196.7	F
12	Willow Rd/SR-84	HCM 2000	F	50.7	D	81.1	E
13	SR-84/Marsh	HCM 2000	F	141.4	F	75.7	E
14	SR-84/Middlefield Rd	HCM 2000	E	44.9	D	56.8	E
15	SR-1/SR-92	HCM 2000	E	27.9	C	34.6	C
16	Main St/SR-92	HCM 2000	F	42.0	D	32.7	C

Table 10: 2025 Companion Network Intersection LOS

ID	Intersection	Methodology	AM Peak Hour		PM Peak Hour	
			Delay (sec)	LOS	Delay (sec)	LOS
1	El Camino Real/3rd Ave	HCM 2000	30.5	C	32.5	C
2	SR 92/Skyline Blvd (SR 35)	HCM 7	10.3	B	13.5	B
3	Industrial Rd/Holly St	HCM 2000	42.6	D	43.7	D
4	Veterans Blvd/Whipple Ave	HCM 2000	43.6	D	36.2	D
5	Middlefield Rd/Marsh Rd	HCM 7	43.7	D	57.9	E
6	Santa Cruz Ave/Sand Hill Rd	HCM 2000	48.6	D	52.2	D
7	University Ave/Bay Rd	HCM 2000	46.6	D	51.7	D
8	SR 84/Alameda de las Pulgas	HCM 2000	176.5	F	122.9	F
9	Alpine Rd/Portola Rd	HCM 7	13.0	B	10.4	B
10	SR 92/SR 35	HCM 7	28.8	D	30.8	D
11	El Camino Real/Mission Rd	HCM 7	13.2	B	21.3	C
12	SR 1/Main St	HCM 2000	56.7	E	52.6	D
13	El Camino Real/Westborough Blvd	HCM 7	72.1	E	48.8	D
14	SR 1/Capistrano Rd	HCM 2000	15.9	B	19.7	B
15	S Airport Blvd/San Bruno Ave	HCM 2000	13.9	B	22.2	C
16	SR 1/Reina del Mar Ave	HCM 2000	102.5	F	41.2	D
17	SR 1/Cypress Ave	HCM 7	29.5	D	91.0	F
18	El Camino Real/Selby Ln	HCM 7	>200.0	F	>200.0	F
19	Davis Dr/Ralston Ave	HCM 2000	15.0	B	9.4	A
20	Bayshore Blvd/San Bruno Ave	HCM 7	34.4	D	15.8	C
21	Serramonte Blvd/NB Hwy 280 on-ramp	HCM 7	3.0	A	6.0	A
22	University Ave/Weeks Street	HCM 7	50.0	E	23.7	C
23	Chess Dr/Foster City Boulevard	HCM 2000	20.9	C	29.8	C
24	Highway 1/Poplar St	HCM 2000	28.0	C	21.6	C
25	Skyline/Skyfarm	HCM 7	21.4	C	12.1	B
26	Brittan Ave/Cordilleras Ave	HCM 7	18.3	C	27.9	D
27	Woodside Rd/Lindenbrook Rd	HCM 7	54.8	F	69.8	F
28	Mission St/E. Market St/San Pedro Rd	HCM 2000	69.1	E	51.4	D

ID	Intersection	Methodology	AM Peak Hour		PM Peak Hour	
			Delay (sec)	LOS	Delay (sec)	LOS
29	Willow Rd/O'Brien Dr	HCM 2000	19.2	B	18.1	B
30	Rollins Rd/Millbrae Ave	HCM 2000	26.1	C	31.6	C
31	Fasler Ave/Highway 1	HCM 2000	37.4	D	37.3	D
32	Alpine Rd/Golden Oak Dr	HCM 7	18.7	C	22.8	C
33	El Camino Real/Sneath Ln	HCM 2000	72.4	E	101.3	F
34	Poplar/Humboldt	HCM 2000	13.8	B	12.8	B
35	Westborough Blvd at I-280/Junipero Serra Blvd	HCM 2000	53.9	D	114.0	F
36	Old Bayshore Highway/Mahler Rd	HCM 7	8.8	A	12.9	B
37	Middlefield Rd/Fifth Ave	HCM 2000	46.6	D	46.6	D
38	El Camino Real/Jefferson Ave	HCM 2000	61.6	E	60.8	E

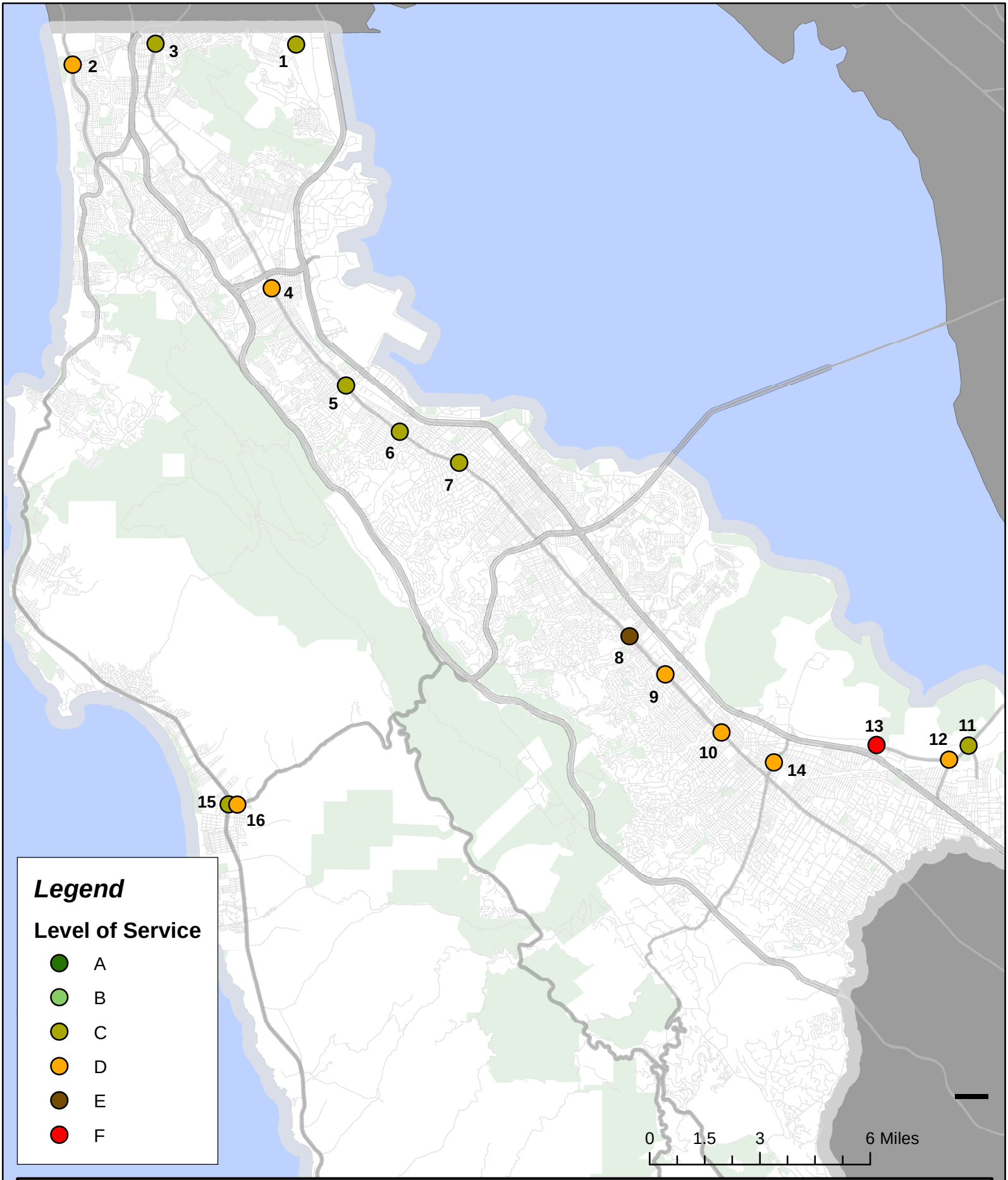


FIGURE 9

CMP INTERSECTION LOS - AM PEAK PERIOD

(WITHOUT INTERREGIONAL EXEMPTION (2025)

TJKM

C/CAG City/County Association of Governments of San Mateo County

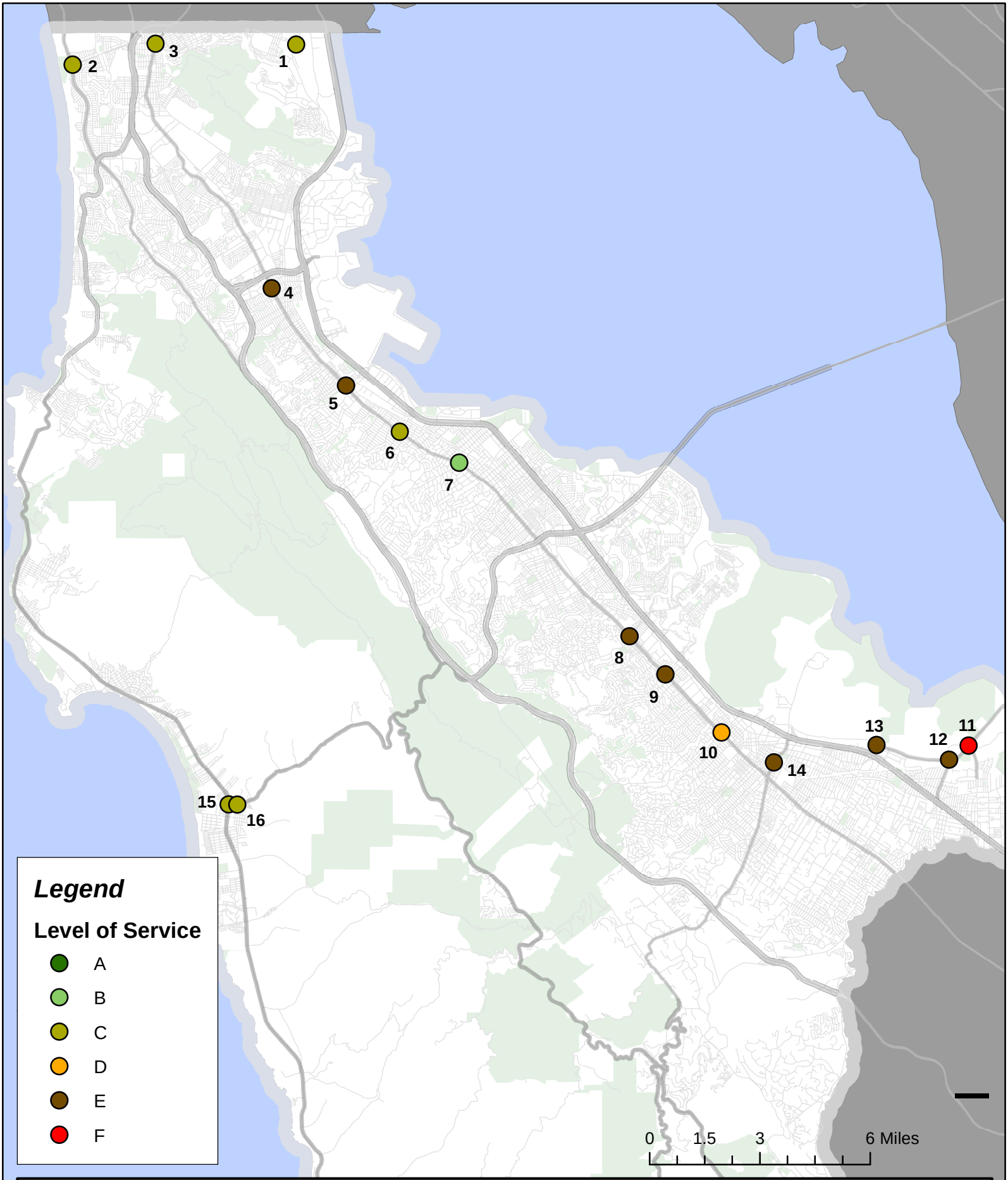


FIGURE 10

CMP INTERSECTION LOS - PM PEAK PERIOD

(WITHOUT INTERREGIONAL EXEMPTION (2025)

TJKM

C/CAG City/County Association of Governments of San Mateo County

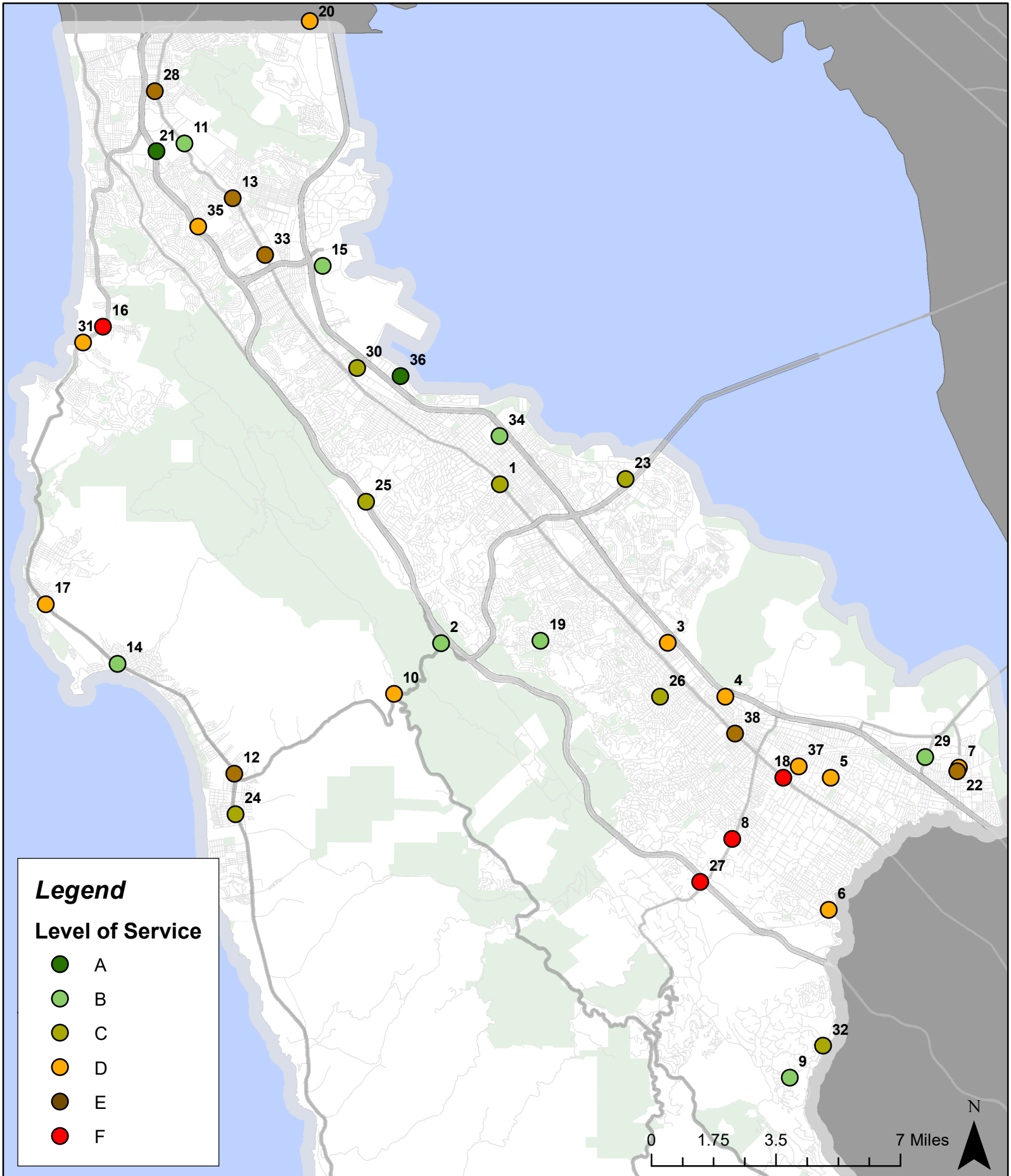


FIGURE 11

COMPANION INTERSECTION LOS AM PEAK PERIOD (2025)

TJKM

C/CAG City/County Association of Governments of San Mateo County

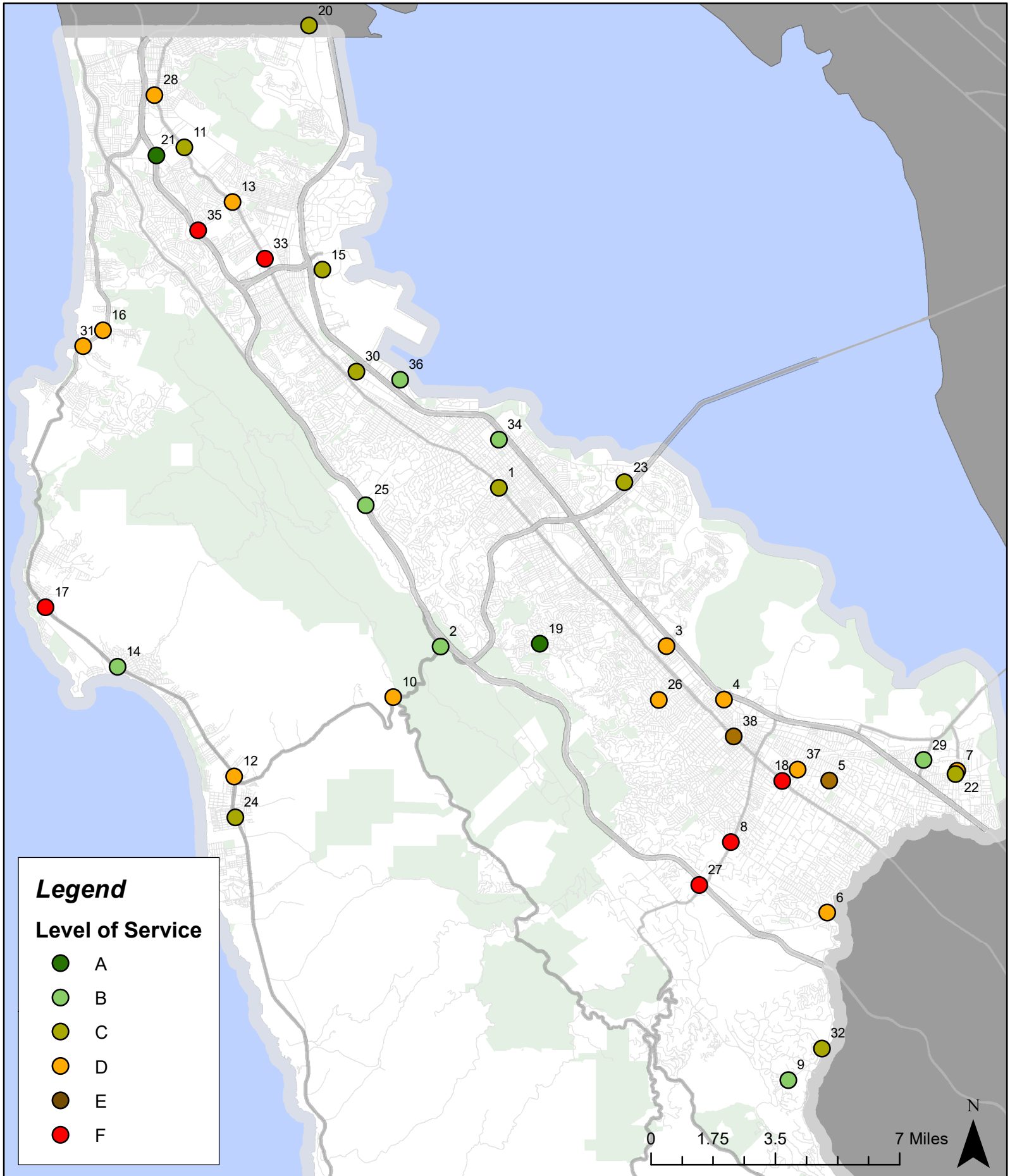


FIGURE 12

COMPANION INTERSECTION LOS
PM PEAK PERIOD (2025)

TJKM

C/CAG
City/County Association of Governments
of San Mateo County

Table 11: 2025 Roadway Segment Weekend LOS

Route	Roadway Segment	2025 LOS		
		AM Peak Period	Mid-Day Peak Hour	PM Peak Hour
SR-1	Linda Mar Blvd to Frenchmans Creek Rd	D	E	D
SR-1	Frenchmans Creek Rd to Miramontes Rd	D	E	E
SR-1	Miramontes Rd to Santa Cruz County Line	B	D	C
SR-92	SR-1 to I-280	E	E	E

Table 12: 2025 Intersection Weekend LOS

ID	Intersection	AM Peak		Mid-Day Peak		PM Peak	
		Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
15	SR-1/SR-92	28.7	C	36.2	D	40.5	D
16	Main St/SR-92	24.9	C	36.9	D	39.3	D
18	SR-92/Skyline Blvd (SR-35)	12.2	B	20.2	C	11.3	B
26	SR-35/SR-92	15.4	C	52.7	F	59.9	F
28	SR-1/Main St	30.8	C	54.5	D	43.3	D
30	SR-1/Capistrano Rd	17.7	B	25.7	C	24.5	C
32	SR-1/Reina Del Mar Ave	52.5	D	403.7	F	40.1	D
33	SR-1/Cypress Ave	22.3	C	350.0	F	272.4	F

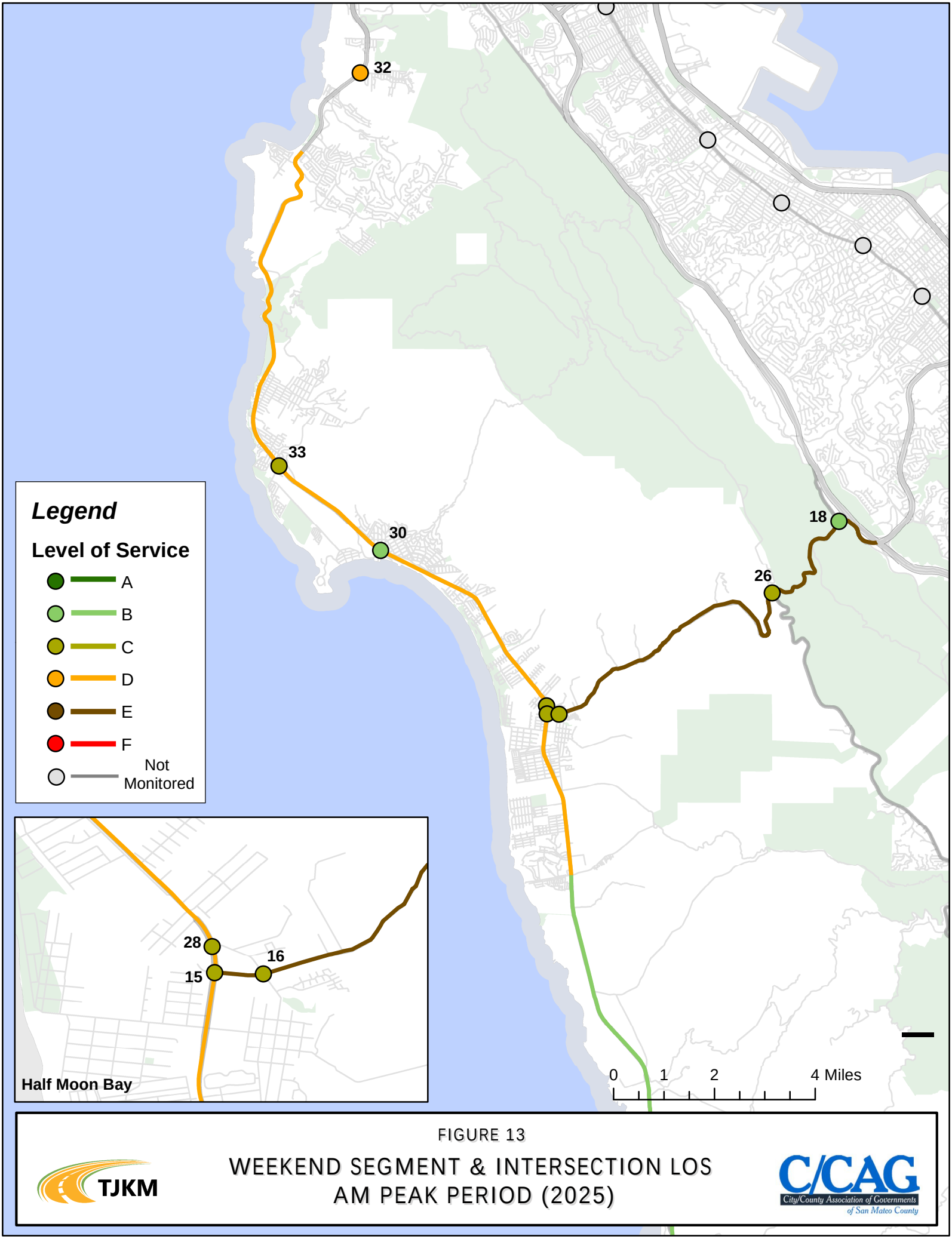


FIGURE 13

WEEKEND SEGMENT & INTERSECTION LOS
AM PEAK PERIOD (2025)

TJKM

C/CAG
City/County Association of Governments of San Mateo County

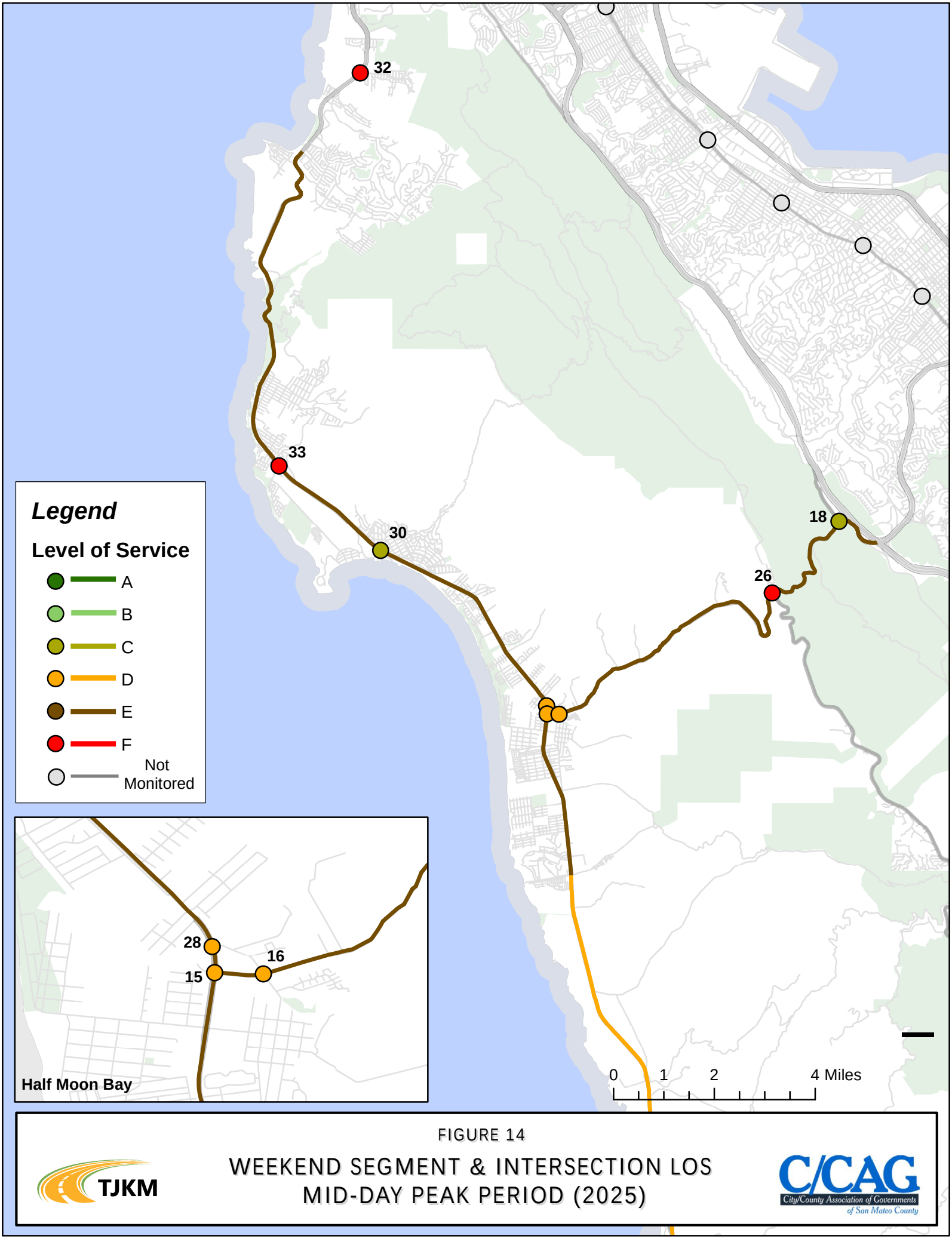


FIGURE 14

WEEKEND SEGMENT & INTERSECTION LOS
MID-DAY PEAK PERIOD (2025)

TJKM

C/CAG
City/County Association of Governments of San Mateo County

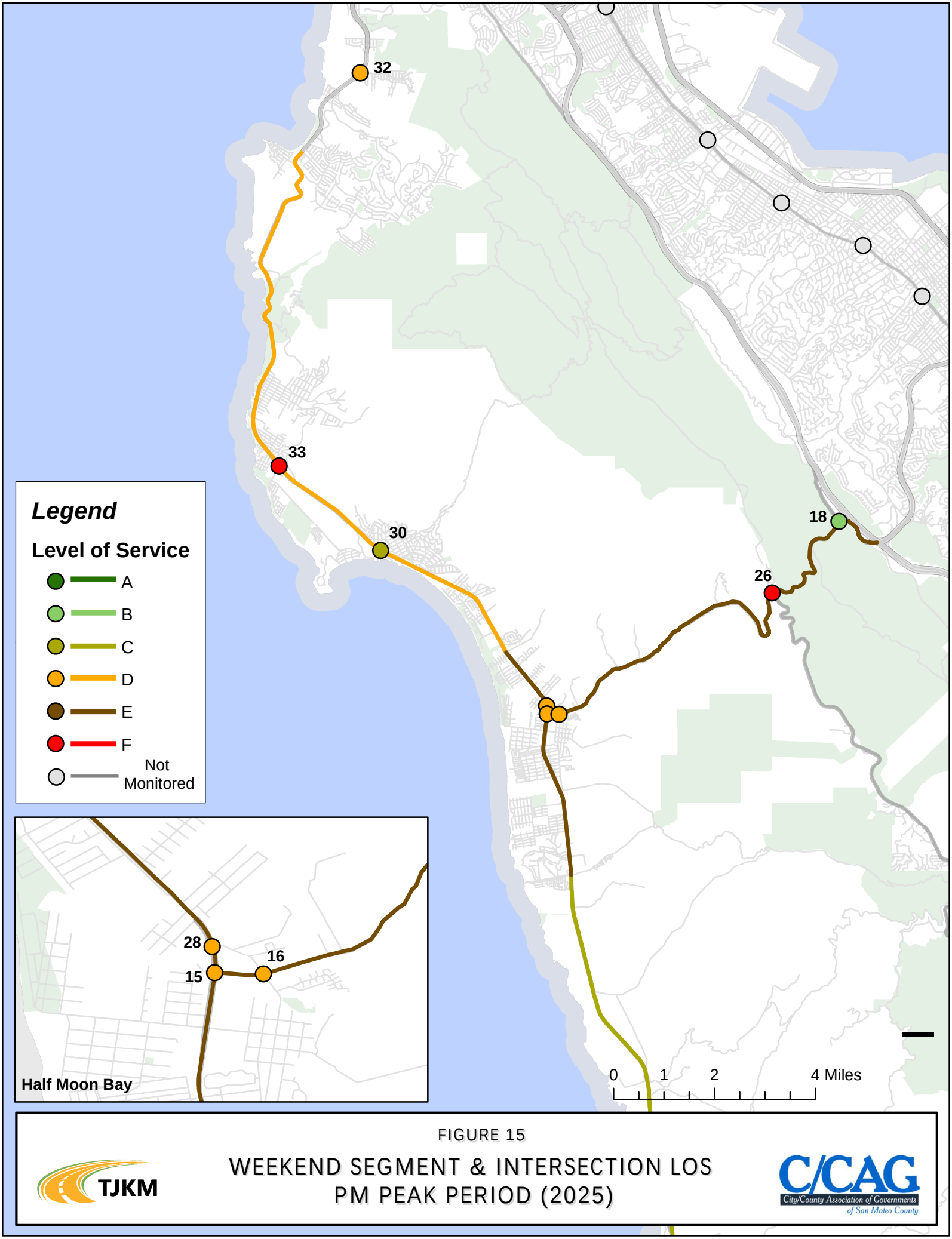


FIGURE 15

WEEKEND SEGMENT & INTERSECTION LOS
PM PEAK PERIOD (2025)

TJKM

C/CAG
City/County Association of Governments of San Mateo County

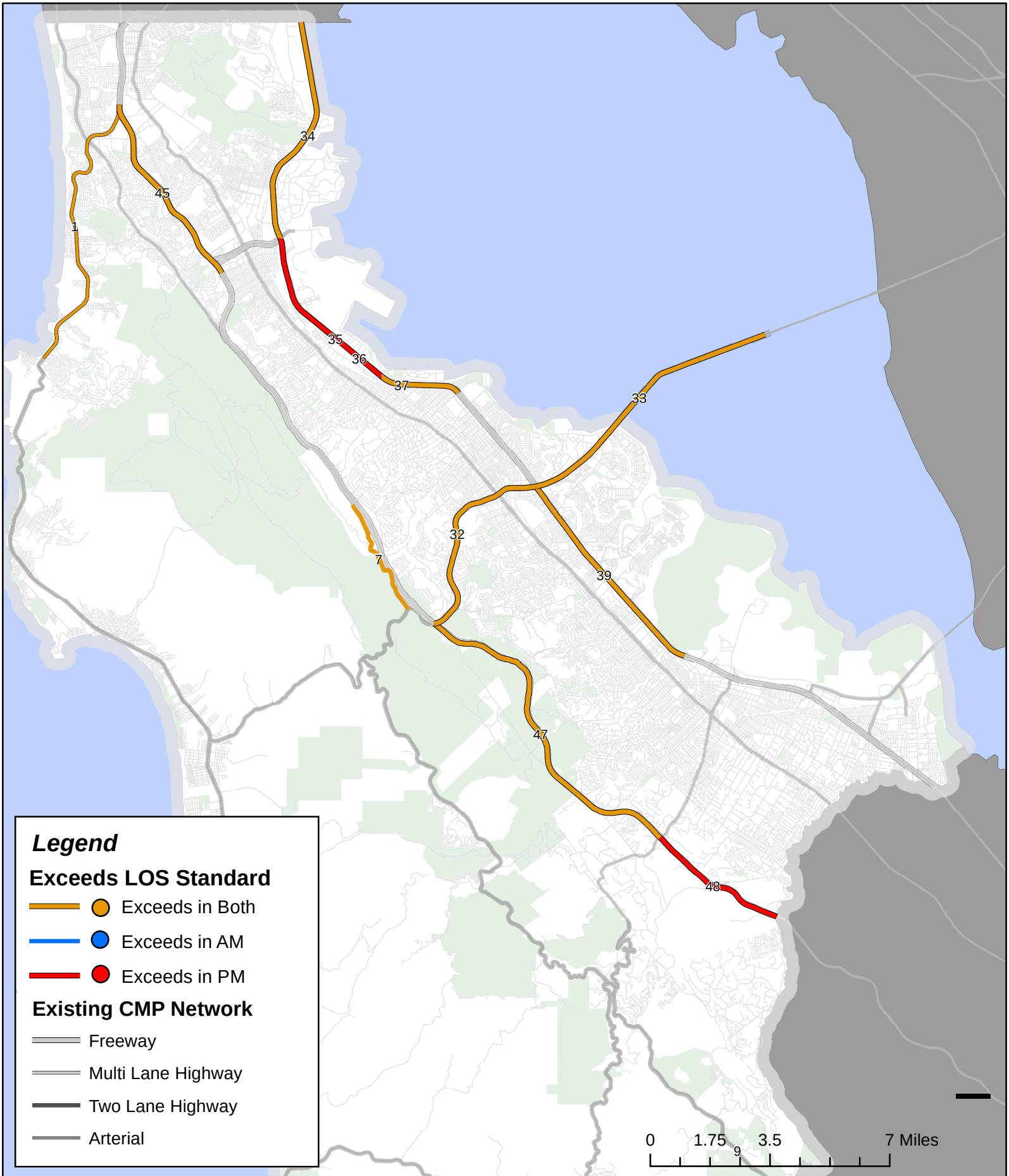


FIGURE 16

FAILING ROADWAY SEGMENTS/INTERSECTIONS

(WITHOUT INTERREGIONAL EXEMPTION) (2025)

TJKM

C/CAG City/County Association of Governments of San Mateo County

3.2: Reduction in Volumes Due to Interregional Trips

The CMP legislation allows for the reduction in volume for those trips that are interregional. In this case, "interregional" are those trips that originate from outside the county (either traversing the county or ending within the county). For those CMP segments found with a LOS below the standard, the county travel demand model (C/CAG-VTA Model) is used to determine the proportion of the volume estimated to be from interregional travel. As shown in **Table 7**, there were twelve segments that had at least one direction in either the AM or PM peak period that had a lower LOS than the established standard. **Table 13** includes the resulting percentage of traffic from the C/CAG-VTA Model that is estimated to be interregional by segment.

Table 13: Interregional Trips by Failing Segment

Route	Roadway Segment	Direction	Peak Hour	% Reduction
SR-1	San Francisco Co Line to Linda Mar Blvd	NB	AM	14.0%
			PM	10.0%
		SB	PM	55.0%
SR-35	I-280 to SR-92	NB	AM	38.0%
			PM	38.0%
		SB	AM	3.0%
			PM	10.0%
SR-92	I-280 to US-101	EB	AM	27.0%
			PM	30.0%
		WB	AM	26.0%
			PM	26.0%
SR-92	US-101 to Alameda Co Line	EB	PM	10.0%
		WB	AM	49.0%
US-101	San Francisco Co Line to I-380	NB	AM	27.0%
			PM	31.0%
		SB	PM	85.0%
US-101	I-380 to Millbrae Ave	SB	PM	53.0%
US-101	Millbrae Ave to Broadway	SB	PM	48.0%
US-101	Broadway to Peninsula Ave	NB	AM	38.0%
		SB	AM	54.0%
			PM	38.0%
US-101	SR 92 to Whipple Ave	NB	PM	46.0%
		SB	AM	38.0%
I-280	SR-1 (South) to San Bruno Ave	NB	PM	35.0%
		SB	AM	64.0%
I-280	SR 92 to SR 84	NB	PM	71.0%
		SB	AM	67.0%
I-280	SR-84 to Santa Clara Co Line	NB	PM	96.0%

When applying reductions, they can be deducted directly for those where V/C is the performance measure used, but for those segments that use INRIX travel speed, a few extra steps are required to reflect the exemption. Historically, the LOS Monitoring Study has made use of the LOS tables as included in the HCM 1994 that include reference speeds for given free-flow speeds and LOS. In order to reflect the reduction, the V/C must first be estimated from the same tables. This adds a level of error given that density is the preferred performance measure and the methodology is to use a secondary measure to estimate another secondary measure, take the reduction, and then reverse the calculation using the V/C and determine the adjusted LOS with the exemption.

After incorporating the reduction in volumes for segments found to have an LOS lower than the standard, all raised to an acceptable LOS. Therefore, for the 2025 CMP monitoring cycle, ***there are no deficient segments after interregional reductions***. Failing segments after their respective interregional reductions are mapped in **Figures 17, 18.**

Table 14: 2025 CMP Roadway Segment LOS with Interregional Reductions

Route	Roadway Segment	LOS Standard	2025 LOS		LOS with Interregional Reduction - AM	LOS with Interregional Reduction - PM
			AM Peak Period	PM Peak Period		
SR-1	San Francisco County Line to Linda Mar Blvd	E	F	F	E	E
SR-1	Linda Mar Blvd to Frenchmans Creek Rd	E	D	D	-	-
SR-1	Frenchmans Creek Road to Miramontes Rd	E	E	E	-	-
SR-1	Miramontes Rd to Santa Cruz County Line	D	B	C	-	-
SR-35	San Francisco Co Line to Sneath Ln	E	A	A	-	-
SR-35	Sneath Ln to I-280	F	F	D	-	-
SR-35	I-280 to SR-92	B	C	C	B	B
SR-35	SR-92 to SR-84	B	B	B	-	-
SR-35	SR-84 to Santa Clara County Line	E	B	B	-	-
SR-82	San Francisco County Line to John Daly Blvd	E	A	A	-	-
SR-82	John Daly Blvd to Hickey Blvd	E	A	A	-	-
SR-82	Hickey Blvd to I-380	E	A	A	-	-
SR-82	I-380 to Trousdale Dr	E	A	A	-	-
SR-82	Trousdale Dr to 3rd Ave	E	A	A	-	-
SR-82	3rd Ave to SR-92	E	A	A	-	-
SR-82	SR-92 to Hillsdale Ave	E	A	A	-	-
SR-82	Hillsdale Ave to 42nd Ave	E	A	A	-	-
SR-82	42nd Ave to Holly St	E	A	A	-	-
SR-82	Holly St to Whipple Ave	E	A	A	-	-

Route	Roadway Segment	LOS Standard	2025 LOS		LOS with Interregional Reduction - AM	LOS with Interregional Reduction - PM
			AM Peak Period	PM Peak Period		
SR-82	Whipple Ave to SR-84	E	A	A	-	-
SR-82	SR-84 to Glenwood Ave	E	A	A	-	-
SR-82	Glenwood Ave to Santa Cruz Ave	E	A	B	-	-
SR-82	Santa Cruz Ave to Santa Clara County Line	E	A	A	-	-
SR-84	SR-1 to Portola Rd	C	C	C	-	-
SR-84	Portola Rd to I-280	E	B	B	-	-
SR-84	I-280 to Alameda de las Pulgas	C	C	C	-	-
SR-84	Alameda de las Pulgas to US-101	E	C	B	-	-
SR-84	US-101 to Willow Rd	D	B	A	-	-
SR-84	Willow Rd to University Ave	E	D	A		-
SR-84	University Ave to Alameda County Line	F	F	E	-	-
SR-92	SR-1 to I-280	E	E	E	-	-
SR-92	I-280 to US-101	D	F	F	D	D
SR-92	US-101 to Alameda County Line	E	F	F	C	E
US-101	San Francisco County Line to I-380	E	F	F	D	D
US-101	I-380 to Millbrae Ave*	E	E	F	-	C
US-101	Millbrae Ave to Broadway*	E	E	F	-	D
US-101	Broadway to Peninsula Ave*	E	F	F	D	D
US-101	Peninsula Ave to SR-92*	F	F	F	-	-
US-101	SR-92 to Whipple Ave*	E	F	F	D	D
US-101	Whipple Ave to Santa Clara County Line	F	F	F	-	-
SR-109	Kavanaugh Dr to SR-84 (Bayfront Expwy.)	E	B	C	-	-
SR-114	US-101 to SR-84 (Bayfront Expressway)	E	A	B	-	-
I-280	San Francisco County Line to SR-1 (north)	E	E	E	-	-
I-280	SR-1 (north) to SR-1 (south)	E	E	E	-	-
I-280	SR-1 (south) to San Bruno Ave	D	F	F	D	D
I-280	San Bruno Ave to SR-92	D	A	D	-	-
I-280	SR-92 to SR-84	D	E	E	C	C
I-280	SR-84 to Santa Clara County Line	D	D	F	-	C
I-380	I-280 to US-101	F	F	F	-	-
I-380	US-101 to Airport Access Road	C	A	A	-	-
Mission St	San Francisco County Line to SR-82	E	A	A	-	-
Geneva Ave	San Francisco County Line to Bayshore Blvd	E	A	A	-	-
Bayshore Blvd	San Francisco County Line to Geneva Ave	E	A	A	-	-

Red shading indicates LOS below standard

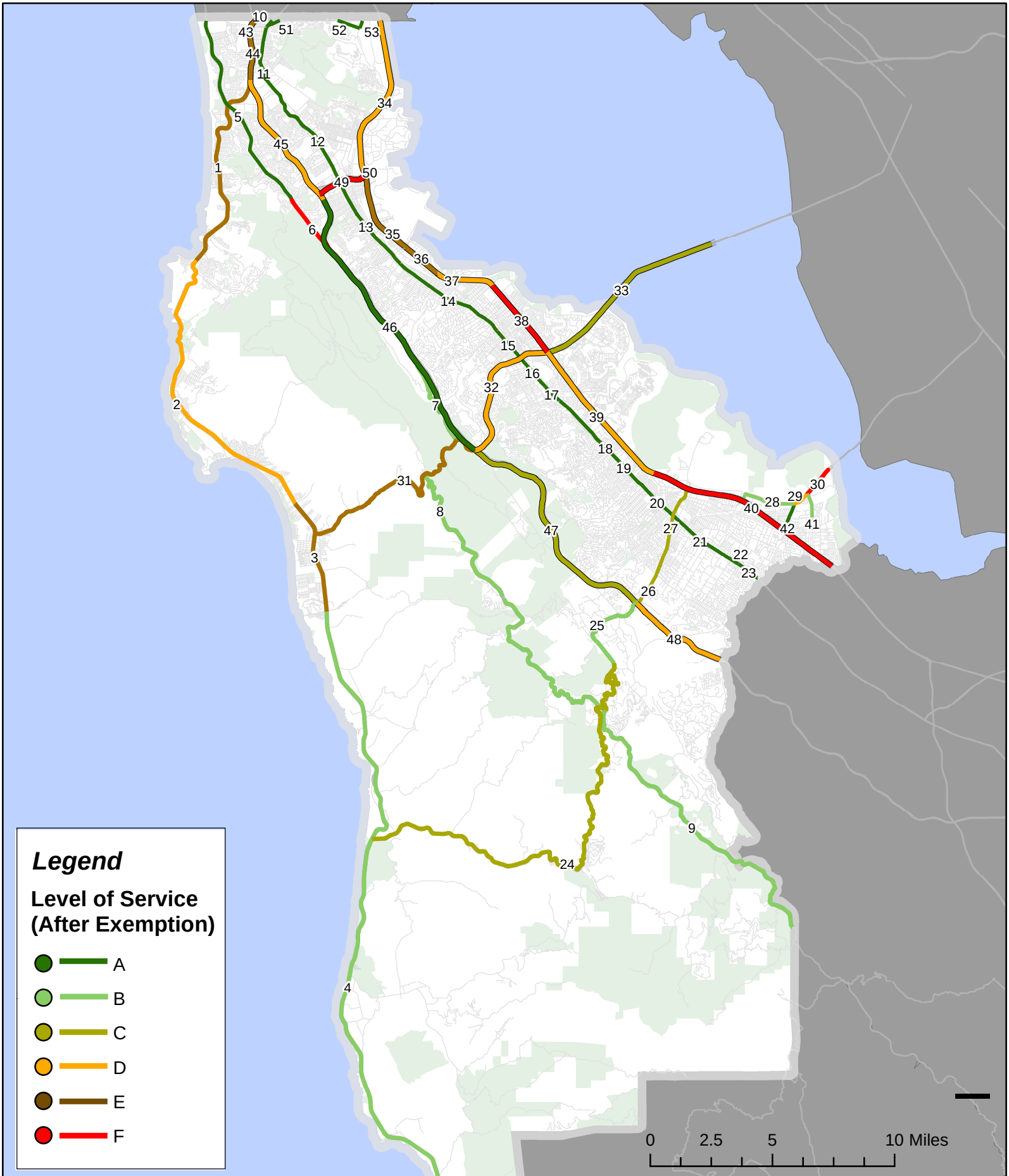


FIGURE 17

DEFICIENT ROADWAY SEGMENTS/INTERSECTIONS
AM PEAK PERIOD (AFTER EXEMPTION) (2025)

TJKM

C/CAG
City/County Association of Governments
of San Mateo County

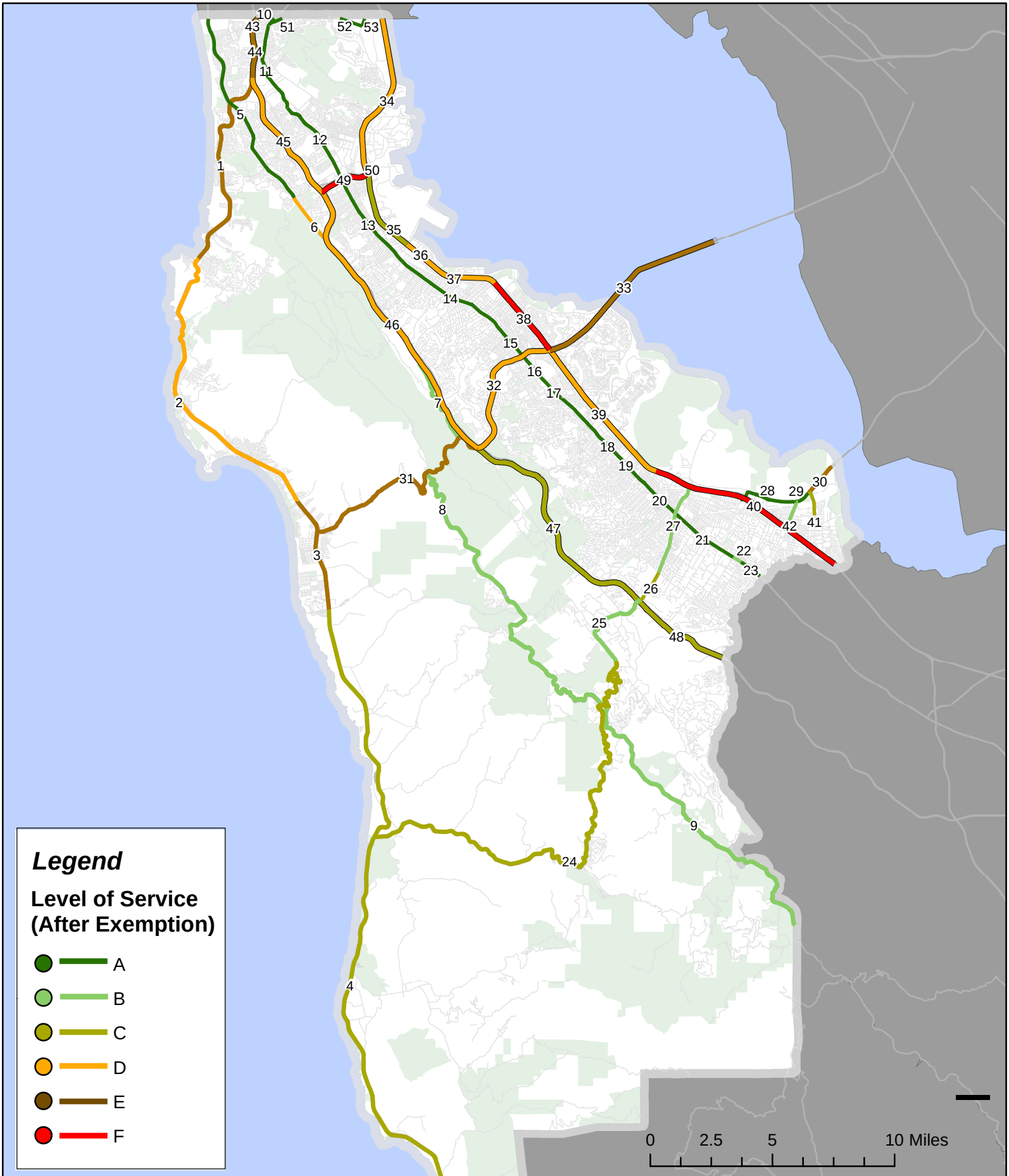


FIGURE 18

DEFICIENT ROADWAY SEGMENTS/INTERSECTIONS
PM PEAK PERIOD (AFTER EXEMPTION) (2025)

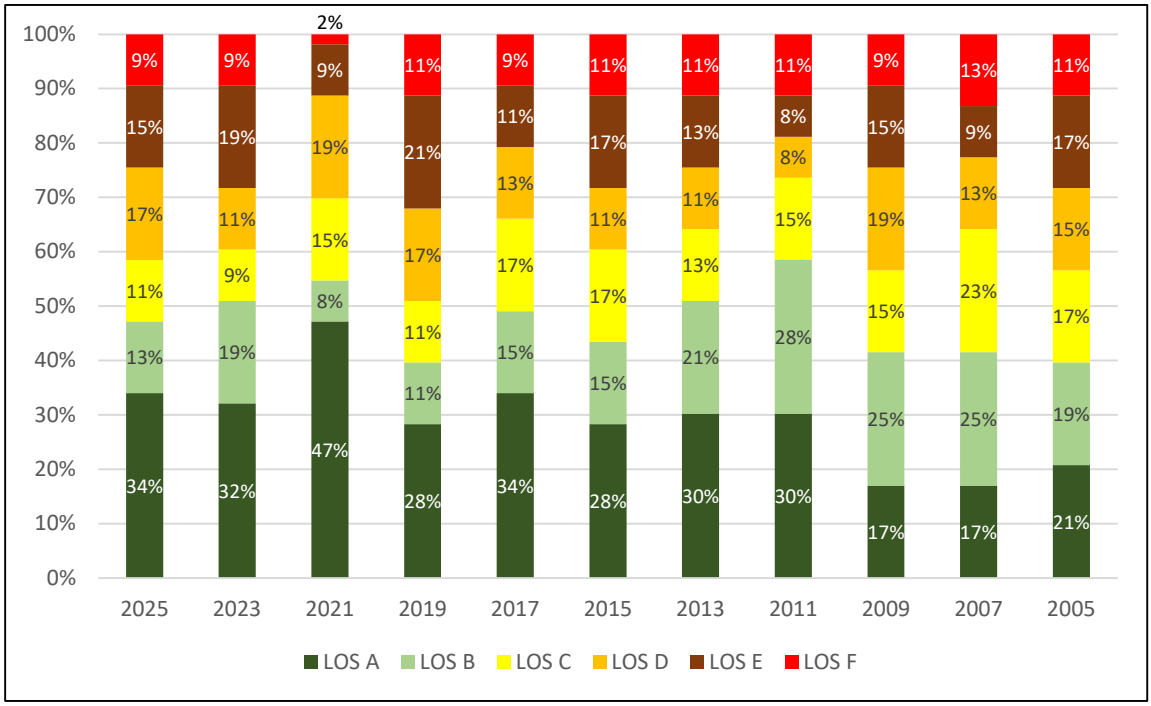
TJKM

C/CAG
City/County Association of Governments
of San Mateo County

3.3: Historical Comparisons

C/CAG has continuously conducted monitoring of the CMP network every two years since the CMP was established in 1991. As such, it presents the opportunity to examine the historical trends along each segment and at each intersection. **Figure 19** below illustrates the percentage of each LOS grade for roadway segments across the last 11 monitoring cycles. From this, it can be seen that the LOS D grade percentages is more than 2023. CMP network segments were assessed using volume-to-capacity (V/C) ratios, which were derived from local free-flow speed, roadway cross-section, lane count, the percentage of no-passing zones, and functional classification. Two-lane highways and arterials were evaluated using these V/C ratios and compared with the applicable criteria in the 1994 HCM to determine the corresponding LOS. However, the high percentage of LOS A grades indicates a continued reduction and change in traffic patterns post pandemic.

Figure 19: Historical LOS Comparison for Roadway Segments



In 2025, intersections in the AM peak period saw less LOS E intersections and the same number of LOS F intersections compared to 2023. In the PM peak periods there were more LOS E intersections when compared to 2023.

As intersection LOS has traditionally been reported for both the AM and PM peak period, we have the opportunity to examine historical trends for each individually. **Figure 20** shows the historical trends of intersection LOS in the AM peak period, while **Figure 21** illustrates the PM peak period.

Tables showing the historical LOS for all roadway segments and intersections are presented below in **Tables 15 and 16**. All historical LOS is presented after interregional exemptions.

Figure 20: Historical LOS Comparison for Intersections – AM Peak Period

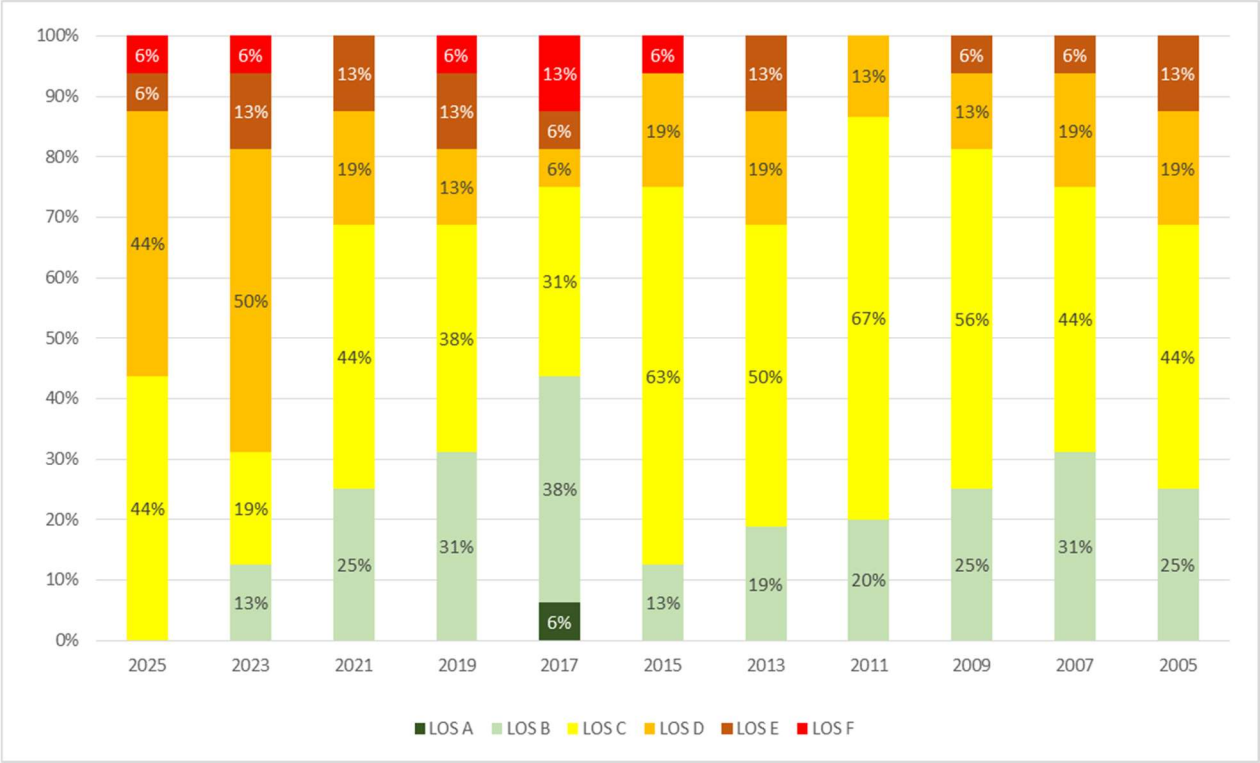


Figure 21: Historical LOS Comparison for Intersections – PM Peak Period

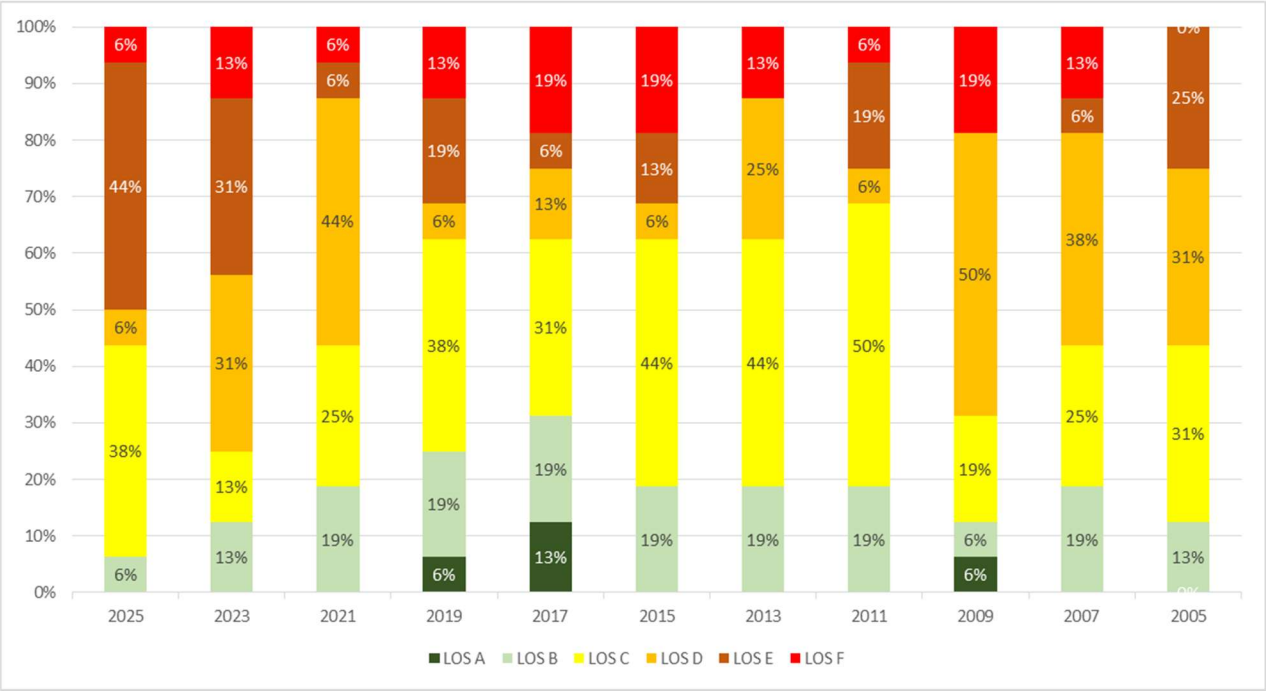


Table 15: Historical LOS for Roadway Segments

Route	Roadway Segment	2025	2023	2021	2019	2017	2015	2013	2011	2009	2007	2005
SR-1	San Francisco County Line to Linda Mar Blvd	E	E	C	C	A	A	F	B	F	F	F
SR-1	Linda Mar Blvd to Frenchmans Creek Rd	D	D	D	D	D	D	D	D	D	D	D
SR-1	Frenchmans Creek Road to Miramontes Rd	E	E	E	E	E	E	E	E	E	E	E
SR-1	Miramontes Rd to Santa Cruz County Line	C	C	C	C	C	C	B	B	B	B	C
SR-35	San Francisco Co Line to Sneath Ln	A	B	A	D	C	D	B	A	C	C	C
SR-35	Sneath Ln to I-280	F	F	C	F	F	F	F	F	E	F	F
SR-35	I-280 to SR-92	B	C	B	C	B	A	B	B	B	B	C
SR-35	SR-92 to SR-84	B	B	B	B	B	B	B	B	B	B	B
SR-35	SR-84 to Santa Clara County Line	B	B	B	B	B	B	B	B	B	B	B
SR-82	San Francisco County Line to John Daly Blvd	A	A	A	A	A	A	A	A	A	A	A
SR-82	John Daly Blvd to Hickey Blvd	A	A	A	A	A	A	A	A	A	A	A
SR-82	Hickey Blvd to I-380	A	A	A	A	A	A	A	A	A	C	A
SR-82	I-380 to Trousdale Dr	A	A	A	A	A	A	A	A	A	B	A
SR-82	Trousdale Dr to 3rd Ave	A	A	A	A	A	A	A	B	A	A	A
SR-82	3rd Ave to SR-92	A	A	A	A	A	A	A	A	A	A	A
SR-82	SR-92 to Hillsdale Ave	A	B	A	A	A	A	A	A	B	B	B
SR-82	Hillsdale Ave to 42nd Ave	A	A	A	B	C	C	B	B	B	B	B
SR-82	42nd Ave to Holly St	A	A	A	A	B	B	A	A	B	B	A
SR-82	Holly St to Whipple Ave	A	A	A	A	A	B	B	C	C	D	D
SR-82	Whipple Ave to SR-84	A	A	B	A	A	A	A	B	C	C	C
SR-82	SR-84 to Glenwood Ave	A	A	A	A	A	B	A	B	B	B	B
SR-82	Glenwood Ave to Santa Cruz Ave	B	B	A	C	C	C	C	B	B	C	D
SR-82	Santa Cruz Ave to Santa Clara County Line	A	A	A	D	B	B	B	A	B	B	C
SR-84	SR-1 to Portola Rd	C	B	C	D	B	B	C	C	C	C	C
SR-84	Portola Rd to I-280	B	B	C	B	C	C	B	B	B	B	B
SR-84	I-280 to Alameda de las Pulgas	C	C	C	E	D	D	D	C	C	A	C

Route	Roadway Segment	2025	2023	2021	2019	2017	2015	2013	2011	2009	2007	2005
SR-84	Alameda de las Pulgas to US-101	C	B	C	E	D	D	D	E	E	E	E
SR-84	US-101 to Willow Rd	B	B	A	B	B	C	C	B	E	C	B
SR-84	Willow Rd to University Ave	D	C	C	E	B	B	B	C	E	F	F
SR-84	University Ave to Alameda County Line	F	F	D	F	F	F	F	F	F	F	F
SR-92	SR-1 to I-280	E	E	E	E	E	E	E	E	E	E	E
SR-92	I-280 to US-101	D	D	D	E	E	E	E	F	D	D	E
SR-92	US-101 to Alameda County Line	E	D	E	F	C	F	E	A	B	B	B
US-101	San Francisco County Line to I-380	D	E	D	D	E	E	E	A	D	E	D
US-101	I-380 to Millbrae Ave	E	E	D	E	D	D	C	C	D	C	D
US-101	Millbrae Ave to Broadway	E	E	D	E	C	E	C	C	C	C	D
US-101	Broadway to Peninsula Ave	D	D	D	D	D	E	C	C	D	C	D
US-101	Peninsula Ave to SR-92	F	F	F	F	F	F	F	F	F	F	F
US-101	SR-92 to Whipple Ave	D	E	D	E	E	E	D	D	E	D	E
US-101	Whipple Ave to Santa Clara County Line	F	F	D	F	F	F	F	F	F	F	F
SR-109	Kavanaugh Dr to SR-84 (Bayfront Expwy.)	C	C	A	C	C	D	D	C	D	D	C
SR-114	US-101 to SR-84 (Bayfront Expressway)	B	B	A	C	C	C	A	B	C	C	B
I-280	San Francisco County Line to SR-1 (north)	E	E	D	E	E	E	E	E	D	A	E
I-280	SR-1 (north) to SR-1 (south)	E	E	E	E	D	E	E	B	E	E	E
I-280	SR-1 (south) to San Bruno Ave	D	D	A	D	D	C	D	D	D	C	E
I-280	San Bruno Ave to SR-92	D	A	A	D	A	C	B	D	C	B	B
I-280	SR-92 to SR-84	C	E	A	B	A	C	C	B	D	D	D
I-280	SR-84 to Santa Clara County Line	D	D	A	D	A	A	A	A	D	D	C
I-380	I-280 to US-101	F	F	E	F	F	F	F	F	F	F	E
I-380	US-101 to Airport Access Road	A	A	A	A	A	A	A	A	B	C	A
Mission St	San Francisco County Line to SR-82	A	A	A	A	A	A	A	A	A	A	A
Geneva Ave.	San Francisco County Line to Bayshore Blvd	A	A	A	A	A	A	A	A	A	A	A
Bayshore Blvd.	San Francisco County Line to Geneva Ave	A	A	A	A	A	A	A	A	A	A	A

Table 16: Historical LOS for Intersections

ID	Intersection	Peak Period	2025	2023	2021	2019	2017	2015	2013	2011	2009	2007	2005
1	Bayshore Blvd/Geneva Ave	AM	C	B	B	E	B	B	B	B	C	B	C
		PM	C	C	B	B	A	B	B	B	C	C	C
2	SR-35/John Daly Blvd	AM	D	C	B	B	C	D	C	C	B	B	B
		PM	C	C	B	B	B	E	C	C	C	B	C
3	SR-82/John Daly Blvd/Hillside Ave	AM	C	D	C	B	B	C	C	B	C	C	C
		PM	C	D	C	C	C	C	C	C	D	C	D
4	SR-82/San Bruno Ave	AM	D	D	C	C	B	C	C	C	C	C	C
		PM	E	E	C	C	C	C	C	C	D	D	D
5	SR-82/Millbrae Ave	AM	C	E	C	E	D	D	E	D	E	E	E
		PM	E	E	D	E	D	E	D	E	D	E	E
6	SR-82/Broadway	AM	C	B	B	B	A	B	B	B	B	B	B
		PM	C	B	B	A	A	B	B	B	A	B	B
7	SR-82/Park Rd/Peninsula Ave	AM	C	C	C	C	B	C	C	C	B	B	B
		PM	B	B	C	C	B	C	C	C	B	B	B
8	SR-82/Ralston Ave	AM	E	E	D	C	C	C	C	C	D	D	E
		PM	E	E	D	C	C	C	D	C	D	D	E
9	SR-82/Holly St	AM	D	D	C	C	C	C	C	C	C	C	C
		PM	E	D	C	C	C	C	C	C	D	C	C
10	SR-82/Whipple Ave	AM	D	D	D	C	C	C	C	C	C	C	D
		PM	D	D	D	D	D	C	C	C	D	D	D
11	University Ave/SR-84	AM	C	C	B	C	F	C	E	C	B	B	B
		PM	F	F	D	F	F	F	F	F	F	F	E
12	Willow Rd/SR-84	AM	D	D	C	D	C	D	D	C	C	C	C
		PM	E	E	D	E	F	F	F	E	F	F	E
13	SR-84/Marsh Rd	AM	F	F	E	F	F	F	D	D	C	C	C
		PM	E	F	E	F	F	F	D	E	F	D	C
14	SR-84/Middlefield Rd	AM	D	D	E	D	E	C	D	C	D	D	D
		PM	E	D	E	E	E	D	D	D	D	D	D
15	SR-1/SR-92	AM	C	D	C	B	B	C	C	D	C	D	D
		PM	C	D	D	C	C	C	C	C	D	D	D
16	Main St/SR-92	AM	D	D	D	B	B	C	B	C	C	C	C
		PM	C	E	D	B	B	B	B	B	C	C	C

CHAPTER 4: MULTI-MODAL PERFORMANCE MEASURES

Beginning in 1995, the Transit LOS Standard element of the San Mateo County CMP was replaced with the Performance Measure element. Four Performance Measures were selected and incorporated in the 1997 CMP Update and used each update cycle through 2009. The four measures are used to measure the performance of the overall multi-modal transportation system, including non-automotive modes. They are:

BART at South San Francisco station (Source: BART.gov)

- LOS;
- Travel times from single-occupant automobiles, carpools, and transit;
- Pedestrian and bicycle improvements; and
- Ridership/person throughput for transit.

This section presents the 2025 measurements of these performance measures and includes the historic results for context.

4.1: LOS

The levels of service of the CMP corridors and segments are included in the previous sections of this monitoring report. The results show that no roadway segments or intersections exceeded their respective LOS standard following reflection of the interregional trips.

4.2: Travel Times for Single-Occupant Automobiles, Carpools, and Transit

This multi-modal performance measure compares the travel time of the various modes available in the US 101 corridor from the Santa Clara County line to the San Francisco County line. Those include using the general purpose lanes, using the carpool lane, express lanes for the limits available, or using transit via SamTrans or Caltrain.

For the current CMP, general-purpose lane travel times were obtained through field-based floating car surveys. Data collection included six runs in each direction during both the AM (7:00–9:00 AM) and PM (4:00–6:00 PM) peak

periods. Travel time data was collected along the US 101 corridor, extending from the Santa Clara County line to the San Francisco County line. The corridor is divided into two segments:

Northbound:

- Segment 1: US-101: SM/SC County Line to Grand Avenue/End of Express Lanes
- Segment 2: US-101: Grand Avenue/End of Express Lanes to SF/SM County Line

Southbound:

- Segment 1: US-101: SF/SM County Line to Grand Avenue/Beginning of Express Lanes
- Segment 2: US-101: Grand Avenue/Beginning of Express Lanes to SM/SC County Line

The current limits of the express lanes (HOT) in San Mateo County spans from the Santa Clara County line to Grand Avenue. Travel times for this segment were collected using floating car surveys, consisting of six runs in each direction during both the AM (7:00–9:00 AM) and PM (4:00–6:00 PM) peak periods. We have also collected the INRIX data for the general purpose lanes to see the travel time and compared with the floating car runs. The travel times for the general purpose lane and express lanes for the segments are included in **Table 17** below. **Figure 22** shows the limits of the travel time runs for the US-101 corridor.

Table 17: Travel Times along US-101 Corridor (in minutes)

Route/ Direction	Length (mile)	Segment	General Purpose Lane Travel Time (minutes) - INRIX		General Purpose Lane Travel Time (minutes) – FLOATING CAR		Express Lane (HOT) Travel Time (minutes) – FLOATING CAR	
			AM	PM	AM	PM	AM	PM
US-101 NB	22	San Mateo County/Santa Clara County Line to Grand Avenue/End of Express Lanes	24	35	22	32	18	25
US-101 NB	4	Grand Avenue/End of Express Lanes to San Francisco/San Mateo County Line	5	6	5	5	-	-
US-101 SB	22	Grand Avenue/Beginning of Express Lanes to San Mateo County/Santa Clara County Line	29	31	33	29	26	23
US-101 SB	4	San Francisco/San Mateo County Line to Grand Avenue/End of Express Lanes	6	6	5	7	-	-

In previous CMP reports, general-purpose travel times were calculated as a two-month average (April–May) and are presented in **Table 18**. For single-occupant vehicles, these values were derived from INRIX travel time data, based

on average speeds across each TMC segment in five-minute intervals during the respective AM and PM peak periods.

Transit travel times include options for both SamTrans Route EPX and Caltrain along the US-101 corridor. Route EPX is a newly introduced express service, providing weekday connections between East Palo Alto and the San Bruno BART station. This route utilizes the US-101 Express Lanes and offers four trips to downtown San Francisco during both the morning and evening peak periods.

Caltrain travel times are based on the published schedules from June 2025. While no field data collection was conducted for either transit option, the travel times are reported using the same methodology applied in previous LOS monitoring studies to ensure consistency.

The travel times for the various mode options are included in **Table 18** below. The table includes the respective travel times, listed by direction and peak periods, for the current reporting period as well as previous years back to 2013.

The results indicate that travel times in the general-purpose lanes along US-101 have increased between 2023 and 2025, particularly in the southbound direction during the AM peak period. In contrast, the HOT lanes offer significant travel time savings, with travel times at least 20% shorter than those in the general-purpose lanes for single-occupancy vehicles.

For Caltrain, travel times during the AM peak period showed a slight increase in the northbound direction. However, slight decreases were observed in the southbound direction during the AM peak, as well as in both directions during the PM peak. The most notable improvement was a two-minute reduction in travel time during the PM peak period.

In previous CMP reports, travel times for SamTrans Route 398 were included. This route operated between the Redwood City Transit Center and San Francisco, traveling along El Camino Real and US-101 during the AM and PM peak periods, with limited detours to the San Bruno BART Station and San Francisco International Airport. Route 398 has since been discontinued. In its place, SamTrans has introduced Route EPX, a new express service that operates hourly on weekdays from 5:05 a.m. to 8:15 p.m. This route does not offer service on weekends.

C/CAG has also been exploring the integration of observed travel time data on SamTrans based on automatic vehicle locator (AVL) data. Buses can get stuck in traffic or otherwise be delayed and as such observed travel times may differ from the published schedule. This is not considered for this report.

Table 18: Multi-Modal Travel Times Along US-101 Corridor (in minutes)

Mode of Transportaton	AM - Morning Commute Peak Period								PM - Evening Commute Peak Period							
	Northbound				Southbound				Northbound				Southbound			
	2025	2023	2021	2019	2025	2023	2021	2019	2025	2023	2021	2019	2025	2023	2021	2019
Auto - General Lane[1]	22	29	23	28	33	30	22	40	32	33	24	40	29	33	26	32
Express Lane (HOT)[2]	18	20	24	26	26	20	22	38	25	22	24	40	23	22	26	31
Caltrain (Palo Alto to BayShore Stations)[3]	43	42	46	40	40	42	46	43	40	42	44	40	40	42	44	39
SamTrans Route EPX[4]	82	58	65	57	77	70	67	74	79	66	84	83	77	61	63	74

1. 2019 to 2023, Results were based on INRIX average speeds over each TMC for the two-month average (April-May). 2025 results are based on Floating Car Surveys.

2. 2021, and 2023, Results were based on Floating Car Surveys for the Carpool HOV lane segment between Santa Calra County Line to Grand Avenue. 2025 results are based on Floating Car Surveys for the Express Lanes.

3. Travel Times were based on Caltrain schedules.

4. 2019, 2021, and 2023, Travel Times was based on SamTrans Route 398 schedule. For 2025, results are based on SamTrans Route EPX (new route) schedule.

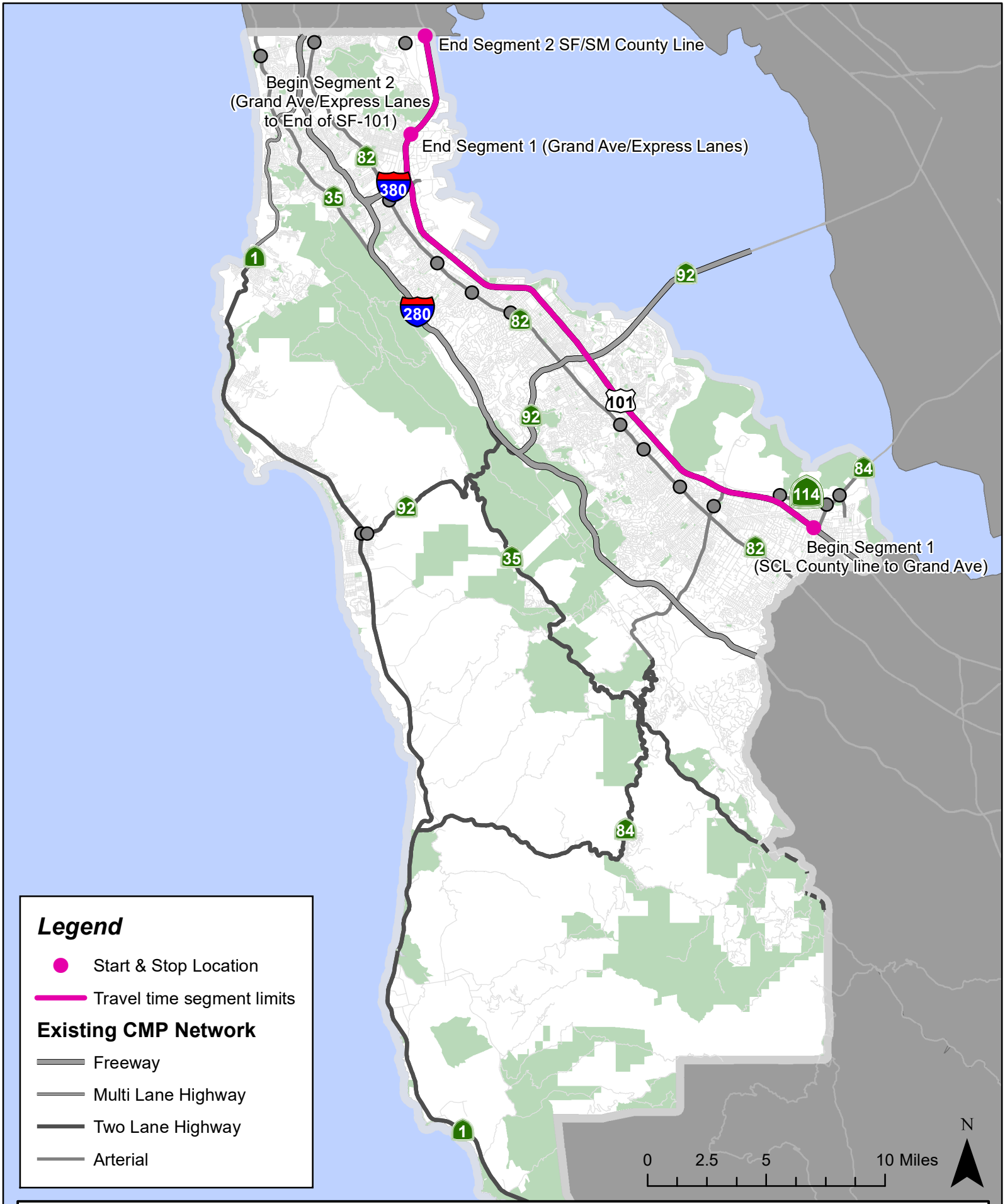


FIGURE 22

TRAVEL TIME LIMITS

4.3: Pedestrian and Bicycle Improvements

The purpose of this performance measure is to maintain a focus on non-vehicular alternatives. This should be reflected in connectivity to transit and other modes to not only make connections convenient, but safe and attractive. During the CMP update process, seven-year Capital Improvement Program (CIP) projects are identified and evaluated. The top-ranked projects are forwarded to MTC to be evaluated in the regional process for State and Federal funding.

C/CAG developed the San Mateo County Comprehensive Bicycle and Pedestrian Plan in 2011 to address the planning, design, funding, and implementation of bicycle and pedestrian projects of countywide significance. The Plan includes a policy framework to guide and evaluate implementation of projects identified by the local implementing cities/towns and the County. To maximize funding available for bikeway projects, the Plan emphasizes projects that improves safety, promote access to jobs, and located within high population as well as employment densities. The Plan also establishes geographical focus areas for countywide investment in pedestrian infrastructure.

The San Mateo County Comprehensive Bicycle and Pedestrian Plan was subsequently updated in 2021 and adopted by the C/CAG Board at their June 2021 meeting. The updated plan proposes 250 miles of bicycle projects and pedestrian projects that address gaps to transit, between jurisdictions, or are within pedestrian priority areas. In addition to the C/CAG plan, approximately 14 cities and towns in San Mateo County have their own bicycle/pedestrian plans.

Bicycle and pedestrian counts were conducted at all 16 CMP intersections and 38 Companion Network intersections during the AM and PM peak period, as well as at eight Coastside intersections during the Saturday AM, Mid-Day, and PM peak periods. **Tables 19 through Table 21** detail the results of these counts.

Table 19: CMP Intersection Bicycle and Pedestrian Counts

ID	Intersection	2hr Peak Period	Total Bike	Total Ped
1	Bayshore Blvd/Geneva Ave	AM	17	10
		PM	18	14
2	SR 35/John Daly Blvd	AM	6	3
		PM	4	13
3	SR 82/John Daly Blvd	AM	5	293
		PM	3	302
4	SR 82/San Bruno Ave	AM	3	76
		PM	4	82
5	SR 82/Millbrae Ave	AM	5	46
		PM	2	97
6	SR 82/Broadway	AM	3	102
		PM	5	142
7	SR 82/Peninsula Ave	AM	1	24
		PM	0	60
8	SR 82/Ralston Ave	AM	14	192
		PM	4	210
9	SR 82/ Holly St	AM	4	57
		PM	2	61
10	SR 82/Whipple Ave	AM	7	89
		PM	9	82
11	University Ave/SR 84	AM	0	43
		PM	1	26
12	Willow Rd/SR 84	AM	4	28
		PM	0	30
13	Marsh Rd/SR 84	AM	3	43
		PM	7	41
14	SR 84/Middlefield Rd	AM	21	120
		PM	18	148
15	SR 1/SR 92	AM	3	35
		PM	0	63
16	Main St/SR 92	AM	6	52
		PM	7	79

Table 20: Companion Network Intersection Bicycle and Pedestrian Counts

ID	Intersection	Peak Period	Total Bike	Total Ped
1	SR 82/3rd Ave	AM	16	181
		PM	14	343
2	Skyline Blvd/SR 92	AM	12	1
		PM	17	0
3	Holly St/Industrial St	AM	6	15
		PM	9	32
4	Whipple Ave/Veterans Blvd	AM	4	24
		PM	0	5
5	Marsh Rd/Middlefield Rd	AM	83	18
		PM	64	34
6	Sand Hill Rd/Santa Cruz Ave	AM	89	57
		PM	126	56
7	University Ave/Bay Rd	AM	19	129
		PM	21	172
8	SR 84/Alamedas de las Pulgas	AM	50	93
		PM	51	30
9	Portola Rd/Alpine Rd	AM	52	31
		PM	59	28
10	SR 35/SR 92	AM	0	0
		PM	0	0
11	El Camino Real/Mission Rd	AM	5	2
		PM	10	5
12	SR 1/Main St	AM	5	75
		PM	4	47
13	El Camino Real/Westborough Rd	AM	3	32
		PM	1	91
14	Capistrano Rd/SR 1	AM	3	42
		PM	13	77
15	S Airport Blvd/San Bruno Ave	AM	22	0
		PM	15	0
16	SR 1/Reina Del Mar Ave	AM	1	52
		PM	0	58
17	SR 1/Cypress Ave	AM	2	2
		PM	4	2
18	El Camino Real/Selby Lane	AM	8	25
		PM	4	16
19	Davis Drive/Ralston Ave	AM	2	106
		PM	1	20
20	Bayshore Blvd/San Bruno Ave	AM	12	1
		PM	21	3
21	Serramonte Blvd/ Hwy 280 NB On-Ramp	AM	1	0
		PM	0	0
22	University Ave/Weeks St	AM	8	76
		PM	11	114
23	Chess Drive/Foster City Blvd	AM	5	17
		PM	2	42
24	Highway 1/Poplar St	AM	5	43
		PM	7	42

ID	Intersection	Peak Period	Total Bike	Total Ped
25	Skyline Blvd/Skyfarm Drive	AM	2	6
		PM	6	4
26	Brittan Ave/Cordilleras Ave	AM	12	98
		PM	10	55
27	Woodside Rd/Lindenbrook Rd	AM	11	0
		PM	17	0
28	Mission St/E. Market St/San Pedro Rd	AM	12	149
		PM	9	402
29	Willow Rd/O'Brien Drive	AM	14	20
		PM	19	11
30	Rollins Rd/Millbrae Ave	AM	4	119
		PM	3	170
31	Fasler Ave/Highway 1	AM	4	26
		PM	0	27
32	Alpine Rd/Golden Oak Drive	AM	60	6
		PM	65	21
33	El Camino Real/Sneath Lane	AM	7	24
		PM	8	60
34	Poplar Ave/Humboldt St	AM	10	104
		PM	12	61
35	Westborough Blvd at I-280/ Junipero Serra Blvd	AM	1	0
		PM	2	0
36	Old Bayshore Hwy/Mahler Rd	AM	19	45
		PM	16	23
37	Middlefield Rd/Fifth Ave	AM	25	142
		PM	40	229
38	El Camino Real /Jefferson Ave	AM	14	253
		PM	18	392

Table 21: Weekend Intersection Bicycle and Pedestrian Counts

ID	Intersection	Peak Period	Total Bike	Total Ped
15	SR 1/SR 92	AM	7	22
		MID	10	59
		PM	2	54
16	Main Street/SR 92	AM	5	44
		MID	13	122
		PM	5	110
18	Skyline Blvd/SR 92	AM	25	1
		MID	108	0
		PM	10	0
26	SR 35/SR 92	AM	7	1
		MID	15	0
		PM	10	1
28	SR 1/Main St	AM	12	26
		MID	18	61
		PM	12	36
30	Capistrano Rd/SR 1	AM	7	99
		MID	15	215
		PM	17	189
31	SR 1/Reina Del Mar Ave	AM	4	27
		MID	8	85
		PM	14	57
33	SR 1/Cypress Ave	AM	12	3
		MID	13	0
		PM	9	1

The results of the counts show that bicycle and pedestrian activity varies across the peak periods and across the county. For the CMP intersections, the intersection with the highest bike activity in the AM peak period was SR 84 at Middlefield Road with 21 bikes, while in the PM peak period it was Bayshore Boulevard/Geneva Avenue with 18 bikes. SR-82/John Daly Boulevard had the highest number of pedestrians in both the AM and PM peak periods with 293 and 302 pedestrians respectively.

For the Companion Network intersections, Sand Hill Road/Santa Cruz Avenue had the highest amount of bike activity in the AM and PM peak periods with 89 and 126 bikes respectively. El Camino Real/Jefferson Avenue had the highest pedestrian activity in both peak periods with 253 and 392 pedestrians respectively.

On the weekend, Skyline Boulevard/SR-92 had the highest amount of bike activity, with 25 bikes in the AM, and 108 bikes in the Mid-Day. Capistrano Road/SR 1 had the highest amount of bike activity with 17 bikes in the PM peak period. Capistrano Road/SR 1 had the highest pedestrian activity in all peak periods, with 99 pedestrians in the AM, 215 pedestrians in the mid-day and 189 in the PM peak period.

Table 22: Historical Comparison Bicycle Counts at CMP Intersections

ID	Intersection	AM Peak Period					PM Peak Period				
		2019	2021	2023	2025	% Change 2023 to 2025	2019	2021	2023	2025	% Change 2023 to 2025
1	Bayshore Blvd/Geneva Ave	0	9	15	11	-27%	4	3	6	10	67%
2	SR 35/John Daly Blvd	4	5	0	4	0%	0	1	0	3	0%
3	SR 82/John Daly/Hillside	2	2	4	2	-50%	4	5	1	3	200%
4	SR 82/San Bruno Ave	2	0	0	1	0%	4	3	2	1	-50%
5	SR 82/Millbrae Ave	6	1	0	4	0%	1	1	0	1	0%
6	SR 82/Broadway	6	9	5	1	-80%	8	2	10	3	-70%
7	SR 82/Park Rd/Peninsula Ave	8	0	1	1	0%	4	1	1	0	-100%
8	SR 82/Ralston Ave	5	4	0	10	0%	11	3	4	1	-75%
9	SR 82/Holly St	6	5	3	2	-33%	8	4	2	0	-100%
10	SR 82/Whipple Ave	11	17	8	3	-63%	6	10	10	4	-60%
11	University Ave/SR 84	20	4	3	0	-100%	26	3	1	1	0%
12	Willow Rd/SR 84	29	1	2	0	-100%	7	7	0	0	0%
13	SR 84/Marsh	7	3	2	0	-100%	23	10	5	0	-100%
14	SR 84/Middlefield Rd	24	6	10	14	40%	12	17	8	9	13%
15	SR 1/SR92	20	3	1	3	200%	5	4	1	0	-100%
16	Main St/SR 92	7	2	0	4	0%	11	1	0	5	0%
	TOTAL BIKES	**157**	**71**	**54**	**60**	**11%**	**134**	**75**	**51**	**41**	**-20%**

The project team also compared the number of bikes and pedestrians during the peak hour of each intersection between 2019 and 2021, to better understand pandemic effects on active transportation.

Historical comparisons of the CMP intersections are presented in **Table 22** and **Figures 23** and **24** for bicycles, and **Table 23** and **Figures 25** and **26** for pedestrians.

Table 22 indicates that bicycle counts continue to decrease since 2023 by as much as 20% during the PM peak period. Although vehicular volumes have increased and recovered to close to pre-pandemic levels, bicycle volumes are continuing to decrease. It should be noted, however, that active modes of travel can also be sensitive to moderate changes in weather, temperature, or other field conditions.

Figure 23: Historical Bicycle Counts Comparison – AM Peak Hour

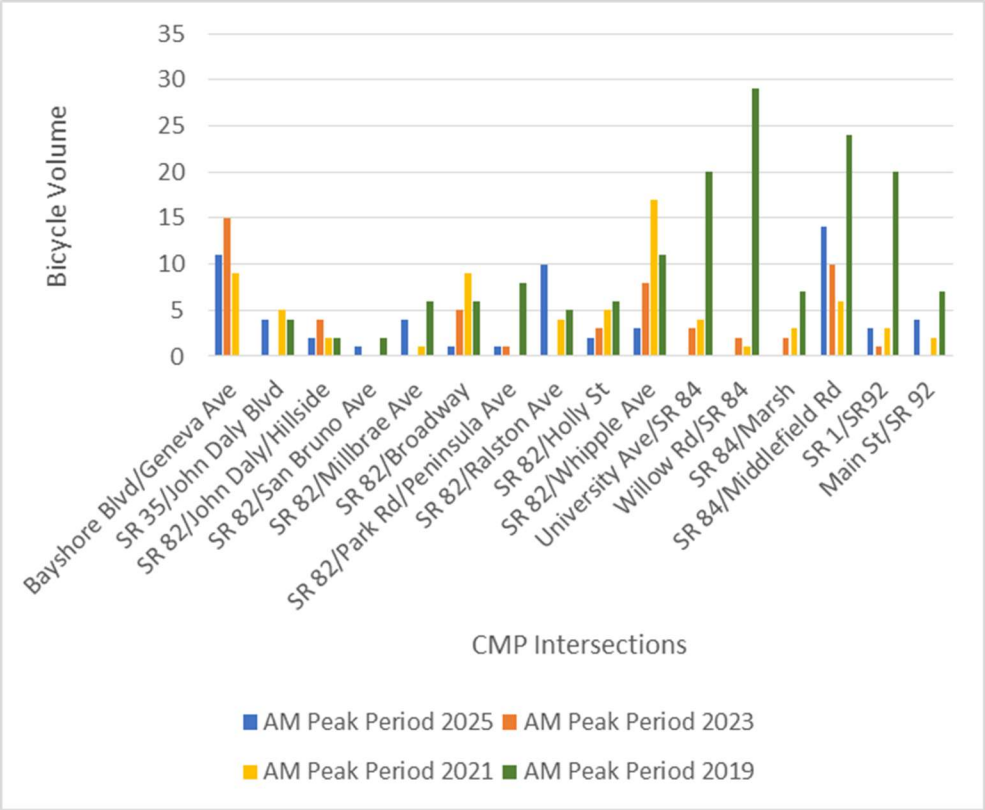


Figure 24: Historical Bicycle Counts Comparison – PM Peak Hour

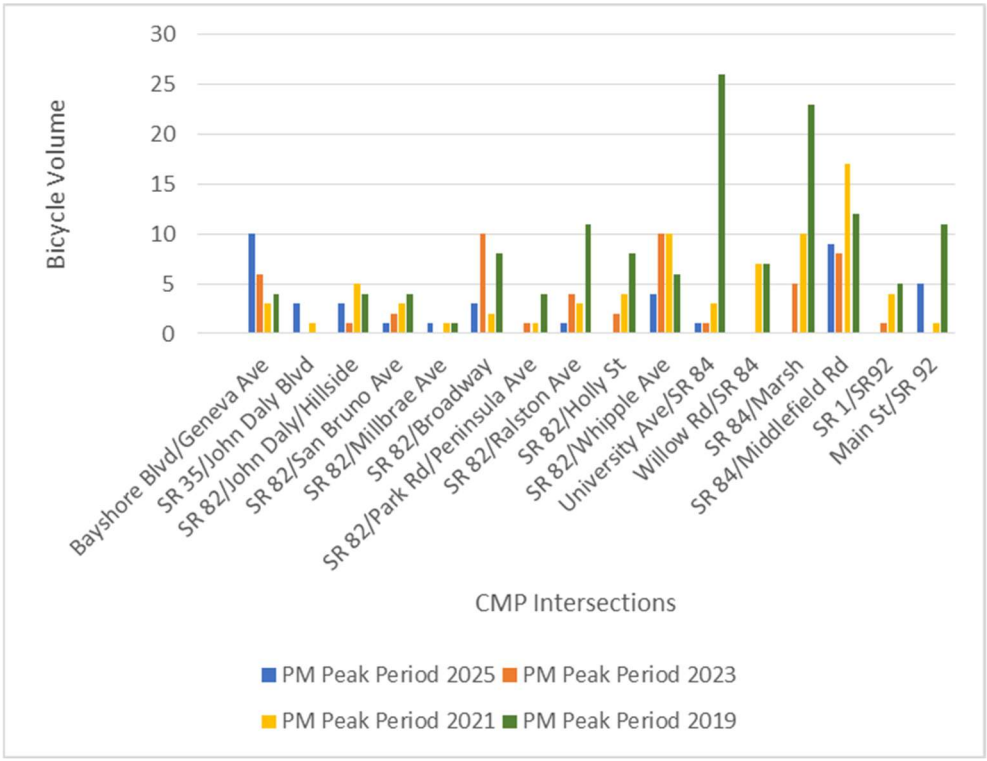


Table 23: Historical Comparison Pedestrian Counts at CMP Intersections

ID	Intersection	AM Peak Period					PM Peak Period				
		2019	2021	2023	2025	% Change 2023 to 2025	2019	2021	2023	2025	% Change 2023 to 2025
1	Bayshore Blvd/Geneva Ave	20	9	14	7	-50%	15	5	20	7	-65%
2	SR 35/John Daly Blvd	2	5	4	0	-100%	1	2	7	7	0%
3	SR 82/John Daly/Hillside	173	67	199	186	-7%	292	107	196	141	-28%
4	SR 82/San Bruno Ave	49	18	36	38	6%	63	41	49	32	-35%
5	SR 82/Millbrae Ave	244	29	42	29	-31%	224	13	67	58	-13%
6	SR 82/Broadway	63	63	43	60	40%	64	49	65	60	-8%
7	SR 82/Park Rd/Peninsula Ave	16	17	26	9	-65%	30	12	46	41	-11%
8	SR 82/Ralston Ave	92	29	110	97	-12%	120	42	103	84	-18%
9	SR 82/Holly St	40	28	30	32	7%	49	29	27	36	33%
10	SR 82/Whipple Ave	32	46	46	51	11%	57	31	35	39	11%
11	University Ave/SR 84	12	4	7	20	186%	9	3	18	14	-22%
12	Willow Rd/SR 84	22	4	11	13	18%	52	7	9	14	56%
13	SR 84/Marsh	11	8	27	23	-15%	6	19	24	19	-21%
14	SR 84/Middlefield Rd	22	38	70	78	11%	23	49	81	87	7%
15	SR 1/SR92	21	14	16	21	31%	23	25	18	24	33%
16	Main St/SR 92	50	18	29	29	0%	50	47	52	33	-37%
	TOTAL PEDESTRIANS	**869**	**397**	**710**	**693**	**-2%**	**1078**	**481**	**817**	**696**	**-15%**

On **Table 23**, between 2025 and 2023, pedestrian activity decreased on average by 2% in the AM peak hour and 15% in the PM peak hour.

Figure 25: Historical Pedestrian Counts Comparison – AM Peak Hour

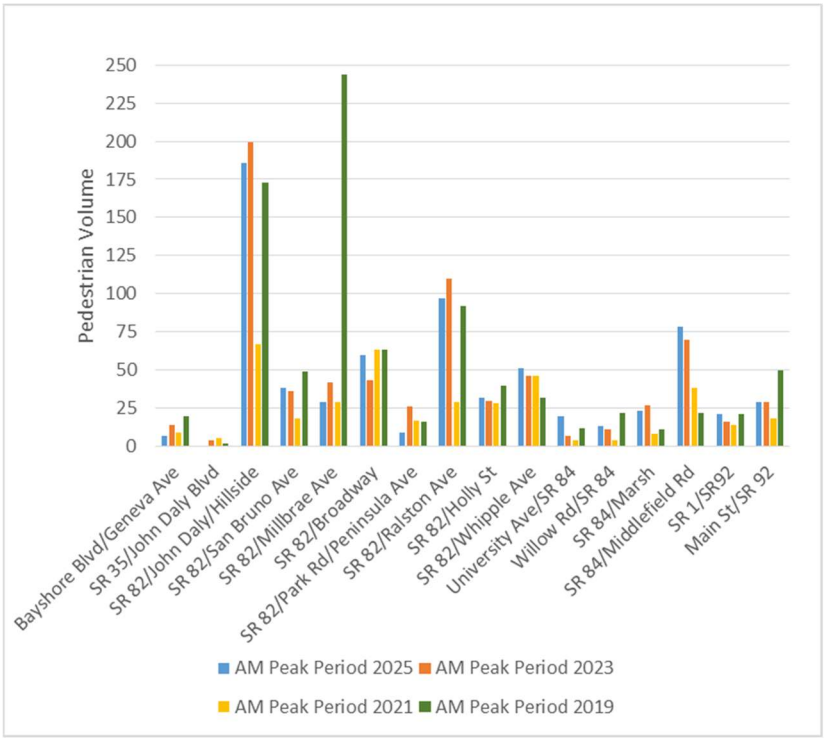
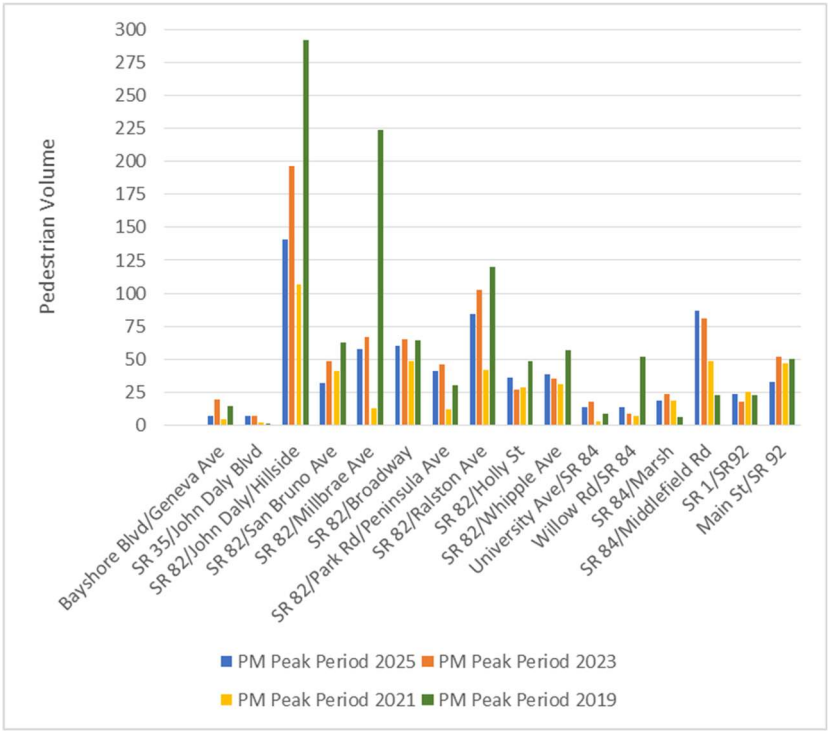


Figure 26: Historical Pedestrian Counts Comparison – PM Peak Hour



4.4: Ridership/Person Throughput for Transit

The purpose of this performance measure is to document the number of patrons using the available transit options. Within San Mateo County, there are three options, including SamTrans, Caltrain, and BART. BART has six stations within San Mateo County: Daly City, Colma, South San Francisco, San Francisco International Airport, San Bruno, and Millbrae.

The COVID-19 pandemic caused a drastic decrease in ridership for transit agencies across San Mateo County in FY 21. However, there is a measurable recovery in transit ridership in FY 25. SamTrans total ridership saw an increase of 38%, Caltrain saw an increase of 79% and BART saw an increase of 17% over FY 23.

Even with these increases in annual ridership, it is still well below pre-pandemic numbers. When comparing FY 25 with pre-pandemic ridership numbers from FY 19, SamTrans total ridership is 1% lower, Caltrain is 49% lower and BART is 51% lower.

This indicates that although transit ridership is continuing to increase in the wake of the pandemic, it is slow to recover as many travel patterns have not shifted to pre-pandemic patterns. For example, many companies have implement work from home policies. Additionally, although vehicle traffic volumes have slightly increased, congestion is not quite back to the pre-pandemic level, so potentially, commuters are choosing to drive rather than take transit.

Annual ridership and average weekday ridership for FY 25 is presented in **Table 24** alongside historical data back to FY 15.

Table 24: Transit Ridership by Agency

Transit Agency	Annual Total				Average Weekday			
	FY 2025	FY 2023	FY 2021	FY 2019	FY 2025	FY 2023	FY 2021	FY 2019
SamTrans	10,782,073	7,796,753	4,503,358	10,670,850	34,217	30,387	13,620	35,150
Caltrain	9,055,262	5,052,371	1,295,656	17,662,773	29,754	20,453	4,099	63,597
BART (Colma and Daly City)	3,865,606	3,203,688	1,211,716	7,741,549	12,784	10,340	3,934	26,483
BART (South San Francisco, San Bruno, SFO, and Millbrae)	5,408,046	4,798,306	1,312,774	11,261,768	16,700	14,630	4,236	37,687
Combined Transit	29,110,987	20,851,118	8,323,504	47,336,940	93,455	75,810	25,889	162,917

Sources: SamTrans, and Caltrain. BART website.

CHAPTER 5: OTHER PERFORMANCE METRICS

In addition to the LOS monitoring and multi-modal performance metrics presented above, two additional metrics are offered to measure the status of the CMP network in San Mateo County: volume comparisons during the COVID-19 pandemic and after, and travel time reliability. Each is described below.

Ralston Avenue in Belmont, one of the Companion Network segments

5.1: COVID-19 Pandemic Volume Comparisons

The COVID-19 pandemic recovery has resulted in an increase in traffic across San Mateo County, which can be evidenced in the degraded LOS on more roadway segments countywide (described in Chapter 3) compared to the previous CMP Updates. During the process to collect traffic counts and analyze INRIX data, TJKM prepared charts comparing 2023 data to current 2025 data to understand the precise change in traffic levels/travel speeds on San Mateo County's CMP network. These are presented below in **Tables 25 through Table 28**.

Travel speeds decreased by an average of 5% in the AM peak period and 6% in the PM peak period between 2023 and 2025.

Volumes from roadway segment 72-hour traffic counts decreased by an average of 1% when compared to available data from 2023. However, when comparing 2025 volumes to 2017 volumes, average traffic counts decreased by an average of 14%. Therefore, based on the 72-hour traffic counts, traffic volumes are still slightly below pre-pandemic conditions.

Intersection turning movement count volumes increased by an average of 2% when compared to 2023 data. However, from 2019 to 2025, intersection turning movement count volumes decreased 22% which indicated traffic volumes are similar to pre-pandemic levels.

Note that 10 roadway segments in the CMP network utilize turning movement counts to derive their peak hour volume for V/C calculations and these are presented in a separate table.

Table 25: Freeway Average Speed Comparisons

Segment	Limits	Direction	Free Flow Speed	AM Peak Period			PM Peak Period		
				2025 Avg. Speed	2023 Avg. Speed	% Difference	2025 Avg. Speed	2023 Avg. Speed	% Difference
SR-1	SF County Line to Linda Mar Blvd	NB	55	48	49	-2%	49	49	0%
		SB	55	51	53	-4%	47	48	-2%
SR-92	I-280 to US-101	EB	60	47	46	2%	20	26	-23%
		WB	60	49	48	2%	53	55	-4%
SR-92	US-101 to Alameda County Line	EB	60	66	65	2%	23	25	-8%
		WB	60	31	37	-16%	60	62	-3%
US-101	SF County Line to I-380	NB	65	40	53	-25%	37	48	-23%
		SB	65	53	57	-7%	50	47	6%
US-101	I-380 to Millbrae Ave	NB	65	64	66	-3%	54	59	-8%
		SB	65	60	59	2%	46	47	-2%
US-101	Millbrae Ave to Broadway	NB	65	60	60	0%	61	61	0%
		SB	65	55	52	6%	31	32	-3%
US-101	Broadway to Peninsula Ave	NB	65	49	51	-4%	55	52	6%
		SB	65	44	52	-15%	22	26	-15%
US-101	Peninsula Ave to SR-92	NB	65	37	35	6%	58	51	14%
		SB	65	51	54	-6%	34	42	-19%
US-101	SR-92 to Whipple Ave	NB	65	61	59	3%	21	27	-22%
		SB	65	49	56	-13%	62	64	-3%
US-101	Whipple Ave to Santa Clara County Line	NB	65	56	53	6%	53	56	-5%
		SB	65	33	40	-18%	44	50	-12%
I-280	SF County Line to SR-1 (North)	EB	65	60	64	-6%	59	59	0%
		WB	65	67	68	-1%	66	66	0%
I-280	SR-1 (North) to SR-1 (South)	EB	65	65	65	0%	53	53	0%
		WB	65	57	64	-11%	64	64	0%
I-280	SR-1 (South) to San Bruno Ave	EB	65	65	66	-2%	36	45	-20%
		WB	65	30	37	-19%	65	65	0%
I-280	San Bruno Ave to SR-92	EB	65	69	69	0%	64	67	-4%
		WB	65	68	70	-3%	68	69	-1%
I-280	SR-92 to SR-84	EB	65	69	70	-1%	59	60	-2%
		WB	65	56	67	-16%	68	69	-1%
I-280	SR-84 to Santa Clara County Line	EB	65	68	69	-1%	27	41	-34%
		WB	65	63	68	-7%	65	64	2%
I-380	I-280 to US-101	NB	65	50	51	-2%	60	60	0%
		SB	65	58	59	-2%	34	42	-19%
I-380	US-101 to Airport Access Rd	NB	65	41	43	-5%	41	42	-2%
		SB	65	36	37	-3%	40	41	-2%

Table 26: Roadway Segment 72-Hour Volume Comparisons – 2025 to 2023

Route	Roadway Segment	Direction	AM Peak Hour			PM Peak Hour		
			2025 Volume	2023 Volume	% Difference	2025 Volume	2023 Volume	% Difference
SR-1	Linda Mar Blvd to Frenchmans Creek Rd	NB	508	539	-6%	628	580	8%
		SB	480	439	9%	752	662	14%
SR-1	Frenchmans Creek Rd to Miramontes Rd	NB	804	870	-8%	1344	1322	2%
		SB	1301	1336	-3%	1104	1002	10%
SR-1	Miramontes Rd to Santa Cruz County Line	NB	179	162	10%	275	232	19%
		SB	127	142	-11%	294	272	8%
SR-35	San Francisco County Line to Sneath Ln	NB	1246	1474	-15%	1298	1318	-2%
		SB	808	950	-15%	1153	1299	-11%
SR-35	Sneath Ln to I-280	NB	469	635	-26%	929	1131	-18%
		SB	1191	1258	-5%	452	584	-23%
SR-35	I-280 to SR 92	NB	223	236	-6%	251	224	12%
		SB	242	186	30%	245	289	-15%
SR-35	SR-92 to SR-84	NB	105	135	-22%	117	136	-14%
		SB	100	113	-12%	99	149	-34%
SR-35	SR-84 to Santa Clara County Line	NB	124	64	94%	101	119	-15%
		SB	73	139	-47%	138	98	41%
SR-82	3rd Ave to SR-92	NB	1319	1401	-6%	1191	1375	-13%
		SB	1087	1290	-16%	1214	1362	-11%
SR-82	SR-92 to Hillsdale Ave	NB	1222	1547	-21%	1749	2032	-14%
		SB	1166	1261	-8%	1415	1400	1%
SR-82	Hillsdale Ave to 42nd Ave*	NB	738	780	-5%	1145	1117	3%
		SB	672	714	-6%	965	981	-2%
SR-82	SR-84 to Glenwood Ave	NB	1005	1153	-13%	1496	1742	-14%
		SB	1625	1904	-15%	1410	1686	-16%
SR-82	Glenwood Ave to Santa Cruz Avenue	NB	739	742	0%	1358	1339	1%
		SB	1097	940	17%	989	914	8%
SR-82	Santa Cruz Ave to Santa Clara County Line	NB	782	797	-2%	1250	1200	4%
		SB	1084	1033	5%	1027	1123	-9%
SR-84	SR-1 to Portola Rd	EB	225	34	562%	151	35	331%
		WB	125	34	268%	239	26	819%
SR-84	Portola Rd to I-280	EB	182	73	149%	199	94	112%
		WB	193	107	80%	183	71	158%
SR-84	I-280 to Alameda de las Pulgas	EB	1499	1539	-3%	1373	1486	-8%
		WB	1655	1710	-3%	1602	1635	-2%

Route	Roadway Segment	Direction	AM Peak Hour			PM Peak Hour		
			2025 Volume	2023 Volume	% Difference	2025 Volume	2023 Volume	% Difference
SR-84	Alameda de las Pulgas to US-101	EB	1556	1433	9%	1397	1407	-1%
		WB	1363	1244	10%	1363	1277	7%
SR-84	US-101 to Willow Rd	EB	1750	1434	22%	1704	1697	0%
		WB	2155	2050	5%	1766	1514	17%
SR-84	Willow Rd to University Ave	EB	1034	1057	-2%	1970	1934	2%
		WB	2924	3374	-13%	1179	1154	2%
SR-84	University Ave to Alameda County Line	EB	1209	1291	-6%	3193	3175	1%
		WB	3369	3721	-9%	1463	1273	15%
SR-92	SR-1 to I-280	EB	1106	1139	-3%	802	741	8%
		WB	692	612	13%	1256	1155	9%
SR-109	Kavanaugh Drive to SR-84 (Bayfront Expwy.)	NB	593	600	-1%	1691	1710	-1%
		SB	1386	1273	9%	470	392	20%
SR-114	US101 to SR-84 (Bayfront Expressway)	NB	912	780	17%	1328	1373	-3%
		SB	1087	1133	-4%	1100	891	23%
Mission St	San Francisco County Line to SR-82	NB	308	248	24%	381	385	-1%
		SB	284	205	39%	385	306	26%

Table 27: Roadway Segment Turning Movement Count Volume Comparisons – 2025 to 2023

Route	Roadway Segment	Direction	AM Peak Hour			PM Peak Period		
			2025 Volume	2023 Volume	% Difference	2025 Volume	2023 Volume	% Difference
SR-82	San Francisco County Line to John Daly Blvd	NB	620	661	-6%	816	871	-6%
		SB	704	707	0%	805	842	-4%
SR-82	John Daly Blvd to Hickey Blvd	NB	516	541	-5%	748	813	-8%
		SB	689	620	11%	755	728	4%
SR-82	Hickey Blvd to I-380	NB	1133	1104	3%	1344	1371	-2%
		SB	895	868	3%	1397	1396	0%
SR-82	I-380 to Trousdale Dr	NB	797	859	-7%	1046	1112	-6%
		SB	1170	1185	-1%	1296	1291	0%
SR-82	Trousdale Dr to 3rd Ave	NB	736	732	1%	881	840	5%
		SB	991	839	18%	876	853	3%
SR-82	42nd Ave to Holly St	NB	696	806	-14%	860	966	-11%
		SB	759	842	-10%	889	959	-7%
SR-82	Holly St to Whipple Ave	NB	778	926	-16%	1059	1248	-15%
		SB	975	947	3%	1008	1142	-12%
SR-82	Whipple Ave to SR-84	NB	1180	1332	-11%	1401	1455	-4%
		SB	1272	1164	9%	1270	1188	7%
Geneva Ave	San Francisco County Line to Bayshore Blvd	EB	981	818	20%	487	522	-7%
		WB	434	515	-16%	950	1003	-5%
Bayshore Blvd	San Francisco County Line to Geneva Ave	NB	582	448	30%	977	978	0%
		SB	1179	823	43%	498	494	1%

Note: These roadway segments use TMCs to derive their volumes. It includes all volumes approaching or moving away from the side of the intersection indicated in the 2017 Monitoring Report LOS calculation spreadsheets.

Table 28: Intersection Turning Movement Count Volume Comparisons – 2025 to 2023

ID	Roadway Segment	Peak Period	2025 Peak Hour Volume	2023 Peak Hour Volume	% Difference
1	Bayshore Blvd/Geneva Ave	AM	2343	1967	19%
		PM	2259	2225	2%
2	SR-35/John Daly Blvd	AM	3352	2809	19%
		PM	3424	3110	10%
3	SR-82/John Daly Blvd/Hillside Dr	AM	2154	2205	-2%
		PM	2555	2662	-4%
4	SR-82/San Bruno Ave	AM	3011	3239	-7%
		PM	4019	4172	-4%
5	SR-82/Millbrae Ave	AM	3894	4062	-4%
		PM	4764	4643	3%
6	SR-82/Broadway	AM	2255	2042	10%
		PM	2225	2099	6%
7	SR-82/Peninsula Ave/Park Rd	AM	1716	1784	-4%
		PM	2186	2040	7%
8	SR-82/Ralston Ave	AM	3403	3450	-1%
		PM	3808	4091	-7%
9	SR-82/Holly St	AM	2890	2934	-1%
		PM	3095	3359	-8%
10	SR-82/Whipple Ave	AM	3769	3503	8%
		PM	3989	4068	-2%
11	University Ave/SR-84	AM	6356	5913	7%
		PM	6321	6421	-2%
12	Willow Rd/SR-84	AM	5415	5126	6%
		PM	5159	5100	1%
13	Marsh Rd/SR-84	AM	4536	4318	5%
		PM	4307	4033	7%
14	Middlefield Rd/SR-84	AM	4548	4738	-4%
		PM	4915	4840	2%
15	SR-1/SR-92	AM	2710	2764	-2%
		PM	2892	2866	1%
16	SR-92/Main St	AM	2138	2011	6%
		PM	2466	2290	8%

5.2: Travel Time Reliability

Travel time reliability is the consistency or dependability in travel times, as measured from day-to-day and/or across different times of the day. Travel time reliability is significant to many transportation users. Driver's value reliability as it allows them to make better use of their time. Many transportation planners and decision makers have started to consider travel time reliability as a performance measure throughout the United States. A more extensive discussion of these measures can be found in the Federal Highway Administration (FHWA) publication *Travel Time Reliability*, including guidance on the calculation methodology and application of travel time reliability measures.

Travel time reliability measures are relatively new, but a few have proven effective. Most measures compare high-delay days to those with an average delay. The most effective methods of measuring travel time reliability are 90th or 95th percentile travel times, buffer index, and planning time index, explained in the following sections. Related measurements include average travel time and free flow travel time.

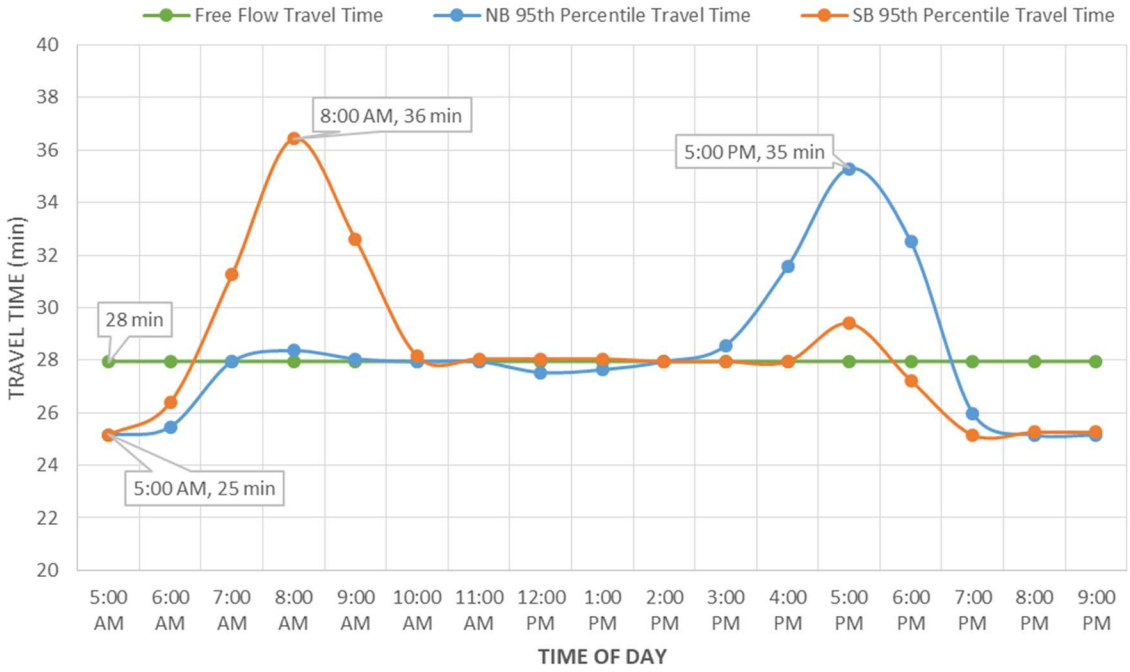
This method, the *90th or 95th percentile travel times*, is perhaps the simplest method to measure travel time reliability. It estimates how bad delay will be on specific routes during the heaviest traffic days. The one or two bad days each month mark the 95th or 90th percentile, respectively. Users familiar with a route (such as commuters) can see how bad traffic is during those few bad days and plan their trips accordingly. This measure is reported in minutes.

The *buffer index* represents the extra time (or time cushion) that travelers must add to their average travel time when planning trips to ensure on-time arrival. For example, a buffer index of 40% means that for a trip that usually takes 20 minutes a traveler should budget an additional eight minutes to ensure on-time arrival. The additional eight minutes is called the buffer time. Therefore, the traveler should allow 28 minutes for the trip in order to ensure on-time arrival 95% of the time.

The *planning time index* represents how much total time a traveler should allow to ensure on-time arrival. While the buffer index shows the *additional* travel time that is necessary, the planning time index shows the *total* travel time that is necessary. The Planning Time Index is the ratio of the 95th percentile travel time to the free-flow travel time. For example, a planning time index of 1.60 means that for a trip that takes 15 minutes in light traffic a traveler should budget a total of 24 minutes to ensure on-time arrival 95% of the time.

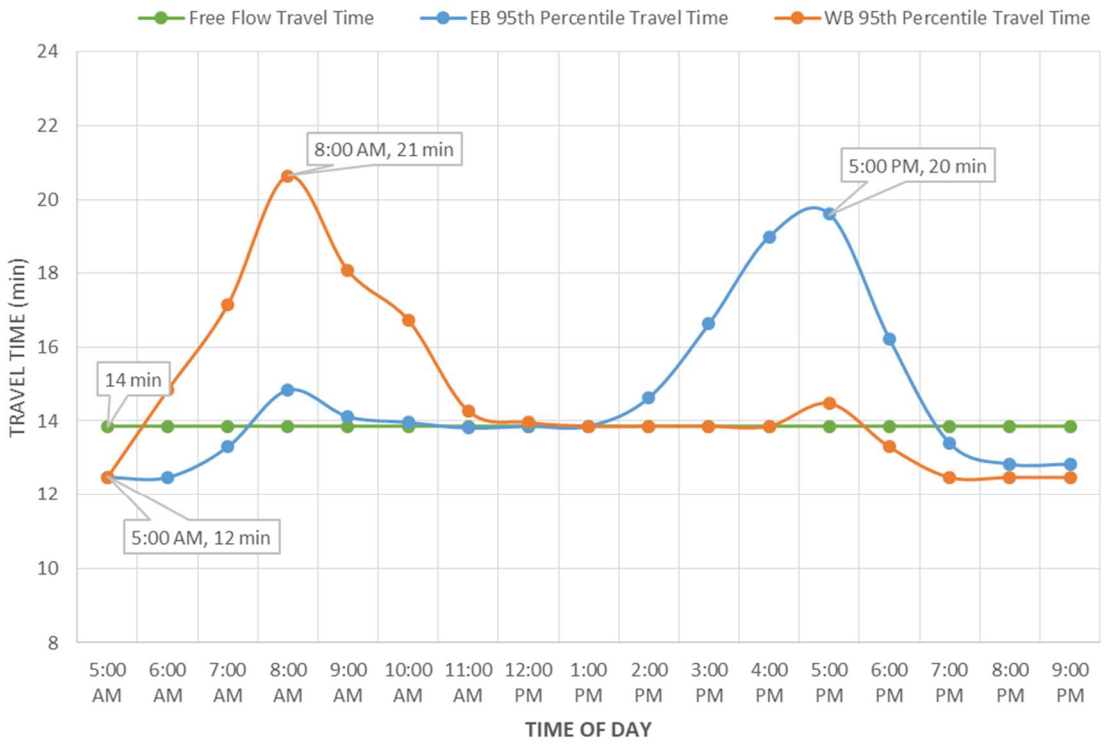
As an added value task, TJKM prepared travel time reliability charts for all freeways in San Mateo County where the data was available. This included I-280, SR-92 (I-280 to Alameda County Line), and US-101. Charts were prepared for the entire freeway from one end of the county to the other (with the exception of SR-92 as noted above). Each graph compares the travel time along the corridor under free flow conditions to the northbound/eastbound and southbound/westbound 95th percentile travel times between 5am-9pm. Planning time index data was collected by TJKM from the Caltrans Performance Measurement System (PeMS) for midweek days during April/May 2025, excluding holidays and any days with adverse weather. Caltrans assumes a free flow speed of 60 miles per hour (mph) for calculating free flow travel time. As this speed is below the posted speed limit of 65 mph, speeds increase during off peak times and result in actual 95th percentile travel times below the calculated free flow travel time.

Figure 27: Travel Time Reliability Chart – I-280



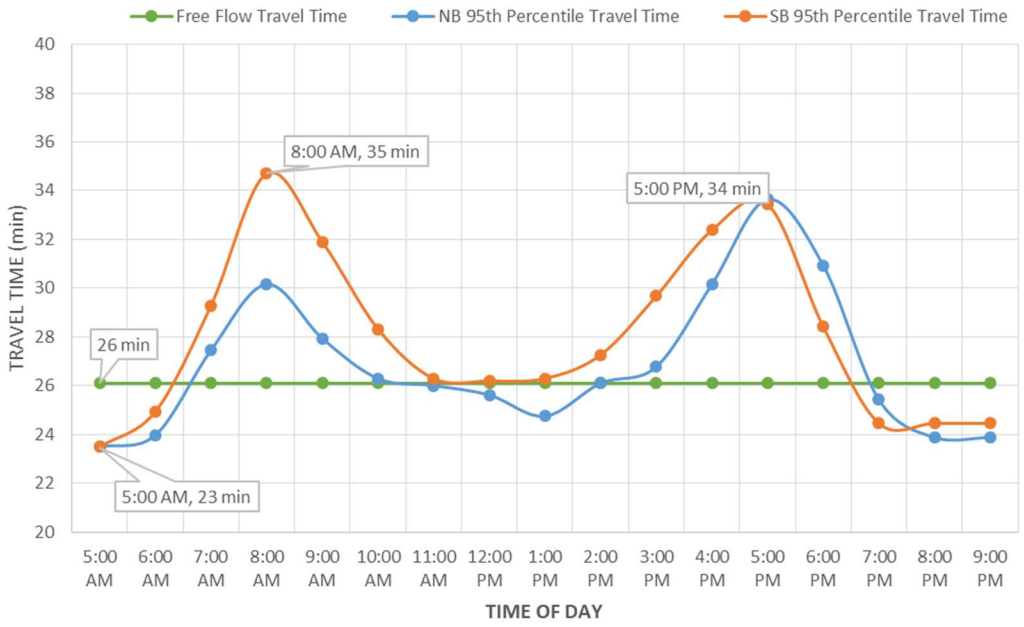
On I-280, the southbound direction experienced delays during the AM peak period from approximately 7:00 AM to 9:00 AM and the northbound direction experienced delays during the PM peak period from 3:00 PM to 7:00 PM. The maximum travel time was 36 minutes in the AM peak and 35 minutes in the PM peak, compared to the free flow travel time of 28 minutes assuming a speed of 60 mph. In both directions, travel times reduced below the free flow travel time of 28 minutes, reducing to as low as 25 minutes during non-peak periods. The trends in this chart follow the typical commute patterns on I-280, as commuters travel from San Francisco County to Santa Clara County for work in the morning, then the reverse in the afternoon.

Figure 28: Travel Time Reliability Chart – SR-92



On SR-92, westbound travel times are highest in the AM peak period with a maximum travel time of 21 minutes at 8:00 AM. Eastbound travel times are highest in the PM peak period with a maximum travel time of 20 minutes at 5:00 PM. The trends in this chart follow the typical commute patterns on SR-92, as commuters travel from the East Bay to San Mateo County for work in the morning, then the reverse in the afternoon.

Figure 29: Travel Time Reliability Chart – US-101



On US-101, southbound travel times increased in both the AM and PM peak period, reaching as high as 35 minutes near 8:00 AM. Northbound travel times also increased both in the AM and the PM peak period, reaching 30 minutes at 8:00 AM and 34 minutes at 5:00 PM. The northbound direction reduced below the free flow travel time of 26 minutes in off-peak hours. The southbound direction gradually reduced to just above the free flow travel time between the AM and PM peak periods, and then reduced below that after 7:00 pm. This trend is typical for commute patters on US-101, as commuters travel in both directions in this vicinity.

CHAPTER 6: NEXT STEPS

6.1: 2025 CMP Conformance

As discussed earlier, no roadway segments or intersections were found to be outside the established LOS standards after interregional reductions. The C/CAG Board approved the Countywide Congestion Relief Plan (CRP), which is a countywide deficiency plan to address these and future deficiencies. This Plan will relieve all San Mateo County jurisdictions - 20 cities/towns and the County - from having to develop and implement individual deficiency plans for current LOS changes and any that may be detected in future years. No actions or corrective measures are required and all jurisdictions are considered in conformance.

Pedestrian approaching El Camino Real (SR-82) in Colma

6.2: CMP Update

The next step in the CMP process is to complete the 2025 CMP Update. TJKM is preparing the document on behalf of C/CAG. This Monitoring Report will be included as an appendix to the CMP Report.