APPENDIX A: DETAILED INVENTORY OF CMP ROADWAYS AND INTERSECTIONS

Appendix A

Detailed Inventory of CMP Roadways and Intersections

The following pages describe the functional classifications and numbers of lanes of the California State Highways within San Mateo County and the other roadways and intersections included in the 1997 CMP Roadway System. The information described here was collected by conducting field surveys and recording data. The numbers of lanes and roadway types are described for the following State Highways:

SR 1	Between the county lines of Santa Cruz and San Francisco Counties;
SR 35	Between the San Francisco and Santa Clara County lines;
SR 82	Between the county lines of Santa Clara and San Francisco Counties;
SR 84	From SR 1 to the Alameda County line;
SR 92	From SR 1 to the Alameda County line;
U.S. 101	Between the county lines of Santa Clara and San Francisco Counties;
SR 109	From Kavanaugh Drive to SR 84;
SR 114	From U.S. 101 to Bayfront Expressway (SR 84);
I-280	Between the county lines of Santa Clara and San Francisco Counties; and
I-380	Between I-280 and North Access Road (east of U.S. 101).

The numbers of lanes and classifications of the other roadways and the lane configurations and signal phasings of the intersections included in the CMP network were also determined. This information was obtained from the cities in which the facilities are located and from field surveys.

SR 1

From the Santa Cruz County line north to Linda Mar Boulevard, SR 1 is a two-lane conventional highway. Between Linda Mar Boulevard and Westport Drive (just south of Sharp Park Road), SR 1 is a four-lane highway. North of Westport Drive, SR 1 is a four-lane freeway until it reaches its junction with SR 35, where it becomes a six-lane freeway. At its junction with I-280, SR 1 joins I-280 to travel north until John Daly Boulevard. SR 1 then continues northward, as a six-lane freeway, across the San Francisco County line.

SR 35

North of I-280 (near Crestmoor Drive in San Bruno), SR 35 is a two- to four-lane arterial and four-lane expressway which extends northward across the San Francisco County line. The variations in the numbers of lanes and roadway types are described briefly below.

- SR 35 is a four-lane expressway from the I-280 interchange north becoming a two-lane arterial south of San Bruno Avenue.
- SR 35 is a two-lane arterial to the signalized intersection of Sneath Lane, then a four-lane arterial north of Sneath Lane to Sharp Park Road, and a two-lane arterial north of Sharp Park Road to Hickey Boulevard.
- North of Hickey Boulevard, SR 35 becomes a four-lane arterial, and then a four-lane freeway as it passes through the SR 1 interchange.
- Approximately one mile north of the SR 1 interchange, SR 35 becomes a four-lane expressway, and continues as such into San Francisco County.

South of Bunker Hill Drive, SR 35 becomes a two-lane rural road. After a short section where SR 92 and SR 35 share the same roadway, SR 35 becomes Skyline Boulevard south to Santa Clara County.

SR 82 (El Camino Real/Mission Street)

SR 82 is a four- to six-lane arterial which extends north from the Santa Clara County line across the San Francisco County line. The following street segments are ***not* six lanes** wide:

Roble Avenue to Glenwood Avenue	Four lanes
SR 84 overpass to Whipple Avenue	Four lanes
Whipple Avenue to F Street (in San Mateo)	Two lanes northbound, and three lanes southbound
F Street to 42nd Street	Four lanes
42nd Street to Hillsdale Boulevard	Two lanes northbound, and three lanes southbound
East Third Avenue to south of Trousdale Drive	Four lanes
Hickey Boulevard to Mission Road	Four lanes

Westlake Avenue to John Daly Boulevard	Four lanes

SR 84

SR 84 (Woodside Road) is a four-lane arterial between I-280 and SR 82 (except for a short segment between San Carlos Avenue and Santa Clara Avenue which is six-lanes wide). SR 84 is a four-lane expressway between SR 82 and Bay Road. East of Bay Road to U.S. 101, SR 84 is a six-lane expressway. At its junction with U.S. 101, SR 84 joins U.S. 101 to travel south until the Marsh Road exit, where SR 84 follows the Bayfront Expressway to the Dumbarton Bridge. The Bayfront Expressway is six-lane wide from Marsh Road to east of University Avenue.

SR 84 is a two-lane conventional highway from west of I-280 to SR 1. (Note: Signs on U.S. 101 still indicate Willow Road (SR 114) to be SR 84.)

SR 92

SR 92 is a four-lane freeway between I-280 and U.S. 101. SR 92 is a six-lane freeway between U.S. 101 and the Alameda County Line, across the San Mateo Bridge. West of I-280 to SR 1, SR 92 is a two-lane conventional highway.

U.S. 101

U.S. 101 is an eight- to ten-lane freeway in San Mateo County. The lane changes for this north/south facility are as follows:

- U.S. 101 is an eight-lane freeway from the Santa Clara County line to the Whipple Avenue interchange comprising six mixed-flow lanes and two High Occupancy Vehicle (HOV) lanes.

- U.S. 101 is an eight-lane freeway from the Whipple Avenue interchange to the San Francisco County line, with the following two exceptions:

1. Between Marsh Road and Hillsdale Blvd, an auxiliary lane has been added in each direction.

2. Northbound U.S. 101 is six lanes wide between the SR 92 and Kehoe Avenue off-ramps, and five lanes wide between the Kehoe Avenue and Third Avenue off-ramps. Southbound U.S. 101 remains four lanes wide.

3. U.S. 101 is a ten-lane freeway from north of the Millbrae Avenue interchange ramps to south of the I-380 interchange ramps.

SR 109

University Avenue has been designated as SR 109 between SR 84 and Kavanaugh Drive. SR 109 is a four-lane arterial.

SR 114

Willow Road, which has been designated as SR 114 between U.S. 101 and Bayfront Expressway, is a four-lane arterial.

I-280

I-280 is a 6- to 12-lane freeway in San Mateo County. The variations in the number of lanes on this north/south facility are described below.

* I-280 is an eight-lane freeway from the Santa Clara County line north to the I-280/SR 1 interchange in Daly City, with the following exceptions:

    1. Between Edgewood Road and the interchange with SR 92, I-280 contains five northbound and five southbound lanes. Each five-lane segment is approximately two miles long and signed: "Slow Vehicles Keep Right".

    2. Through the I-380 interchange, northbound I-280 has only three lanes, while southbound I-280 widens to include a fifth, auxiliary lane.

* I-280 is a 12-lane freeway, north of the SR 1 interchange (south) to the SR 1 interchange (north).

* I-280 is a six-lane freeway, north of its northern junction with SR 1 to the San Francisco County line, where the freeway widens to eight lanes.

I-380

I-380 is an east/west freeway which connects I-280 and U.S. 101, and extends east of U.S. 101 to provide access to the San Francisco International Airport. Between I-280 and U.S. 101, I-380 is four lanes wide in the westbound direction and three lanes wide in the eastbound direction. East of U.S. 101, I-380 is a freeway ramp, narrowing down to two lanes in each direction and terminating at North Access Road (by United Airlines Maintenance Facility.)

Other CMP Roadways

The CMP roadway system also includes three roadways which are not state highways. These arterials, all located in Daly City, are described briefly below:

- Mission Street is a four-lane arterial that extends from SR 82 (San Jose Avenue) to the northeast, across the San Francisco County line.

- Bayshore Boulevard is an arterial that extends southward from its junction with U.S. 101 in San Francisco County through Brisbane, where it becomes Airport Boulevard. The CMP network only includes the segment of Bayshore Boulevard between the San Francisco County line and Geneva Avenue. This segment is three lanes wide in the northbound direction and two lanes wide in the southbound direction.

- Geneva Avenue is a four-lane arterial that extends to the northwest from Bayshore Boulevard across the San Francisco County line to Mission Street.

CMP Intersections

The CMP roadway system also includes 16 intersections. These were not included in the 1991 CMP and were added for the 1993 CMP. The 16 intersections are:

Geneva Avenue and Bayshore Boulevard
SR 35 (Skyline Boulevard) and John Daly Boulevard
SR 82 (Mission Street) and John Daly Boulevard/Hillside Boulevard
SR 82 (El Camino Real) and San Bruno Avenue
SR 82 (El Camino Real) and Millbrae Avenue
SR 82 (El Camino Real) and Broadway
SR 82 (El Camino Real) and Peninsula Avenue
SR 82 (El Camino Real) and Ralston Avenue
SR 82 (El Camino Real) and Holly Street
SR 82 (El Camino Real) and Whipple Avenue
SR 84 (Bayfront Expressway) and SR 109 (University Avenue)
SR 84 (Bayfront Expressway) and SR 114 (Willow Road)
SR 84 (Bayfront Expressway) and Marsh Road
SR 84 (Woodside Road) and Middlefield Road
SR 92 and SR 1
SR 92 and Main Street.

APPENDIX B: TRAFFIC LOS CALCULATION METHODS

Appendix B

Traffic Level of Service Calculation Methods

Level of service (LOS) is a term used to qualitatively describe the operating conditions of a roadway based on factors such as speed, travel time, maneuverability, delay, and safety. The level of service of a facility is designated with a letter, A to F, with A representing the best operating conditions and F the worst.

There are many methods available to calculate the levels of service for the various types of roadways and intersections that comprise San Mateo County's designated Congestion Management Program (CMP) system. The components of the CMP Roadway System include freeways, such as U.S. 101 and I-280; multilane highways; two-lane highways, such as State Route 1 (SR 1), south of Linda Mar; major arterials, such as SR 82 (El Camino Real); and major intersections. Operational analyses of specific weaving sections and ramp junctions have not been included in the CMP but may be added for subsequent CMPs.

AB 471 and AB 1963, the CMP legislation, require that methods of calculating levels of service defined either by the latest version of the *Highway Capacity Manual* (HCM) or by the Transportation Research Board's *Circular 212* be used for the analysis of CMP roadways. San Mateo County has been using the level of service methods specified in the HCM published in 1994 for freeways, multilane highways, two-lane highways, arterials, freeway weaving sections, ramp junctions, signalized intersections, and unsignalized intersections. The TRB's *Circular 212* describes methods for signalized and unsignalized intersections.

The level of service (LOS) calculation methods found in the 1994 HCM for freeways, multilane highways, two-lane highways, and arterials and the calculation for signalized intersections based on TRB's *Circular 212* method are described in this appendix.

Level of Service Calculation Methods

The methods selected to calculate levels of service for the roadway (freeway, multilane highway, two-lane highway, and arterial) segments and intersections included in the CMP network are described below:

Freeways

A freeway is defined as a divided highway facility with two or more lanes in each direction and full control of access and egress. It has no intersections; access and egress are provided by ramps at interchanges.

According to the *Highway Capacity Manual* (1994 HCM), the LOS of freeway segments is based on the density of vehicles, expressed in passenger cars per mile per lane. The LOS can also be evaluated with volume-to-capacity (V/C) ratios, average travel speeds, and maximum service flow rates. The specific LOS criteria for freeways are presented in Table B-1. Illustrations of the various levels of service are presented on Figure B-1.

The selected LOS method for freeway segments is based on calculating V/C ratios for each direction of travel, wherein the traffic volume for each segment is divided by the capacity of the segment. The volumes are obtained from counts for existing conditions or from a travel forecasting model for future conditions. The capacity is estimated as the number of lanes multiplied by 2,200 vehicles per hour per lane four four-lane freeway segments and 2,300 vehicles per hour per lane for segments with six or more lanes. The V/C ratios are calculated and related to LOS based on the relationships presented in Table B-1.

Another method of calculating a freeway segment's level of service is to determine the average travel speed from floating car runs. Descriptions of the average travel speeds for each LOS designation are also presented in Table B-1.

Multilane Highways

Multilane highways generally have posted speed limits of between 40 and 55 miles per hour (mph). They usually have four or six lanes, often with physical medians or two-way left-turn lane medians, although they may also be undivided (have no median). Unlike freeways, multilane highways are interrupted by intersections or driveways.

The level of service criteria for multilane highways are similar to the criteria for freeways. The specific criteria from the HCM are presented in Table B-2. The LOS calculation method is identical to the calculation method for freeways. The only difference is the range of V/Cs and speeds for each LOS designation. The maximum ideal lane capacity for a multilane highway segment is 2,200 vehicles per hour.

Two-Lane Highways

A two-lane highway is defined as a two-lane roadway with one lane for use by traffic in each direction. Passing of slower vehicles requires use of the opposing lane. As volumes or geometric constraints increase, the ability to pass decreases and platoons of vehicles are formed. The delay experienced by motorists also increases. The LOS for two-lane highways is based on mobility. The specific LOS criteria from the 1994 HCM are presented in Table B-3.

For two-lane highways, the selected method, based on V/Cs, takes into account the volume in both directions. The total volume is divided by the total capacity of 2,800 vehicles per hour. The corresponding V/C is correlated to a LOS based on the V/C ranges in Table B-3. Average travel speeds for each LOS designation are also presented in this table.

Table B-1

1994 HCM Level of Service Criteria for Basic Freeway Sections

	70 mph Free-Flow Speed				65 mph Free-Flow Speed				60 mph Free-Flow Speed			
LOS	Density[a] (pc/mi/ln)	Speed[b] (mph)	Maximum[c] V/C	MSF[d] (pcphpl)	Density[a] (pc/mi/ln)	Speed[b] (mph)	Maximum[c] V/C	MSF[d] (pcphpl)	Density[a] (pc/mi/ln)	Speed[b] (mph)	Maximum[c] V/C	MSF[d] (pcphpl)
A	≤ 10.0	≥ 70.0	0.318/0.304	700	≤ 10.0	≥ 65.0	0.295/0.283	650	≤ 10.0	60.0	0.272/0.261	600
B	≤ 16.0	≥ 70.0	0.509/0.487	1,120	≤ 16.0	≥ 65.0	0.473/0.457	1,040	≤ 16.0	60.0	0.436/0.412	960
C	≤ 24.0	≥ 68.5	0.747/0.715	1,644	≤ 24.0	≥ 64.5	0.704/0.673	1,548	≤ 24.0	60.0	0.655/0.626	1,440
D	≤ 32.0	≥ 63.0	0.916/0.876	2,015	≤ 32.0	≥ 61.0	0.887/0.849	1,952	≤ 32.0	57.0	0.829/0.793	1,824
E	≤ 36.7/39.7	≥ 60.0/58.0	1.000	2,200/2,300	≤ 39.3/43.4	≥ 56.0/53.0	1.000	2,200/2,300	≤ 41.5/46.0	53.0/50.0	1.000	2,200/2,300
F	Variable	Variable	Variable	Variable	Variable	Variable	Variable	Variable	Variable	Variable	Variable	Variable

[a] Density in passenger cars per mile per lane.
[b] Average travel speed in miles per hour.
[c] Maximum volume-to-capacity ratio.
[d] Maximum service flow rate under ideal conditions in passenger cars per hour per lane.

≤ less than or equal to
≥ greater than or equal to

Note: In table entries with split values, the first value is for four-lane freeways, and the second is for six- and eight-lane freeways.

Source: Transportation Research Board, *Highway Capacity Manual, Special Report 209* (Washington, D.C., 1994), pp. 3-9.

Table B-2

Level of Service Criteria for Multilane Highways

	60 mph Free-Flow Speed				55 mph Free-Flow Speed				50 mph Free-Flow Speed			
LOS	Density[a] (pc/mi/ln)	Speed[b] (mph)	Maximum[c] V/C	MSF[d] (pcphpl)	Density[a] (pc/mi/ln)	Speed[b] (mph)	Maximum[c] V/C	MSF[d] (pcphpl)	Density[a] (pc/mi/ln)	Speed[b] (mph)	Maximum[c] V/C	MSF[d] (pcphpl)
A	≤ 12	≥ 60	0.33	720	≤ 12	≥ 55	0.31	660	≤ 12	≥ 50	0.30	600
B	≤ 20	≥ 60	0.55	1,200	≤ 20	≥ 55	0.52	1,100	≤ 20	≥ 50	0.50	1,000
C	≤ 28	≥ 59	0.75	1,650	≤ 28	≥ 54	0.72	1,510	≤ 28	≥ 50	0.70	1,400
D	≤ 34	≥ 51	0.89	1,940	≤ 34	≥ 53	0.86	1,800	≤ 34	≥ 49	0.84	1,670
E	≤ 40	≥ 55	1.00	2,200	≤ 41	≥ 51	1.00	2,100	≤ 43	≥ 47	1.00	2,000
F	> 40[e]	< 55[e]	-[e]	-[e]	> 41[e]	< 51[e]	-[e]	-[e]	> 43[e]	< 47[d]	-[e]	-[e]

[a] Density in passenger cars per mile per lane.
[b] Average travel speed in miles per hour.
[c] Maximum volume-to-capacity ratio.
[d] Maximum service flow rate under ideal conditions in passenger cars per hour per lane.
[e] Highly variable, unstable.

≤ less than or equal to
≥ greater than or equal to

Source: Transportation Research Board, *Highway Capacity Manual*, Special Report 209 (Washington, D.C., 1994), pp. 7-8.

Table B-3

Level of Service Criteria for General Two-Lane Highway Segments

		V/C Ratio[a]																		
		Level Terrain							Rolling Terrain							Mountainous Terrain						
			% No-Passing Zone							% No-Passing Zone							% No-Passing Zone					
LOS	% Time Delay	Avg.[b] Speed	0	20	40	60	80	100	Avg.[b] Speed	0	20	40	60	80	100	Avg.[b] Speed	0	20	40	60	80	100
A	≤ 30	≥ 58	0.15	0.12	0.09	0.07	0.05	0.04	≥ 57	0.15	0.10	0.07	0.05	0.04	0.03	≥ 56	0.14	0.09	0.07	0.04	0.02	0.01
B	≤ 45	≥ 55	0.27	0.24	0.21	0.19	0.17	0.16	≥ 54	0.26	0.23	0.19	0.17	0.15	0.13	≥ 54	0.25	0.20	0.16	0.13	0.12	0.10
C	≤ 60	≥ 52	0.43	0.39	0.36	0.34	0.33	0.32	≥ 51	0.42	0.39	0.35	0.32	0.30	0.28	≥ 49	0.39	0.33	0.28	0.23	0.20	0.16
D	≤ 75	≥ 50	0.64	0.62	0.60	0.59	0.58	0.57	≥ 49	0.62	0.57	0.52	0.48	0.46	0.43	≥ 45	0.58	0.50	0.45	0.40	0.37	0.33
E	> 75	≥ 45	1.00	1.00	1.00	1.00	1.00	1.00	≥ 40	0.97	0.94	0.92	0.91	0.90	0.90	≥ 35	0.91	0.87	0.84	0.82	0.80	0.78
F	100	< 45	--	--	--	--	--	--	< 40	--	--	--	--	--	--	< 35	--	--	--	--	--	--

[a] Ratio of flow rate to an ideal capacity of 2,800 passenger cars per hour in both directions.

[b] Average travel speed of all vehicles (in mph) for highways with design speed ≥ 60 mph; for highways with lower design speeds, reduce speed by 4 mph for each 10-mph reduction in design speed below 60 mph; assumes that speed is not restricted to lower values by regulation.

≤ less than or equal to
≥ greater than or equal to

Source: Transportation Research Board, *Highway Capacity Manual, Special Report 209* (Washington, D.C., 1994), pp. 8-5.

Arterials

Levels of service for arterials are dependent on the arterial class denoted as Type I, II, or III. Type I arterials are principal arterials with suburban design, 1 to 5 signals per mile, no parking, and free-flow speeds of 35 to 45 miles per hour (mph). Type III arterials have urban designs, with 6 to 12 signals per mile, parking permitted, and are undivided with free-flow speeds of 25 to 35 miles per hour. Type II arterials fall between Type I and III and have free-flow speeds of 30 to 35 miles per hour.

The LOS for an arterial is based on maneuverability, delays, and speeds. As the volume increases, the probability of stopping at an intersection due to a red signal indication increases and the LOS decreases. The specific LOS criteria from the HCM are presented in Table B-4.

For the CMP, a calculation method based on V/C was selected. Volumes on each roadway segment in each direction are divided by the capacity, estimated to be 1,100 vehicles per hour per lane. The capacity was estimated based on a saturation flow rate of 1,900 vehicles per lane and the assumption that El Camino Real would receive 60 percent of the green time.[1] With the assumption that streets perpendicular to El Camino Real would receive 40 percent of each intersection's green time, the reduction in El Camino Real's capacity due to intersecting streets has been accounted for in the method used to analyze levels of service of arterial streets. Except for the 16 designated intersections, the operations of individual intersections, which are the locations where a street capacity is most constrained, are not analyzed for the CMP. Therefore, the levels of service presented for various roadway segments along El Camino Real are likely to be better than the level of service of individual intersections.

The V/C for arterials is correlated to LOS based on the information in Table B-5. The average speeds for each LOS designation are presented in Table B-4.

[1]The estimated capacity for El Camino Real was calculated by multiplying 1,900 vehicles per hour per lane by 0.6, to arrive at 1,140 vehicles per hour per lane which was then rounded off to 1,100 vehicles per hour per lane.

Table B-4
Level of Service Criteria for Arterials

Arterial Class	I	II	III
Range of Free-Flow Speeds (mph)	45 to 35	35 to 30	35 to 25
Typical Free-Flow Speed (mph)	40 mph	33 mph	27 mph

Level of Service	Average Travel Speed (mph)		
A	≥ 35	≥ 30	≥ 25
B	≥ 28	≥ 24	≥ 19
C	≥ 22	≥ 18	≥ 13
D	≥ 17	≥ 14	≥ 9
E	≥ 13	≥ 10	≥ 7
F	< 13	< 10	< 7

mph miles per hour
≤ less than or equal to
≥ greater than or equal to

Source: Transportation Research Board, *Highway Capacity Manual, Special Report 209* (Washington, D.C., 1994), pp. 11-4.

Table B-5
CMP Level of Service Criteria for Arterials[a] Based on Volume-to-Capacity Ratios

Level of Service	Description	V/C[b]
A	Free-flow conditions with unimpeded maneuverability. Stopped delay at signalized intersection is minimal.	0.00 to 0.60
B	Reasonably unimpeded operations with slightly restricted maneuverability. Stopped delays are not bothersome.	0.61 to 0.70
C	Stable operations with somewhat more restrictions in making mid-block lane changes than LOS B. Motorists will experience appreciable tension while driving.	0.71 to 0.80
D	Approaching unstable operations where small increases in volume produce substantial increases in delay and decreases in speed.	0.81 to 0.90
E	Operations with significant intersection approach delays and low average speeds.	0.91 to 1.00
F	Operations with extremely low speeds caused by intersection congestion, high delay, and adverse signal progression.	Greater Than 1.00

[a] For arterials that are multilane divided or undivided with some parking, a signalized intersection density of four to eight per mile, and moderate roadside development.

[b] Volume-to-capacity ratio.

•• greater than or equal to.
< less than.

Source: Transportation Research Board, *Highway Capacity Manual, Special Report 209* (Washington, D.C., 1994).

where

l_2 = clearance lost time = $Y + R_c - e$ (s), and

e = extension of effective green = 2.0 (s).

ANALYSIS TYPE

The term *analysis type* is used to describe the purpose for which a methodology is used. Each purpose is associated with a different level of detail as it relates to the precision of the input data, the number of default values used, and the desired accuracy of the results. Three analysis types are recognized in this chapter:

- Operational,
- Design, and
- Planning and preliminary engineering.

These analysis types are discussed in more detail in Chapter 2, Applications.

SPATIAL AND TEMPORAL LIMITS

Analysis Boundaries

The intersection analysis boundary is defined by the operational influence area of the intersection. It is not defined as a fixed distance for all intersections. Rather, it extends upstream from the intersection on each intersection leg. The size of this area is leg specific. It includes all geometric features and traffic conditions that influence intersection operation during the study period. For these reasons, the analysis boundaries should be established for each intersection on the basis of the conditions present during the study period.

Study Period and Analysis Period

The study period is the time interval represented by the performance evaluation. It consists of one or more consecutive analysis periods. An analysis period is the time interval evaluated by a single application of the methodology.

The methodology is based on the assumption that traffic conditions are steady during the analysis period (i.e., systematic change over time is negligible). For this reason, the duration of the analysis period is in the range of 0.25 to 1 h. The longer durations in this range are sometimes used for planning analyses. In general, the analyst should use caution with analysis periods that exceed 1 h both because traffic conditions typically are not steady for long time periods and because the adverse impact of short peaks in traffic demand may not be detected in the evaluation.

LOS CRITERIA

This subsection describes the LOS criteria for the motorized vehicle, pedestrian, and bicycle modes. The criteria for the motorized vehicle mode are different from those for the other modes. Specifically, the motorized vehicle-mode criteria are based on performance measures that are field measurable and perceivable by travelers. The criteria for the other modes are based on scores reported by travelers indicating their perception of service quality.

Motorized Vehicle Mode

LOS can be characterized for the entire intersection, each intersection approach, and each lane group. Control delay alone is used to characterize LOS for the entire intersection or an approach. Control delay *and* volume-to-capacity ratio are used to characterize LOS for a lane group. Delay quantifies the increase in travel time due to traffic signal control. It is also a surrogate measure of driver discomfort and fuel consumption. The volume-to-capacity ratio quantifies the degree to which a phase's capacity is utilized by a lane group. The following paragraphs describe each LOS.

All uses of the terms volume or volume-to-capacity ratio *in this chapter refer to demand volume or demand volume-to-capacity ratio.*

LOS A describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If LOS A is the result of favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

LOS C describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual *cycle failures* (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

LOS D describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

LOS E describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

LOS F describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

A lane group can incur a delay less than 80 s/veh when the volume-to-capacity ratio exceeds 1.0. This condition typically occurs when the cycle length is short, the signal progression is favorable, or both. As a result, both the delay and volume-to-capacity ratio are considered when lane group LOS is established. A ratio of 1.0 or more indicates cycle capacity is fully utilized and represents

failure from a capacity perspective (just as delay in excess of 80 s/veh represents failure from a delay perspective).

Exhibit 19-8 lists the LOS thresholds established for the motorized vehicle mode at a signalized intersection.

Exhibit 19-8
LOS Criteria: Motorized Vehicle Mode

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio[a]	
	≤1.0	>1.0
≤10	A	F
>10–20	B	F
>20–35	C	F
>35–55	D	F
>55–80	E	F
>80	F	F

Note: [a] For approach-based and intersectionwide assessments, LOS is defined solely by control delay.

Pedestrian and Bicycle Modes

Historically, the HCM has used a single performance measure as the basis for defining LOS. However, research documented in Chapter 5, Quality and Level-of-Service Concepts, indicates travelers consider a wide variety of factors in assessing the quality of service provided to them. Some of these factors can be described as performance measures (e.g., speed) and others can be described as basic descriptors of the intersection character (e.g., crosswalk width). The methodologies for evaluating the pedestrian and bicycle modes combine these factors to determine the corresponding mode's LOS.

Exhibit 19-9 lists the range of scores associated with each LOS for the pedestrian and bicycle travel modes. The association between score value and LOS is based on traveler perception research. Travelers were asked to rate the quality of service associated with a specific trip through a signalized intersection. The letter "A" was used to represent the best quality of service, and the letter "F" was used to represent the worst quality of service. *Best* and *worst* were left undefined, allowing respondents to identify the best and worst conditions on the basis of their traveling experience and perception of service quality.

Exhibit 19-9
LOS Criteria: Pedestrian and Bicycle Modes

LOS	LOS Score
A	≤1.50
B	>1.50–2.50
C	>2.50–3.50
D	>3.50–4.50
E	>4.50–5.50
F	>5.50

SCOPE OF THE METHODOLOGIES

This subsection identifies the conditions for which each methodology is applicable.

- *Intersection geometry.* All methodologies apply to three- and four-leg intersections of two streets or highways.
- *Flow conditions.* The three methodologies are based on the analysis of steady traffic conditions and, as such, are not well suited to the evaluation of unsteady conditions (e.g., congestion, queue spillback, signal preemption).

- *Target road users*. Collectively, the three methodologies were developed to estimate the LOS perceived by motorized vehicle drivers, pedestrians, and bicyclists. They were not developed to provide an estimate of the LOS perceived by other road users (e.g., commercial vehicle drivers, automobile passengers, delivery truck drivers, recreational vehicle drivers). However, it is likely the perceptions of these other road users are reasonably well represented by the road users for whom the methodologies were developed.
- *Influences in the right-of-way*. A road user's perception of quality of service is influenced by many factors inside and outside the urban street right-of-way. However, the methodologies in this chapter were specifically constructed to exclude factors that are outside the right-of-way (e.g., buildings, parking lots, scenery, landscaped yards) that might influence a traveler's perspective. This approach was followed because factors outside the right-of-way are not under the direct control of the agency operating the street.

LEVEL-OF-SERVICE CRITERIA

LOS is not defined for the major-street approaches or for the overall intersection, as major-street through vehicles are assumed to experience no delay.

LOS for a TWSC intersection is determined by the computed or measured control delay. For motor vehicles, LOS is determined for each minor-street movement (or shared movement), as well as the major-street left turns, by using the criteria given in Exhibit 20-2. LOS is not defined for the intersection as a whole or for major-street approaches for three primary reasons: (*a*) major-street through vehicles are assumed to experience zero delay; (*b*) the disproportionate number of major-street through vehicles at a typical TWSC intersection skews the weighted average of all movements, resulting in a very low overall average delay for all vehicles; and (*c*) the resulting low delay can mask LOS deficiencies for minor movements. As Exhibit 20-2 notes, LOS F is assigned to a movement if its volume-to-capacity ratio exceeds 1.0, regardless of the control delay.

The LOS criteria for TWSC intersections differ somewhat from the criteria used in Chapter 19 for signalized intersections, primarily because user perceptions differ among transportation facility types. The expectation is that a signalized intersection is designed to carry higher traffic volumes and will present greater delay than an unsignalized intersection. Unsignalized intersections are also associated with more uncertainty for users, as delays are less predictable than they are at signals.

Exhibit 20-2
LOS Criteria: Motorized Vehicle Mode

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio	
	$v/c \leq 1.0$	$v/c > 1.0$
0–10	A	F
>10–15	B	F
>15–25	C	F
>25–35	D	F
>35–50	E	F
>50	F	F

Note: The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole.

Pedestrian LOS at TWSC intersections is defined for pedestrians crossing a traffic stream not controlled by a STOP sign; it also applies to midblock pedestrian crossings. Exhibit 20-3 gives LOS criteria for pedestrians, using a perception-based rating system considering the average proportions of pedestrians who would rate their crossing experience as "dissatisfied" or worse.

Exhibit 20-3
LOS Criteria: Pedestrian Mode

LOS	Condition	Comments
A	$P_D < 0.05$	Nearly all pedestrians would be satisfied
B	$0.05 \leq P_D < 0.15$	At least 85% of pedestrians would be satisfied
C	$0.15 \leq P_D < 0.25$	Fewer than one-quarter of pedestrians would be dissatisfied
D	$0.25 \leq P_D < 0.33$	Fewer than one-third of pedestrians would be dissatisfied
E	$0.33 \leq P_D < 0.50$	Fewer than one-half of pedestrians would be dissatisfied
F	$P_D \geq 0.50$	The majority of pedestrians would be dissatisfied

Note: P_D = proportion of pedestrians giving a "dissatisfied" rating or worse.

LOS F for pedestrians occurs when many pedestrians experience delay crossing the street, due to a lack of gaps in traffic, failure of motorists to yield, or both. LOS A and B occur when some combination of the following exists: pedestrian safety countermeasures exist at the crossing, traffic volumes are relatively low, and motorists frequently yield to pedestrians.

The probability of a vehicle being at the stop line in a given lane is x, the degree of utilization. The product of the six degrees of saturation, encompassing each of the six lanes on the opposing or conflicting approaches (two lanes on the opposing approach and two lanes on each of the conflicting approaches), gives the probability of any particular combination occurring.

The iterative procedure to compute the departure headways and capacities for each approach as a function of the departure headways on the other approaches is the same as described earlier. However, the additional subcases clearly increase the complexity of this computation.

LEVEL-OF-SERVICE CRITERIA

LOS criteria for AWSC intersections are given in Exhibit 21-8. As the exhibit notes, LOS F is assigned if the volume-to-capacity (v/c) ratio of a lane exceeds 1.0, regardless of the control delay. For assessment of LOS at the approach and intersection levels, LOS is based solely on control delay.

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio[a]	
	$v/c \leq 1.0$	$v/c > 1.0$
0–10	A	F
>10–15	B	F
>15–25	C	F
>25–35	D	F
>35–50	E	F
>50	F	F

Note: [a] For approaches and intersectionwide assessment, LOS is defined solely by control delay.

Exhibit 21-8
LOS Criteria: Motorized Vehicle Mode

The probability of a vehicle being at the stop line in a given lane is x, the degree of utilization. The product of the six degrees of saturation, encompassing each of the six lanes on the opposing or conflicting approaches (two lanes on the opposing approach and two lanes on each of the conflicting approaches), gives the probability of any particular combination occurring.

The iterative procedure to compute the departure headways and capacities for each approach as a function of the departure headways on the other approaches is the same as described earlier. However, the additional subcases greatly increase the complexity of this computation.

LEVEL-OF-SERVICE CRITERIA

LOS criteria for AWSC intersections are given in Exhibit 21-8. As the exhibit notes, LOS F is assigned if the volume-to-capacity (v/c) ratio of a lane exceeds 1.0, regardless of the control delay. For assessment of LOS at the approach and intersection levels, LOS is based solely on control delay.

Exhibit 21-8
LOS Criteria: Motorized Vehicle Mode

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio[a]	
	$v/c \leq 1.0$	$v/c > 1.0$
0–10	A	F
>10–15	B	F
>15–25	C	F
>25–35	D	F
>35–50	E	F
>50	F	F

Note: [a] For approaches and intersectionwide assessment, LOS is defined solely by control delay.

APPENDIX C: BAAQMD'S DEFICIENCY LIST

Final

DEFICIENCY LIST:

PROGRAMS, ACTIONS AND IMPROVEMENTS

FOR INCLUSION IN CONGESTION MANAGEMENT PROGRAM

"DEFICIENCY PLANS"

Bay Area Air Quality Management District

Planning Division

939 Ellis Street

San Francisco, CA 94109

For more information, contact David Marshall at (415) 749-4678

Adopted by the District Board of Directors

November 4, 1992

BEFORE THE BOARD OF DIRECTORS
OF THE
BAY AREA AIR QUALITY MANAGEMENT DISTRICT

In the Matter of Adopting a Deficiency List for Use in Conjunction with County Congestion Management Programs)

RESOLUTION NO. 2119

WHEREAS, Section 65089 of the Government Code requires that a Congestion Management Program be developed and adopted for every county that includes an urbanized area;

WHEREAS, Deficiency Plans are a part of the Congestion Management Program process;

WHEREAS, Deficiency Plans must include a list of improvements, programs, or actions, and estimates of costs, that will measurably improve the level of service of the system and contribute to significant improvements in air quality;

WHEREAS, Section 65089.3 of the Government Code requires this District to establish and periodically revise a list of approved improvements, programs and actions which meet requirements included in the Section;

WHEREAS, District staff has prepared a proposed Deficiency List which comprises a list of programs, actions and improvements to be used by cities and counties in preparing Deficiency Plans, and a statement of policy the District will follow in updating the list and in considering items not included in the list but proposed for consideration in a Deficiency Plan;

WHEREAS, the proposed Deficiency List was discussed with affected and interested parties and was revised in response to comments received from such parties;

WHEREAS, District staff recommends that this Board adopt the Deficiency List attached hereto; and

WHEREAS, this Board concurs with the recommendation of the staff.

NOW, THEREFORE, BE IT RESOLVED that this Board hereby adopt the proposed Deficiency List attached hereto comprising a list of programs, actions and improvements for use in the preparation of Deficiency Plans and a statement of policy the District will follow in updating the list and in considering items not included in the list but proposed for consideration in a Deficiency Plan.

The foregoing resolution was duly and regularly introduced, passed and adopted at a regular meeting of the Board of Directo of the Bay Area Air Quality Management District on the Motion of

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Director McPeak, seconded by Director McKenna, on the 4th day of November 1992 by the following vote of the Board:

AYES: Aramburu, Battisti, Britt, Campbell, Harberson, Harper, Head , Hilligoss, McKenna, McPeak, Ogawa, Powers.

NOES: Hancock.

ABSENT: Achtenberg, Bruno, Cooper, Davis, Diridon, Eshoo, Fogarty.

M. Patricia Hilligoss

M. PATRICIA HILLIGOSS
Vice-Chairperson of the Board of Directors

ATTEST:

Paul Battisti

PAUL BATTISTI
Secretary of the Board of Directors

BAY AREA AIR QUALITY MANAGEMENT DISTRICT · STATE OF CALIFORNIA ·

Certified as a True Copy

Clerk of the Boards

INTRODUCTION

This document contains the Bay Area Air Quality Management District's list of improvements, programs and actions for inclusion in Congestion Management Program Deficiency Plans. Deficiency Plans are a part of the Congestion Management Program (CMP) process. Under the CMP process, each urbanized county in California establishes a county wide road system consisting of all Interstates, state highways and major arterials, along with a Level of Service (LOS) standard.[1] When traffic conditions on a roadway segment or intersection falls below the LOS standard, the local jurisdiction is required to develop a Deficiency Plan. In some instances, cities and counties may be monitoring LOS based upon transportation models, attempting to predict conditions in the future. The intent is to develop plans for deficient segments prior to the actual occurrence of a deficiency.

The requirements for Deficiency Plans are set forth in Government Code Section 65089.3(b). The plans are to include four elements: A) an analysis of the cause of the deficiency; B) a list of improvements and their estimated costs which would enable the deficient road segment or intersection to maintain a LOS at the standard or better; C) a list of improvements, programs, or actions that will measurably improve the Level of Service of the road system and contribute to significant improvements in air quality; D) An action plan to implement either option B) or C) above, including a specific implementation schedule and a description of funding. The full text of Section 65089.3(b) is reprinted in Attachment 1.

The CMP statutes direct the Bay Area Air Quality Management District, as the air district for most of the nine-county Bay Area[2], to establish and periodically update a list of improvements, programs and actions which can be used by local governments in developing element C of the Deficiency Plans. The list should include items that " ... (i) measurably improve the level of service of the system ..., and (ii) contribute to significant improvements in air quality, such as improved public transit service and facilities, other rideshare programs and promotions, improved non-motorized transportation facilities, high occupancy vehicle facilities, and transportation control items." The statutes also state that "[i]f an improvement, program, or action is not on the approved list, it shall not be implemented unless approved by the local air quality management district."

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[1] Level of Service, commonly abbreviated as LOS, is a method of measurement of congestion that compares actual or projected traffic volume with the maximum capacity of the facility under study. LOS ranges from A to F, with F describing the most congested conditions. Except in a few instances, the standard established in the CMPs of the nine Bay Area counties is LOS E. Some counties have designated LOS D for facilities located within undeveloped and rural areas.

[2] The Bay Area Air Quality Management District includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, the western part of Solano, and the southern part of Sonoma Counties.

Confusion has arisen over whether a city or county in its Deficiency Plan can recommend widening a "deficient" highway segment or expanding a "deficient" intersection to resolve a level of service deficiency. The CMP legislation provides for that option as noted in element B above. However, even when a jurisdiction knows in advance that it wants to opt for a "direct fix" to the problem, it still must prepare a Deficiency Plan because the segment has become deficient (determined through LOS monitoring). In that Deficiency Plan, the jurisdiction still must develop element C of the Plan that evaluates improvements, programs and actions contained on the BAAQMD's list.

The CMP process is largely directed at alleviating and avoiding peak-period roadway congestion. Because of this, the Deficiency List contains items intended to help reduce peak-period motor vehicle travel, although many items on the list will also work to reduce travel during other periods of the day. The Deficiency List does not contain certain "market-based" revenue and pricing measures (e.g., gas tax increase, higher bridge tolls, congestion pricing, smog fee, "pay as you drive" insurance, etc.). Each of these need (1) state enabling legislation prior to any city or county action to implement, and (2) a well-orchestrated regional implementation strategy to ensure success. For these reasons, the market-based measures are not appropriate for the Deficiency List at this time.[3]

In a region as large and diversified as the Bay Area, it would be difficult to identify improvements, programs and actions that individually work to "...measurably improve the level of service of the system...and contribute to significant improvements in air quality...". The items that have been included on our list work in some degree to improve roadway conditions and lessen air pollution. The degree to which each item does both varies: Some are very strong improvers of traffic congestion, but make small contributions in improvements to air quality; others help to improve air quality, but offer very little in the way of traffic relief; and then still others offer little in both categories, yet are very necessary as supporting measures.[4] Because of this, emphasis should be given to the benefits derived from combining the various measures, viewing their effectiveness in terms of joint application.

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3 The Deficiency List does include Parking Management (measure E6) through pricing strategies.

4 Certain measures included on the District's list focus on providing alternatives to the single occupant vehicle that will benefit the Region's air quality in the long term. Implementation of these measures as part of a deficiency plan may contribute to or cause localized congestion for motor vehicles (examples include Signal Preemption by Transit Vehicles [B11] and Bus Stop Bulbs [B12]). Without changes to State law, a jurisdiction could have to prepare a Deficiency Plan to remedy a level of service deficiency caused by implementation of a measure (or measures) on this list.

The following measures have been included in this initial Deficiency List, but will undergo further evaluation due to revised air pollutant emissions factors recently released by the California Air Resources Board (CARB):

- Accelerated implementation of the *2005 HOV Master Plan* (D3)
- Auxiliary Lanes of up to One Mile in Length Where HOV Lanes are Provided (F3)
- Signalization Improvements (F4)
- Computerized Traffic and Transit Control/Management on Arterials (F5)

These new emissions factors show that vehicles emit more Carbon Monoxide and Hydrocarbons at speeds greater than 35 miles per hour. Following: (1) resolution of the current debate among CARB, the U.S. Environmental Protection Agency (EPA), Caltrans, the Federal Highway Administration (FHWA) and MTC on emissions factors for vehicle speeds of 20-50 miles per hour, or (2) more technical information becoming available, BAAQMD staff will reassess the appropriateness of these measures for the Deficiency List. Furthermore, Ramp Metering (F2) has the potential to create Carbon Monoxide "hot spots" since vehicles must idle while waiting to enter the freeway. Queues that develop at metered freeway entrances can cause motorists to opt to take short trips on local arterials, resulting in more emissions for the entire trip than would have occurred had the motorist waited in the queue to take the trip via freeway. When more technical information on the air quality impacts of ramp metering becomes available, BAAQMD staff will reassess the appropriateness of these measures for the Deficiency List.

The BAAQMD will reevaluate the measures on this list following preparation of revised regional transportation/air quality planning documents designed to replace current planning documents of the same name:

- Regional Transportation Plan (1993)
- Ozone State Implementation Plan (to be prepared for Federal air quality standards) (1993)
- Bay Area 1994 Clean Air Plan (to be prepared for State air quality standards)

Although the statutes do not call for guidance on the implementation of the items on the Deficiency List, BAAQMD staff has provided some. The guidance is general in nature, and is directed towards providing a basis by which local jurisdictions, Congestion Management Agencies and other interested groups can determine the adequacy of a Deficiency Plan. The guidance is not intended to serve as a "cookbook" that specifies the degree to which each item shall be implemented in a particular jurisdiction. Experience gained through the implementation of the items on the list should help District staff in

updating and improving the list. Future versions may contain actions specific to certain Counties or municipalities.

Section I is the District's draft list of programs, actions and improvements to be used by cities and counties in preparing Deficiency Plans. **California law *mandates* that cities and counties select measures from the list in Section I when preparing Deficiency Plans.**

Section II contains the *policy* the BAAQMD will follow in updating the list and for considering items not included on the list but proposed for inclusion in a Deficiency Plan.

Appendix A presents the BAAQMD's guidance on how the draft Deficiency List should be implemented by local governments. **Information in Appendix A is *advisory*. California law does not specify the scope or quantity of measures on the list necessary to mitigate or "offset" a level of service deficiency.**

This document was prepared by David Marshall and Michael Murphy, Senior Planners, Planning Division / Environmental Review Section.

SECTION I

LIST OF PROGRAMS, ACTIONS, AND IMPROVEMENTS FOR INCLUSION IN DEFICIENCY PLANS

Cities/Counties/CMAs' use is mandatory (required by California law)

The items that comprise the list of programs, actions and improvements that cities and counties can incorporate into Deficiency Plans are described below. Each description indicates whether the item is most suitable for local implementation, county wide or corridor level implementation.

Although the items have been grouped into six categories, many are complementary and their individual effectiveness will be increased if undertaken together. For instance, the success and advantages of High Occupancy Vehicle lanes will be enhanced if preferential treatment of buses, carpools and vanpools is designed into parking areas, local arterials and freeway on- and off-ramps.

Each category is preceded with a listing of the Transportation Control Measures (TCM) from the *'91 Clean Air Plan* that will be directly implemented or in some fashion be supported by the items on the list. The development and implementation of Deficiency Plans is not viewed as the main avenue for the implementation of the TCMs in the *'91 Clean Air Plan*. Clearly though, implementation of system-wide improvements through Deficiency Plans can only benefit the success of the strategies set forth in the TCMs.

A. BICYCLE AND PEDESTRIAN MEASURES

A1. Improved Roadway Bicycle Facilities and Bike Paths. Roadways could be improved to provide increased safety and convenience for bicyclists. Improvements include:

- widening shoulders or curb side pavement
- lane re-striping and/or removal of on-street parking to create a wider outside (right) lane for bicycles thus reducing bicycle and automobile conflicts
- installing, marking and/or modifying sensitivity of detection loops at intersections to trigger light changes and allow bicycles to clear the intersection
- completing and expanding Class I bike paths and Class II bicycle lanes that are in the circulation elements of general plans

Caltrans standards shall be followed in designing and constructing bicycle improvements. This measure is suitable for both local and system-wide implementation.

A2. Transit and Bicycle Integration. This measure is intended to increase the number of bus and train routes capable of transporting bicycle riders, as well as improving interconnection between the two modes. Communities in San Mateo, Santa Clara and San Francisco Counties could work with the CALTRAIN Joint Powers Board to allow bicycles on CALTRAIN and to assure peak period bicycle accommodation on the new California cars (when acquired). Communities within the BART service area could work with BART to better accommodate bicycles during commute periods through downtown Oakland and San Francisco, as well as shortening or eliminating the periods during which bicycles are barred from the BART system. An alternative could be to provide special peak-period BART runs in the commute direction that accommodate bicycles. Communities, working with relevant transit districts, could work to increase the number of bus routes and rail services allowing access to bicyclists, as well as providing increased numbers of bicycle lockers (for regular users) and racks that allow use of the U-Bar style locks (for occasional users) at transit transfer centers and other interconnection points. This measure should be implemented on a system-wide basis since most transit service is on a multi-city basis. Local governments that operate their own transit service should implement this measure locally.

A3. Bicycle Lockers and Racks at Park and Ride Lots. Park and ride lots accessible to bicycles should contain bicycle lockers (for regular users) and racks that allow use of the U-Bar style locks (for occasional users). Jurisdictions will have to include in their Deficiency Plans the initial number of storage spaces and criteria for installing additional spaces. Communities can also consider establishing "Bike and Ride" lots: areas along major transit routes designated for bicycle storage only, separate from automobile parking lots. This measure can be implemented on a local basis.

A4. Bicycle Facilities And Showers At Developments. As part of any new office/industrial/commercial/school/special generator and multi-family (four or more units) residential development generating more than 50 person trips per day, cities and counties could require the inclusion of bicycle storage facilities and, for office/industrial/commercial/school/special generator developments employing more than 100 employees, showering and changing rooms. Bicycle storage facilities include bicycle lockers and racks (must allow use of the U-Bar style locks) which are located close to the main entrances or inside of buildings. Existing sites should add bicycle storage facilities and, for developments/buildings/sites employing more than 100 employees, showering and changing rooms where feasible. This measure can be implemented on a local basis.

A5. Improved Pedestrian Facilities. It is the general practice for new development to include sidewalks and other pedestrian facilities. However, efforts can be made to improve and expand upon current requirements and practices to make walking a more integral part of the transportation system. City and county zoning ordinances and design standards should be revised as appropriate to ensure safe, convenient and direct pathways for pedestrians between their residences, shopping and recreational areas, and work sites. Other efforts include requiring, where appropriate, the provision of walkways in commercial and residential areas linking building entrances to street sidewalks and crossings, and linking building entrances to adjacent building entrances and activity centers. Communities can also require continuous and clearly marked pathways across parking lots between sidewalks and building entrances. A preferable approach is to locate entrances and building fronts along street sidewalks, with parking spaces at the sides and rears of buildings. This measure is suitable for local implementation. (See also Land Use Measures [E8].)

A6. Pedestrian Signals. To encourage more walk trips, pedestrian signals should be added on major arterials to enhance safety. This measure should be implemented locally.

A7. Lighting for Pedestrian Safety. Communities can require and install adequate lighting for sidewalks, bus stops, bicycle parking areas and vehicle parking lots to create conditions that are safe for pedestrians. There may be special hardware requirements that must be met for implementation of this measure in proximity to facilities sensitive to light pollution (e.g., Lick Observatory). This measure is suitable for local implementation.

B. TRANSIT (Includes bus, rail and ferry services)

B1. Improvement of Bus, Rail and Ferry Transit Services. This measure is directed at improving public and private transit service. Cities, counties and employers will need to (1) work with the relevant transit districts and private operators to identify appropriate routes for reducing headways, extending service, improving transfers, and coordinating project design and services to new development; and (2) contribute financially toward both capital and operating costs of service improvements. Emphasis should be placed on providing service that will reduce peak period automobile trips (e.g., express and commuter bus/rail/ferry service). Service expansion should be coordinated with the relevant Short Range Transit Plan(s) and also support local and regional trip reduction efforts. This measure should be implemented on a system-wide basis.

B2. Expansion of Rail Transit Service. This measure is directed at extending or expanding rail transit beyond the projects included in MTC's New Rail Starts Program

outlined in MTC Resolution 1876. Emphasis should be placed on expanding rail service to corridors not included in Resolution 1876 that will experience rapid growth in peak period automobile trips. Cities and counties will need to work with local, regional, state and federal transportation agencies to define projects and establish institutional arrangements to construct and operate the services, and fund operating costs. This measure can be implemented locally and on a system-wide basis, and should be considered in conjunction with Improvement of Bus, Rail and Ferry Transit Services (B1).

B3. Expansion of Ferry Services. Freeways, bridges and transit connections around and across San Francisco Bay are heavily congested. High speed ferry service offers an efficient and comfortable transportation alternative. New or enhanced service should focus on peak period travel when congestion is greatest. An example would be to provide high speed commuter ferry service between Vallejo and the San Francisco Ferry Terminal as a reliever of peak period congestion on I-80 in Contra Costa and Alameda counties. This measure should be implemented on a corridor or system-wide basis.

B4. Preferential Treatment for Buses and In-Street Light Rail Vehicles (LRVs). This measure includes strategies that give preference to buses and in-street light rail vehicles, including transit stops at building entrances, bus shelters, LRV platform boarding areas, direct HOV to HOV connecting lanes and ramps, exclusive bus/LRV lanes, bypass lanes at metered freeway ramps, including reserved lanes around any queues that may form on connecting streets or at congested off-ramps. These strategies should be a part of a coordinated regional and/or county HOV system, with individual communities assisting with changes that affect local streets or development review/approval. This measure can be implemented both locally and on a system-wide basis.

B5. Transit Information and Promotion. This measure is intended to work with the Transit and Bicycle Integration (A2), Stricter Travel Demand Management/Trip Reduction Ordinances (E1) and Public Education Programs (E2). Cities and counties can:

- advertise the availability of transit in their communities
- post transit schedules at bus stops
- enhance access to transit via non-motorized modes (e.g., bicycling and walking)
- provide for special accommodation of clean fuel/electric vehicles at rail and ferry stations (e.g., preferential parking and free electric outlets)

Cities and counties must coordinate their recommendations with relevant organizations such as local transit district(s), MTC, RIDES for Bay Area Commuters, Inc., Berkeley TRiP,

San Benito Rideshare, Santa Clara County's Commuter Network, Santa Cruz Share-a-Ride, Solano Commuter Information[1] and the BAAQMD for enhancements to existing programs or implementation of new programs. Promotional activities should be directed at all trips, including those for shopping, recreation, commuting and school. This measure can be implemented both locally and on a system-wide basis.

B6. Transit Pricing Strategies to Encourage Ridership and, where applicable, Reduce Transit Vehicle Crowding. Pricing incentives and alternative fare structures can encourage ridership and, where necessary, reduce transit vehicle crowding. These incentives and strategies include subsidy from alternative revenue sources to reduce fares, zonal fares, peak hour fares, elimination of discounts for elder citizens who travel at peak times and free or reduced cost transit on "Spare the Air" day.[2] Transit pricing changes should ideally be done in conjunction with service improvements. Communities can work with neighboring cities and transit agencies to identify and subsidize appropriate incentive programs. This measure, especially appropriate for cities or counties that operate their own transit system, should be implemented on a system-wide basis.

B7. Transit Fare Subsidy Programs. These programs generally are implemented at employment sites in the form of direct employer subsidy of employee transit fares, usually with some monthly or yearly ceiling. Where cities/counties require employers to subsidize transit fares to meet trip reduction requirements, such programs must also equally subsidize persons who use non-motorized modes (e.g., bicycle or walk). Other subsidy programs could be directed towards school, recreational and shopping trips. This program can be implemented locally for a city or county's own employees, or a city or county can include a transit fare subsidy requirement for employers in its local trip reduction ordinance, or a city or county can condition new development to include such programs as a part of the city or county's development approval process.

B8. Transit Centers. To assist current and potential riders in obtaining route information, schedules, and passes, cities and counties would establish (or provide funds for transit agencies to establish) transit centers. The centers can be patterned after Berkeley TRiP. Another option is a mobile, clean fueled/electric "commute store" that would visit activity

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[1] San Benito County, Santa Cruz County and eastern Solano County are outside the BAAQMD's jurisdiction. Reference is made to services offered in these jurisdictions since they are considered within the commute shed of the greater Bay Area.

[2] Depending on how the strategies are constructed, they have potential to significantly impact operating revenue. Any proposal should fully evaluate the impact on operating revenue and identify replacement revenue to cover any potential loss to the transit operator(s). "Spare the Air" day occurs when the BAAQMD forecasts that atmospheric conditions on the following day are likely to result in an exceedance of the health based State ozone standard. Major employers and the media are notified to advise employees and the general public that activities contributing to ozone formation should be limited.

centers and employment sites to disseminate transit, ridesharing, and non-motorized travel information (e.g., maps of bike routes, bicycle commuter handbooks, and city walking guides). A second option is to install electronic kiosk centers, which are able to dispense tickets, route information, and in some cases, assist with ride matching operations. Another option is to franchise out the centers to mailbox services, photocopying centers, or other such establishments. Centers could also be established at community centers. Centers should be established at all major transit transfer points. This measure can be implemented both locally and on a system-wide basis.

B9. Improved and Expanded Timed Transfer Programs. Shortening the time passengers wait when transferring between buses, from bus to train or vice-versa, and between transit systems is an important improvement to transit service. Working with the relevant transit districts, cities and counties would need to identify the best locations for timed transfers and which routes would be best suited for schedule adjustments. Current plans to institute timed transfers should be considered for accelerated implementation. This measure should be implemented on a system-wide basis.

B10. Improved and Expanded Fare Coordination. Through the encouragement of MTC, BART and several Bay Area transit operators have developed a fare card that is used to debit fares on BART and also serve as a semi-monthly "flash pass" on major Bay Area bus systems. Each month more people purchase this card, demonstrating the public's desire for a simplified Bay Area transit fare structure. MTC is working diligently with transit operators to test and implement a "universal" fare card. Cities and counties can work in partnership with MTC, CMAs and relevant transit districts to develop and implement fare coordination agreements, and contribute financially to the necessary hardware, software, equipment maintenance and, where applicable, operator subsidies.

B11. Signal Preemption by Transit Vehicles. Transit vehicles could be equipped with preemption devices that hold or trigger a green light in order to avoid delays at intersections. Since implementation of this measure could be highly disruptive to traffic flow in an optimally timed, signalized corridor, and thus increase emissions, affected local governments should work closely with transit agencies to implement signal preemption only where most appropriate. This measure should be implemented on a system-wide or corridor basis.

B12. Bus Stop Bulbs. A strategy to improve passenger pickup and off-loading is to extend sidewalks across the parking lane to the first through traffic lane. Such an extension is called a bus stop bulb. With bus stop bulbs, buses are not delayed merging back into traffic after stops, and cars are prevented from blocking the stops, both of which improve bus travel time.[3]Some transit agencies prefer bus turn outs (which remove the

bus from the traffic stream for passenger loading to minimize delay to motorists and allow the bus to reenter the traffic stream only when an adequate gap in traffic becomes available), while others prefer neither bus turn outs nor bus bulbs. Cities or counties that want to implement Bus Stop Bulbs (B11) should work closely with their respective transit agency(ies). The District does not consider bus turn outs as an appropriate alternative to bus stop bulbs since turn outs favor single occupant vehicles and lengthen bus travel times. This measure can be implemented both locally and on a system-wide basis.

B13. School Bus Transit Service. This measure is directed at establishing school bus services in school districts where bus service has been reduced or eliminated. Reinstating or expanding school bus service would provide an alternative to many students who drive to school or are driven to school by others. Reinstating or expanding school bus service would also provide capacity on existing public bus services for commuters displaced by student riders. Cities and counties will need to work with school districts to establish arrangements for funding the service. This measure would be implemented locally or system-wide.

C. CARPOOLING, BUSPOOLING, VANPOOLING, TAXIPOOLING, JITNEYS, CASUAL CARPOOLING AND OTHER SHARED RIDES (Ridesharing)

C1. Preferential Treatment for Shared Ride Vehicles. This measure includes strategies that give preference to carpools, buspools, vanpools, taxipools, jitneys and other shared rides, including reserved parking spaces next to building entrances, transit stops at building entrances, direct HOV to HOV connecting lanes and ramps, bypass lanes at metered freeway ramps, including reserved lanes around any queues that may form on connecting streets or at congested off-ramps. These strategies should be a part of a coordinated regional and/or county HOV system, with individual communities assisting with changes that affect local streets or development review/approval. This measure can be implemented both locally or on a system-wide basis.

C2. Increased use of Commuter/Employer Services. To increase the number of carpools and vanpools, commuters and employers should be encouraged to use the free computerized ridematching services provided by RIDES for Bay Area Commuters, Inc., Berkeley TRiP, San Benito Rideshare, Santa Clara County's Commuter Network, Santa Cruz Share-a-Ride and Solano Commuter Information.[3] RIDES maintains a database that serves commuters in the nine Bay Area counties and several outlying counties. RIDES'

[3] San Benito County, Santa Cruz County and eastern Solano County are outside the BAAQMD's jurisdiction. Reference is made to services offered in these jurisdictions since they are considered within the commute shed of the greater Bay Area.

database is electronically linked to ridesharing programs in San Benito County, Santa Clara County, Santa Cruz County, Solano County and the City of Berkeley as well as to ridesharing programs of several Bay Area employers. As an integral part or cities' and counties' trip reduction efforts, employers of all sizes should encourage their employees to take advantage of these services. In addition, employer services offered by RIDES, Santa Clara County's Commuter Network, Solano Commuter Information and Berkeley TRiP could serve as an integral part of training, education and outreach efforts for employee transportation coordinators. This measure can be implemented locally or on a system-wide basis.

D. HIGH OCCUPANCY VEHICLE (HOV) FACILITIES

D1. Preferential Treatment for HOVs. See measures B4 and C1.

D2. Bus and Carpool/Buspool/Vanpool/Taxipool Priority Lanes on Local Arterials. This measure is aimed at providing time savings for buses and car/bus/van/taxipools on local arterials. Many peak period commute trips occur on congested local streets. Provision of the Priority lanes during the commute periods will act as an incentive for ridesharing. In some instances, this measure can be combined with Restrictions on Curb-Side Deliveries and On-Street Parking (F11) to provide lanes without taking away mixed flow capacity. (However, streets with existing or planned bicycle lanes should not have the parking lane converted, as this could cause conflicts between bicyclists and motor vehicles.) Cities and counties incorporating this measure in their Deficiency Plan should indicate how any proposed priority lanes will supplement or otherwise support any county-wide or regional HOV plans. This measure should be implemented on a system-wide basis.

D3. Accelerated Implementation of the *2005 HOV Master Plan*. The Metropolitan Transportation Commission (MTC), Caltrans, and the California Highway Patrol (CHP) have identified a regional system of High Occupancy Vehicle Lanes. Some of the projects have already been programmed for funding and completion by 1995. The remainder are assumed for completion by 2005. Communities can place a greater priority on these projects so that they can be constructed before the year 2005. For areas, such as Solano County, which are not included in the *2005 HOV Master Plan*, emphasis can be placed on developing HOV lanes identified in another study, such as the *I-80 Strategic Plan*. Cities and counties should work with MTC, Caltrans and the CHP to evaluate HOV lanes on freeway segments not included in the *2005 HOV Master Plan*.

The technical analysis accompanying the *2005 HOV Master Plan* indicated that successful HOV lanes require support facilities, such as park and ride lots, express bus service and exclusive HOV bypass lanes and connecting ramps. It is recommended that Deficiency

Plans incorporating this measure focus on providing support facilities for HOV lanes. Some, such as by-pass lanes and connecting ramps, would be constructed at the time the HOV lane is constructed. Others, such as park and ride lots and improved transit service should be implemented prior to the opening of the HOV facility. This measure can largely be implemented on a system-wide basis, although supporting actions can be done on a local basis. *(See note on page 3 regarding this measure.)*

D4. HOV to HOV Facilities. Local government work with Caltrans and CMAs to identify and program for construction ramps that provide a direct connection between HOV facilities. This could significantly reduce travel time for HOVs that otherwise would be required to negotiate a very slow merge across three or four lanes of single occupant vehicle (SOV) traffic twice in order to exit one freeway and enter another. This measure can be implemented on a system-wide basis.

D5. Direct HOV Lane Entrance/Exit Ramps to Arterials and Special Generators. Where high volumes of HOVs would benefit from direct access to freeway or expressway HOV lanes, direct HOV ramps should be provided for (1) arterials that provide access to major activity centers and (2) connecting roadways to special generators (e.g., airports, stadiums, universities, military facilities, etc.). This measure could be implemented region-wide or locally.

E. OTHER TCMS, RELATED MEASURES.

E1. Stricter Travel Demand Management/Trip Reduction Ordinance. As part of a Deficiency Plan, a city or county will modify their mandated Trip Reduction Ordinance to include requirements *beyond* those either currently identified or recommended in their county's CMP. After the adoption of the BAAQMD's Employer-Based Trip Reduction Rule, jurisdictions would revise their programs to go *beyond* the requirements embodied in the District's rule and other local trip reduction requirements, where applicable. This program can be implemented locally.

E2. Expanded Public Education Programs. A Public Education program should be an essential part of any Deficiency Plan. Jurisdictions can include educational materials regarding air quality and congestion relief and the use of the automobile with programs dealing with waste recycling, water conservation, etc. The conservation of air quality and the efficient use of the transportation system are messages compatible with other waste reduction and resource conservation programs. Public education programs might include the following topics:

- health effects of air pollution and traffic congestion
- the air pollution effects of older cars and cars that are out of tune
- list of available low emission vehicles (electric, natural gas, methanol, etc.) and their sellers
- the air pollution effects of cold starts and short trips
- the benefits of linking trips for shopping, errands, recreation, work, particularly during the afternoon on weekdays and during the weekend
- the role of alternative means of transportation in improved regional air quality, local congestion relief, and reduced energy use
- the benefits of compact development, particularly near transit stations
- the benefits of leaving the car at home at least one or two days a week
- the benefits of taking feeder buses, bicycling or walking to regional rail or bus transfer centers and other destinations
- advertising the location, cost and availability of discount transit tickets
- educational materials designed for use in school curricula

The BAAQMD has already begun a public education program for the region. Materials developed as part of the program will be available to cities and counties. RIDES for Bay Area Commuters, Inc., Berkeley TRiP, San Benito Rideshare, Santa Clara County's Commuter Network, Santa Cruz Dial-a-Ride, and Solano Commuter Information each provide a variety of public information and services available to cities, counties, CMAs, transit agencies, employers and other transportation agencies/organizations.[4] Educational materials should also be developed for planning and zoning commissions and governing boards that make land use and transportation decisions impacting air quality. This program can be implemented locally.

E3. Child Care Facilities at or close to Employment Sites, Transit Centers and Park and Ride Lots. Many commuters need to drop off and pickup their children at child care. The intent of this measure is for jurisdictions to facilitate the location of child care facilities at, or more likely, close to employment sites, major transit centers (e.g., BART, CalTrain and Santa Clara Light Rail stations, and park and ride lots. The intent is to shorten or eliminate the automobile portion of the commute trip. Jurisdictions and employers may need to provide financial incentives to operators of such facilities. This program can be implemented locally. (See also Land Use Measures [E8].)

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[4] San Benito County, Santa Cruz County and eastern Solano County are outside the BAAQMD's jurisdiction. Reference is made to services offered in these jurisdictions since they are considered within the commute shed of the greater Bay Area.

E4. Retail Services at or close to Employment Sites, Transit Centers and Park and Ride Lots. Trips could be eliminated and perceived transit waiting time would be reduced if retail services (e.g., automated bank teller machines (ATMs), dry-cleaners, coffee shops, book stores, etc.) were offered in conjunction with employment sites, transit centers and park and ride lots. Jurisdictions could provide incentives for and work with transit operators to encourage development at or in immediate proximity to areas where people wait to take a bus or train. Activity at or near a transit center or park and ride lot would also enhance safety and thus increase patronage. (See also Land Use Measures [E8].)

E5. Telecommuting Centers and Work-at-Home Programs. Under this measure, jurisdictions and employers would facilitate through discussions with major employers:

- the creation of centers in their communities for telecommuting
- implementation of programs that allow employees to work at home

Businesses would rent space in the center for their employees to work, being connected by telephone wires to the main office and/or allow their employees where appropriate to work at home one or two (or more) days per week. This program can be implemented locally.

E6. Parking Management. This is a broad measure, overlapping with measures dealing with employer-based trip reduction and traffic flow improvements. Jurisdictions can implement parking charges, restrict parking during peak hours along busy corridors, require preferential parking for carpools and vanpools at major activity centers, require shared parking arrangements at developments, land bank parking space, establish automobile free zones, parking standards in zoning ordinances to discourage vehicle trips (e.g., establish maximum parking ratios rather than minimum ratios, revise minimum ratios to require fewer spaces, etc.). This program can be implemented locally.

E7. Parking "Cash-Out" Program/Travel Allowance. AB 2109 (Katz, Ch. 92-0554) requires employers of 50 persons or more who provide a parking subsidy[5] to employees to offer a parking cash-out program. Under a parking cash-out program, the employer offers to provide a cash allowance to an employee equivalent to the parking subsidy that the

5 "Parking subsidy" is defined as the difference between the out-of-pocket amount paid by an employer on a regular basis in order to secure the availability of an employee parking space and the price, if any, charged to an employee for use of that space.

employer would otherwise pay to provide the employee with a parking space.[6] Employees who wish to continue to drive will receive a parking space in lieu of the cash allowance. Employees who forego the use of parking can use the travel allowance for any purpose, including subsidizing the use of alternative transportation modes. Employers may also offer transit passes or ridesharing subsidies as all or part of the travel allowance to help reduce the tax impact on employees.[7]

As part of a deficiency plan, a city or county could pass an ordinance, amend its trip reduction ordinance, or work with employers to implement parking cash-out programs that go beyond this new State requirement.[8] Examples include:

- include employers with fewer than 50 employees
- include employers that own their own parking spaces, using the market rate for parking in the area as the cost of parking and the amount of the cash travel allowance
- require or encourage building owners to separate the cost of parking from the cost of leasing office space, thereby facilitating/requiring parking cash-out programs in multi-tenant office complexes
- implement a parking cash-out program at city/county employment sites as a model for other employers

This program, which should be implemented locally, must be designed to minimize any adverse impact on parking in neighborhoods adjacent to the participating employment sites.

E8. Land Use Measures. Land use exerts a strong influence on travel patterns and transportation mode choice. Site design strategies (e.g., clustering and minimizing walk distance to transit) also influence mode choice. Strategies which local governments can undertake include revising general plan policies and land use designations, zoning ordinances and design standards to provide for:

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6 AB 2109 also requires cities and counties in which a commercial development will implement a parking cash-out program which is included in a CMP pursuant to subdivision (b) of Government Code Section 65089 or a deficiency plan pursuant to Government Code Section 65089.3 to grant that development an appropriate reduction in the parking requirements otherwise in effect for new commercial development.

7 Under State and Federal law a cash travel allowance is considered gross income and is therefore taxable. Transit subsidies and some other ridesharing subsidies are not taxable up to varying amounts, depending upon State or Federal tax law.

8 To meet the requirements of this Deficiency List, cities and counties must require that the employer program not be designed to disproportionately favor use of any alternative mode (e.g., giving a travel allowance to the employee in the form of a "Commute Check" that can be used for public transit only, and offering no equivalent monetary benefit for those who rideshare, bicycle or walk).

- phase development to occur near current transit service (i.e., infill)
- mixed land uses where residences, work places and services are located close enough together to minimize the need for private motorized transportation between them[9]
- pedestrian oriented design, such as sidewalks, adequate crosswalks on major streets, building entries near sidewalks rather than behind parking lots, and convenient transit stops
- affordable housing near major employment sites
- incentives for infill development
- higher densities at transit stops and along major transit lines
- sites for alternative fuel vehicle fueling facilities

This measure can be implemented both locally and on a system-wide basis. (See also Improved Pedestrian Facilities [A5], Child Care Facilities at or close to Employment Sites, Transit Centers and Park and Ride Lots [D3] and Retail Services at or close to Employment Sites, Transit Centers and Park and Ride Lots [D4].)

F. TRAFFIC FLOW IMPROVEMENTS.

F1. Preferential Treatment of HOVs. See measure B4 and C1.

F2. Ramp Metering. Caltrans District 4 is currently working on a comprehensive ramp metering program for the region's freeways. Ramp metering must include bypass lanes for buses and carpools. Jurisdictions placing this measure in their Deficiency Plans must show how they will work with Caltrans and MTC to help fund and assist in expediting the implementation of ramp metering on freeway ramps within their community. Solano County would coordinate with any ramp metering plans developed by Caltrans, District 10. This measure would be implemented on a system-wide basis. *(See note on page 3 regarding this measure.)*

F3. Auxiliary Lanes of Up to One Mile in Length Where HOV Lanes are Provided. This measure would allow the addition of freeway auxiliary lanes between interchanges of not more than one mile in length (i.e., in locations with closely spaced interchanges) to promote ease of HOV lane access and egress and provide for safe merging of conflicting

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[9] Cities and counties, prior to zoning for or approving housing or other sensitive receptors (e.g., schools, hospitals or convalescent facilities) near industry should consider the nature of activity that may occur and whether that activity does/could pose a risk of nuisance (e.g., odors) or potential public health problems. Similar care should be taken when considering locating industry or related land uses near residences and other sensitive receptors. BAAQMD Planning Division staff is available in such cases to advise cities and counties of appropriate action and mitigation strategies (e.g., buffer zones) where feasible.

traffic. This measure is for *freeways only* (not expressways), since expressway auxiliary lanes would diminish the safety of bicyclists. This measure would be implemented on a system-wide basis. *(See note on page 3 regarding this measure.)*

F4. Signalization Improvements. Jurisdictions would be expected to improve signal timing and sequencing to smooth traffic flow and increase average speeds during the peak periods. Jurisdictions could identify roadways to undergo signalization improvements, as well as a timetable for doing so. Jurisdictions that have planned improvements can use those programs. Signalization improvements should be coordinated with any programs to improve signalization and preemption advantages for transit vehicles. This measure would be implemented on a system-wide basis. *(See note on page 3 regarding this measure.)*

F5. Computerized Traffic and Transit Control/Management on Arterials. This measure includes installing traffic sensors, closed circuit television, low wattage "highway-advisory radio" broadcasts, and centrally controlled changeable message signs on local arterials to convey current traffic and transit information. This driver and transit rider information system will supply travelers with real-time traffic and transit information to assist them in planning routes and times of travel. This will be especially helpful in reducing congestion from surges of traffic such as special events, sporting events and parades. *(See note on page 3 regarding this measure.)*

F6. Turn Lanes at Intersections. This measure would be applicable on arterials where placement of a maximum of one left turn lane and/or a maximum of one right turn lane per approach would significantly reduce average stopped delay at an intersection. Double left- or double-right turn lanes would not be appropriate at intersections or freeway/arterial on/off ramps since these create an unfriendly environment for trips by non-motorized modes (pedestrian, bicycle and other travel).[10] This measure would be implemented locally.

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[10] An exception to the double turn lane restriction for arterial/arterial intersections would be appropriate only in cases where all of the following criteria are met: (1) the curb to curb distance remains the same for all approaches after changes to intersection geometry; (2) the width of the median (if any), which serves as pedestrian refuge, is not reduced to accommodate changes to intersection geometry; (3) the signal cycle length is reduced so pedestrians have more frequent opportunities to cross the intersection; (4) the minimum green time in each phase (for pedestrian crossing) is maintained or increased; and (5) the width of the right most through lane is maintained or increased from its width prior to changes to intersection geometry (for bicyclists' safety).

F7. Turn Restrictions at Intersections. This measure consists of restricting turns at some intersections throughout the day or during peak periods only. This measure can be implemented locally.

F8. Reversible Lanes. This measure is applicable on arterials in areas of employment concentration, where congestion occurs in the inbound direction in the morning and the outbound direction during the afternoon. It consists of temporarily increasing the capacity of the congested direction, with the reversed lane dedicated as an exclusive lane for buses, carpools and vanpools. This program can be implemented locally.

F9. One Way Streets. In areas of high traffic volumes, jurisdictions can convert roadways to one-way streets. This measure has been employed in many of the larger central business districts within the Bay Area. Jurisdictions using this measure should identify streets to be converted to one-way and an implementation schedule. However, streets should not have the parking lane taken away where this would cause conflicts between bicyclists and motor vehicles by decreasing the lane area for bicyclists.[11] This program can be implemented locally.

F10. Targeted Traffic Enforcement Programs. Where double parking, parking in bus stops, "gridlock" or illegal use of HOV lanes pose a problem, jurisdictions can provide additional parking and traffic enforcement to help manage congestion. This program can be implemented locally.

F11. Restrictions on Curb Side Deliveries and On-Street Parking. This measure is intended as a peak hour measure. The intent is to handle peak flows without adding permanent capacity to the roadway. It is expected that this measure would be used in conjunction with measures to provide arterial HOV lanes or transit priority lanes facilities. In some instances, restrictions may only apply to one-side or for a portion of a roadway/arterial, depending on the peak-flow. This measure may also be useful in handling congestion around commercial areas during their peak period. Jurisdictions may require that all deliveries be made at the rear of buildings, if space and building lot design allows. This program can be implemented locally.

[11] A combination bus and bike lane would be acceptable since the frequency of buses is limited.

SECTION II

BAAQMD ADMINISTRATION OF DEFICIENCY LIST

DISTRICT REVIEW OF MEASURES NOT ON THE APPROVED LIST

Section 65089.3(b)(1)(c) of the State Government Code requires that any programs, actions or improvements included in a Deficiency Plan which are not taken from the adopted District list may not be implemented unless approved by the District.[1] To facilitate the timely review of such measures the following procedures should be followed.

(1) The District's Air Pollution Control Officer (APCO) and the appropriate Congestion Management Agency should be notified concurrently at the earliest practicable date of any local government's intent to seek District approval of an unlisted measure.

(2) A complete description of the proposed measure(s) should be submitted to the District and the appropriate CMA concurrently. We recommend that the submittal include all documentation demonstrating the effectiveness of the proposed measure in reducing VMT on the CMP system. The District will inform the local government in writing within thirty days if additional information is needed. Review of the measure(s) will not commence until all needed information has been received by the District.

(3) Once all relevant information has been received regarding the measure(s), the District Board of Directors, upon receiving a recommendation from the APCO, will either approve or disapprove the measure(s) within ninety (90) days. The APCO will notify the local government and the applicable Congestion Management Agency concurrently in writing of the reasons for the determination.

BIENNIAL UPDATE OF LIST

The list will be updated every two years, immediately following the period during which Congestion Management Agencies make their determinations that local governments conform (or do not conform) to requirements of the CMP legislation. Changes to the measures on the list or to the procedures governing their implementation will be adopted by the District's Board of Directors at a regularly scheduled meeting. Drafts of any changes will be available for public review at least two months prior to the Board taking action. District staff will continue its regular, ongoing consultative process with CMAs, MTC, Caltrans and ARB through the Clean Air/Congestion Management Working Group.

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[1] Following adoption of this Deficiency List by the BAAQMD Board of Directors, California Congestion Management Program (CMP) law does not prohibit cities, counties, CMAs and Caltrans from continuing to manage congestion by including in their Capital Improvements Programs traffic flow improvements that are thought to have a long term detrimental effect on air quality (e.g., freeway, expressway, and arterial widening for single occupant vehicles and intersection improvements of any geometry). The law does however preclude cities and counties from placing in a Deficiency Plan any program, action or improvement not on this Deficiency List, unless approved by the BAAQMD according to administrative procedures outlined in this section.

Attachment 1

Excerpts from Government Code of the State of California (as amended in 1992 by the California Legislature [AB 2109/AB 3093]).

65089.3

(a) The agency shall monitor the implementation of all elements of the congestion management program. Annually, the agency shall determine if the county and cities are conforming to the congestion management program, including, but not limited to, all of the following:

(1) Consistency with levels of service and performance standards, except as provided in subdivisions (b) and (c).

(2) Adoption and implementation of a trip reduction and travel demand ordinance.

(3) Adoption and implementation of a program to analyze the impacts of land use decisions, including the estimate of the costs associated with mitigating these impacts.

(b) (1) A city or county may designate individual deficient segments or intersections which do not meet the established level of service standards if, prior to the designation, at a noticed public hearing, the city or county has adopted a Deficiency Plan which shall include all of the following:

(A) An analysis of the causes of the deficiency.

(B) A list of improvements necessary for the deficient segment or intersection to maintain the minimum level of service otherwise required and the estimated costs of the improvements.

(C) A list of improvements, programs, or actions, and estimates of costs, that will (i) measurably improve the level of service of the system, as defined in subdivision (b) of Section 65089, and (ii) contribute to significant improvements in air quality, such as improved public transit service and facilities, improved non-motorized transportation facilities, high occupancy vehicle facilities, parking cash-out programs, and transportation control measures. The air quality management district or the air pollution control district shall establish and periodically revise a list of approved improvements, programs, and actions which meet the scope of this paragraph. If an improvement, program, or action is on the approved list and has not yet been fully implemented, it shall be deemed to contribute to significant improvements in air quality. If an improvement, program, or action is not on the approved list, it shall not be implemented unless approved by the local air quality management district or air pollution control district.

(D) An action plan, consistent with the provisions of Chapter 5 (commencing with Section 66000) of Division 1 of Title 7, that shall be implemented, consisting of improvements identified in paragraph (B), or improvements, programs, or actions identified in paragraph (C), that are found by the agency to be in the interest of the public's health, safety and welfare. The action plan shall include a specific implementation schedule.

(2) A city or county shall forward its adopted Deficiency Plan to the agency. The agency shall hold a noticed public hearing within 60 days of receiving the Deficiency Plan. Following the hearing, the agency shall either accept or reject the Deficiency Plan in its entirety, but the agency may not modify the Deficiency Plan. If the agency rejects the plan, it shall notify the city or county of the reasons for that rejection.

APPENDIX A

Cities/Counties/CMAs' use is advised (not required by California law)[1]

Procedures for the implementation of the list of programs, actions and improvements developed by the Bay Area Air Quality Management District in response to the Congestion Management legislation is outlined below. The items listed in Section I provide a wide range of options from which communities can choose during the development of a Deficiency Plan. One of the key issues that will confront the preparers of Deficiency Plans is how many of the items from the list must be included in a particular plan.

The responsibility for determining the adequacy of a Deficiency Plan rests with the Congestion Management Agencies. The CMAs can either accept or reject a Deficiency Plan, but may not modify it. The CMAs will be responsible for developing appropriate criteria for determining the adequacy of Deficiency Plans submitted by the communities. To assist the CMAs with this task, we have included a methodology for assessing whether or not enough of the items from the list have been included in a Deficiency Plan.

The approach that we have chosen revolves around the offsetting of a deficient facility's contribution to congestion and air quality. A Deficiency Plan is adequate if it includes sufficient items from the District's list to offset over the system the increased amount of vehicle miles travelled (VMT) on the deficient facility due to its operation at LOS F rather than LOS E.[2] The basic steps in the process are described below.

STEP 1 - Identify v/c Ratio That Must be Mitigated:

Use the county wide transportation model to identify the volume to capacity (v/c) ratio of the deficient segment. The amount by which this v/c ratio exceeds (or is projected to exceed) the upper limit of the Congestion Management level of service standard (e.g., 0.99 for LOS E) is the v/c ratio increment that must be mitigated through implementation of items on the BAAQMD's list.

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1 The next few years will offer a number of opportunities for cities and counties to examine different ways of choosing deficiency strategies as they come up with plans mitigating congestion on parts of the network that have failed the Level of Service (LOS) test. We urge cities, counties and CMAs to encourage experimentation in alternative methods to match LOS deficiencies with congestion management and air quality strategies and remedies.

2 The BAAQMD acknowledges that not every measure on the Deficiency List will reduce VMT (see Introduction). Some measures do more to improve congestion than air quality (e.g., traffic flow improvements, HOV lanes involving highway widening, etc. These measures have been included on the Deficiency List because they support other air beneficial measures (e.g., an HOV lane supports ridesharing) or encourage jurisdictions to implement low cost, cost effective strategies to enhance personal/vehicular mobility (e.g., lane re-striping and signs for one-way streets/reversible lanes to increase vehicle throughput and lane re-striping and signs to create wide outside lanes for bicycles).

Let's say the forecast v/c ratio is 1.12 (LOS F) and the v/c ratio necessary to achieve the county wide LOS Standard is 0.99 (upper limit of LOS E). This would mean that mitigation items would need to be identified that offset a v/c ratio 'deficiency' of 0.13.

STEP 2 - Translate the v/c Ratio Deficiency to Vehicle Miles Traveled (VMT)

Consider the segment of U.S. 101 from Novato to Petaluma in Marin and Sonoma Counties.[3] This segment of U.S. 101 is approximately seven miles in length and hypothetically both Marin and Sonoma Counties' transportation models agree its projected northbound traffic volume in the 2000 PM Peak Hour is 4,039.

0.13 x 7 x 4,039 = 3,675 VMT

Thus, 3,675 VMT would need to be mitigated through items from the BAAQMD list.

STEP 3 - Identify Items that Offset the VMT Deficiency

The BAAQMD has prepared a list of Deficiency Plan mitigation items that improve traffic conditions and benefit air quality throughout the Bay Area. The city, county or CMA preparing a Deficiency Plan may choose any of these items, individually or in combination. Since we recognize certain items may be more effective at reducing VMT in a given geographic area, we have outlined two options to assess the adequacy of Deficiency Plan items:

Option 1: Use Region wide Effectiveness Data. The data contained in Table 1 reflect region wide effectiveness of various TCMs in the '91 Clean Air Plan.[4] (This table is forthcoming; not included in this draft.) The proportion of the Deficiency Plan item (or '91 Clean Air Plan TCM) defined in Table 1 that the local government identifies funding for in the Deficiency Plan and implements (or effects implementation) prior to the end of the 7-Year CIP horizon year is the proportion of VMT reduction for which credit can be taken. Detail on applying Option 1 is presented below under "Examples."

Option 2: Exercise County wide Transportation Model. The VMT reduction effects of certain Deficiency Plan items (e.g., transit improvements) may be analyzed more accurately using a county wide transportation model. Certain Deficiency Plan items (e.g., new bicycle lockers) could not be analyzed using a county wide transportation model.

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3 This segment of U.S. 101 currently operates at LOS F, and as allowed by statute, both Marin and Sonoma counties have established a LOS standard of F for the segment. Thus this is not a segment for which a Deficiency Plan will be required. Both the example selected and the numbers used are intended for illustration only.

4 "Transportation Control Measures for the San Francisco Bay Area: Analyses of Effectiveness and Costs," prepared for the BAAQMD by Deakin, Harvey, Skabardonis, Inc., July 1991 (revised October 1991). Copies of this report are available from the BAAQMD upon request.

Examples of Option 1

1. Provide funding for the BAAQMD-delegated Region wide Trip Reduction Rule to apply to 61,000 additional employees in Marin and Sonoma Counties (beyond requirements of the rule).

The rule was assumed in the '91 Clean Air Plan to apply to 3 Million employees.
61,000/3,000,000 = 0.02033 (just over 2%)

1999 VMT (Daily) = 110,856,000
Effectiveness of TCM at reducing VMT = 3.2% (from Table 1)

110,856,000 x 0.032 = 3,547,392 daily VMT reduced by implementation of rule throughout Bay Area, or 354,739 peak-hour VMT (estimated at 10% of daily)

354,739 VMT x 2.033% = 7,212 VMT reduced during the peak hour as a result of implementing the Deficiency Plan Item

2. Provide support for RIDES staff to inform 5,000 employees at Hamilton Field about commute alternatives

The TCM was assumed to apply to 250,000 employees.
5,000/250,000 = 0.02 (2%)

1999 VMT (Daily) = 110,856,000
Effectiveness of TCM at reducing VMT = 0.18% (from Table 1)

110,856,000 x 0.0018 = 199,541 daily VMT reduced by implementation of program throughout Bay Area, or 19,954 peak-hour VMT (estimated at 10% of daily)

19,954 VMT x 2% = 399 VMT reduced during the peak hour as a result of implementing the Deficiency Plan Item. This would mean that 40 of the 5,000 informed about commute alternatives traveling during the peak hour actually shift modes, assuming an average trip length of 10 miles.

3. Fund Phase II bus service expansion at $12.88 Million/yr. The CMAs would spearhead member local governments in the 101 Corridor entering into a service agreement with the Golden Gate Bridge, Highway and Transportation District to provide additional service in the U.S. 101 Corridor from Santa Rosa to San Francisco.

The TCM was assumed to implement new bus service costing $140 Million/yr.
12.88/140 = .092 (9.2%)

1999 VMT (Daily) = 110,856,000
Effectiveness of TCM at reducing VMT = 0.4% (from Table 1)

110,856,000 x 0.004 = 443,424 daily VMT reduced by implementation of service expansion throughout Bay Area, or 44,342 peak-hour VMT (estimated at 10% of daily)

44,342 VMT x 9.2% = 4,079 VMT reduced during the peak hour as a result of implementing the Deficiency Plan item.

Summary of Examples

The items in Examples 1 or 3 would be adequate to offset the required 3,675 peak hour VMT reduction. The item selected for Example 2 would not be sufficient to offset the required VMT reduction. Thus, additional Deficiency Plan items would need to be identified in conjunction with the item in Example 2.

Content of Deficiency Plans

Each Deficiency Plan should show the amount of VMT[5] to be offset, the data it was derived from, and how each item selected from the BAAQMD's list contributes to the offsetting of the VMT increment. All calculations done should be clearly presented.

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5 Recognizing that all information in Appendix A of this list is advisory and not required by California law, CMAs may elect to use surrogate measures of deficiency in lieu of VMT (e.g., vehicle trips, average vehicle speed, etc.), especially where level of service monitoring conducted by the CMA and/or its cities does not produce data necessary for calculating v/c ratios and VMT (e.g., "floating car" speed surveys).

Table 1

1997 Deficiency Measure Effectiveness
(to be used for improvements implemented by 2000)

Deficiency Measure	Related CAP TCM	Description	Quantity	Percentage Region Wide Daily VMT Reduced	Amount Region Wide Daily VMT Reduced
A1	9	Bicycle Plan Impl Ph I	$3 M/yr. TDA Article 3	0.01	11,890
	9	Bicycle Plan Impl Ph II	$5 M/yr. developer mit/TRO	0.02	23,781
A2	5, 9	Transit/Bicycle Integration		No information available	
A3	9	Bike Lockers/Racks @ PNR Lots		No information available	
A4	9, 16	Bike Facilities/Showers		No information available	
A5	16	Impr Pedestrian Facilities		No information available	
A6	16	Pedestrian Signals		No information available	
A7	16	Lighting for Ped Safety		No information available	
B1	3	Bus Service Exp Ph I	$1 M/yr.	0.17	202,135
	3	Rail Service Exp Ph II	$100 M/yr.	0.60	713,418
	3	Bus Service Exp Ph II	$140 M/yr.	0.40	475,612
	4	Rail Ext Ph II/MTC Reso 1876	$140 M/yr.	0.70	832,322
	5	Rail Access Impr Ph II	$50 M/yr.	0.30	356,709
B2	6	Intercity Rail Ph II	$10 M/yr.	0.04	47,561
B3	7	Reg Ferry Plan Impl	$10 M/yr.	0.03	35,671
B4	8, 12, 16	Pref Treatment Bus/LRT		No information available	
B5	5, 13	Transit Info/Promotion		No information available	
B6	13	Bus-Rail Xfer Subsidy	$5 M/yr.	0.05	59,452
	13	Reduced Transit Fares	$10 M/yr.	0.10	118,903
B7	13	Employer Transit Subsidy		No information available	

Deficiency Measure	Related CAP TCM	Description	Quantity	Percentage Region Wide Daily VMT Reduced	Amount Region W Daily VM Reduc
B8	13	Transit Ticket Distrib	50% employer subsidy for 10% workers	0.08	71,342
	13	Transit Stores	$3 M/yr.	0.02	23,781
B9	13	Improved Timed Xfers		No information available	
B10	13	Fare Coordination	Impr inter-dist wait times 10%	0.05	59,452
B11	12	Transit Signal Preempt	$2 M/yr.	0.02	23,781
B12	12, 16	Bus Stop Bulbs		No information available	
B13	10	School Bus Services	$5 M/yr.	0.03	35,671
	10	50% Student Fare Subsidy	$5 M/yr.	0.02	23,781
C1	15	Ridesharing Toll Elimin	$20 M/yr.	0.30	356,709
C2	1	Employer Audits	$750,000/yr.	0.18	214,026
D1	8	Pref Treatment for HOVs		No information available	
D2	12	HOV Lanes on Arterials		No information available	
D3	8	HOV Sys Exp Ph II	$50 M/yr.	0.45	535,064
D4	8	HOV to HOV Facilities		No information available	
D5	8	Direct HOV Entr Ramps		No information available	
E1	2	TRO Stricter than BAAQMD Rule:			
	2	Employees at sites < 100 empls	1,200,000	0.50	594,515
	2	$3.00 Worksite Parking Charge	2,880,000	1.90	2,259,158
E2	1	ETC Training Materials	$15,000/yr.	0.02	23,781
E3	16, 18	Childcare Facilities		No information available	
E4	16, 18	Retail Services		No information available	
E5	20	Telecommuting		No information available	

Deficiency Measure	Related CAP TCM	Description	Quantity	Percentage Region Wide Daily VMT Reduced	Amount Region Wide Daily VMT Reduced
E6	22	Non-work Parking Charges	Min. $0.60 hr./Empl. 100% transit subsidy	4.20	4,963,929
E7	15, 22	Work Parking Charges/Cash Out		No information available	
E8	16	Indirect Source Ctrl	$12 M/yr. Design mod. new/exist	0.80	951,225
	18	Incr Density nr Transit	200 DUs @ Rail sta./rezoning	0.05	59,452
F1	8, 12, 16	Pref Treatment Bus/LRT		No information available	
F2	11, 12	Ramp metering		No information available	
F3	8 (as support)	Freeway Auxiliary Lanes		No information available	
F4	12	Signal Timing Ph I		Thought to increase VMT	
	12	Signal Timing Ph II		Thought to increase VMT	
F5	11	CCTV/Incident Mgt		Thought to increase VMT	
	11	Traffic Advisory Sys		Thought to increase VMT	
F6	12 (as support)	Turn Lanes @ Intersections		No information available	
F7	12 (as support)	Turn Restr @ Intersections		No information available	
F8	12 (as support)	Reversible Lanes		No information available	
F9	12 (as support)	One Way Streets		No information available	
F10	12 (as support)	Targeted Traffic Enforcement		No information available	
F11	12 (as support)	Delivery/Parking Restrictions		No information available	

Table 1 Assumptions and Notes

(1) Percentage VMT reductions taken from Transportation Control Measures for the San Francisco Bay Area: Analyses of Effectiveness and Costs, Deakin, Harvey, Skabardonis Inc., July 1991 (revised October 1991). Data adjusted by BAAQMD staff for Deficiency List measures B13 and E1 based on additional information known about project/rule implementation as of October 1992.

(2) Daily VMT in 1997 for Nine County Bay Area = 118,903,077
Source: Transportation Improvement Program for the Nine County San Francisco Bay Area, Volume III. Metropolitan Transportation Commission, September 23, 1992, Table A.1, p. III-B-74.

(3) Use peak hour factor of roadway segment to calculate peak hour VMT reduction associated with each measure. If unknown, assume 10% for arterials and 8% for freeways/expressways.

(4) Quantities involving a dollar expenditure per year are assumed to have a five year lifespan. For example, if City A wants to spend $500,000 over 5 years toward the lease of space and staff to operate a transit store as a deficiency plan measure, City A would take credit for implementation of $500,000/$15,000,000 (or 3.3%) of that measure. Daily VMT would be reduced 23,781 x 0.033, or 785 VMT; peak hour VMT would be reduc 2,378 x 0.033, or 79 VMT. Deficiency plans that include measures involving ongoin operating costs would need to make a guarantee of continued funding as part of plan.

APPENDIX D: GUIDELINES FOR DEFICIENCY PLAN

Appendix D

Deficiency Plan Legislative Requirements and Discussion/Q&A

Legislative Requirements

The language describing the role and function of deficiency plans is found in California Government Code Section 65089.4, which states that:

(a) The agency[1] shall monitor the implementation of the elements of the congestion management program. At least biennially, the agency shall determine if the county and cities are conforming to the congestion management program, including, but not limited to, all of the following:

(1) Consistency with the levels of service and performance standards, except as provided in subdivisions (b) and (c).

(2) Adoption and implementation of a trip reduction and travel demand ordinance.

(3) Adoption and implementation of a program to analyze the impacts of land use decisions, including the estimate of the costs associated with mitigating these impacts.

(b) (1) A city or county may designate individual deficient segments or intersections which do not meet the established level of service standards if, prior to the designation, at a noticed public hearing, the city or county has adopted a deficiency plan which shall include all of the following:

(A) An analysis of the causes of the deficiency.

(B) A list of improvements necessary for the deficient segment or intersection to maintain the minimum level of service otherwise required and the estimated costs of the improvements.

(C) A list of improvements, programs, or actions, and estimates of costs that will (i) measurably improve the level of service of the system, as defined in subdivision (b) of Section 65089, and (ii) contribute to significant improvements in air quality, such as improved public transit service and facilities, improved non-motorized transportation facilities, high occupancy vehicle facilities, and transportation control measures. The air quality management district or the air pollution control district shall establish and periodically revise a list of approved improvements, programs, and actions which meet the scope of this paragraph. If an improvement program or action is on the approved list and has not yet been fully implemented, it shall be deemed to contribute to significant improvements in air quality. If an improvement program or action is not on the approved list, it will not be implemented unless approved by the local air quality management district or air pollution control district.

(D) An action plan, consistent with the provision of Chapter 5 (commencing with Section 66000) of Division 1 of Title 7,[2] that shall be implemented, consisting of improvements identified in paragraph (B), or in improvements, programs, or actions identified in paragraph (C), that are found by the agency to be in the interest of the public's health, safety and welfare. The action plan shall include a specific implementation schedule.

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[1] In San Mateo County, C/CAG is the agency referred to in the statute.

[2] This chapter describes the procedures allowed or required in order to implement development mitigation fees. It includes adoption requirements, allowable categories for fees including transportation, procedures for property donation, and procedures for assessment and payment of the fees.

(2) A city or county shall forward its adopted deficiency plan to the agency. The agency shall hold a noticed public hearing within 60 days of receiving the deficiency plan. Following the hearing, the agency shall either accept or reject the deficiency plan in its entirety, but the agency may not modify the deficiency plan. If the agency rejects the plan, it shall notify the city or county of the reasons for that rejection.

(c) The agency, after consultation with the regional agency, the department, and the local air quality management district or air pollution control district, shall exclude from the determination of conformance with the level of service standards, the impacts of any of the following:

(1) Interregional travel.

(2) Construction, rehabilitation, or maintenance of facilities that impact the system.

(3) Freeway ramp metering.

(4) Traffic signal coordination by the state or multi-jurisdictional agencies.

(5) Traffic generated by the provision of low and very low income housing.

(6) Traffic generated by high-density residential development located within one-fourth mile of a rail passenger station.

(7) Traffic generated by any mixed-use development located within one-fourth mile of a fixed rail passenger station, if more than half of the land area, or floor area, of the mixed-use development is used for high-density residential housing, as determined by the agency.

(d) For the purposes of this chapter, the impacts of a trip which originates in one county and which terminates in another county shall be included in the determination of conformance with level of service standards with respect to the originating county only. A round trip shall be considered to consist of two individual trips.

The procedures for a finding of nonconformance are found in California Government Code Section 65089.5, which states:

(a) If, pursuant to the monitoring provided for in Section 65089.3, the agency determines, following a noticed public hearing, that a city or county is not conforming with the requirements of the congestion management program, the agency shall notify the city or county in writing of the specific areas of nonconformance. If, within 90 days of the receipt of the written notice of nonconformance, the city or county has not come into conformance with the congestion management program, the governing body of the agency shall make a finding of nonconformance and shall submit the finding to the commission and to the Controller.

(b) Upon receiving notice from the agency of nonconformance, the Controller shall withhold apportionments of funds required to be apportioned to that nonconforming city or county by Section 2105 of the Streets and Highways Code, until the Controller is notified by the agency that the city or county is in conformance.

In addition, per SB 1435, a nonconforming jurisdiction will be disqualified from receiving funding from the Transportation Equity Act for the 21st Century (TEA-21).

Discussion/Q&A

The many issues influencing the preparation and adoption of deficiency plans are discussed in the following pages using a question and answer format.

1. Why prepare a deficiency plan?

A jurisdiction (a city or the County) should prepare a deficiency plan to achieve two key goals:

- To establish a program of actions intended to mitigate (or reduce) existing congestion by improving the level of service on the roadway segments or intersections included in the CMP Roadway System, and
- To assure that the jurisdiction is in conformance with the CMP and remains eligible to continue to receive gasoline tax subventions and TEA-21 funds.

The responsible jurisdiction(s) must prepare a deficiency plan when it (or they) has been notified by C/CAG that a deficiency has occurred. The responsible jurisdiction will forego additional gasoline tax subventions (pursuant to Section 2105 of the Streets and Highways Code) and funding from TEA-21 unless it (or they) prepares a deficiency plan. If no response is forthcoming, C/CAG will declare the jurisdiction with the deficiency to not be in conformance with the CMP.

2. What triggers the deficiency plan process?

The deficiency plan process is triggered when a CMP roadway segment or intersection is found to be "deficient" because it operates below its adopted LOS standard with the adjustments for all exclusions allowed by law. California Code Section 65089.3 states that a deficiency finding could emanate from the results of the LOS monitoring process. A LOS deficiency may also be found to exist as a result of a monitoring program developed by a city or the county as part of the approval process for a local land use decision, as discussed in Chapter 6. Only actual deficiencies, not projected deficiencies, will trigger the requirement for a deficiency plan.

3. What trips can be excluded from the deficiency determination?

As required in California Government Code Section 65089.3 and added to by AB 3093, the following types of travel shall be removed from the level of service calculation; interregional travel; changes in operating conditions resulting from the construction, rehabilitation, or maintenance of facilities that impact the roadway system; freeway ramp metering; traffic signal coordination by the state or a multi-jurisdictional agency; traffic generated by the provision of low and very low income housing; trips generated by high-density housing near rail stations; and trips generated by mixed-use development near rail stations. Trips which originate in one county and which terminate in another county are to be included in the determination of conformance with level of service standards in only the county where the trips originated. Therefore, the statute establishes that only trips originating inside San Mateo County will be considered toward the LOS determination for establishing conformance with the CMP.

4. Who is responsible for the preparation of deficiency plans?

Local jurisdictions are responsible for the preparation of deficiency plans for roadway segments or intersections that are wholly within their boundaries. For deficient segments or intersections within

more than one jurisdiction, all affected jurisdictions will collaborate in the preparation of a deficiency plan. C/CAG strongly encourages the cooperative development of deficiency plans. If a common approach is not acceptable to all jurisdictions involved, then each individual jurisdiction will be responsible for preparing a deficiency plan for the affected roadway(s) or intersection(s) within its jurisdiction. C/CAG can accept all the plans if they are complementary. If they are not complementary, C/CAG can require that complementary plans be developed.

5. What if a deficiency occurs due to an action by a jurisdiction not located within San Mateo County?

Representatives of all affected jurisdictions, those receiving the deficient location and those causing the deficiency, could develop a coordinated deficiency plan. Otherwise, the Metropolitan Transportation Commission (MTC), serving as the Regional Congestion Management Agency, would arbitrate between or among the jurisdictions. If MTC is not successful in their arbitrations, no penalties will be sanctioned against the jurisdictions located within San Mateo County.

6. What are the required components of a deficiency plan?

The contents of a deficiency plan are defined on pages 7-3 and 7-4 part (b) of Section 65089.3. The following is a summary description of those items:

- An analysis of the causes of the deficiency;
- A list of improvements and the costs that will be incurred to mitigate that deficiency on that facility itself;
- A list of possible actions and costs that would result in improvements to the CMP system's LOS and that would be beneficial to air quality; and
- An action plan, including a schedule, to implement improvements from the two lists identified above.

7. What improvements are acceptable for inclusion in a deficiency plan?

The process of preparing a deficiency plan allows a local jurisdiction to choose one of two options for addressing deficiencies. The two options are:

a. To implement improvements directly on the deficient segments designed to eliminate the deficiency; or
b. To designate the segment as deficient and implement a deficiency plan prescribing actions designed to measurably improve the overall LOS and contribute to *significant* air quality improvements throughout the CMP Roadway System. Such actions may not necessarily directly pertain to or have a measurable impact on the deficient segment itself.

If a local jurisdiction chooses the second option (b), the Bay Area Air Quality Management District (BAAQMD) has created a list of system deficiency plan measures that are regarded as beneficial for air quality. The latest list was approved by the BAAQMD on November 4, 1992 and is included in Appendix C (of this CMP). Measures not on the BAAQMD list may also be used but will need to be evaluated by the BAAQMD for their air quality impacts prior to being included as part of a deficiency plan. If a local jurisdiction selects the first option (a), measures designed to meet LOS standards on the deficient roadway(s) need not be drawn from the BAAQMD list, and they need not be approved by the BAAQMD.

8. How long does a jurisdiction have to prepare a deficiency plan?

Jurisdictions will be notified that a level of service deficiency has occurred when the results of the LOS monitoring are provided to C/CAG. The results will be submitted to C/CAG who will notify local jurisdictions, in writing, if any deficient locations have been identified. Local jurisdictions will then have up to twelve months from the receipt of written notification of the conformance findings, to develop and adopt at a public hearing, any required deficiency plans.

The deficiency plan process section of this Chapter provides more detail about time lines.

9. How is a deficiency plan adopted?

A deficiency plan is prepared by the affected local jurisdiction(s). The jurisdictions may elect to submit draft plans to C/CAG's Technical Advisory Committee (TAC) and Congestion Management and Air Quality Committee (CMAQ) for review to determine if the plan may be considered acceptable when submitted to C/CAG for approval. The deficiency plan must then be adopted by the affected jurisdiction(s) at a public hearing and then approved by C/CAG.

10. What constitutes an acceptable deficiency plan?

An acceptable deficiency plan shall contain all the components listed in the response to Question 6 above and may be reviewed by the TAC and CMAQ prior to action by C/CAG. The TAC and/or CMAQ may make a recommendation related to approval or rejection of the deficiency plan to C/CAG, but it is not required that they make a recommendation. The plan will be evaluated on the following technical criteria:

a. Completeness as required in California Government Code Section 65089.3.
b. The appropriateness of the deficiency plan's actions in relation to the magnitude of the deficiency.
c. The reliability of the funding sources proposed in the deficiency plan.
d. The reasonableness of the implementation plan's schedule.
e. The ability to implement the proposed actions (including the degree of jurisdictional authority).

11. How should deficiency plans relate to the countywide transportation planning process?

Actions included in deficiency plans should be selected from information and decisions made as part of the countywide transportation planning process, including land use and travel forecasts, transit operational needs, and planned capital and service improvements. Likewise, the occurrence or projection of deficiencies should be a factor influencing the decisions made within the ongoing countywide transportation planning process to amend the Capital Improvement Program (CIP).

The Guidelines for Deficiency Plan is included in Appendix D.

Appendix D

Deficiency Plan Guidelines

Process

The processes for developing and approving deficiency plans are described on the following flow charts. Figure 7-1 describes the general deficiency plan process. Figure 7-2 depicts the deficiency identification process based on the biennial LOS monitoring process.

Figure 7-3 illustrates the process to be followed for development of two types of single-jurisdictional deficiency plans: location-specific and citywide. A location-specific deficiency plan is required for a deficiency at a single location wholly located within a single jurisdiction and caused by traffic from that jurisdiction. A citywide deficiency plan is required for deficiencies at several locations within a single jurisdiction all caused by traffic from that jurisdiction.

There are also two types of multi-jurisdictional deficiency plans, areawide and cross-county boundaries. An areawide deficiency plan is required for a deficiency located within San Mateo County and caused by traffic generated by more than one jurisdiction, all located within San Mateo County and for a deficiency located within San Mateo County caused by a traffic generator located within San Mateo County and owned by a jurisdiction outside of San Mateo County. The process for areawide deficiency plans is illustrated on Figure 7-4.

A cross-county boundary deficiency plan would be applicable for a deficiency with significant traffic contributions from other counties. These types of deficiency plans are not required by the law because they can be Aresolved@ by the exclusion of interregional traffic. It is C/CAG's intent to work with CMAs of contributing counties to jointly develop deficiency plans for these locations. The process for cross-county boundary deficiency plans is presented on Figure 7-5.

Figure 7-1

DEFICIENCY PLAN GENERAL PROCESS

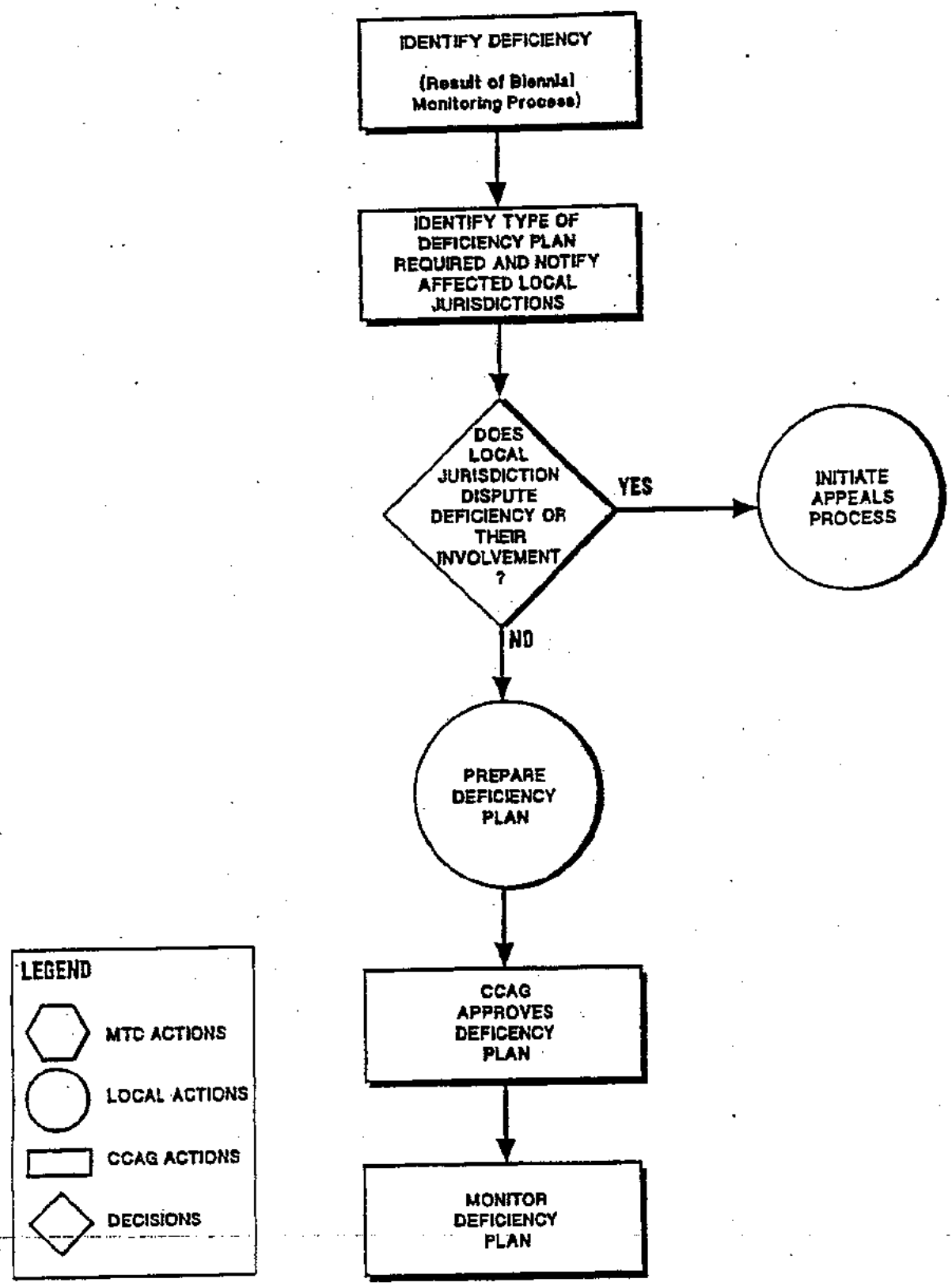


Figure 7-2

IDENTIFICATION OF DEFICIENCY AND TYPE OF DEFICIENCY PLAN

(BIENNIAL MONITORING PROCESS)

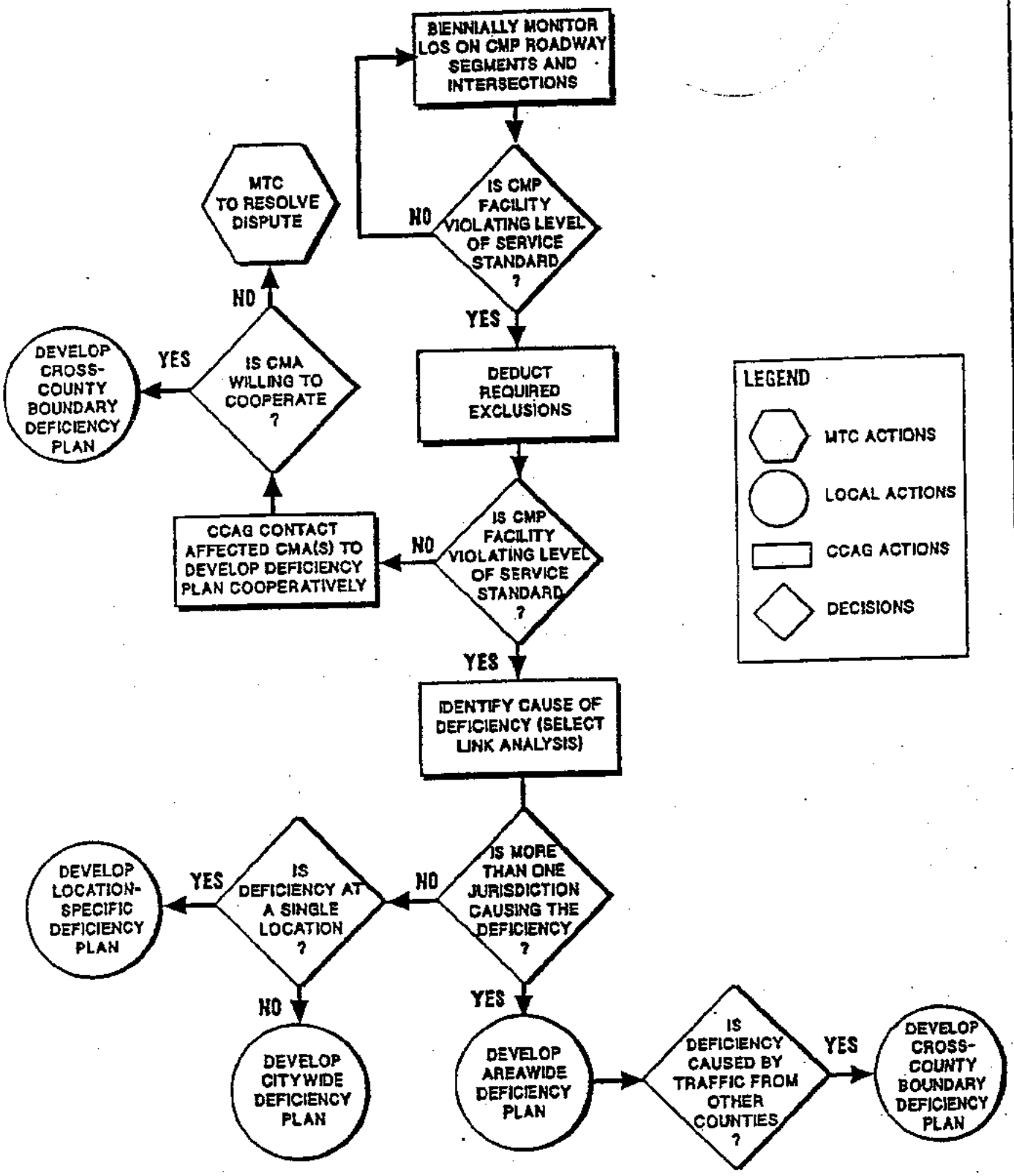


Figure 7-3

DEVELOPMENT OF LOCATION-SPECIFIC OR CITYWIDE DEFICIENCY PLAN

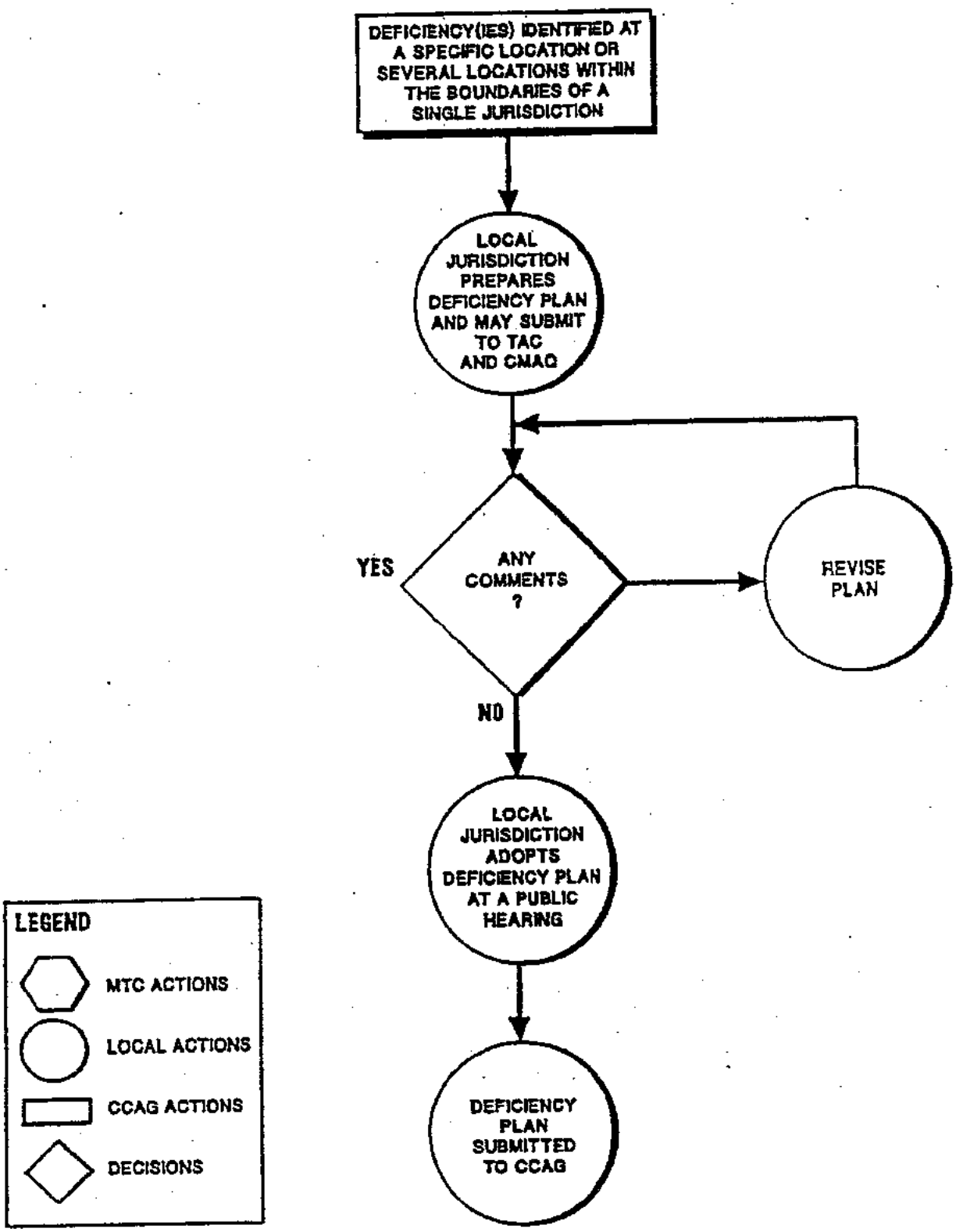


Figure 7-4

DEVELOPMENT OF AREAWIDE DEFICIENCY PLAN

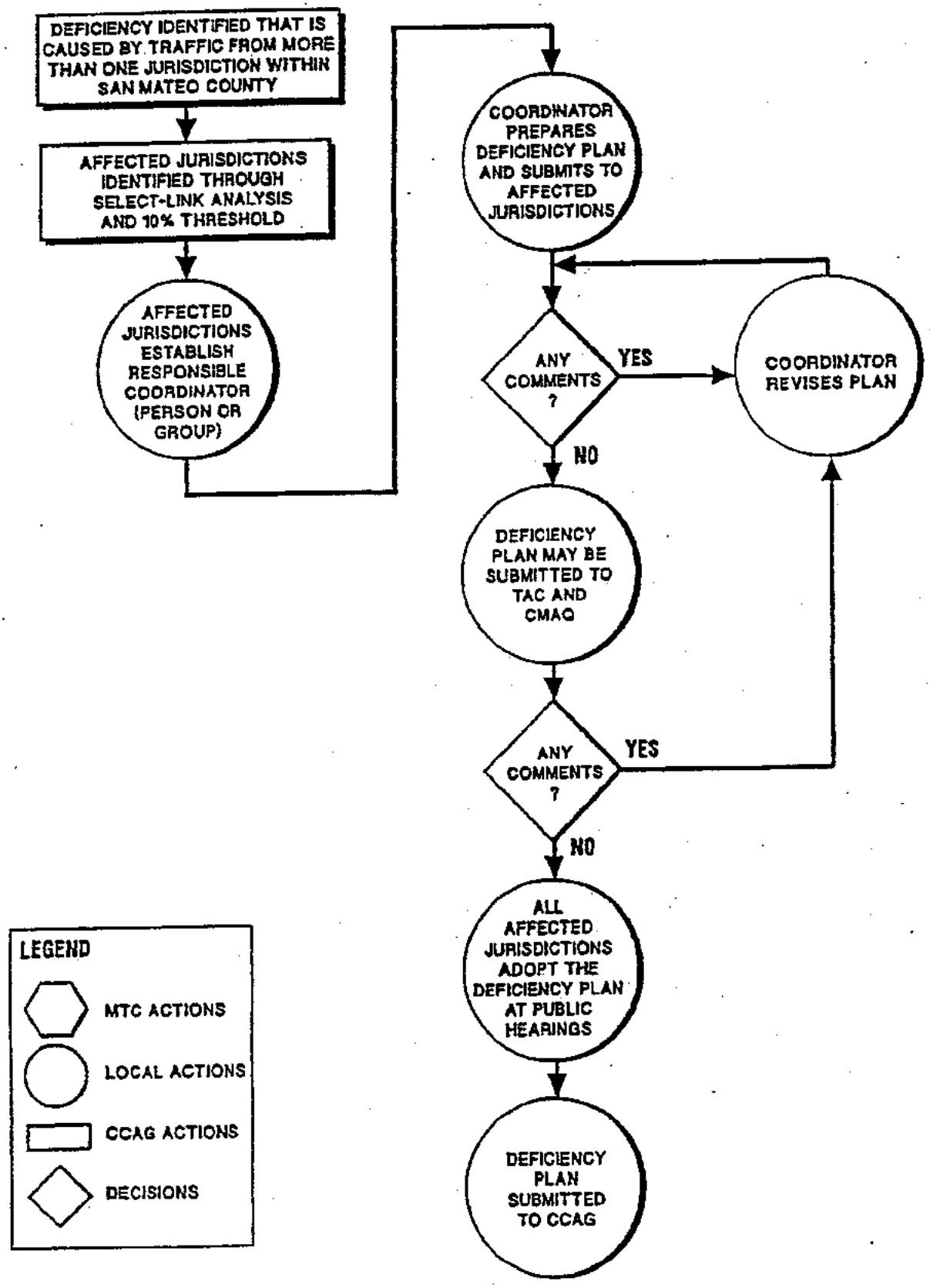


Figure 7-5

DEVELOPMENT OF CROSS COUNTY BOUNDARY DEFICIENCY PLAN

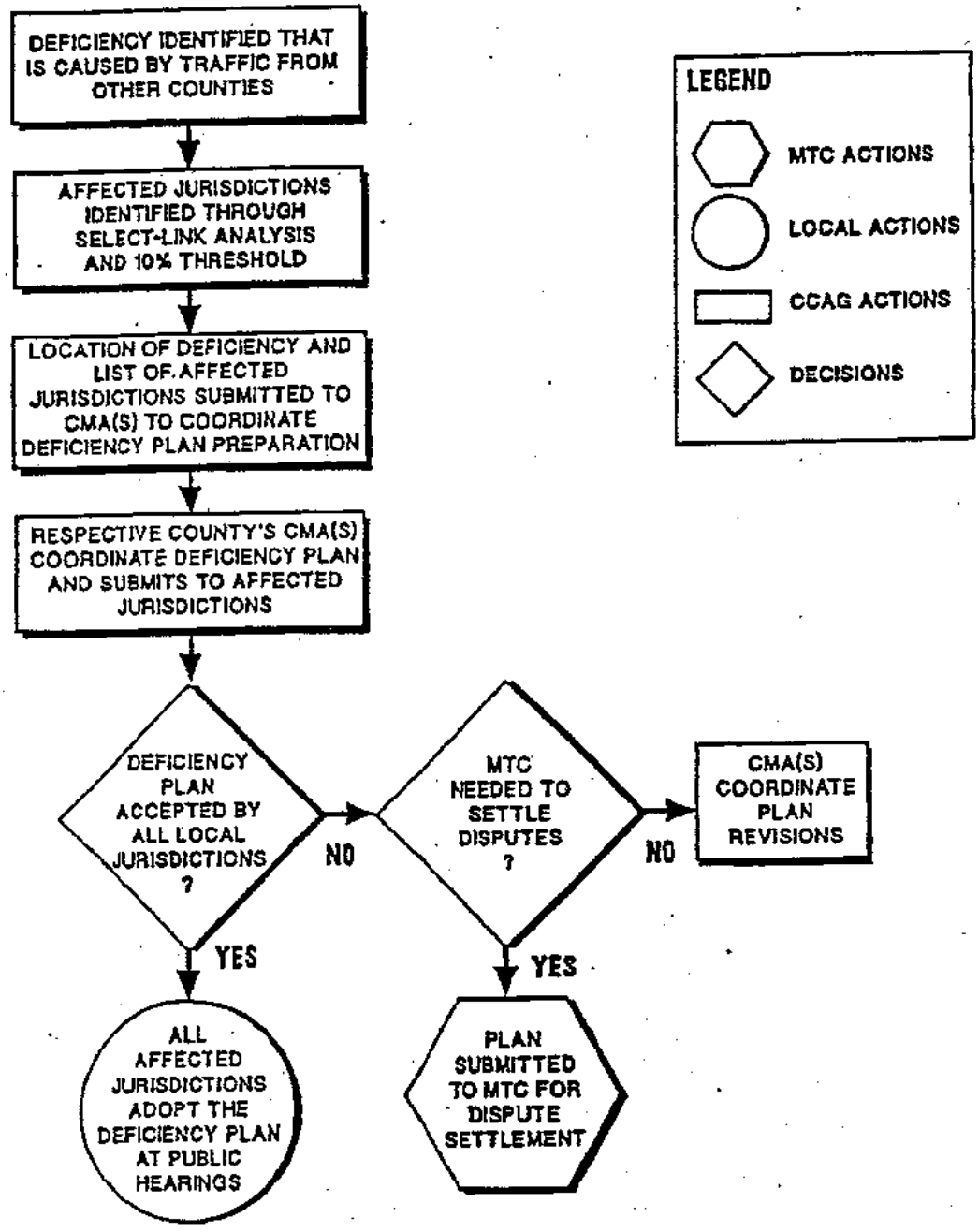


Figure 7-6 shows the process to be followed for C/CAG's approval of deficiency plans. Figure 7-7 presents the process for a local jurisdiction to appeal their involvement in a deficiency plan to C/CAG. Figure 7-8 illustrates the process for monitoring deficiency plans.

Deficiency Identification

The deficiency will be identified by the biennial level of service monitoring process (see Figure 7-2). Roadway segments or intersections on the CMP Roadway System whose existing LOS is F will be addressed in the Countywide Transportation Plan. An LOS deficiency may also be found to exist as a result of a monitoring program developed by a city or the County as part of the approval process for a local land use decision, as discussed in Chapter 6. The seven exclusions (see page 7-4) will be incorporated into the level of service calculations to determine whether a deficiency is occurring. Next, a select-link analysis will be conducted using the San Mateo Countywide Travel Demand Forecasting model to determine the origins of the traffic on the deficient roadway segments or intersections. A jurisdiction will be considered to be contributing to the deficiency if the amount of traffic at the deficiency and generated within its boundaries is greater than 10 percent of the capacity of the deficient location.[1]

If only one jurisdiction is causing the deficiency, then it can either develop a location-specific deficiency plan or a citywide deficiency plan, if there are several deficiencies within that jurisdiction. If more than one jurisdiction is causing the deficiency, either an areawide or cross-county boundary deficiency plan would be required.

Development of Deficiency Plans

The steps to develop the four types of deficiency plans are outlined on Figures 7-3 through 7-5. If a jurisdiction must prepare a deficiency plan, the draft deficiency plan must address these following points:

- Each deficiency's cause and magnitude must be described.
- Actions to be considered should include those that remedy the specific deficiency or that improve the level of service on the CMP Roadway System overall.

[1]The 10 percent of capacity threshold represents a Bay Area standard that was developed by the Bay Area CMA Association. It is based on the fact that 10 percent of capacity represents a change of one full level of service value. It was decided that if jurisdictions were contributing enough traffic to a specific location to change the level of service by one full value, then they should be required to participate in the deficiency plan preparation.

Figure 7-6

DEFICIENCY PLAN APPROVAL PROCESS

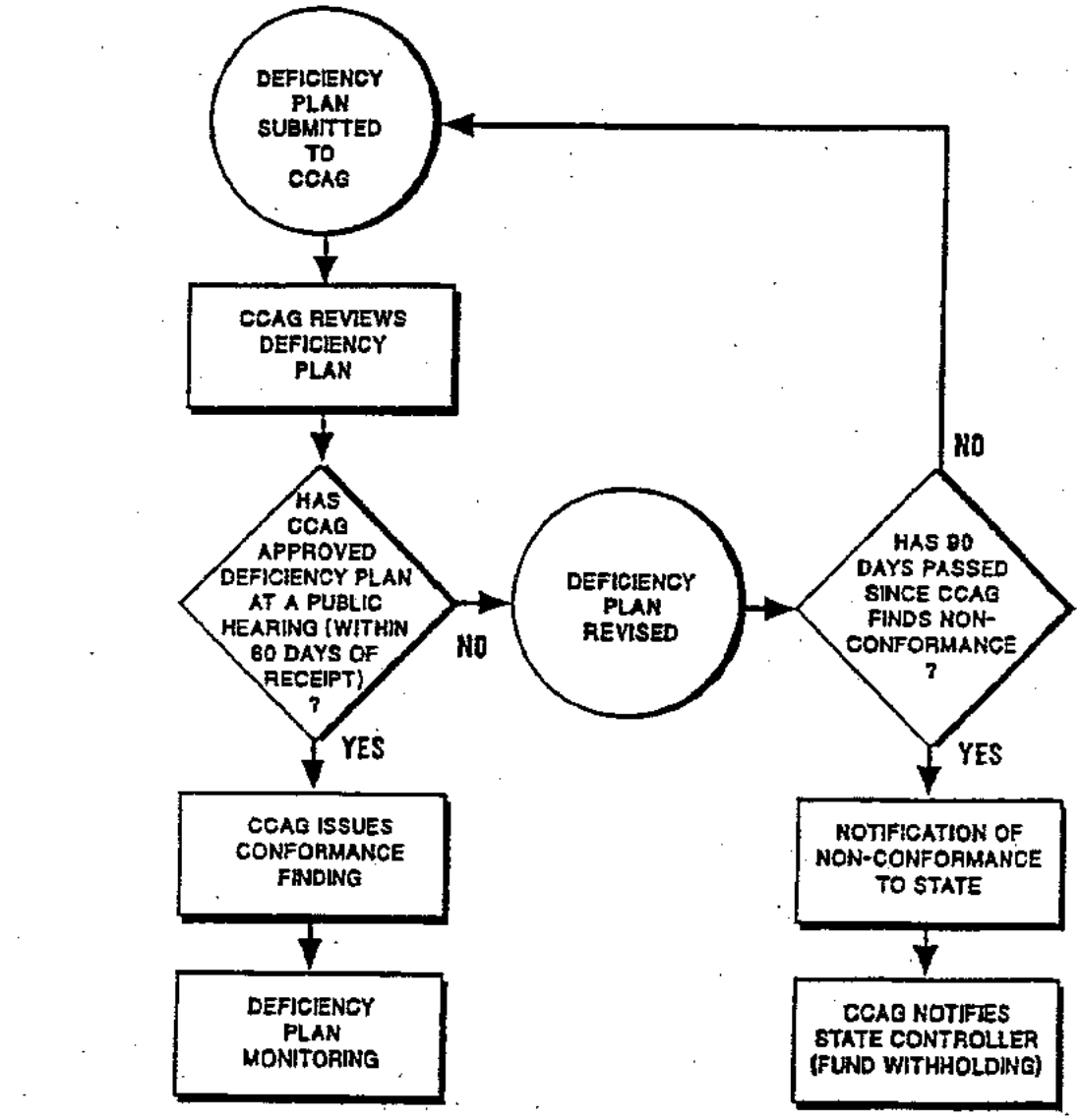


Figure 7-7

DEFICIENCY PLAN APPEALS PROCESS

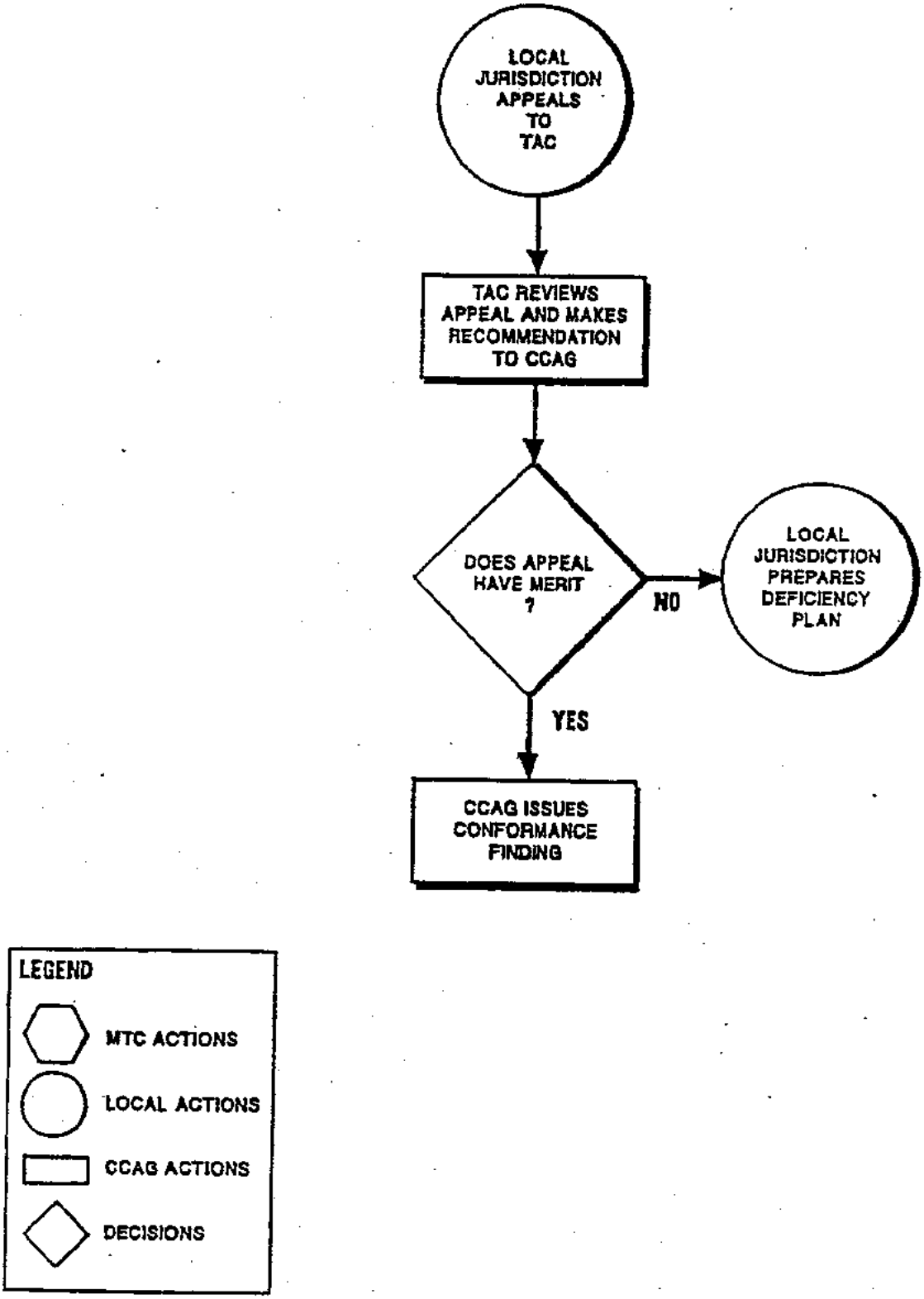
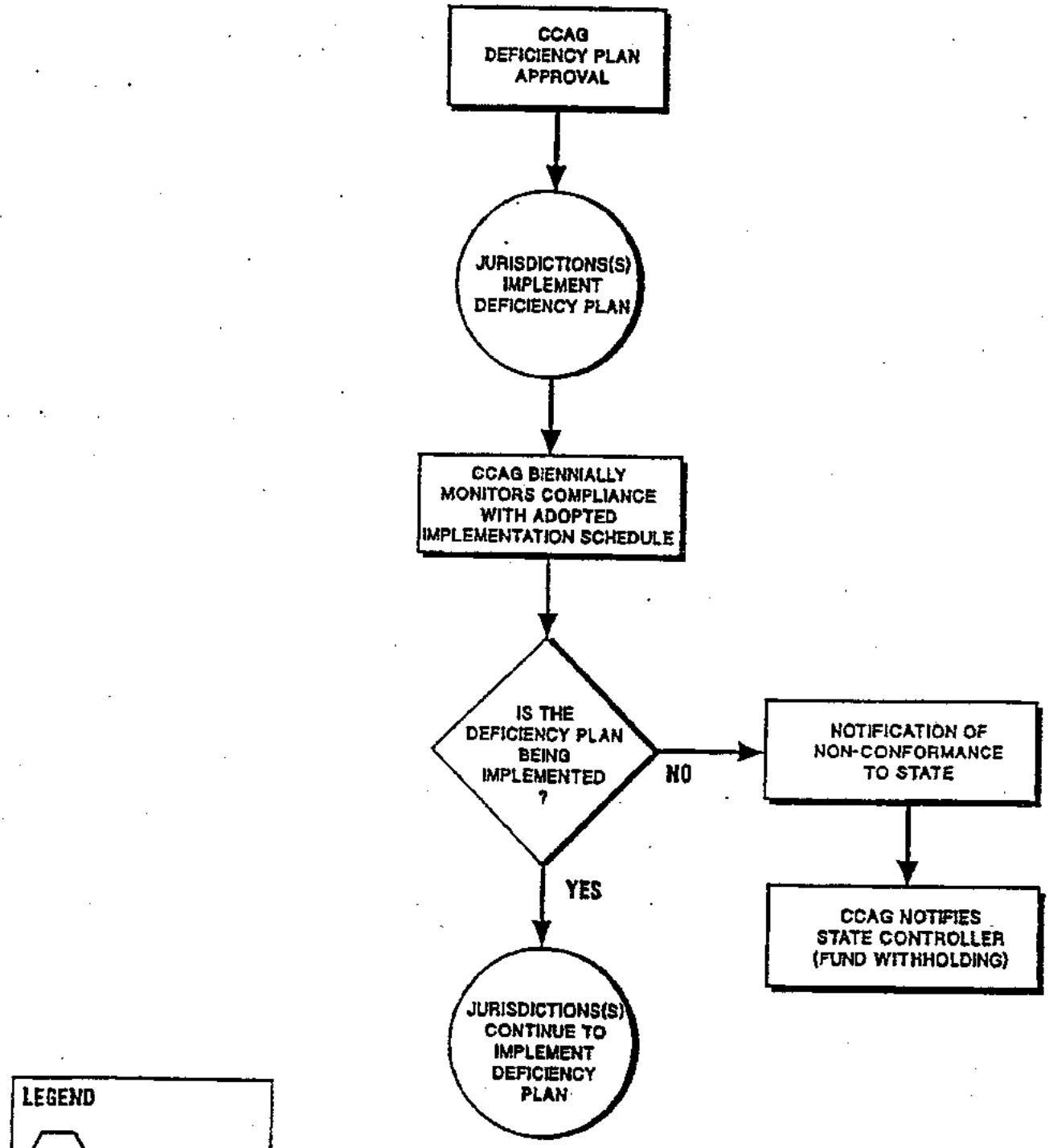


Figure 7-8

DEFICIENCY PLAN MONITORING



- If actions are considered that are intended to improve the overall LOS on the CMP Roadway System, those actions listed in the Bay Area Air Quality Management District's guidelines for deficiency plans, and other possible actions identified by affected jurisdictions and approved by the BAAQMD should be given a suitability assessment. Suitable system actions should be evaluated at a sketch-planning level in order to identify their potential effects on systemwide traffic congestion and air quality. (In some cases, traffic operations analyses or model forecasts may be required.) If this option is selected, a post implementation level of service should be established for the deficient locations, for monitoring purposes.

- A detailed action plan should be developed, including descriptions of the selected actions, anticipated costs and related funding sources, and a corresponding implementation schedule.

Deficiency Plan Approval

The activities included in the deficiency plan approval process are presented on Figure 7-6. As shown on that figure, local jurisdictions and C/CAG (and its representatives) will be responsible for ensuring that any deficiency plans that have to be prepared will meet the requirements of the CMP. Once C/CAG determines that a deficiency exists, a deficiency plan must be developed within 12 months. The jurisdictions may elect to have the TAC and CMAQ review the draft version of deficiency plans. These groups will try to resolve technical issues and will work with representatives of the local jurisdiction so that the local jurisdiction develops a deficiency plan acceptable to that jurisdiction and C/CAG.

A final deficiency plan must be adopted by the affected local jurisdiction(s) at a noticed public hearing. That public hearing must be scheduled not later than 90 days following the receipt by the local jurisdiction of C/CAG's written notification of the conformance findings.

A final plan must be approved by C/CAG. C/CAG will approve or reject a deficiency plan within 60 days of receipt of the deficiency plan from the local jurisdiction. C/CAG cannot modify a deficiency plan. If C/CAG rejects a deficiency plan, it must specify why it was rejected.

Deficiency Plan Appeals Process

The appeals process, as shown on Figure 7-7, has been added to accommodate local jurisdictions that dispute that a deficiency is occurring or that they should be involved in the development of a deficiency plan. The local jurisdiction would first make that appeal to the TAC. Information supporting their position (additional traffic counts, information refuting results of select-link analysis, etc.) should be presented. The TAC will then make a recommendation to C/CAG whether or not the appeal has merit. C/CAG will then make a decision to either uphold the appeal and issue a finding of conformance or to require the local jurisdiction to prepare or contribute to the deficiency plan.

Deficiency Plan Monitoring

Deficiency plans will be monitored biennially by C/CAG, prior to undertaking the conformance determination for the CMP, to establish whether they are being implemented according to the schedule described in their specific action elements. The monitoring process is shown on Figure 7-8.

b. Whether changes have occurred that require modifications of the original deficiency plan or schedule.

Each deficiency plan will include a schedule for implementation of the proposed actions. Compliance with the stated schedule will be monitored. A jurisdiction which is either not implementing the actions stipulated in the approved deficiency plan, or not adhering to the stated schedule, may be found by C/CAG to be in nonconformance. Once the action plan is implemented, the results of the monitoring will determine if the deficiency is still occurring. The evaluation may result in recommending changes to other elements of the CMP, such as the Capital Improvements Program (CIP) or Trip Reduction Ordinances (TROs). Action plans prepared as part of deficiency plans will be incorporated into future updates of the CMP.

Methodology

The scope of each deficiency plan's actions should match the severity of the problem being addressed. Extreme deficiencies will need more significant actions, while minor deficiencies may require the definition of only minor actions. The magnitude of the deficiency shall be influenced by the constraint(s) on capacity that prevent(s) a roadway or intersection from operating at its appropriate level of service.

Actions to resolve problems will fall into one of the following two categories: improvements designed to directly mitigate the specific deficiency, and improvements designed to improve the overall level of service on the CMP Roadway System and provide air quality improvements. Actions of the first type are intended to directly mitigate a deficiency. These include highway, transit, and transportation system improvements. Actions of the second type are intended to provide measurable improvements to air quality and level of service on the CMP Roadway System in cases where deficiencies on specific segments or at specific intersections cannot be mitigated directly. For these types of situations, the Bay Area Air Quality Management District has developed a list of available deficiency plan actions which are considered beneficial for air quality and congestion management. Jurisdictions may include actions other than those on this list, provided that they are reviewed and approved by the BAAQMD prior to adoption of the local deficiency plan. However, C/CAG has ultimate approval of the specific actions included in a deficiency plan.

When developing a deficiency plan, the most current BAAQMD list of actions must be considered. The current list was adopted by the BAAQMD on November 4, 1992, and is contained in Appendix C.

Deficiency plans should contain the following sections:

Introduction and Setting--a short description of the deficient roadway facility, including a map showing its location.

Deficiency Analysis--an explanation of the likely causes of the deficiency, and a quantitative assessment of the magnitude of the deficiency.

Improvement List--a list of the improvements necessary for the deficient segment or intersection to maintain (or attain) the Level of Service Standard and the estimated costs of the improvements.

Action List (Screening of Actions)--a listing of possible actions and a sketch-planning level evaluation of the most suitable actions.

Implementation Plan--a description of the actions proposed for implementation, their costs, a schedule for their implementation and completion, and the definition of responsible parties.

Monitoring Program--a description of the steps that the jurisdiction preparing the deficiency plan will take to monitor implementation of the actions included in the plan.

Congestion Relief Plan Authorization and Recommendations FY 2023/24 to FY 2026/27

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

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Background

The San Mateo County Congestion Relief Plan (CRP) was first adopted by C/CAG on February 8, 2002, in response to traffic congestion measurements, at locations throughout the County, which exceeded the standards adopted by C/CAG under the Congestion Management Program (CMP). Each urban area in California is required to adopt a CMP, per the requirements of California Government Code 65088[1]. CMPs detail the process that each area will undertake in order to track current and possible impacts to congestion on their roadways, and set standards against which those metrics are compared in order to identify deficiencies.

When deficiencies are identified, the area or specific jurisdictions within it must take efforts to fix the specific congested locations. The adoption of the Congestion Relief Plan in San Mateo County provides a countywide deficiency plan, relieving all San Mateo County jurisdictions from State mandates to fix the specific congested locations that triggered a deficiency, and any locations that might trigger a deficiency in the subsequent four years.

The CRP has historically funded projects and programs with funding allocated across four designated categories:

1. Local Transportation Services
2. Travel Demand Management
3. Intelligent Traffic System (ITS)/Traffic Operational Improvement Strategies
4. Linking Transportation and Land Use

CRP Authorization Update

In late 2022, C/CAG began the process of designing the new authorization for the current CRP, which will cover the period from July 2023 through June 2027. The project team undertook a financial analysis of previous CRP funded projects and programs, and engaged with county stakeholders to identify priorities relating to mobility improvement across the county.

Through that process, the following key considerations were identified:

- County stakeholders see value in the goals of the CRP, and continue to prioritize the programs that have received consistent funding.
- The transportation and mobility landscape has changed significantly since the most recent CRP Authorization. New priorities have emerged, particularly related to respond-

1 CA Govt. Code § 65088 (2021)

Executive Summary

ing to regulatory pressures and capitalizing on emerging remote work and service opportunities.

- Fees to fund the CRP have not been adjusted since 2007, and as cost of services have adjusted in that time due to inflation, the program's overall spending power has decreased.

Proposed Recommendations

Based on those considerations, this document proposes two recommendations:

1. **A small increase to the annual CRP budget:** The CRP fund has remained the same since 2007, and during that time the cost of operation for the projects and programs have increased. This signifies that the CRP is not able to fund mobility projects and programs at the level of service originally intended. Recommended fee increases will help better align the CRP with its intended capacity to support mobility improvements across the county.

2. **Simplification of the allocation process:** The current process of allocating dollar amounts per category limits the ability to fund programs flexibly and to proactively address changing needs and priorities. A simplified process will make it easier for C/CAG to track the CRP successes on an annual basis, while maintaining flexibility to fund Board-approved projects and programs on an as-needed basis. It is recommended that the CRP continue to support four ongoing programs at consistent levels each year:

    - The **Countywide Shuttle program**, which provides first and last mile as well as community-wide shuttle service

    - **Commute.org**, which provides transportation demand management support to employers, developers, and directly to travelers within San Mateo County

    - **21 Elements**, which provides support to jurisdictions in implementing Housing Elements as well as developing on-going housing policies and programs.

    - **C/CAG's Climate Initiatives**, which include the Resource Management and Climate Protection Committee (RMCP) to support the development of climate change-related programs as well as the Regionally Integrated Climate Action Planning Suite (RICAPS), which serves to provide ongoing climate action planning technical assistance to local governments in the county.

Executive Summary

CRP Authorization

The CRP fund consists of fees provided by each jurisdiction. The total budget is set and approved by the C/CAG Board of Directors, and the fee for each jurisdiction is determined based on a combination of population and projected trip generation.

Per recommendation 1 above, the budget included in the FY23/24-FY 26/27 CRP Authorization will include incremental increases as follows:

- **Year 1 –** No total budget increase, but individual jurisdiction fees will be adjusted within the current budget based on updates to population and projected trip generation.
- **Year 2 –** A 5% increase to the budget and jurisdiction fees in order to better adjust to inflation since 2007.
- **Years 3 and 4 –** an increase to the budget and jurisdiction fees to align with recorded Consumer Price Index (CPI), and capped at 3%.

The table below outlines the funding allocation structure for the upcoming authorization period, assuming the cap of 3% CPI increase in Years 3 and 4.

Table 1. CRP Authorization Allocation Budget

		Year 1	Year 2	Year 3	Year 4
Dedicated Annual Support	Countywide Shuttle Program	500,000.00	525,000.00	540,750.00	556,972.50
	Commute.org TDM Program	510,000.00	535,500.00	551,565.00	568,111.95
	21 Elements Program	200,000.00	210,000.00	216,300.00	222,789.00
	Climate Initiatives	150,000.00	157,500.00	162,225.00	167,091.00
CRP Mobility Fund	Mobility Projects and programs across the county	490,000.00	514,500.00	529,935.00	545,833.05
Total		1,850,000	1,942,500	2,000,775	2,060,798

Introduction

Introduction

This document describes the changes that were recommended to the CRP process from previous years, and presents the authorization for the CRP for Fiscal Years 23-24 through 26-27.

Chapter 1 – Introduction: provides an overview of the CRP and its history, and introduces the forthcoming authorization changes
Chapter 2 – Recommended Changes: details the two recommendations that were proposed as structural changes to the CRP.
Chapter 3 – CRP Authorization: outlines the CRP funding structure to support mobility improvements across the county for the next four years.

Chapter 4 – Conclusion: provides a discussion on next steps for the CRP

CRP Background and History

The San Mateo County Congestion Relief Plan (CRP) was first adopted by C/CAG on February 8, 2002, in response to traffic congestion measurements, at locations throughout the County, which exceeded the standards adopted by C/CAG under the Congestion Management Program (CMP). The CMP is a legal requirement (California Government Code Section 65089(b)(1)(A)), enforceable with financial penalties, and requiring deficiency plans when the congestion exceeds set standards.

CMPs must include the following elements:

- **Designated roadway system:** A description of the area's roadway system, which must be an appropriately-sized network to allow performance monitoring of established LOS standards.

- **Traffic LOS Standards:** Established standards by which the abovementioned roadway system and its intersections will be evaluated for

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their operating condition in order to evaluate changes in congestion.

- **System Performance:** Performance measures to understand current and future multimodal system performance for the movement of people and goods. These performance measures may include elements such as LOS, Travel times for SOVs, Carpools, and Transit, Pedestrian and Bicycle Improvements, and Ridership/Person Throughput for Transit.

- **Trip Reduction and Travel Demand Element:** Projects and strategies that promote alternate modes of transportation and thereby help reduce traffic congestion and improve air quality, as defined by California Government Code Section 65089(b). These elements also keep jurisdictions eligible for Measure A funding, which finances specified transportation improvements.

- **Land Use Impact Analysis:** A program to analyze the impacts of land use decisions made by local jurisdictions on highways and transit in the regional transportation system. This program must also include an estimate of the cost to mitigate impacts of development on the system.

- **Capital Improvement Program (CIP):** A seven-year CIP to maintain or improve the performance of the multimodal system and to mitigate regional transportation impacts identified through the Land Use Impact Analysis program. Capital improvement projects must conform to transportation-related vehicle emissions and air quality mitigation measures.

Locations that are identified as exceeding or having the potential to exceed the standards set by the CMP must provide a deficiency plan, outlining how congestion will be mitigated. Instead of each jurisdiction with a location exceeding standards to research, develop, fund, and implement its own deficiency plan, C/CAG

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and member jurisdictions have chosen to create a **Congestion Relief Plan (CRP),** which is developed to serve as a Countywide Deficiency Plan.

Over the years, the C/CAG Board determined that a countywide approach would be more cost-effective and provide more comprehensive benefits to the overall transportation system in the County. The adoption of the Congestion Relief Plan relieves all San Mateo County jurisdictions from State mandates to fix the specific congested locations that triggered a deficiency, and any locations that might trigger a deficiency in the subsequent four years. Aside from meeting the State mandate, it is also prudent for all San Mateo County jurisdictions to share resources and address traffic and transportation issues together, as it allows the agencies to address congestion in a more impactful manner. The Congestion Relief Plan was developed to respect and support the economic development efforts made by local jurisdictions. Since economic prosperity tends to create severe traffic congestion which also threatens economic growth, the CRP was designed to find ways to improve mobility Countywide and in every jurisdiction without halting economic growth.

The CRP is also designed to be used as matching funds to leverage other competitive federal, state, and local grants that align with its goals. This approach has provided more impact with the invested funds.

As dictated by the CMP, deficiency plans aim to reduce congestion and improve mobility in specific locations where additional support may be needed. Therefore, as the countywide deficiency plan, the CRP aims to achieve a similar goal across a broader area.

Under the umbrella of improving mobility countywide, the CRP addresses four major goals:

1. **Provide local transportation service** in order to provide alternatives to driving and improve access to transportation options.

2. **Reduce vehicle trips** through Transportation Demand Management (TDM) and other planning efforts discouraging single occupancy trips.

3. **Expand and support innovative mobility solutions** to increase travel efficiency.

4. **Support land use efforts that reduce GHG emissions** by reducing or eliminating trips where appropriate.

Funding the CRP

The C/CAG Board authorizes the Congestion Relief Plan for a period of 4 years and all jurisdictions

Introduction

make financial contributions to the Plan based on population and trip generation. The last reauthorization in 2019 was based on 2018 population percentages and 2015 projected trip generation data. The proposed assessment is updated to reflect the latest population percentages and projected trip generation data.

Table 2. Consumer Price Index Changes

Year	CPI
2022	327.060
2007	216.048
Change in Index Points	111.012
Percent Change	51.4%

Despite the fact that CRP fees were initially intended to increase with inflation (they were increased significantly in 2007 at the conclusion of the first authorization period), there has been no fee increase since 2007. Meanwhile, the consumer price index (CPI) has increased 51.4%[1]. Therefore, there has been a decrease in support for programs since 2007 as inflation increases, and the authorization amount remains the same.

Historically Supported Projects and Programs

In recent authorization periods, the CRP has funded projects and programs across four designated categories to support mobility improvements across the county:

1. **Local Transportation Services:** The Local Transportation Services category was designed to support initiatives such as the countywide shuttle program and other efforts that facilitate local transportation services and reduce congestion. Historically, this category has primarily supported the countywide shuttle program jointly funded by C/CAG and the San Mateo County Transit Authority. The shuttle program provides

1 CA Dept. of Industrial Relations. California Consumer Price Index (base year 1982-1984)

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both local and first/last mile shuttle service. C/CAG has also expressed interest in funding additional transportation services such as new mobility or shared micromobility options. In the most recent authorization, the Local Transportation Services category was allocated $500,000.

2. **Travel Demand Management (TDM):** The Travel Demand Management category has funded the Countywide TDM program, Commute.org. The organization provides service to employers and residents in San Mateo County with the goals of decreasing single-occupancy travel, and increasing the use of transit and other alternative modes through education and incentives. In the most recent authorization, the TDM category was allocated $550,000.

3. **ITS/Traffic Operational Improvement Strategies:** The Intelligent Transportation System (ITS)/ Traffic Operational Improvement Strategies category has funded programs that study, design, implement, or maintain operational and safety improvement strategies. This also includes technological components that support congestion reduction and improve travel safety and efficiency along major corridors. Historically, this funding has supported the Smart Corridor project as well as express lanes management through the San Mateo County Express Lanes Joint Powers Authority (SMCEL-JPA). In the most recent authorization period, the ITS/Traffic Operational Improvement Strategies category was allocated $200,000.

4. **Linking Transportation and Land Use:** Beginning in FY2005-06, C/CAG has programmed funds to support various activities that address the linkage between housing and transportation. Over these years, the Board has reviewed and approved staff proposals for housing and transportation-related activities in four broad areas: policy leadership; promotion of housing in transit corridors; cost-effective responses to State regulatory mandates; and local funding to meeting housing goals. Since 2006, C/CAG and the County Department of Housing (DOH) have co-sponsored the 21 Elements project which is a nationally recognized collaboration among all San Mateo County jurisdictions. The program funds studies and expert advisory services that assist all jurisdictions in San Mateo County to update their respective Housing Elements and share information on housing policies and programs. In the most recent authorization period, the Linking Transportation and Land Use category was allocated $600,000.

Within those categories, some funding has been allocated to ongoing programs at a flat rate annually. For example, the Commute.org program has historically received $510,000 per year. Other funding has continuously supported initiatives on an annual basis at varying costs, such as the Smart Corridor project, where program costs and needs often vary depending on where the project is in its development cycle. The funding has also been utilized for one-time countywide projects such as MAP 101 which identifies 59 equity-based, non-infrastructure measures to increase vehicle occupancy rates and otherwise reduce congestion on the US 101 corridor, and the Local Road Safety Plan, which

Introduction

identifies and analyzes roadway safety needs in local jurisdictions and helps to develop a prioritized list of safety countermeasures.

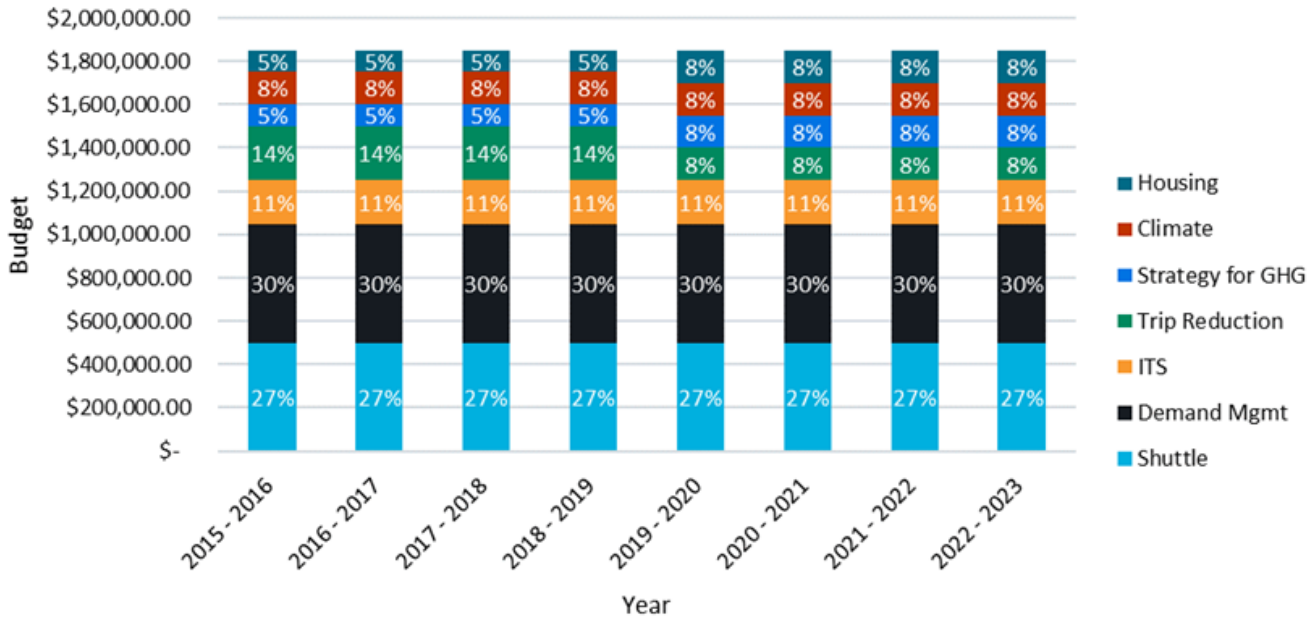
The CRP Update

In late 2022, C/CAG began the process of designing the new authorization for the CRP. Along with their consultant team they undertook a financial analysis of previous CRP funded projects and programs, and engaged with county stakeholders to identify priorities relating to movability improvement across the county.

Financial Review

The team's financial review consisted of an analysis of allocations and expenditures by category, and a review of the overall spending power adjustments of the CRP since its initiation. The review focused primarily on the most recent two authorization periods (covering FY 2015-2016 through FY 2022-2023). The two periods showed very similar allocations, with only minor adjustments between sub-categories within the 'Linking Transportation and Land Use' category.

Figure 1. CRP Budget Allocated by Category



Introduction

It demonstrated that in cases where funding has historically been allocated for single specific program uses, the allocations and expenditures have typically aligned. The Travel Demand Management category, for example, has seen a steady allocation of $550,000 per year, and has spent just under that annually ($510,000), with expenditures all supporting the Commute.org program.

In the other categories however, the allocations and expenditures tended to vary, as expenditure was dependent on the need for specific projects. For example, the ITS category saw some years with no expenditures at all, and some years with expenditures greater than the allocated $200,000. This is due to the nature of ITS projects, which do not follow a consistent level of effort each year.

As discussed in the sections above, the financial review demonstrated that due to inflation and stagnant fees, the overall spending power of the CRP has decreased. This is evidenced directly within the CRP fund expenditure history in two ways. First, programs that have historically been funded at the same rate annually have seen costs increase elsewhere, and therefore the CRP expenditure is covering less than it was in 2007. Second, the CRP has funded additional work or programming annually where amounts were not set. Those have increased over time, meaning they are utilizing a larger portion of the total CRP budget than they had been originally.

Stakeholder Outreach

In addition to analyzing past data, the team engaged with CRP stakeholders to understand strengths and challenges of the current CRP, in addition to identifying priorities for the new authorization period. Stakeholder outreach was undertaken by two major avenues:

- **A workshop with C/CAG's Technical Advisory Committee (TAC):** In February, the consultant team led a workshop as a part of C/CAG's TAC meeting to introduce the upcoming CRP update. The goal of this workshop was to gain a greater understanding of how C/CAG's various jurisdictions interact with the CRP and identify points of success, weakness, and opportunities for the future. The CRP's scope was introduced and a conversation was facilitated to gain better understanding of needs of the jurisdictions. The conversation covered such topics as strengths and weaknesses of the current program, opportunities to expand the list of funding recipients, and aspects that should be left behind. The final output from this meeting was an updated PowerPoint document with notes from the meeting and discussion.

- **One-on-one interviews with key stakeholders receiving regular CRP funding:** Along with the workshop, the consultant team interviewed the managers of four programs that have consistently received CRP funds annually (including Commute.org, the Countywide Shuttle Program, 21 Ele-

ments, and C/CAG's Climate program). The purpose of these interviews was to understand how these programs with annual support are using the funding, as well as their perceived areas for improvement or continued success.

- **Board and Committee Review:** The project team also engaged with C/CAG's Committees and Board throughout the development of this document to obtain feedback:
    - CMP Technical Advisory Committee (TAC)
    - Congestion Management and Environmental Quality Committee (CMEQ)
    - C/CAG Board of Directors

Countywide Mobility Investment Areas

Based on feedback received from C/CAG's Board, Committees, and other stakeholders, a list of strategic investment areas has been established to help guide C/CAG in identifying appropriate projects

and programs for CRP funding throughout the upcoming authorization period. These various components include:

- Response to increasing regulatory pressure, particularly related to housing and emission reduction
- Improvement and expansion upon cross-jurisdictional collaboration and benefitting from economies of scale, particularly related to:
    - Data collection
    - Response to cross-border and cut through traffic
    - Delivery of county-wide resources for jurisdictional use
- County-wide planning efforts, particularly those that unlock funding opportunities
- Support for shared micromobility and other first/last mile solutions
- Advocacy for active transportation modes that reduce vehicle trips, increase safety and enhance vehicle connectivity, while considering realities of way limitation
- A focus on trip reduction efforts, including telework and virtual services provision
- Response to technology projects and Smart Corridor development and maintenance needs
- A focus on ensuring funded projects can be maintained long-term
- Support for equitable transportation initiatives across the county

Examples of projects that may be funded through the CRP to align with the above focuses include:

- Planning initiatives such as the Countywide Transportation Plan
- Continued funding for technology projects/Smart Corridor initiatives
- Countywide approaches to Vehicle-Miles Traveled (VMT) reduction
- The development and implementation of innovative first/last mile solutions, such as a shared micromobility program
- A strategic review of Countywide transportation funding, particularly in response to more recent changes in travel patterns

Recommended Changes

Recommended Changes

Recommendation 1: Increase fees to maintain consistent levels of support

The CRP has maintained a consistent budget since 2007. In the meantime, the CPI has increased 54%, meaning that proportionally, programs under the CRP have access to less funding than they did at its last fee update. As such, there has been a decrease in support for programs since 2007 with the same total authorization amount. This has resulted in a decrease in countywide support in two ways:

1. Programs receiving continuous annual support have seen a smaller portion of their budget come from the CRP year over year. For example, since 2010, the hourly operational costs for shuttle management have increased by 42%, while CRP allocation for the shuttle program has remained static.

2. Similarly, the CRP has spent more on annually-funded ad-hoc services or one-off programs, which have become more expensive year after year. With a proportionally dwindling authorization budget, the CRP has less flexibility to contribute to programs that may be the product of unexpected events or response to emerging technologies.

In order to keep up with increasing program costs and continue to provide sufficient support for mobility planning across the county, a small fee increase is proposed. This fee increase would take place in stages:

- **Year 1:** It is recommended that in year one of this authorization period, the contribution from the jurisdictions remains the same. This is intended to allow jurisdictions to adjust to the new baseline fee from the updated population and projected trip generation data.

- **Year 2:** In Year Two, once the baseline is determined with the new trip generation data from the travel demand model, a 5% upward adjustment will be made to the fee structure. This modification allows the CRP funds to take steps toward closing the current gap created by inflation.

- **Years 3-4:** In the third year, it is proposed that the fee increase annually to align with CPI, with a cap of 3% each year. This process will ultimately align fee increases with the increases utilized to determine C/CAG Member fees. As with the member fees, CRP fee increases will be approved by the Finance Committee and Board during the annual agency budget approval each year.

Table 3 outlines the recommended increase for each year through FY 2026/2027.

Recommended Changes

Table 3. Recommended Future Year Increases

Year	Baseline	Recommended Change
Year 1 - FY 23/24	No change	No change[1]
Year 2 - FY 24/25	No change	5% increase
Year 3 - FY 25/26	No change	Increase of lesser of CPI or 3%
Year 4 - FY 26/27	No change	Increase of lesser of CPI or 3%
Aggregate Increase in Year 4	$0	$454,073
Total increase in cost per jurisdiction over 4 years	$0	Ranges from $2,576 to $66,615[2]
Average annual increase per jurisdiction	$0	Ranges from $644 to $16,654

Assuming the annual CPI increases at 3% annually, this recommendation will result in an increase to the CRP budget of $454,073 over the four-year period. This means individual four-year contributions will range from $2,576 (Colma) up to $66,615 (City of San Mateo). The expected annual and four-year contributions per jurisdiction are included in Table 4 below.

1 Breakdown between jurisdictions will be adjusted per updated population and project trip generation numbers.

2 Table assumes the cap of 3% increase annually

Recommended Changes

Table 4. Proposed fees by Jurisdiction

Current Fees:			***Proposed Fees:***					
Agency	**Annual[1]**	**4-year Total**	**2024**	**2025**	**2026[2]**	**2027**	**4-year Total**	**4-year Change**
			No change	*5% increase*	*CPI increase up to 3%*	*CPI increase up to 3%*		
Atherton	14,055	56,220	$14,055	$14,758	$15,200	$15,656	$59,670	$3,450
Belmont	62,785	251,140	$62,785	$65,924	$67,902	$69,939	$266,550	$15,410
Brisbane	17,385	69,540	$17,385	$18,254	$18,802	$19,366	$73,807	$4,267
Burlingame	92,223	368,892	$92,223	$96,834	$99,739	$102,731	$391,528	$22,636
Colma	10,494	41,976	$10,494	$11,019	$11,349	$11,690	$44,552	$2,576
Daly City	224,205	896,820	$224,205	$235,415	$242,478	$249,752	$951,850	$55,030
East Palo Alto	60,990	243,960	$60,990	$64,040	$65,961	$67,940	$258,930	$14,970
Foster City	86,974	347,896	$86,974	$91,323	$94,062	$96,884	$369,243	$21,347
Half Moon Bay	30,292	121,168	$30,292	$31,807	$32,761	$33,744	$128,603	$7,435
Hillsborough	23,419	93,676	$23,419	$24,590	$25,328	$26,087	$99,424	$5,748
Menlo Park	102,668	410,672	$102,668	$107,801	$111,035	$114,367	$435,871	$25,199
Millbrae	53,205	212,820	$53,205	$55,865	$57,541	$59,267	$225,879	$13,059
Pacifica	82,869	331,476	$82,869	$87,012	$89,623	$92,312	$351,816	$20,340
Portola Valley	11,737	46,948	$11,737	$12,324	$12,694	$13,074	$49,829	$2,881
Redwood City	230,320	921,280	$230,320	$241,836	$249,091	$256,564	$977,811	$56,531
San Bruno	104,525	418,100	$104,525	$109,751	$113,044	$116,435	$443,755	$25,655
San Carlos	80,747	322,988	$80,747	$84,784	$87,328	$89,948	$342,807	$19,819
San Mateo	271,405	1,085,620	$271,405	$284,975	$293,525	$302,330	$1,152,235	$66,615
South San Francisco	160,375	641,500	$160,375	$168,394	$173,446	$178,649	$680,863	$39,363
Woodside	13,976	55,904	$13,976	$14,675	$15,115	$15,568	$59,334	$3,430
San Mateo County	115,351	461,404	$115,351	$121,119	$124,752	$128,495	$489,716	$28,312
TOTAL	**1,850,000**	**7,400,000**	**$1,850,000**	**$1,942,500**	**$2,000,775**	**$2,060,798**	**$7,854,073**	**$454,073**

1 Distribution of the fee is determined by a calculation that considers jurisdictions' population and projected trip generation (each weighted at 50%). Population is determined by the Department of Finance numbers from 2022, Projected trip generation is determined through the C/CAG/VTA Travel Demand Model, with data from 2019.

2 Table assumes the cap of a 3% increase annually

Recommended Changes

Recommendation 2: Simplify funding designation

The previous funding designation for the CRP was divided into four categories, some of which were tied to specific annual expenditures, while others were not. This signifies that not all expenditure data neatly aligned with the categories and there were sometimes needs to justify or re-classify projects in order to support them through the CRP. Ultimately it also leads to reporting that may not provide a complete picture of the activities that actually align with each category.

For example, while the 2019 CRP Authorization explicitly mentioned that the Local Transportation Services category was intended to fund innovative mobility services in addition to funding local shuttle services. However, the Local Transportation Services category was assigned the same amount of money ($500,000) as had been designated in the prior authorization, which had previously all gone to the county shuttle program. Since C/CAG did not want to decrease the amount provided for shuttles, there was not any residual funding in that category for innovative projects. Instead, innovative projects such as the Shared Micromobility Feasibility Study were funded through the Linking Transportation and Land Use category because there was more flexibility within that budget.
In order to streamline funding processes, a simplified framework is proposed. The program would have two categories, one with consistent funding for qualified programs, and another broader, more flexible fund for one-time projects, guided by CRP goals and agreed upon investment areas. This simplification removes roadblocks to supporting programs that meet broad goals but don't have room left in the most appropriate category's budget, and allows for flexibility to the changing needs within the authorization period.

Similarly, having four continuous programs will facilitate better and more consistent reporting, allowing C/CAG to more adeptly demonstrate the impact of the CRP. It is recommended that C/CAG collect an annual report from each of the continuous programs that outlines their accomplishments, and provide a brief update annually to the Board and committees.

Recommended Changes

This way C/CAG can demonstrate progress toward the CRP goals and improving mobility overall, and continue to make informed funding decisions for future authorization periods.

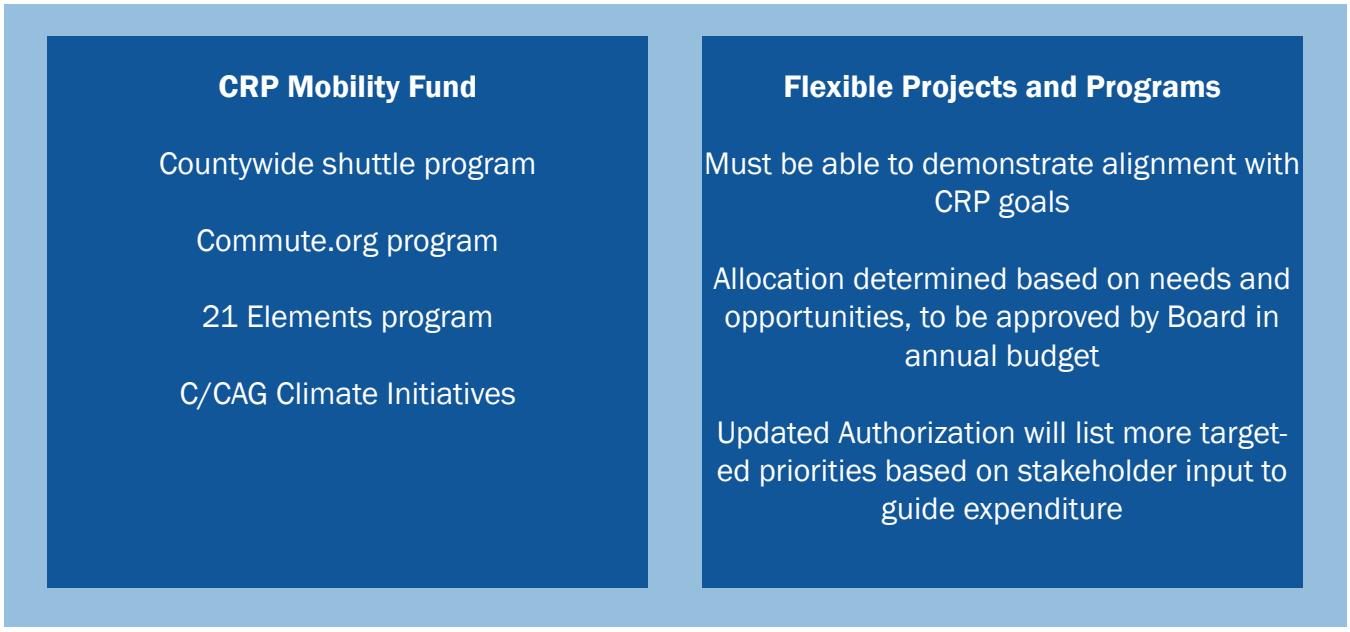
The four continuous programs include:

- The Countywide Shuttle Program
- Commute.org
- 21 Elements
- C/CAG's Climate Initiatives

It is recommended that the rest of the CRP budget be categorized as a Mobility Fund, which would be allocated through the annual agency budget approval process by the C/CAG Board of Directors. Projects and programs in this budget must be able to demonstrate alignment with the overall CRP goal of improving mobility countywide, and should also align with the targeted strategic investment areas included in the updated Authorization.

Figure 2 demonstrates how the CRP will be structured to align with Recommendation 2.

Figure 2. Proposed Funding Designation



CRP Authorization

CRP Authorization

The City/County Association of Governments of San Mateo County (C/CAG) sponsors and manages San Mateo County Congestion Relief Plan (CRP). The San Mateo County CRP was first adopted by the C/CAG Board of Directors on February 8, 2002, in response to traffic congestion measurements, at locations throughout the County, which exceeded the standards adopted by C/CAG under the Congestion Management Program (CMP). The CMP is a legal requirement (California Government Code Section 65089(b)(1)(A)), that requires urban areas to set standards for how they track, and designate targets for congestion within their area. CMPs are enforceable with financial penalties, and requiring deficiency plans when congestion exceeds set standards.

The CRP was developed to serve as a Countywide Deficiency Plan so that the individual cities and the County would not have to develop multiple deficiency plans with corresponding implementation costs. The adoption of the San Mateo County CRP also relieves all San Mateo County jurisdictions from State mandates to fix the specific congested locations that triggered a deficiency, and any locations that might trigger a deficiency in the subsequent four years

As a countywide deficiency plan, the CRP aims to improve mobility across the county, reducing congestion and making it easier for all travelers to get around. The CRP supports mobility improvements through four goals:

1. **Provide local transportation service** in order to provide alternatives to driving and improve access to transportation options.

2. **Reduce vehicle trips** through Transportation Demand Management (TDM) and other planning efforts discouraging single occupancy trips.

3. **Expand and support innovative mobility solutions** to increase travel efficiency.

4. **Support land use efforts that reduce GHG emissions** by reducing or eliminating trips where appropriate.

The C/CAG Board of Directors approves a reauthorization of the CRP every four years, outlining how the CRP's budget will be allocated. The following information sets out the CRP Authorization for Fiscal Years 2023/2024 through 2026/2027.

CRP Authorization

Funding

The CRP Fee is collected from the jurisdictions annually, based on a calculation that considers population and trips generated. The fee for the authorization period will be adjusted as follows:

- **Year 1 (FY 23/24):** In year one of this authorization period, the contribution from the jurisdictions will remain the same. This is intended to allow jurisdictions to adjust to the new baseline fee from the updated population and projected trip generation data.

- **Year 2 (FY 24/25):** In year two, once the baseline is determined with the new projected trip generation data from the travel demand model, a 5% upward adjustment will be made to the fee structure. This modification allows the CRP funds to take steps toward closing the current gap created by inflation.

- **Years 3-4 (FYs 25/27 and 26/27):** In the third and fourth years, the fee will increase annually to align with CPI, with a cap of 3% each year. This process will ultimately align fee increases with the increases utilized to determine C/CAG Member fees. As with the member fees, CRP fee increases will be approved by the Finance Committee and Board during the annual agency budget approval each year.

CRP Funding will be allocated to four programs ("Dedicated Annual Support") that receive a dedicated annual investment, and a broader and more versatile category ("CRP Mobility Fund") that aims to provide flexibility to support projects and programs on a more ad-hoc basis, as approved by the C/CAG Board of Directors.

Table 5 outlines the funding allocation structure for the authorization period. Below, this document provides more detail on the programs receiving dedicated annual support, as well as descriptions of

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the guiding principles around which C/CAG's Board may make funding decisions for the Mobility Fund.

Table 5. CRP Budget Allocation FY 23/24-26/27

		Year 1	Year 2	Year 3[1]	Year 4
Dedicated Annual Support	Countywide Shuttle Program	500,000.00	525,000.00	540,750.00	556,972.50
	Commute.org TDM Program	510,000.00	535,500.00	551,565.00	568,111.95
	21 Elements Program	200,000.00	210,000.00	216,300.00	222,789.00
	Climate Initiatives	150,000.00	157,500.00	162,225.00	167,091.75
CRP Mobility Fund	Mobility projects and programs across the county	490,000.00	514,500.00	529,935.00	545,833.05
Total		**1,850,000**	**1,942,500**	**2,000,775**	**2,060,798**

Dedicated Annual Support

The Dedicated Annual Support category will consist of four programs, each of which will receive a set allocation, which increases annually at the same rate as the overall CRP fee. Each program will be asked to provide a report and update to the C/CAG Board and committees annually, detailing their accomplishments from that year.

Countywide Shuttle Program

The current Employer-Based Shuttle Program is jointly funded by C/CAG and San Mateo County Transportation Authority (SMCTA). The Program supports community shuttles through a competitive process and required match from the project sponsor.

The shuttle program makes use of matching funds both from jurisdictions and from the private sector, leveraging both C/CAG CRP and Countywide Measure A funds to support roughly thirty shuttles on an annual basis. These shuttles provide first-last mile connections between business centers and transit stations, and connections to community centers, particularly within equity priority communities.
As the shuttle program continues to grow and expand, there is an interest in considering how new and

1 Table assumes the cap of 3% increase annually

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shared mobility might align with or support more traditional shuttle services.

Commute.org TDM Program

The Countywide Travel Demand Management (TDM) Program is operated by the Peninsula Traffic Congestion Relief Alliance (Commute.org). The core of Commute.org's mission focuses on voluntary trip reduction programs. Their work includes coordinating with employers to reduce peak commute trips, developing and managing employer-based shuttle programs, providing employer alternative commuting support services, and offering alternative commute incentive programs. Commute.org also incorporates other projects to adapt to changing commute patterns and technologies.

Commute.org has been extremely successful in meeting the needs of the individual communities, city and county governments, and employers throughout San Mateo County. They recently deployed the STAR Platform (branded by vendor Ride Amigos) to promote, track and incentivize alternative commuting behavior, and they also work with partners who are developing and deploying app-based and other technologies that will lead to the reduction in single-occupancy vehicle trips in San Mateo County. As of the end of FY 2021-2022, Commute.org had 381 employers with whom they were engaging actively, representing over 78,000 employees.

Commute.org also operates a shuttle program jointly funded by C/CAG and SMCTA and private employers. The shuttles provide service between employment sites and Caltrain, BART and WETA Ferry stations. In FY 21-22, their shuttles contributed to almost 134,000 vehicle trips reduced within San Mateo County.

In 2022, C/CAG adopted their updated Countywide TDM Policy, requiring local jurisdictions in San Mateo to notify C/CAG of any new development project within their purview that is estimated to gen-

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erate at least 100 Average Daily Trips (ADT), and to design a comprehensive site-wide TDM program. With the new policy, projects are required to report periodically on their progress, and C/CAG has partnered with Commute.org to support regular monitoring and reporting, in addition to assisting non-compliant projects in designing a path toward compliance.

21 Elements Program

The 21 Elements project is a cost-effective countywide program that assists all jurisdictions to implement Housing Elements, and develops effective on-going housing implementation policies. In past years, C/CAG and the San Mateo County Department of Housing (DoH) have largely been co-funding the 21 Elements effort. Local jurisdictions also contribute an annual assessment fee. The DoH acts as the lead agency in managing the consultant contract. Staff recommends the continuation of this cooperative partnership to support the 21 Elements.

The legislative framework that leads to the creation of this 21 Elements program is shown below:

- **SB375** - In 2008, state law SB 375 was approved, requiring the Bay Area Region to develop a Sustainable Communities Strategy (SCS) to integrate land use planning, transportation policies, and transportation investments. Consistent with this mandate, the MTC/ABAG most recently adopted Plan Bay Area 2050, as the region's SCS, encompass housing, economic, transportation, and environmental strategies.

- **State Housing Element Law** - Since 1969, California has required that all local governments) adequately plan to meet the housing needs of everyone in the community through adoption and implementation of their Housing Elements. he California Department of Housing and Community Development (HCD) is charged with identifying the total regional housing need (Regional Housing Need Allocation "RHNA") for the San Francisco Bay Area for specific periods (housing element cycles). The Association of Bay Area Governments (ABAG) must then develop a methodology to distribute the RHNA to local governments in a manner that is consistent with the development pattern included in the Sustainable Communities Strategy (SCS), and finally the local jurisdiction must update its Housing Element to accommodate its RHNA allocation.

The intent of the 21 Elements collaboration is to provide a forum for sharing resources, successful strategies and best practices for jurisdictions in San Mateo County. Additionally, the program is involved in the development of tools and solicitation of technical support to help member jurisdictions plan and produce housing that improves mobility, reduces climate impact, and strengthen local neighborhoods and the regional economy, consistent with the goals and requirements SCS and HCD.

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C/CAG Climate Initiatives

C/CAG's Climate Program began in 2006 when it, jointly with the County, established and staffed the Utilities and Sustainability Task Force. The Task Force developed the San Mateo County Energy Strategy in 2012. More recently, the draft San Mateo County Energy and Water Strategy 2025 focuses on goals, strategies and actions to make use of cleaner energy sources for buildings and vehicles, use energy more efficiently, increase water conservation and pursue alternative sources of water in San Mateo County.

The Climate Program contributes to two major initiatives that the CRP will support:

Resource Management and Climate Protection Committee (RMCP)

In 2009, the C/CAG Board formed the Resource Management and Climate Protection (RMCP) Committee, which supports the development of energy efficiency- and climate change-related programs. The RMCP Committee provides advice and recommendations to the Congestion Management and Environmental Quality (CMEQ) Committee and the full C/CAG Board related to energy, water use, and

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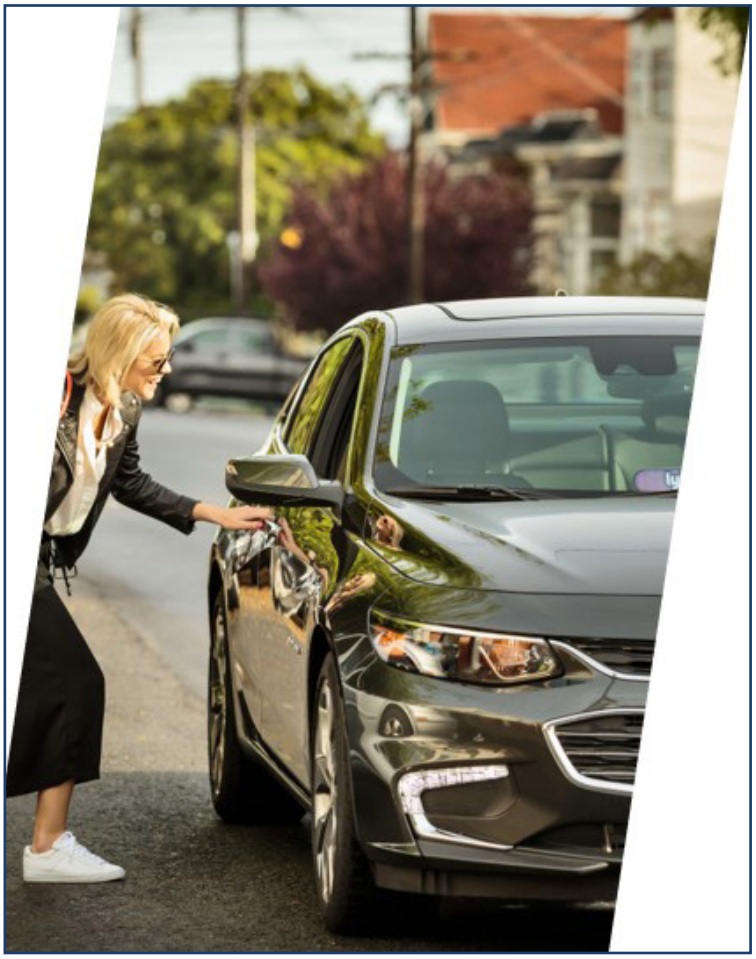
greenhouse gas mitigation efforts, including planning measures related to reducing vehicle miles traveled in San Mateo County and the region. More recently, the Committee is also considering the reduction of emissions from transferring the vehicle stock in San Mateo County from gasoline to hybrid or electric.

Regionally Integrated Climate Action Planning Suite (RICAPS)

In 2008, the C/CAG Board launched the San Mateo County Energy Watch Program (SMCEW), a Local Government Partnership between C/CAG and PG&E. A portion of the SMCEW budget, combined with additional C/CAG Congestion Relief Funds, provides climate action planning assistance to San Mateo County local governments through a program called the Regionally Integrated Climate Action Planning Suite (RICAPS).

RICAPS is a set of tools developed through initial grant funding from the Bay Area Air Quality Management District and PG&E with matching funds from C/CAG. This grant program provides ongoing climate action planning technical assistance to local governments in San Mateo County and is supported by the C/CAG-PG&E Local Government Partnership (LGP), Peninsula Clean Energy (the local electricity Community Choice Aggregator), and C/CAG. The program includes monthly working group meeting with sustainability staff across San Mateo County. These meetings may include information related to reducing VMT and electrification of existing transportation, in addition to building electrification. Over time, vehicle and building electrification will begin to be guided more independently.



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CRP Mobility Fund

In order to account for evolving programs and priorities, this allocation category is set up for programs and projects that may not fit neatly into thematic funding categories or do not require continuous funding. Projects will be approved on an ad-hoc basis with budget approval from the C/CAG Board of Directors.

Projects and programs in this fund must be able to demonstrate alignment with the overall CRP goal of improving mobility countywide, and should also align with the targeted investment strategies identified below. These strategies were identified by C/CAG staff and representatives from the jurisdictions through C/CAG's Congestion Management Program Technical Advisory Committee (TAC).

They include:

- **Response to increasing regulatory pressure, particularly related to housing and emission reduction:** An increase in regulation coming from the state and federal level is putting pressure on jurisdictions, particularly in relation to housing and climate initiatives. Institutional and financial support from the CRP can support jurisdictions in meeting target housing and emission goals in the coming decades.

- **Improvement and expansion upon cross-jurisdictional collaboration and benefitting from economies of scale:** Cross-jurisdictional collaboration will be vital for the county to maintain uniformity, as well as provide consistent, accessible service to residents. Through the CRP, C/CAG can help jurisdictions benefit from such economies of scale in areas such as:
    - data collection
    - response to cross-border and cut through traffic
    - delivery of county-wide resources for jurisdictional use

- **County-wide planning efforts:** Countywide planning efforts, such as the development of County-wide Transportation Plans, provide guidelines and support for jurisdictions, facilitating their more targeted planning processes. In particular, C/CAG may prioritize opportunities where CRP funding can be used as a match to secure broader statewide or federal funds.

- **Support for shared micromobility**: Stakeholders across the county have shown an interest in the creation of a shared micro-mobility program to introduce more diverse modes of transportation and encourage use of alternative modes in place of single-occupant vehicles (SOVs).

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- **Innovative first/last mile solutions:** The "first mile" is from a trip origin (e.g., home) to public transit and the "last mile" is from public transit to the trip destination (e.g., work). In addition to shared micromobility, C/CAG supports other innovative transportation services and infrastructure that increase access to public transportation.

- **Advocacy for active transportation modes:** Planning for and encouraging active transportation can reduce vehicle trips, increase safety and enhance vehicle connectivity. C/CAG can utilize CRP funds to support active mode advocacy and planning, while continuing to consider realities of way limitation and the need to maintain vehicle flow.

- **A focus on trip reduction efforts:** Beyond infrastructure and mode-change TDM efforts, trip reduction efforts have seen promising success across the county. As workers transition back to working and traveling to offices, finding ways to reduce or change the timing of trips to reduce congestion is heralded as a significant area of study and investment for the county moving forward.

- **Response to ITS and Smart Corridor development and maintenance needs:** C/CAG has made significant progress in utilizing integrated technology to support mobility across the county by maximizing the efficiency of our existing roadway infrastructure. These initiatives, such as the Smart Corridor project and the San Mateo County Express Lanes Joint Powers Authority (SMCEL-JPA) can continue to benefit from CRP support.

- **Insurance that funded projects can be maintained long-term:** Though the interest in pursuing innovative projects and ideas is largely beneficial for the county, the ensuing result may also be that programs are susceptible to losing funding as they lose momentum and enthusiasm after an initial introduction period. Ensuring funding for projects can be maintained in the long term will

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be key to reaping the most of their benefits and so that they may effectively be deployed across jurisdictions.

- **Comprehensive planning for the future of mobility in the County:** As San Mateo County adjusts to the changes in travel behavior caused by a movement toward remote work and more flexible travel patterns, broader transportation planning and funding needs may shift. The County may want to think more comprehensively about how they fund transportation initiative in order to ensure they are responsive to changing needs.

Conclusion

Conclusion

The CRP is a valuable tool for San Mateo County. In addition to playing the regulatory role of maintaining compliance with C/CAG's CMP, the CRP supports C/CAG and the jurisdictions in efforts to reduce congestion, improve mobility, and support climate initiatives countywide. This has been clearly demonstrated by the range of projects and programs that have been supported by the CRP since its initiation in 2002, and by the positive feedback C/CAG's stakeholders have provided on the programs it supports regularly.

While this document provides recommendations and outlines for the upcoming Authorization period beginning July 1, 2023, C/CAG has the opportunity to continue to grow and evolve the program. When considering adjustments to future Authorizations, C/CAG may want to consider highlighting or incorporating the following:

- Future strategic considerations, including expanded sets of metrics or targets to further demonstrate the impact of CRP dollars on mobility improvements within San Mateo County
- Guidelines and encouragement for CRP funding recipients related to incorporating the forthcoming Agency Equity Framework
- Formal processes for prioritizing projects or programs that can leverage CRP funding to secure state or federal financial support
- Regular examination of countywide priorities related to mobility improvement and updates or additions to the list of Strategic Investments.

As C/CAG and member jurisdictions grow and evolve, so do their mobility needs and priorities. The CRP will continue to be an indispensable tool to support those efforts for years to come.

Appendix

Appendix A

CRP Fee Table

Agency	2024	2025	2026*	2027*	4-year Total
Atherton	$14,055	$14,758	$15,200	$15,656	$59,670
Belmont	$62,785	$65,924	$67,902	$69,939	$266,550
Brisbane	$17,385	$18,254	$18,802	$19,366	$73,807
Burlingame	$92,223	$96,834	$99,739	$102,731	$391,528
Colma	$10,494	$11,019	$11,349	$11,690	$44,552
Daly City	$224,205	$235,415	$242,478	$249,752	$951,850
East Palo Alto	$60,990	$64,040	$65,961	$67,940	$258,930
Foster City	$86,974	$91,323	$94,062	$96,884	$369,243
Half Moon Bay	$30,292	$31,807	$32,761	$33,744	$128,603
Hillsborough	$23,419	$24,590	$25,328	$26,087	$99,424
Menlo Park	$102,668	$107,801	$111,035	$114,367	$435,871
Millbrae	$53,205	$55,865	$57,541	$59,267	$225,879
Pacifica	$82,869	$87,012	$89,623	$92,312	$351,816
Portola Valley	$11,737	$12,324	$12,694	$13,074	$49,829
Redwood City	$230,320	$241,836	$249,091	$256,564	$977,811
San Bruno	$104,525	$109,751	$113,044	$116,435	$443,755
San Carlos	$80,747	$84,784	$87,328	$89,948	$342,807
San Mateo	$271,405	$284,975	$293,525	$302,330	$1,152,235
South San Francisco	$160,375	$168,394	$173,446	$178,649	$680,863
Woodside	$13,976	$14,675	$15,115	$15,568	$59,334
San Mateo County	$115,351	$121,119	$124,752	$128,495	$489,716
TOTAL	**$1,850,000**	**$1,942,500**	**$2,000,775**	**$2,060,798**	**$7,854,073**

APPENDIX E: DESCRIPTIONS OF TRANSPORTATION CONTROL MEASURES (TCM'S)

appendix three

transportation control measures

Transportation Control Measures (TCMs) are strategies to reduce vehicle emissions. The federal TCMs shown below were added over successive revisions to the State Implementation Plan (SIP). With the exception of the five new TCMs (A-E), the original set of 28 TCMs has been completed.

Federal TCMs in the State Implementation Plan

TCM Number	Federal Transportation Control Measure
Original TCMs from 1982 Bay Area Air Quality Plan	
TCM 1	Reaffirm commitment to 28 percent transit ridership increase between 1978 and 1983
TCM 2	Support post-1983 improvements in the operators' five-year plans and, after consultation with the operators, adopt ridership increase target for the period 1983 through 1987
TCM 3	Seek to expand and improve public transit beyond committed levels
TCM 4	High-occupancy-vehicle (HOV) lanes and ramp metering
TCM 5	Support RIDES efforts
TCM 6*	Continue efforts to obtain funding to support long-range transit improvements
TCM 7	Preferential parking
TCM 8	Shared-use park-and-ride lots
TCM 9	Expand commute alternatives program
TCM 10	Information program for local governments
TCM 11**	Gasoline Conservation Awareness Program (GasCAP)
TCM 12**	Santa Clara County commuter transportation program
Contingency Plan TCMs Adopted by MTC in February 1990 (MTC Resolution 2131)	
TCM 13	Increase bridge tolls to $1.00 on all bridges
TCM 14	Bay Bridge surcharge of $1.00
TCM 15	Increase state gas tax by 9 cents
TCM 16*	Implement MTC Resolution 1876, Revised — New Rail Starts
TCM 17	Continue post-earthquake transit services
TCM 18	Sacramento-Bay Area Amtrak service
TCM 19	Upgrade Caltrain service
TCM 20	Regional HOV System Plan
TCM 21	Regional transit coordination

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* Deleted by EPA action from 1999 Ozone Attainment Plan

** Deleted by EPA action from 1999 Ozone Attainment Plan, but retained in Carbon Monoxide Maintenance Plan

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TCM Number	Federal Transportation Control Measure
TCM 22	Expand Regional Transit Connection ticket distribution
TCM 23	Employer audits
TCM 24	Expand signal timing program to new cities
TCM 25	Maintain existing signal timing programs
TCM 26	Incident management on Bay Area freeways
TCM 27	Update MTC guidance on development of local Transportation Systems Management (TSM) programs
TCM 28	Local TSM Initiatives

New TCMs in 2001 Ozone Attainment Plan (Being Implemented)

TCM A	Regional Express Bus Program
TCM B	Bicycle/Pedestrian Program
TCM C	Transportation for Livable Communities
TCM D	Expansion of Freeway Service Patrol
TCM E	Transit access to airports

The 19 proposed state Transportation Control Measures (TCMs) in the Draft 2005 Bay Area Ozone Strategy have been updated pursuant to the requirements of the California Clean Air Act (CCAA). The proposed TCMs include transit service improvements, rideshare programs, bicycle and pedestrian enhancements, and land-use, pricing, and traffic management strategies. The implementation steps outlined for each TCM include both near-term and long-term implementation. A full description of these state TCMs will be included in the *Draft 2005 Bay Area Ozone Strategy* publication, available in Summer 2005.

State TCMs Proposed in the Draft 2005 Bay Area Ozone Strategy

TCM Number	State Transportation Control Measure	Implementation Steps
TCM 1	Support voluntary employer-based trip reduction programs	• Provide core support for employer programs, based on an assessment of employer needs and the level of employer interest. Potential support includes assistance in developing or enhancing employer programs, information and referrals, employer networks, and programs to recognize outstanding employer programs. • Support legislation to maintain and expand incentives for employer programs, such as tax deductions and/or tax credits for employer efforts to promote ridesharing, transit, and other commute alternatives • Seek legislation to create stronger voluntary programs for all employers or to require certain minimum elements for public employers
TCM 2	Adopt employer-based trip reduction rule	*TCM deleted* — Health and Safety Code Section 40929 does not permit air districts to require mandatory employer-based trip reduction programs.
TCM 3	Improve local and areawide bus service	• Replace worn-out transit buses with clean-fuel buses and retrofit existing diesel buses with diesel emission control technology • Sustain the existing Regional Express Bus Program • Assist further planning work on enhanced bus and Bus Rapid Transit concepts • Sustain transit service to airports • Restore local bus routes that were eliminated due to economic recession • Implement new Enhanced Bus and Bus Rapid Transit services and additional Lifeline Transit services, and expand of Regional Express Bus Programs as funds become available
TCM 4	Upgrade and expand local and regional rail service	• Upgrade and expand local and regional rail service • Implement MUNI Metro Third Street Light Rail initial operating segment from Downtown SF to Hunter's Point • Implement Caltrain Express/Rapid Rail Phase 1 ("Baby Bullet") to San Francisco • Extend Tasman East and Vasona light-rail transit (LRT) in Santa Clara County • Extend BART to Warm Springs, eBART to Eastern Contra Costa County, tBART to Livermore/Amador Valley and implement Silicon Valley Rapid Transit Corridor and an Oakland International Airport connector • Implement MUNI Metro Central Subway in San Francisco • Implement Caltrain Downtown Extension/rebuild TransBay Terminal • Implement Downtown East Valley LRT in Santa Clara County • Implement new Marin/Sonoma Commuter Rail Service between Cloverdale and a San Francisco-bound ferry service • Implement an additional Capitol Corridor peak-period commuter service between Vacaville and Oakland • Implement Dumbarton Rail Service connecting BART and Caltrain over a rebuilt Dumbarton rail bridge
TCM 5	Improve access to rail and ferries	• Develop demonstration program for station car and bike station concepts at select regional transit centers • Determine long-term funding needs for existing shuttles and examine funding options • Implement Safe Routes to Transit to improve bicycle and pedestrian access • Complete Regional Transit Connectivity Plan • Develop a master plan for innovative secure bicycle storage strategies at key transit hubs

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transportation control measures

TCM Number	State Transportation Control Measure	Implementation Steps
TCM 6	Improve interregional rail service	• Implement additional interregional rail service in Capitol (Auburn–Sacramento–Oakland–San Jose) Corridor and track enhancements • Implement additional Altamont Corridor Express rail service and track enhancements • Implement high-speed rail service between Los Angeles and the Bay Area
TCM 7	Improve ferry service	• Conduct initial planning for new ferry service • Implement new high-speed low emission ferry to service Vallejo to San Francisco route • Expand existing ferry service between: Oakland/Alameda and San Francisco, and Larkspur and San Francisco • Implement new ferry service between Berkeley/Albany and San Francisco, and South San Francisco and San Francisco • Implement new intermodal transit hub at Vallejo Ferry Terminal • Expand berthing capacity at the San Francisco Ferry Terminal • Implement hydrogen fuel cell ferry demonstration project from Treasure Island to San Francisco • Assist ferry operators in converting vessel engines to lower emission engines • Study and potentially implement new service between Richmond, Hercules/Rodeo, Martinez, Redwood City and San Francisco; Port Sonoma and San Francisco; and Oakland and San Francisco airports
TCM 8	Construct carpool/express bus lanes on freeways	• Expand existing HOV network, based on 2003 Transportation Improvement Program, where beneficial to air quality. Special attention should be paid to express bus operations to maximize benefits for transit. Monitor and adjust occupancy requirements and hours of operation to maximize air quality and mobility benefits. • Implement HOV support facilities such as park & ride lots at various locations • Implement additional HOV lanes and support infrastructure identified in the Regional Transportation Plan, where beneficial to air quality
TCM 9	Improve bicycle access and facilities	• Fund Regional Bicycle Plan and Safe Routes to Transit improvements • Continue Transportation Development Act (TDA) Article 3, Transportation for Livable Communities (TLC) and Transportation Fund for Clean Air (TFCA) funding for bike improvements • Develop on-line bicycle mapping tool as part of the regional 511 traveler information number • Promote Bike to Work Week/Day • Encourage local jurisdictions to develop safe and convenient bicycle lane and route networks, provide secure bike racks and storage, and require bicycle access and amenities as conditions of approval of development projects • Encourage public education about bicycle safety for both bicyclists and motorists
TCM 10	Youth transportation	• Encourage walking and bicycling to school through the Safe Routes to Schools Program • Establish special carpool formation services for parents, students and staff at Bay Area elementary and secondary schools • Replace school buses with clean-fuel vehicles • Offer transit ride discounts to youth and students
TCM 11	Install freeway traffic management systems	• Integrate traffic management features into new freeway construction projects • Maintain current level of Freeway Service Patrol (FSP) • Maintain 511 transit information service and improve and customer convenience • Extend ramp metering in major freeway corridors • Seek funding for full deployment of Caltrans' Traffic Operation System/Traffic Management Center project • Expand FSP to other routes and times of the day
TCM 12	Arterial management measures	• Maintain current technical assistance program for local jurisdictions that seek to retime signals, including the evaluation of bus priority treatments • Continue TFCA program to fund arterial management projects where air quality benefits can be demonstrated • Coordinate the timing of an additional 1,200 signals and continue updating timing plans • Work with bus operators to provide priority treatment along major bus routes

TCM Number	State Transportation Control Measure	Implementation Steps
TCM 13	Transit use incentives	• Implement Translink® (universal fare card) on transit systems throughout the region • Implement improvements to the 511 transit information service • Encourage employers, transit operators, local governments and others to promote and expand employer-based transit subsidy programs like the Commuter Check and EcoPass programs • Improve signage at transit transfer hubs • Deploy real-time transit arrival information • Increase passenger amenities at transit hubs and stops • Complete Alameda and Contra Costa County transit centers identified in AC Transit's Comprehensive Service Plan
TCM 14	Carpool and vanpool services and incentives	• Maintain current programs of the Regional Ridesharing Program and increase efficiency in delivering services • Explore innovative concepts such as real-time ridematching and more formal pick-up/drop-off locations for casual carpoolers • Explore options for expanding medium-distance (15–30 miles) vanpools
TCM 15	Local land-use planning and development strategies	MTC will: • Implement its 5-point transportation and land-use platform including a new planning grant program to fund station area plans around major transit facilities • Maintain funding for expanded TLC planning and capital grant programs and HIP program • Continue providing Transportation Planning and Land-Use Solutions (T-PLUS) funding to congestion management agencies to promote community revitalization projects • Utilize a Caltrans grant to examine opportunities for transit-oriented development along major transit corridors • Develop incentives and conditions to promote supportive land use policies around major new transit investments BAAQMD will: • Continue to fund bicycle projects, traffic-calming, shuttles, low emission vehicles, trip reduction programs and other clean air projects through the TFCA program • Continue to provide technical assistance to local jurisdictions on air quality analyses in the environmental review process • Continue to encourage cities and counties to reduce emissions from sources other than motor vehicles including lawn and garden equipment, wood stoves and fireplaces, and residential and commercial uses ABAG will: • Periodically monitor and update its Smart Growth demographic projections • Promote multi-jurisdiction planning along select transit corridors to encourage transit-oriented development MTC, ABAG and the BAAQMD will: • Develop financial and other incentives and technical assistance to encourage innovative parking strategies such as reduced parking, parking fees, parking cash-out, shared parking and other parking programs • Pursue legislative changes to remove barriers and provide incentives for smart growth • Promote carsharing as a way to reduce parking requirements • Monitor indirect source mitigation programs in other regions for Bay Area feasibility • Provide technical assistance to local government agencies • Publicize noteworthy examples of local clean air plans, policies and programs, as well as endorse noteworthy development projects • Study opportunities to promote location efficient mortgages (LEMs) to encourage home purchases near transit

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transportation control measures

TCM Number	State Transportation Control Measure	Implementation Steps
TCM 16	Public education/ intermittent control measures	• Continue Spare the Air (STA) notices to media, employers, public agencies and individuals, with an emphasis on reactive organic gases (ROG) reductions, obeying freeway speed limits in electronic freeway signs and other outreach efforts • Expand STA notices to add emphasis on ROG reductions, obeying freeway speed limits, and discouraging use of pleasure craft • Expand the Clean Air consortium to include cities and counties, as well as other public agencies • Target major commercial airports and their tenants for greater participation in the STA program • Increase coordination between the Bay Area's STA program with the San Joaquin Valley's STA program • Continue public education program on the proper maintenance and operation of motor vehicles to reduce air pollution • Study effectiveness and costs of free transit on Spare the Air days • Explore possible legislative approaches to formalize and strengthen episodic approaches
TCM 17	Conduct demonstration projects	• Promote demonstration projects to develop new strategies to reduce motor vehicle emissions. Potential projects include: – Low and zero emission vehicles (LEV) and refueling infrastructure – Parts replacement program for middle-aged cars – Heavy duty diesel vehicle idling – Carsharing • Monitor Phase 1 projects and expand depending on effectiveness and resources available
TCM 18	Implement transportation pricing reform	• Advocate for legislative authority to develop and promote revenue measures for: – Congestion pricing on bridges – High-occupancy/toll lanes – Regional and state gas tax increases of up to $.50 per gallon – Regional vehicle miles traveled (VMT) fees – Taxes on diesel fuel – Emissions-based vehicle registration fees
TCM 19	Improve pedestrian access and facilities	• Review and comment on general/specific plan policies to promote development patterns that encourage walking and circulation policies. Emphasize pedestrian travel and encourage amending zoning ordinances to include pedestrian-friendly design standards. • MTC will continue to fund local pedestrian improvement projects through the TLC program, and support the Pedestrian Safety Task Force and associated pedestrian safety programs. • TFCA program will continue to fund pedestrian improvement projects to reduce motor vehicle trips and emissions. • Continue to identify and fund planning projects that enhance pedestrian movement in neighborhoods, downtowns and near transit stops • Continue funding specific improvements through a variety of funding sources • Support Safe Routes to Schools
TCM 20	Promote traffic-calming measures	• Promote traffic-calming measures • Fund traffic-calming projects such as pedestrian-exclusive streets, residential and neighborhood traffic calming measures, and arterial and major route traffic-calming measures • Include traffic-calming strategies in the transportation and land use elements of general and specific plans • Encourage area-wide traffic-calming plans and programs • Include traffic-calming strategies in capital improvements programs

APPENDIX F: 2025 CMP MONITORING REPORT

City/County Association of Governments of San Mateo County

2025 CMP Monitoring Report

San Mateo County, California

Draft Report

September 5, 2025

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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 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. 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 Santa Clara county line to San Francisco county line on US-101 for four modes: single occupancy vehicle, express lanes, Caltrain, and SamTrans. Travel times improved for vehicles in the express lanes on US-101. 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 segments and 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

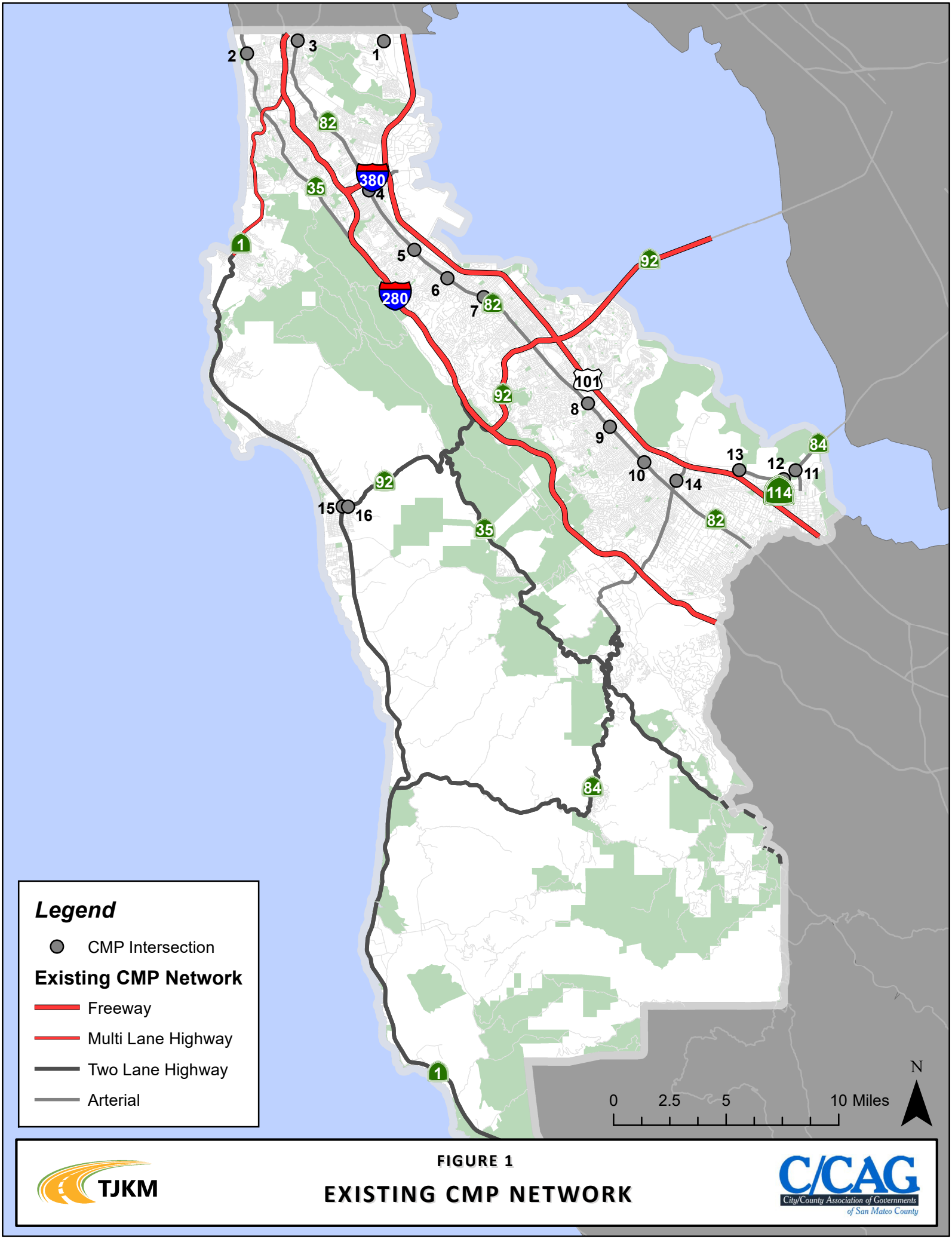


FIGURE 1

EXISTING CMP NETWORK

TJKM

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

1.2: Companion Network

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

The 2025 CMP Update continues with the monitoring of the Companion Network which was developed for the 2023 CMP Update. C/CAG staff developed a new Companion Network alongside the CMP network, including ten roadway segments and 38 intersections. 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 roadway classification/function, past collision history, bicycle Level of traffic stress, facilities that were identified in local city/county plans, and locations that connected to existing CMP segments that had a failing LOS in 2023.

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

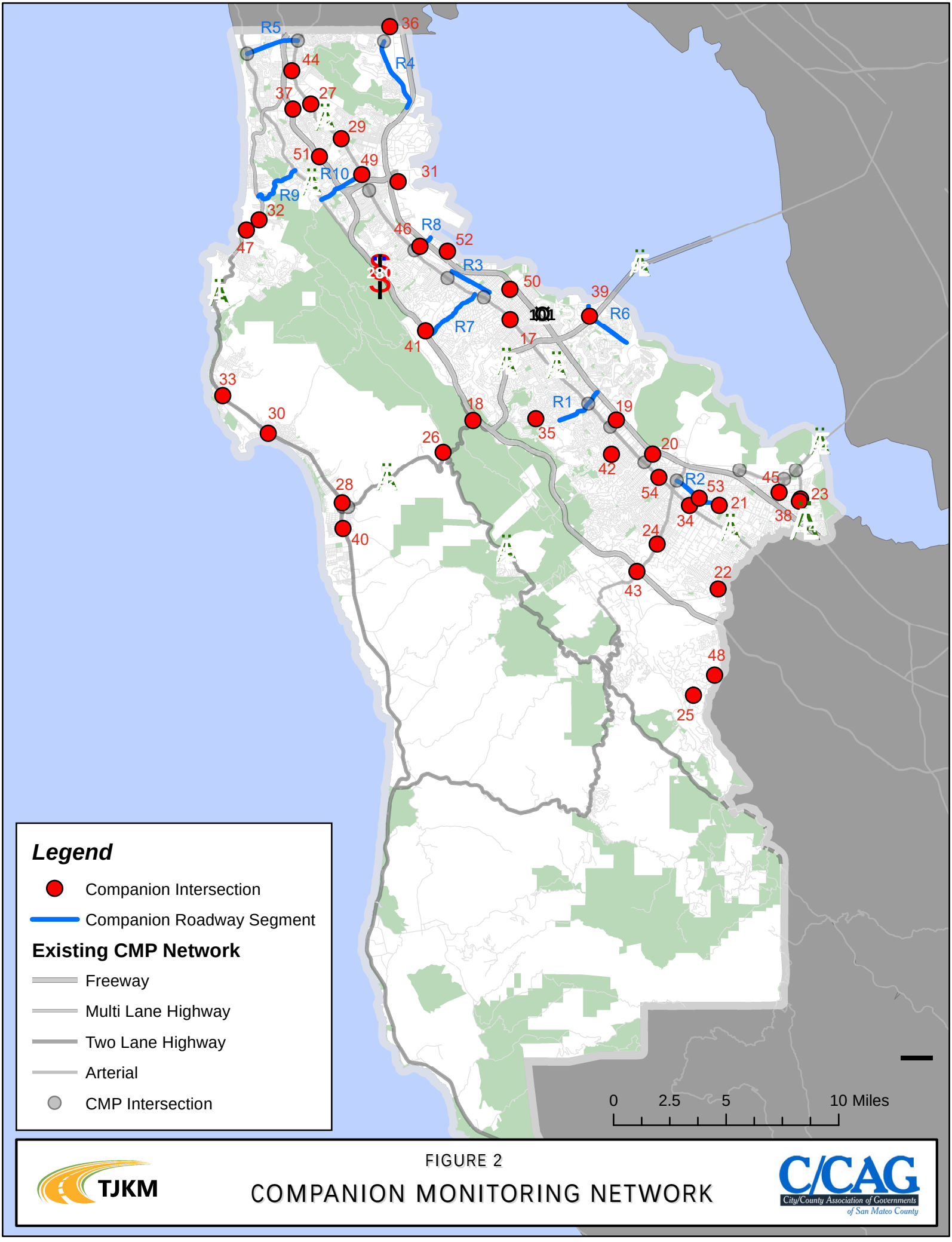
Table 4: CMP Companion Network Intersections

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

ID	Jurisdiction	Intersection
51	South San Francisco	Westborough Boulevard at I-280/Junipero Serra Boulevard
52	Burlingame	Old Bayshore Highway / Mahler Road
53	San Mateo County	Middlefield Road/ Fifth Avenue
54	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


R5
36
44
R4
37
27
29
51
49
R10
31
R9
32
47
46
R8
52
R3
50
39
R6
101
R7
17
41
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30
18
R1
19
35
26
42
20
28
54
R2
53
45
23
21
38
34
40
24
22
43
48
25
Legend
Companion Intersection
Companion Roadway Segment
Existing CMP Network
Freeway
Multi Lane Highway
Two Lane Highway
Arterial
CMP Intersection
0
2.5
5
10 Miles
TJKM
FIGURE 2
COMPANION MONITORING NETWORK
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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.

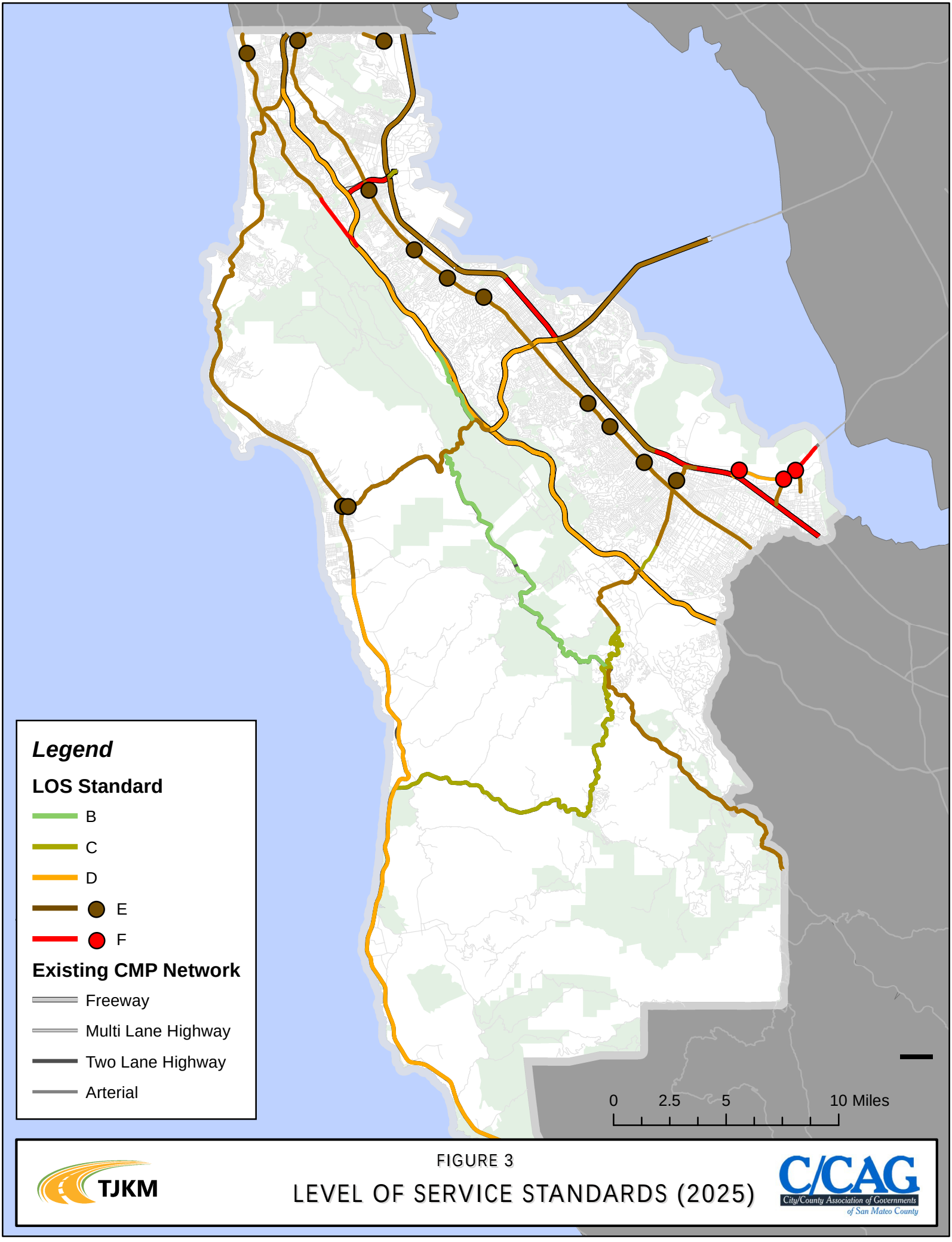
Based on data collected during the 1991 CMP monitoring process, the following LOS standards were selected for the roadway segments:

- 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, and May 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. 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. 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.

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-82
- SR-84
- SR-92 (from SR-1 to I-280)
- SR-109
- SR-114
- 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

[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.

also collected). These were modeled in Synchro 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**.

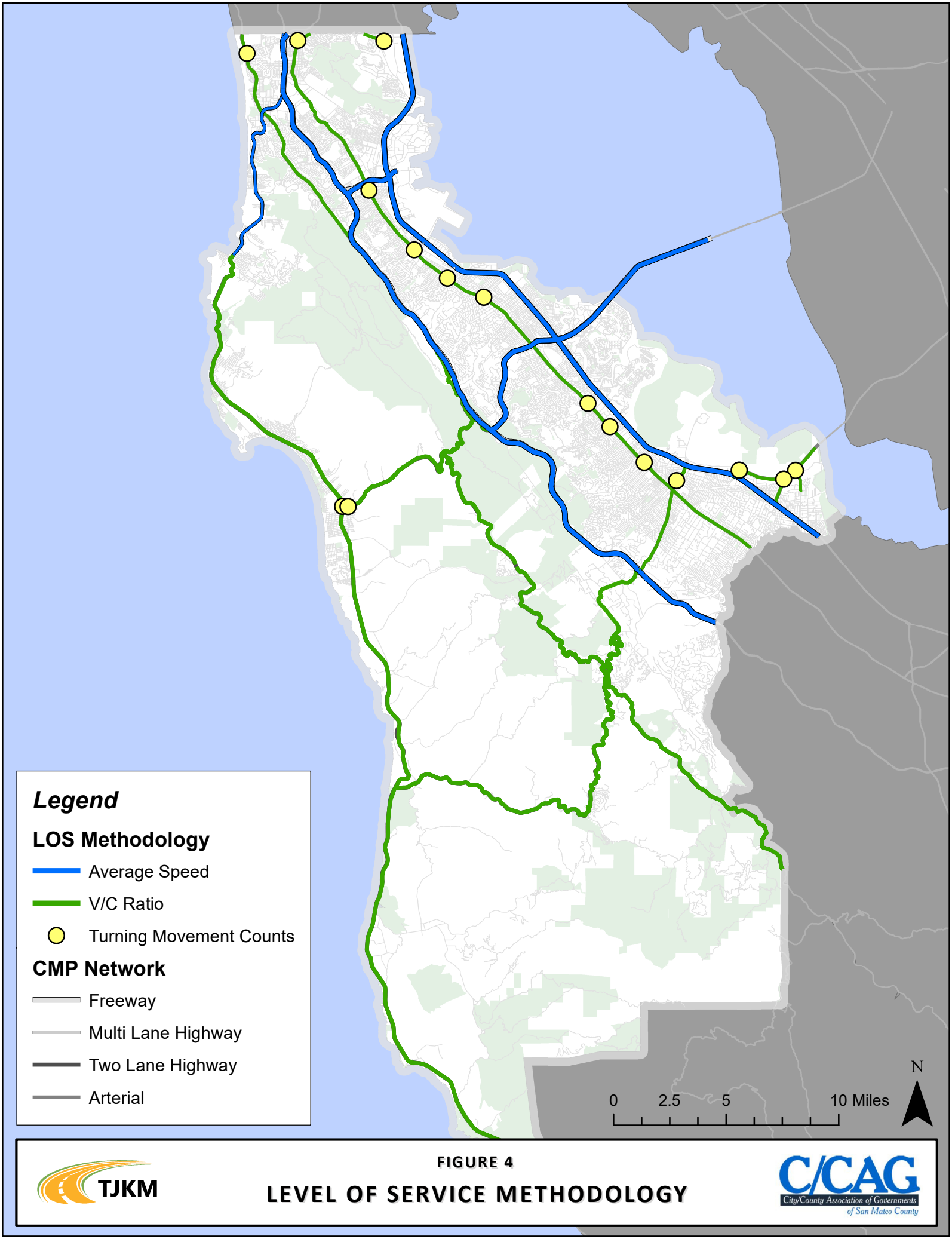


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FIGURE 4

LEVEL OF SERVICE METHODOLOGY

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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

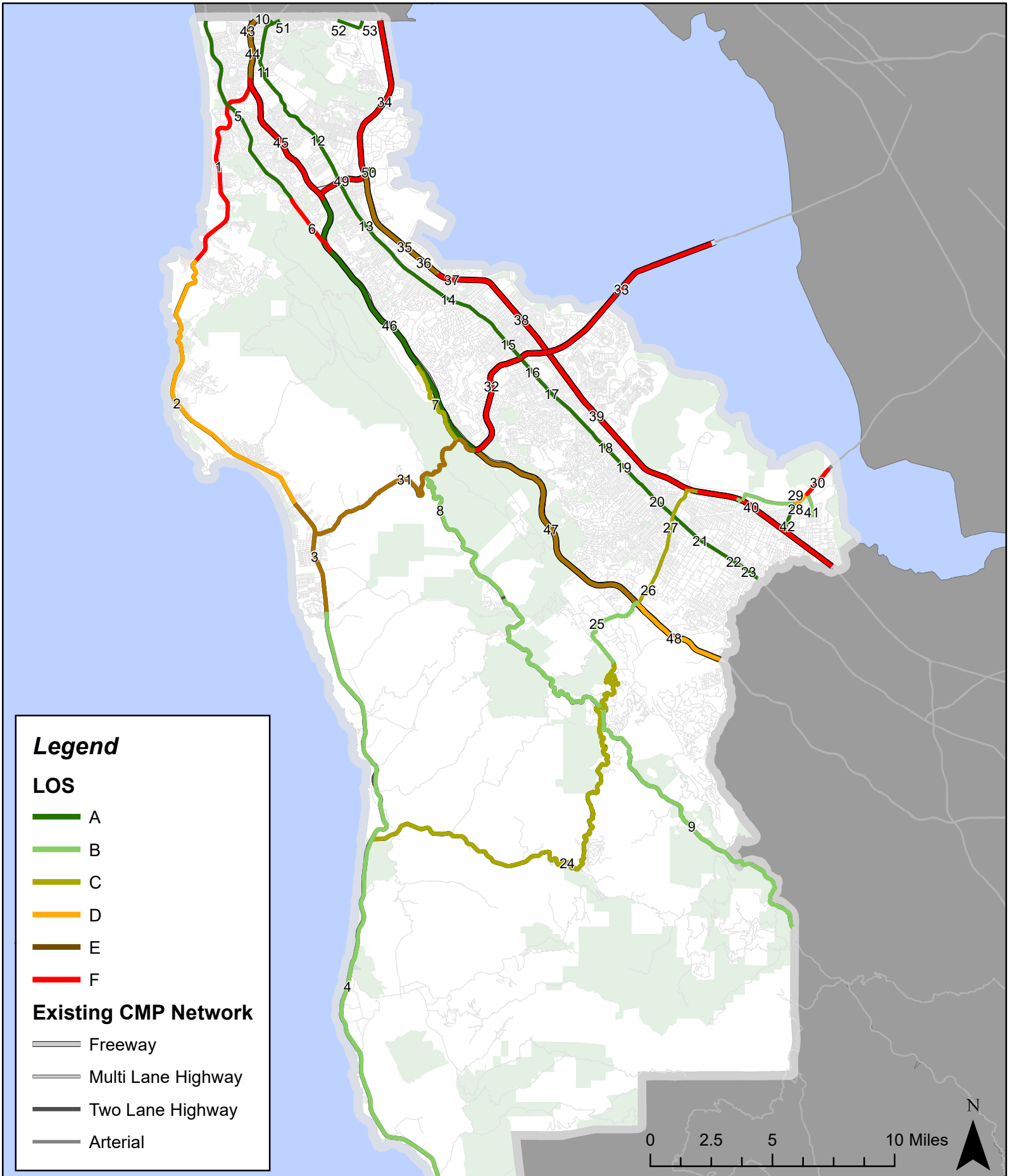

FIGURE 5

CMP ROADWAY SEGMENT LOS - AM PEAK PERIOD

(WITHOUT INTERREGIONAL EXEMPTION) (2025)

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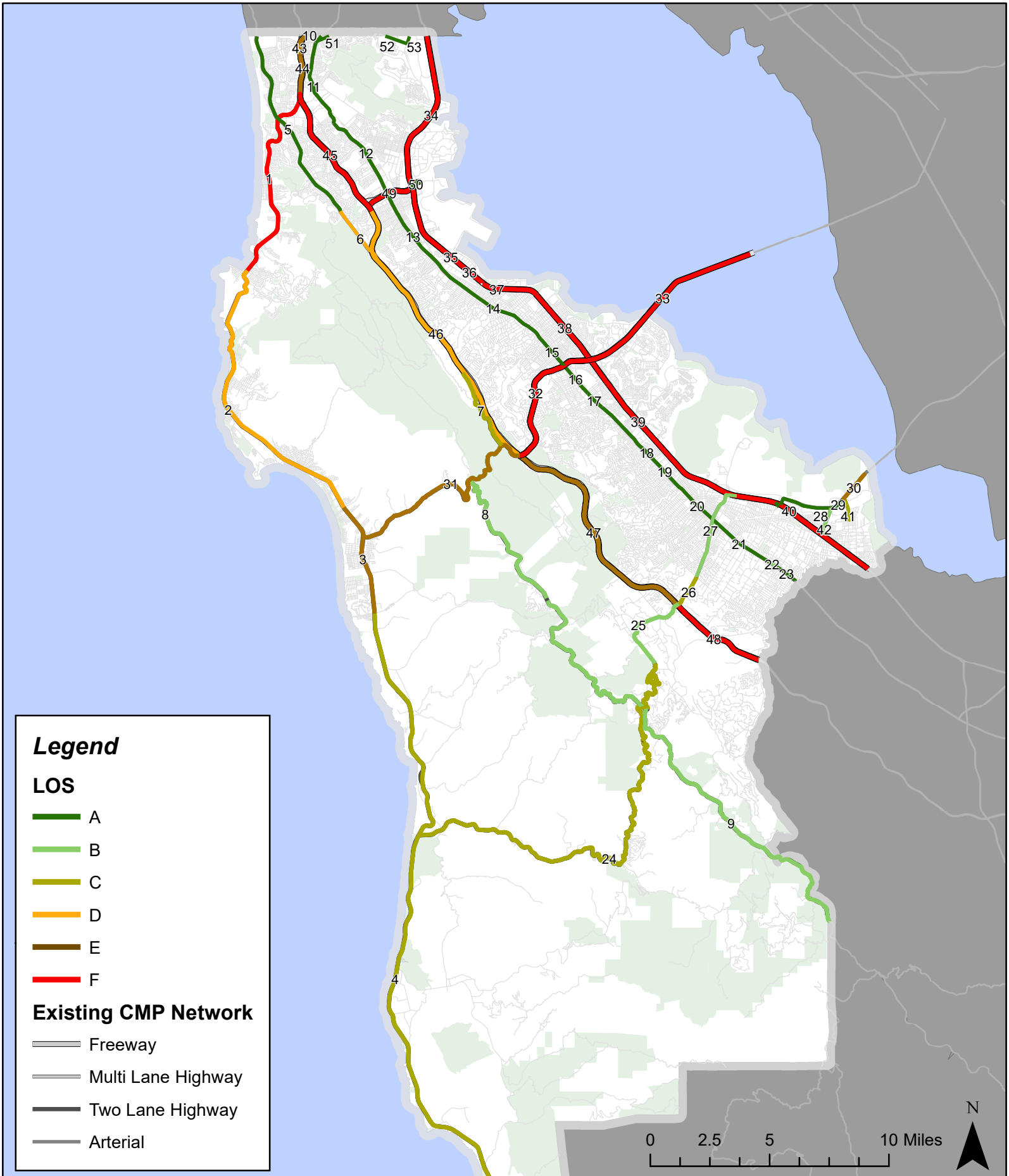

FIGURE 6

CMP ROADWAY SEGMENT LOS - PM PEAK PERIOD

(WITHOUT INTERREGIONAL EXEMPTION) (2025)

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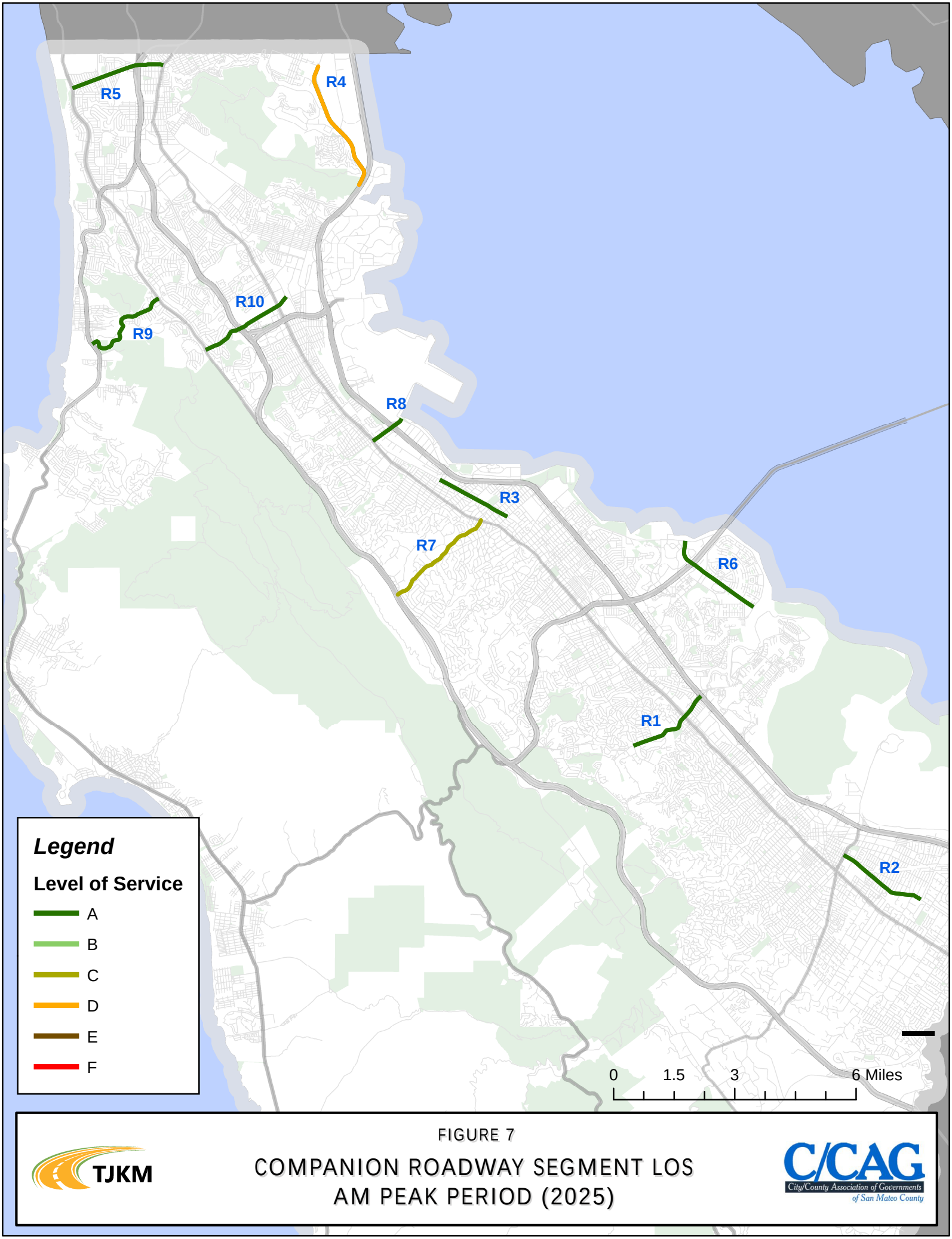

FIGURE 7

COMPANION ROADWAY SEGMENT LOS
AM PEAK PERIOD (2025)

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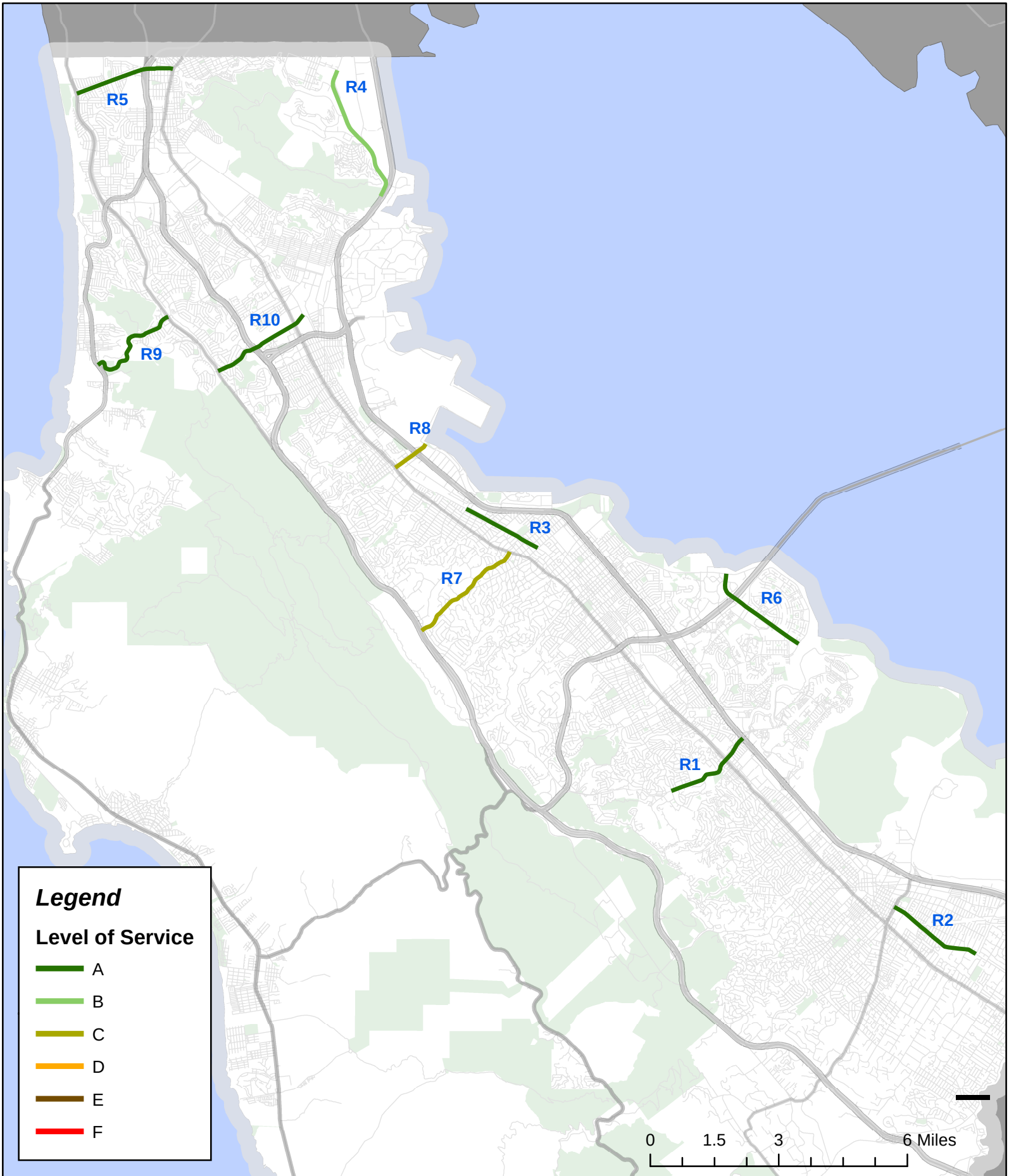

FIGURE 8

COMPANION ROADWAY SEGMENT LOS
PM PEAK PERIOD (2025)

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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	LOS	Delay	LOS
17	El Camino Real/3rd Ave	HCM 2000	30.5	C	32.5	C
18	SR 92/Skyline Blvd (SR 35)	HCM 7	10.3	B	13.5	B
19	Industrial Rd/Holly St	HCM 2000	42.6	D	43.7	D
20	Veterans Blvd/Whipple Ave	HCM 2000	43.6	D	36.2	D
21	Middlefield Rd/Marsh Rd	HCM 7	43.7	D	57.9	E
22	Santa Cruz Ave/Sand Hill Rd	HCM 2000	48.6	D	52.2	D
23	University Ave/Bay Rd	HCM 2000	46.6	D	51.7	D
24	SR 84/Alameda de las Pulgas	HCM 2000	176.5	F	122.9	F
25	Alpine Rd/Portola Rd	HCM 7	13.0	B	10.4	B
26	SR 92/SR 35	HCM 7	28.8	D	30.8	D
27	El Camino Real/Mission Rd	HCM 7	13.2	B	21.3	C
28	SR 1/Main St	HCM 2000	56.7	E	52.6	D
29	El Camino Real/Westborough Blvd	HCM 7	72.1	E	48.8	D
30	SR 1/Capistrano Rd	HCM 2000	15.9	B	19.7	B
31	S Airport Blvd/San Bruno Ave	HCM 2000	13.9	B	22.2	C
32	SR 1/Reina del Mar Ave	HCM 2000	102.5	F	41.2	D
33	SR 1/Cypress Ave	HCM 7	29.5	D	91.0	F
34	El Camino Real/Selby Ln	HCM 7	>200.0	F	>200.0	F
35	Davis Dr/Ralston Ave	HCM 2000	15.0	B	9.4	A
36	Bayshore Blvd/San Bruno Ave	HCM 7	34.4	D	15.8	C
37	Serramonte Blvd/NB Hwy 280 on-ramp	HCM 7	3.0	A	6.0	A
38	University Ave/Weeks Street	HCM 7	50.0	E	23.7	C
39	Chess Dr/Foster City Boulevard	HCM 2000	20.9	C	29.8	C
40	Highway 1/Poplar St	HCM 2000	28.0	C	21.6	C
41	Skyline/Skyfarm	HCM 7	21.4	C	12.1	B
42	Brittan Ave/Cordilleras Ave	HCM 7	18.3	C	27.9	D
43	Woodside Rd/Lindenbrook Rd	HCM 7	54.8	F	69.8	F
44	Mission St/E. Market St/San Pedro Rd	HCM 2000	69.1	E	51.4	D
45	Willow Rd/O'Brien Dr	HCM 2000	19.2	B	18.1	B

ID	Intersection	Methodology	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
46	Rollins Rd/Millbrae Ave	HCM 2000	26.1	C	31.6	C
47	Fasler Ave/Highway 1	HCM 2000	37.4	D	37.3	D
48	Alpine Rd/Golden Oak Dr	HCM 7	18.7	C	22.8	C
49	El Camino Real/Sneath Ln	HCM 2000	72.4	E	101.3	F
50	Poplar/Humboldt	HCM 2000	13.8	B	12.8	B
51	Westborough Blvd at I-280/Junipero Serra Blvd	HCM 2000	53.9	D	114.0	F
52	Old Bayshore Highway/Mahler Rd	HCM 7	8.8	A	12.9	B
53	Middlefield Rd/Fifth Ave	HCM 2000	46.6	D	46.6	D
54	El Camino Real/Jefferson Ave	HCM 2000	61.6	E	60.8	E

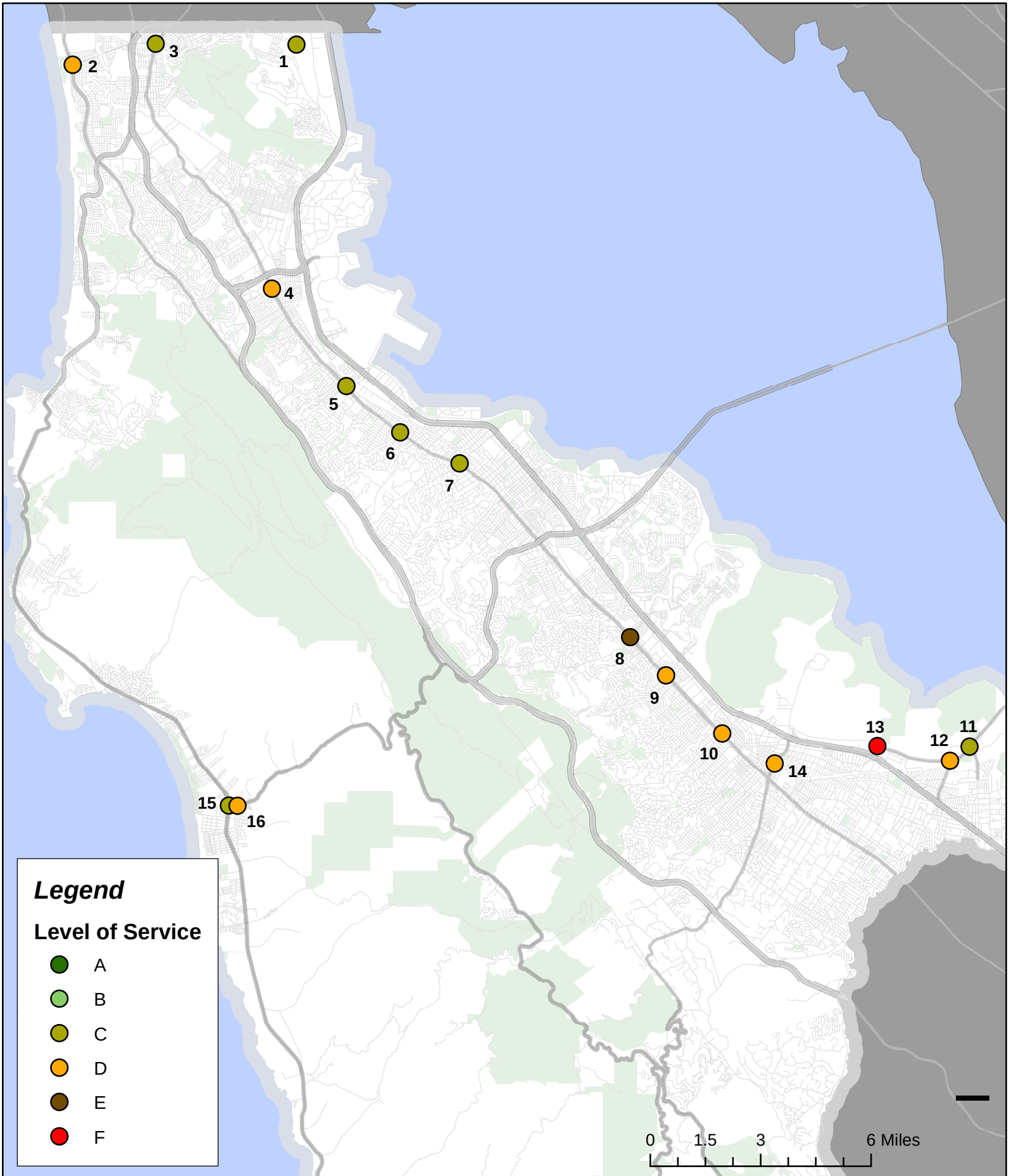

FIGURE 9

CMP INTERSECTION LOS - AM PEAK PERIOD

(WITHOUT INTERREGIONAL EXEMPTION (2025)

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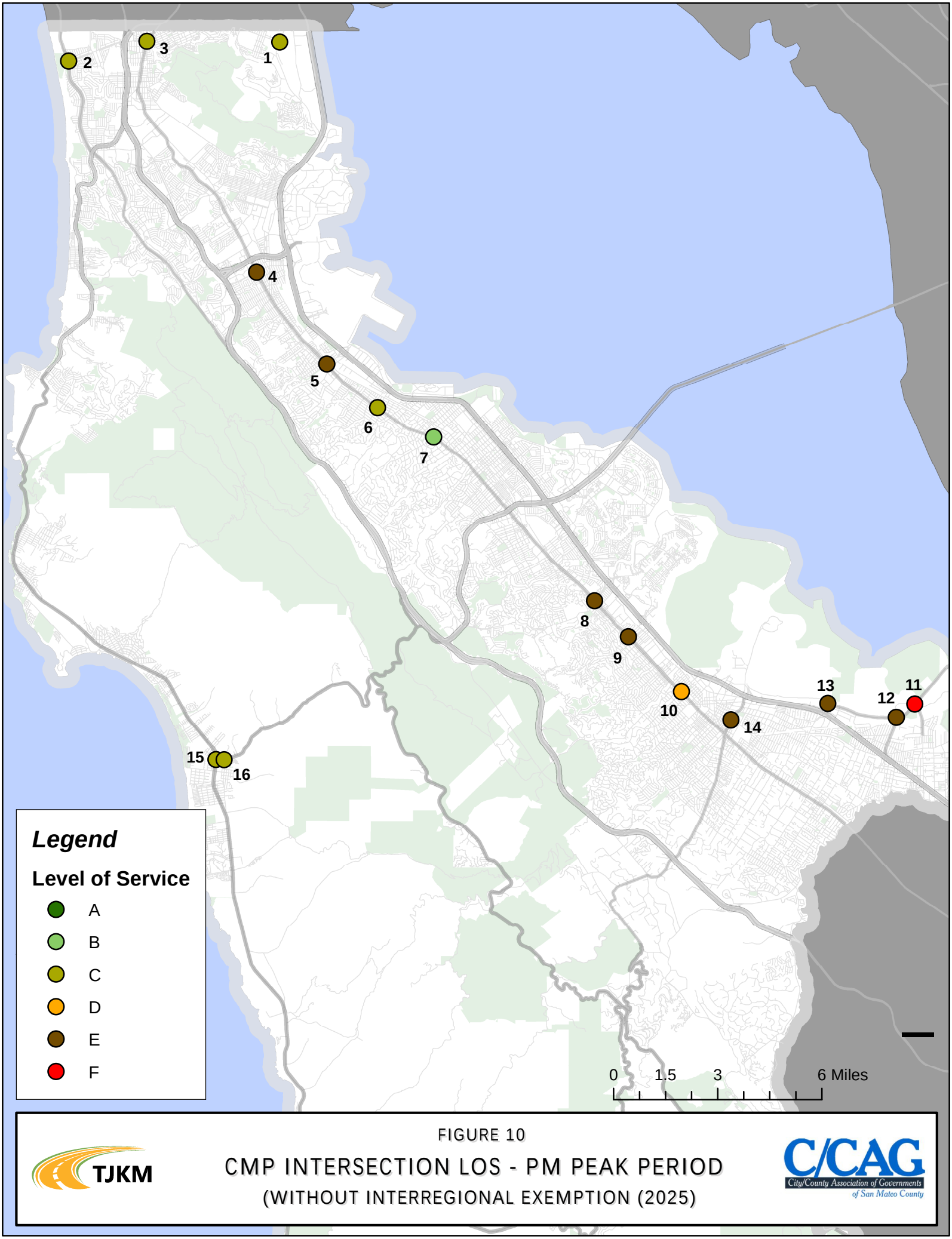

FIGURE 10

CMP INTERSECTION LOS - PM PEAK PERIOD

(WITHOUT INTERREGIONAL EXEMPTION (2025)

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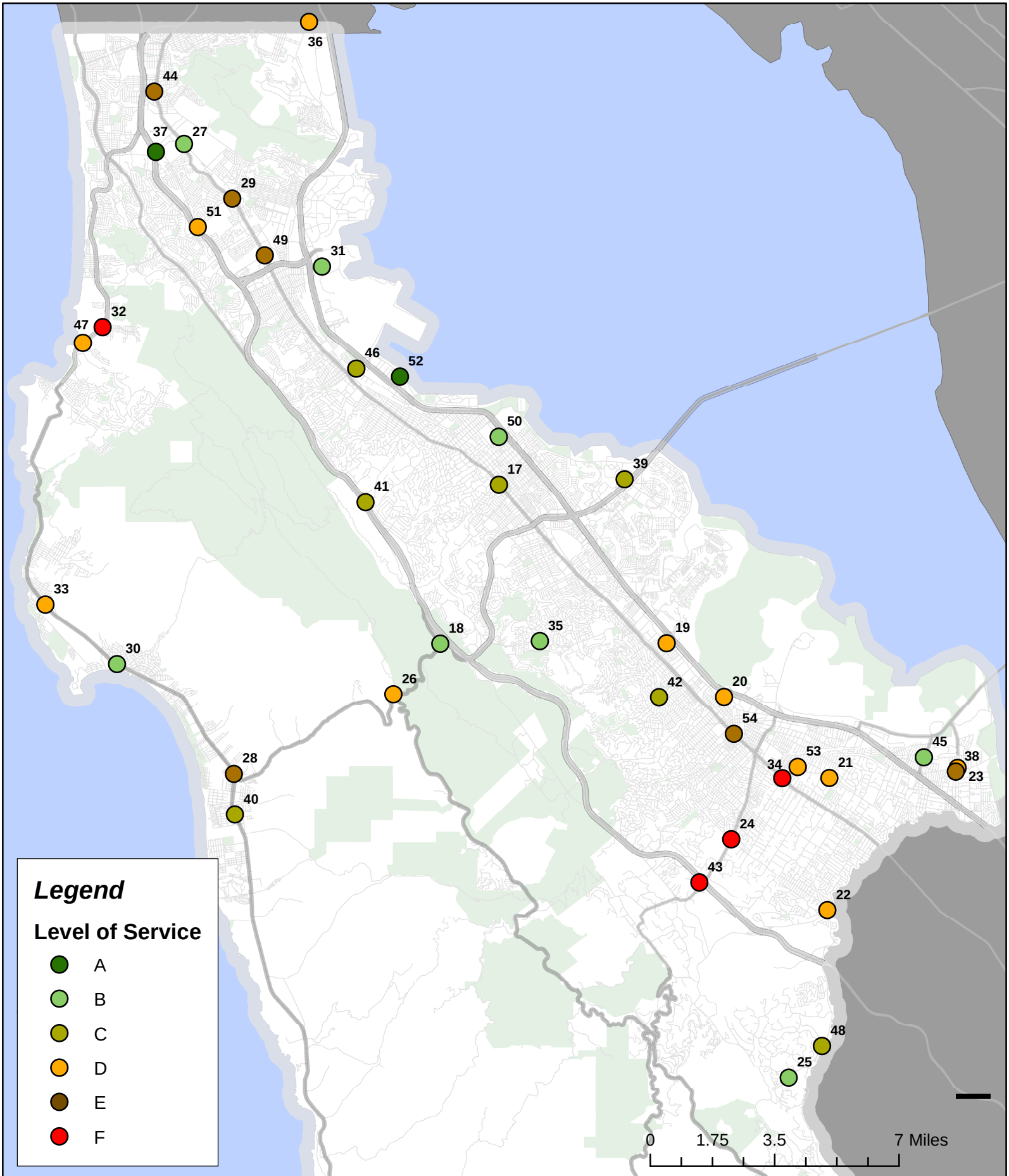

FIGURE 11

COMPANION INTERSECTION LOS
AM PEAK PERIOD (2025)

TJKM

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of San Mateo County

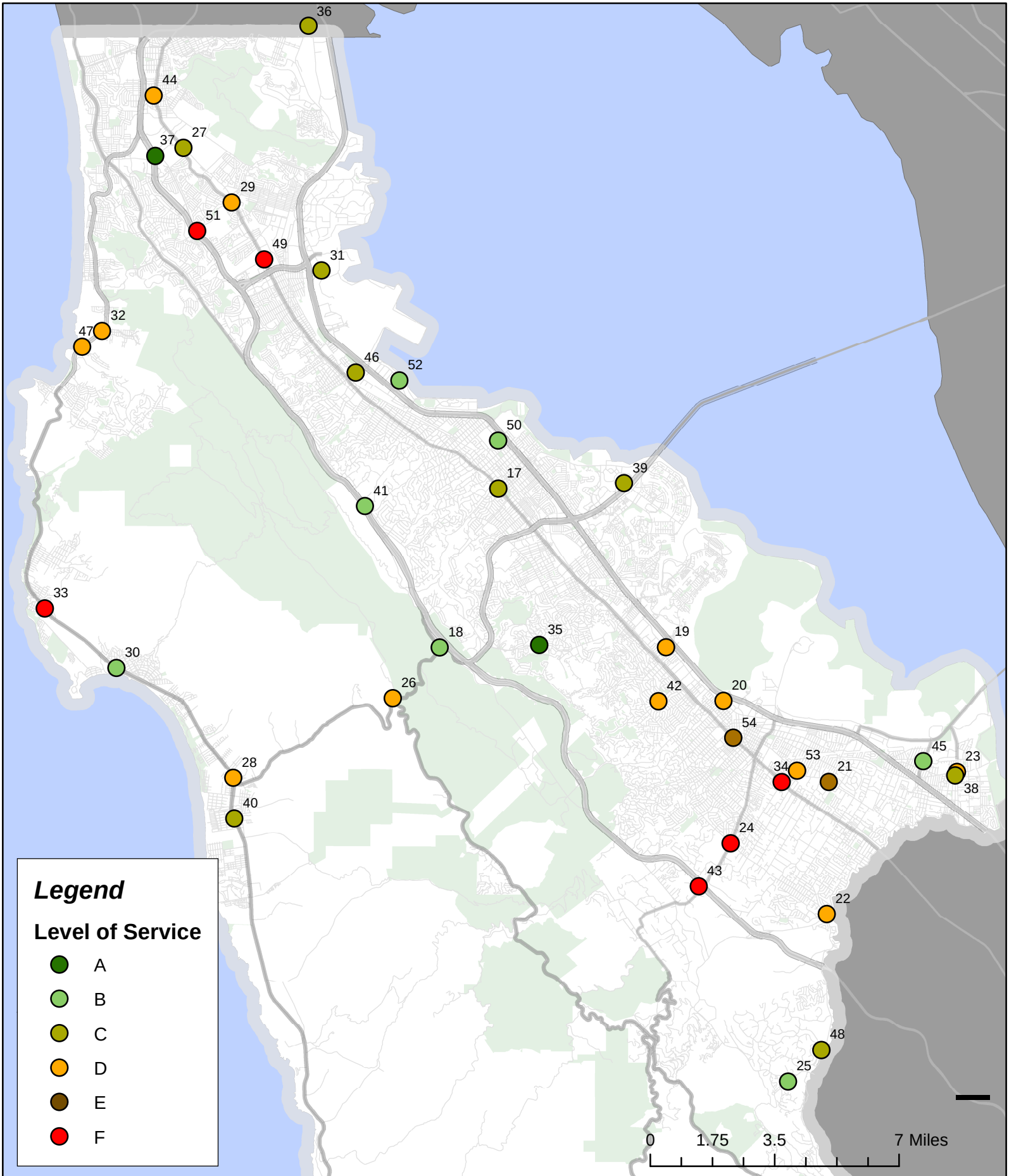

FIGURE 12

COMPANION INTERSECTION LOS
PM PEAK PERIOD (2025)

TJKM

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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

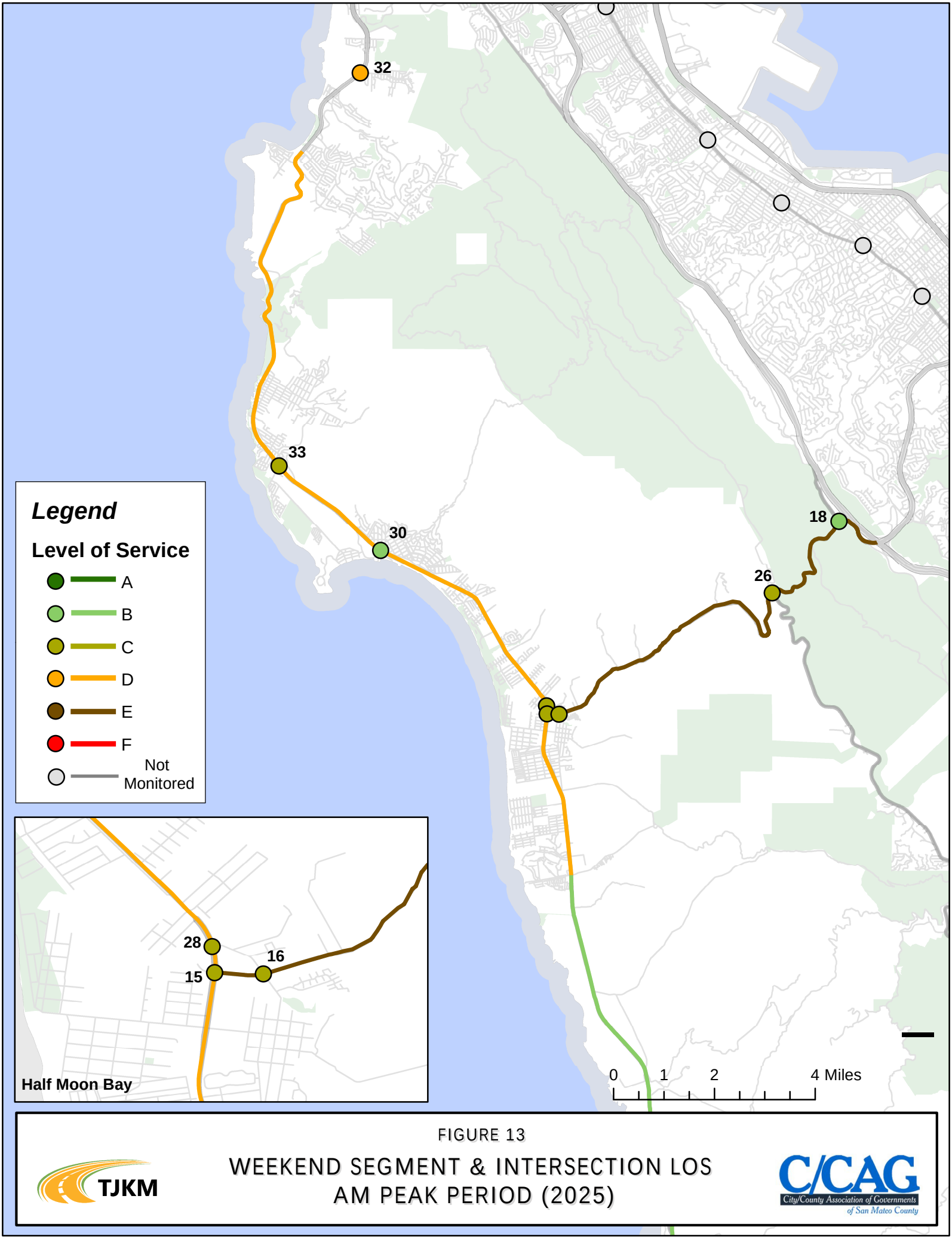

FIGURE 13

WEEKEND SEGMENT & INTERSECTION LOS
AM PEAK PERIOD (2025)

TJKM

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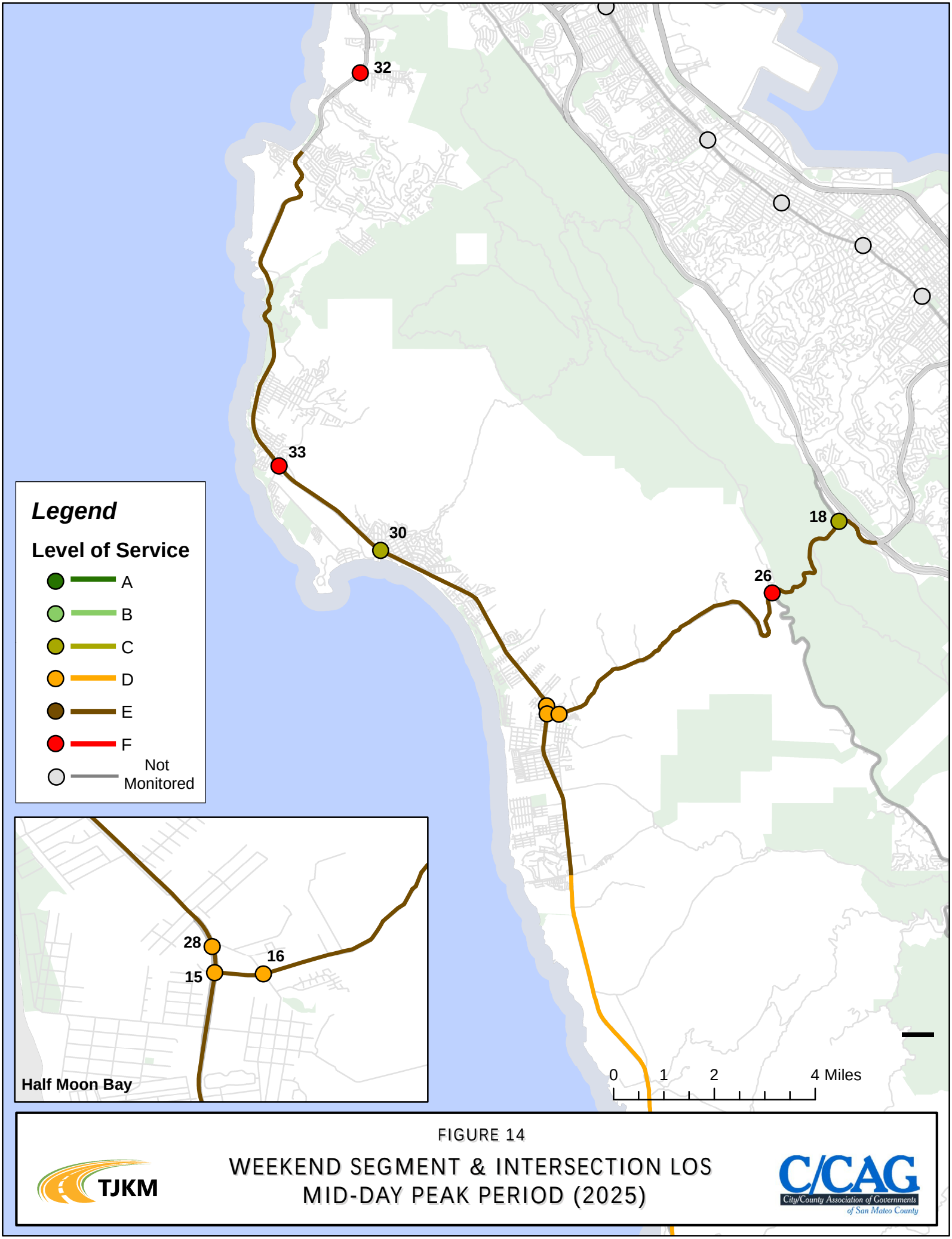

FIGURE 14

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

TJKM

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

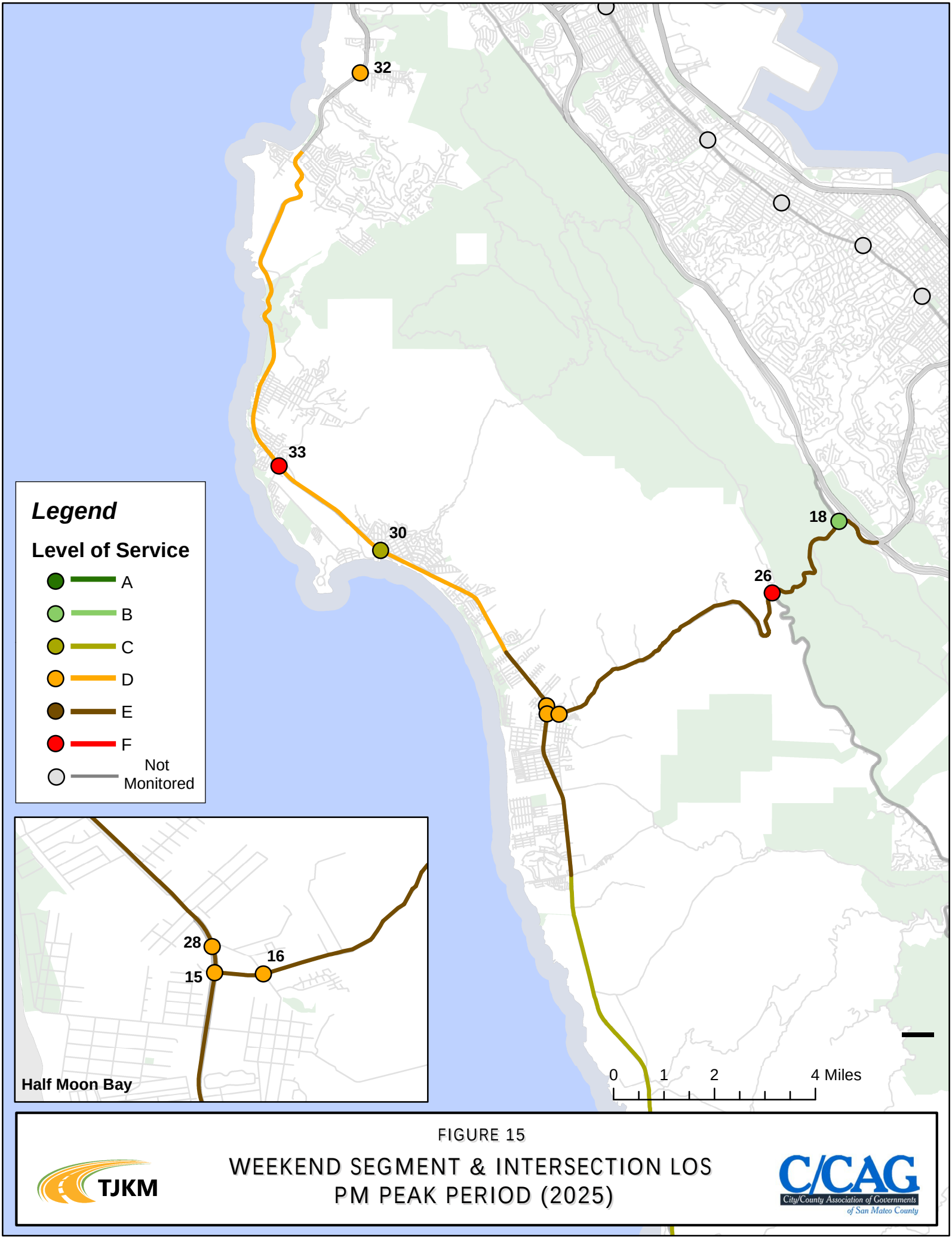

FIGURE 15

WEEKEND SEGMENT & INTERSECTION LOS
PM PEAK PERIOD (2025)

TJKM

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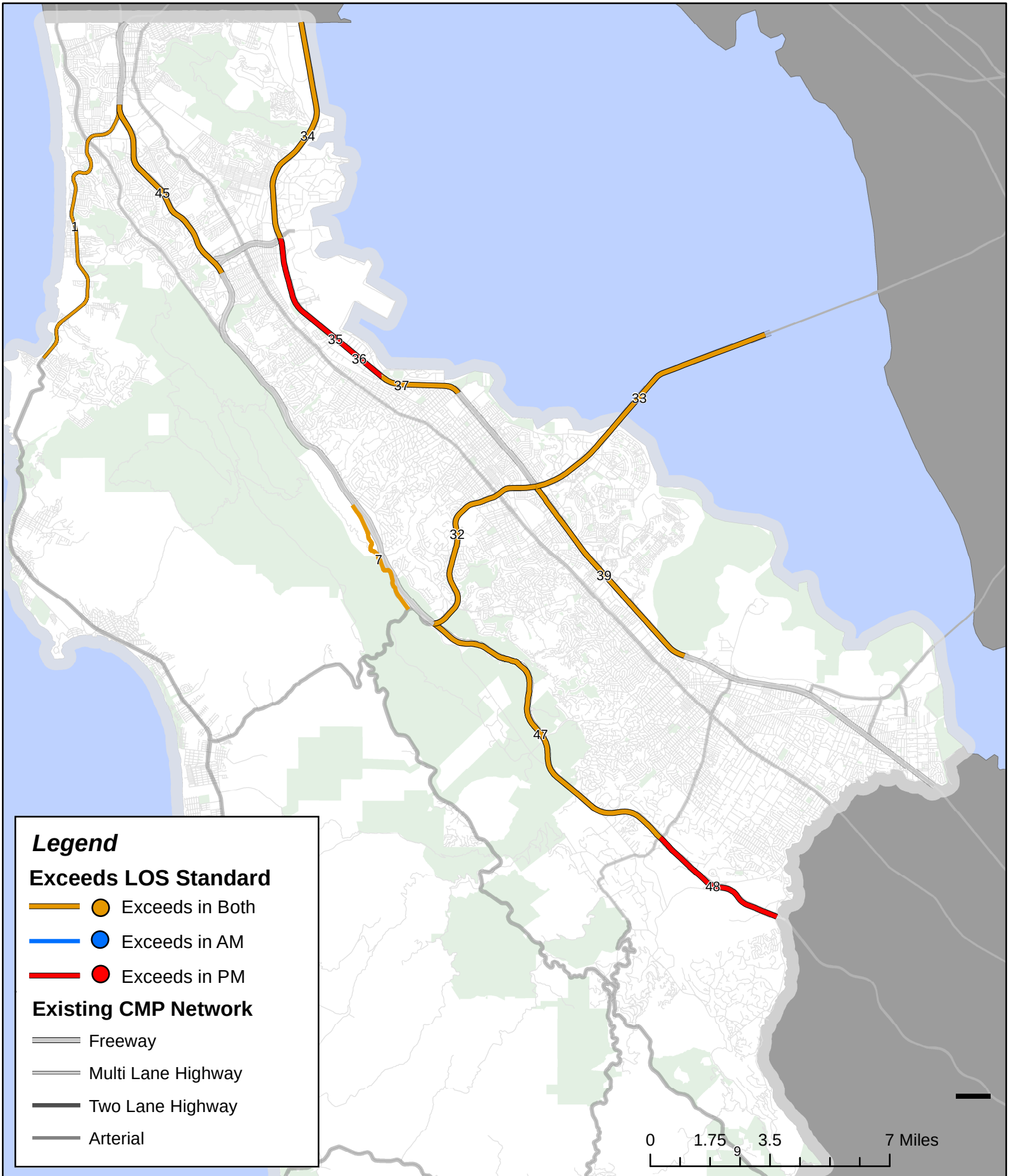


FIGURE 16

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

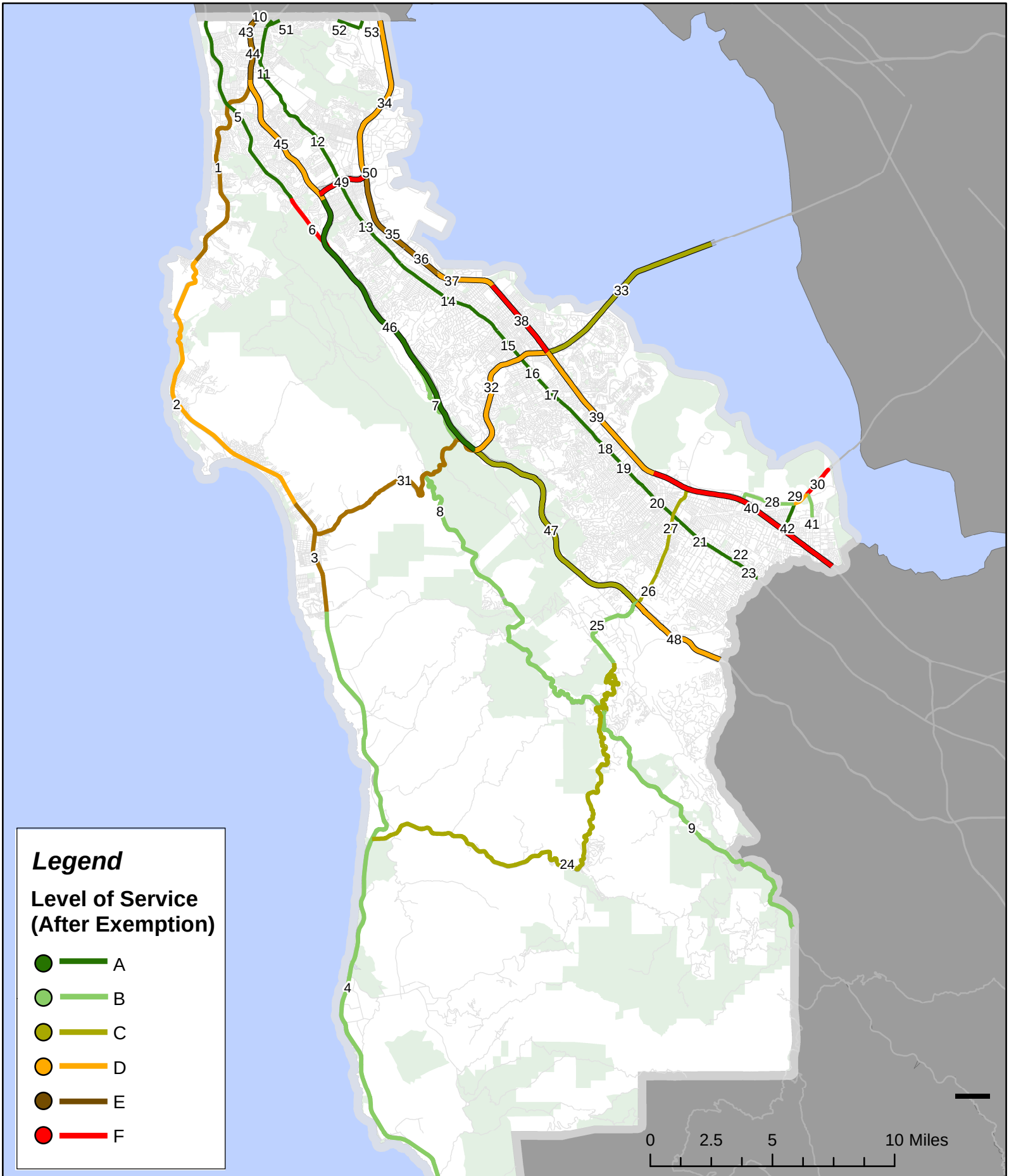


FIGURE 17

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

TJKM

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

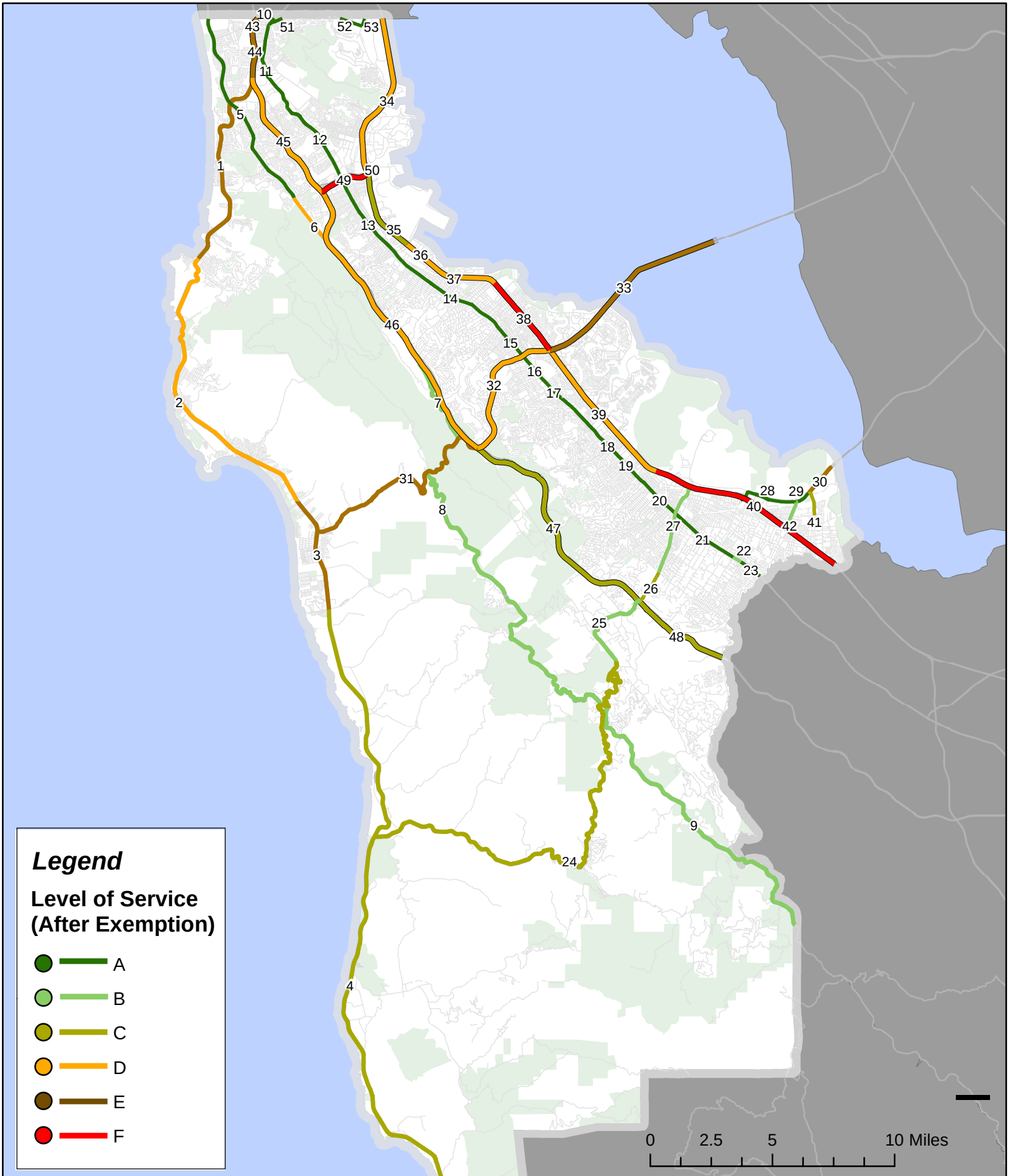


FIGURE 18

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

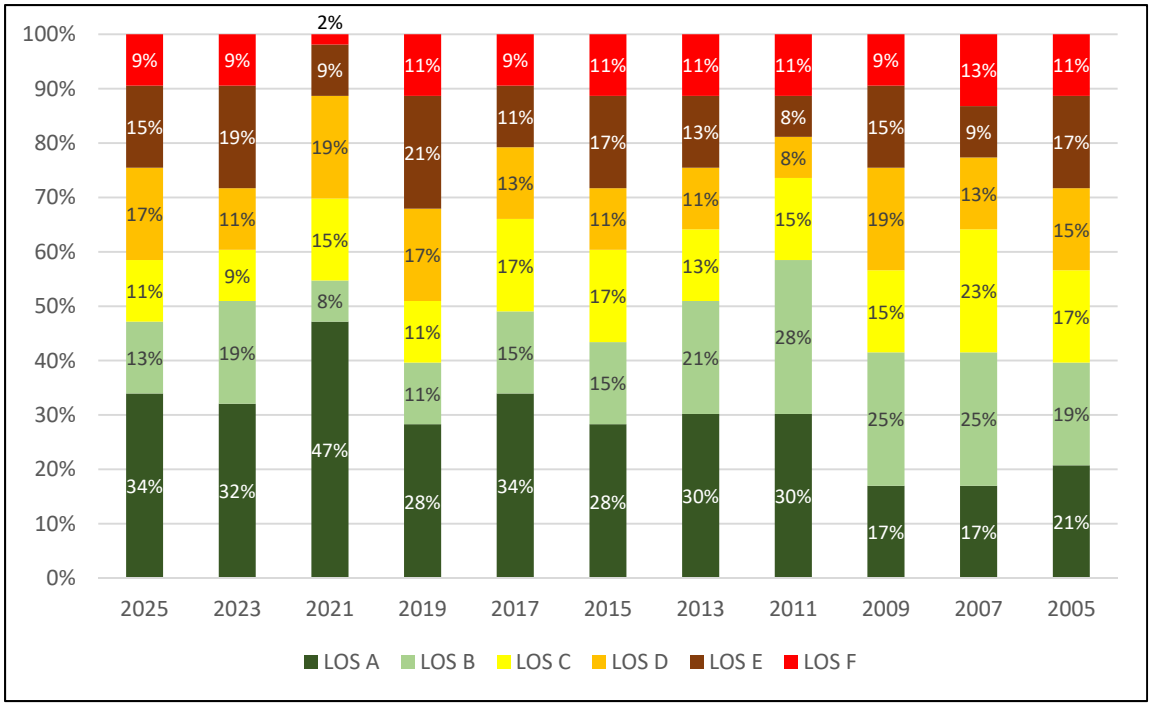
TJKM

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. 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

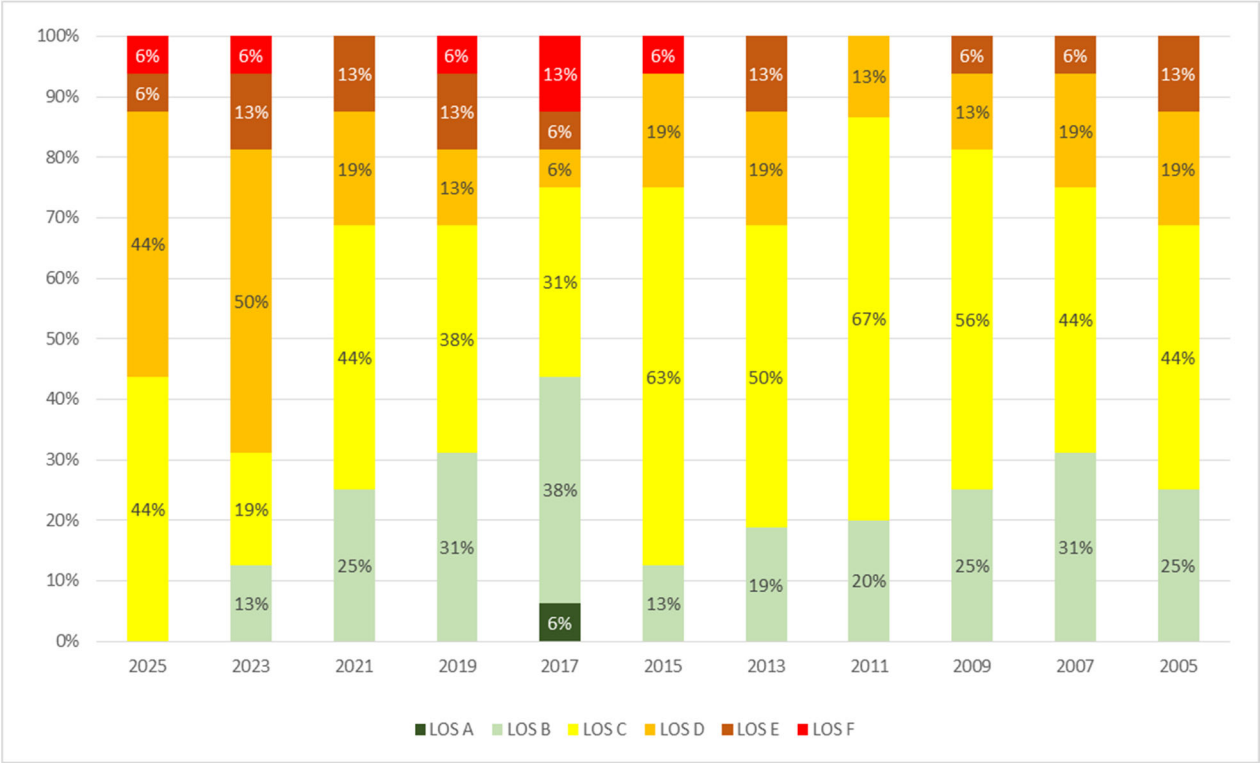


Figure 21: Historical LOS Comparison for Intersections – PM Peak Period

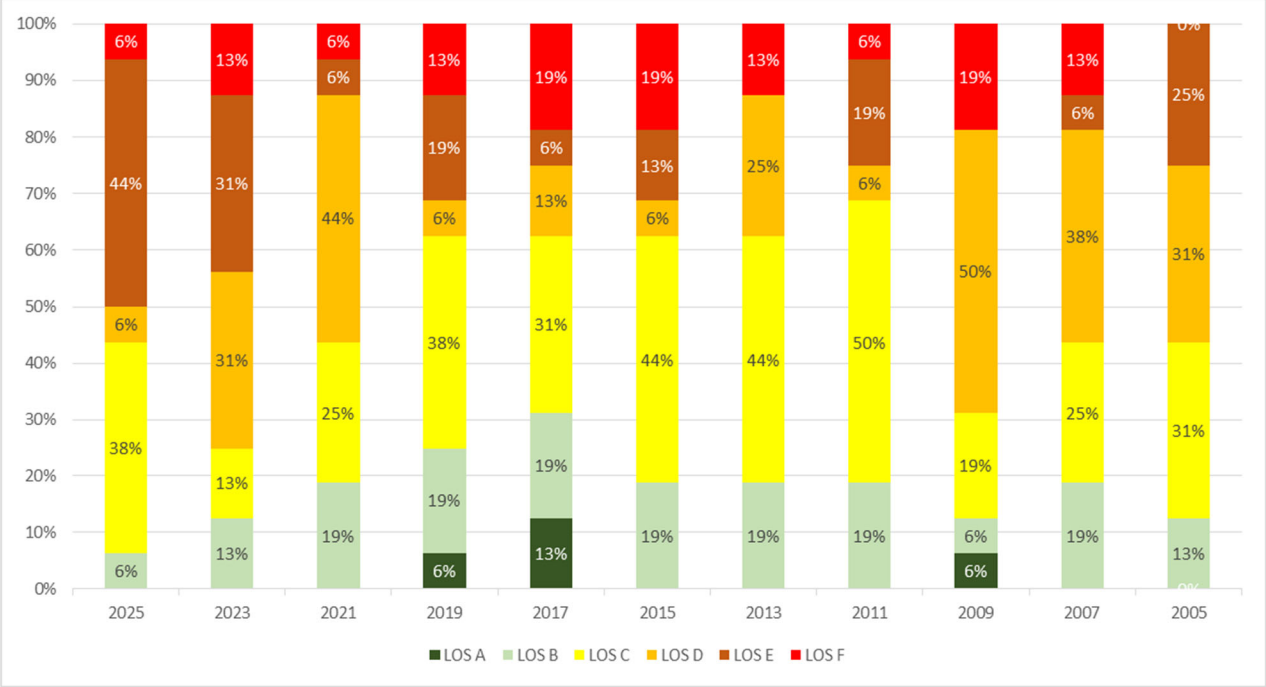


Table 15: Historical LOS for Roadway Segments

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. The travel times for the general purpose lane and express lanes for the segments are included in **Table 17** below.

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

Route/ Direction	Length (mile)	Segment	General Purpose Lane Travel Time (minutes)		Express Lane (HOT) Travel Time (minutes)	
			AM	PM	AM	PM
US-101 NB	22	San Mateo County/Santa Clara County Line to Grand Avenue/End of Express Lanes	22	32	18	25
US-101 NB	4	Grand Avenue/End of Express Lanes to San Francisco/San Mateo County Line	5	5	-	-
US-101 SB	22	Grand Avenue/Beginning of Express Lanes to San Mateo County/Santa Clara County Line	33	29	26	23
US-101 SB	4	San Francisco/San Mateo County Line to Grand Avenue/End of Express Lanes	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, effective as of August 3, 2025, 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	2017	2015	2013	2025	2023	2021	2019	2017	2015	2013	2025	2023	2021	2019	2017	2015	2013	2025	2023	2021	2019	2017	2015	2013
Auto - General Lane[1]	22	29	23	28	32	32	28	33	30	22	40	35	36	41	32	33	24	40	36	39	30	29	33	26	32	32	32	33
Express Lane (HOT)[2]	18	20	24	26	32	36	32	26	20	22	38	34	35	37	25	22	24	40	36	42	37	23	22	26	31	32	35	32
Caltrain (Palo Alto to BayShore Stations)[3]	43	42	46	40	40	39	23	40	42	46	43	44	43	27	40	42	44	40	40	38	24	40	42	44	39	36	38	23
SamTrans Route EPX[4]	82	58	65	57	80	80	68	77	70	67	74	-	-	73	79	66	84	83	-	-	72	77	61	63	74	91	91	74

1. 2013 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.

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

ID	Intersection	Peak Period	Total Bike	Total Ped
41	Skyline Blvd/Skyfarm Drive	AM	2	6
		PM	6	4
42	Brittan Ave/Cordilleras Ave	AM	12	98
		PM	10	55
43	Woodside Rd/Lindenbrook Rd	AM	11	0
		PM	17	0
44	Mission St/E. Market St/San Pedro Rd	AM	12	149
		PM	9	402
45	Willow Rd/O'Brien Drive	AM	14	20
		PM	19	11
46	Rollins Rd/Millbrae Ave	AM	4	119
		PM	3	170
47	Fasler Ave/Highway 1	AM	4	26
		PM	0	27
48	Alpine Rd/Golden Oak Drive	AM	60	6
		PM	65	21
49	El Camino Real/Sneath Lane	AM	7	24
		PM	8	60
50	Poplar Ave/Humboldt St	AM	10	104
		PM	12	61
51	Westborough Blvd at I-280/ Junipero Serra Blvd	AM	1	0
		PM	2	0
52	Old Bayshore Hwy/Mahler Rd	AM	19	45
		PM	16	23
53	Middlefield Rd/Fifth Ave	AM	25	142
		PM	40	229
54	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				
		2025	2023	% Change 2023 to 2025	2021	2019	2025	2023	% Change 2023 to 2025	2021	2019
1	Bayshore Blvd/Geneva Ave	11	15	-27%	9	0	10	6	67%	3	4
2	SR 35/John Daly Blvd	4	0	0%	5	4	3	0	0%	1	0
3	SR 82/John Daly/Hillside	2	4	-50%	2	2	3	1	200%	5	4
4	SR 82/San Bruno Ave	1	0	0%	0	2	1	2	-50%	3	4
5	SR 82/Millbrae Ave	4	0	0%	1	6	1	0	0%	1	1
6	SR 82/Broadway	1	5	-80%	9	6	3	10	-70%	2	8
7	SR 82/Park Rd/Peninsula Ave	1	1	0%	0	8	0	1	-100%	1	4
8	SR 82/Ralston Ave	10	0	0%	4	5	1	4	-75%	3	11
9	SR 82/Holly St	2	3	-33%	5	6	0	2	-100%	4	8
10	SR 82/Whipple Ave	3	8	-63%	17	11	4	10	-60%	10	6
11	University Ave/SR 84	0	3	-100%	4	20	1	1	0%	3	26
12	Willow Rd/SR 84	0	2	-100%	1	29	0	0	0%	7	7
13	SR 84/Marsh	0	2	-100%	3	7	0	5	-100%	10	23
14	SR 84/Middlefield Rd	14	10	40%	6	24	9	8	13%	17	12
15	SR 1/SR92	3	1	200%	3	20	0	1	-100%	4	5
16	Main St/SR 92	4	0	0%	2	7	5	0	0%	1	11
	TOTAL BIKES	**60**	**54**	**11%**	**71**	**157**	**41**	**51**	**-20%**	**75**	**134**

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 24** and **25** 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 22: Historical Bicycle Counts Comparison – AM Peak Hour

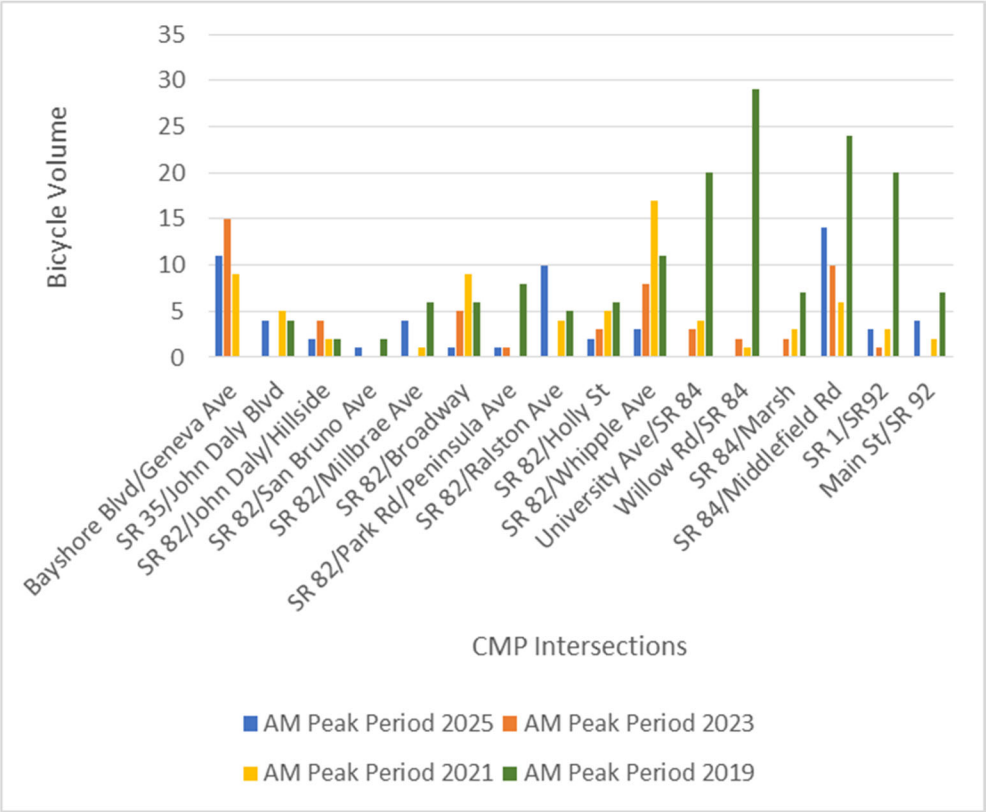


Figure 23: Historical Bicycle Counts Comparison – PM Peak Hour

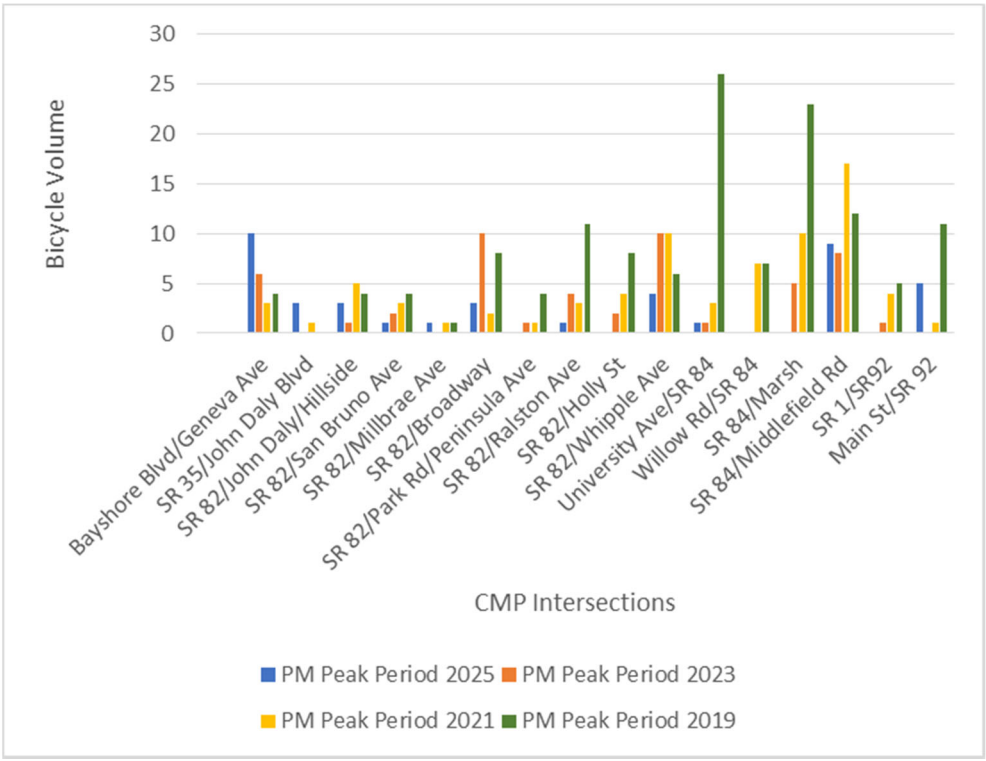


Table 23: Historical Comparison Pedestrian Counts at CMP Intersections

ID	Intersection	AM Peak Period					PM Peak Period				
		2025	2023	% Change 2023 to 2025	2021	2019	2025	2023	% Change 2023 to 2025	2021	2019
1	Bayshore Blvd/Geneva Ave	7	14	-50%	9	20	7	20	-65%	5	15
2	SR 35/John Daly Blvd	0	4	-100%	5	2	7	7	0%	2	1
3	SR 82/John Daly/Hillside	186	199	-7%	67	173	141	196	-28%	107	292
4	SR 82/San Bruno Ave	38	36	6%	18	49	32	49	-35%	41	63
5	SR 82/Millbrae Ave	29	42	-31%	29	244	58	67	-13%	13	224
6	SR 82/Broadway	60	43	40%	63	63	60	65	-8%	49	64
7	SR 82/Park Rd/Peninsula Ave	9	26	-65%	17	16	41	46	-11%	12	30
8	SR 82/Ralston Ave	97	110	-12%	29	92	84	103	-18%	42	120
9	SR 82/Holly St	32	30	7%	28	40	36	27	33%	29	49
10	SR 82/Whipple Ave	51	46	11%	46	32	39	35	11%	31	57
11	University Ave/SR 84	20	7	186%	4	12	14	18	-22%	3	9
12	Willow Rd/SR 84	13	11	18%	4	22	14	9	56%	7	52
13	SR 84/Marsh	23	27	-15%	8	11	19	24	-21%	19	6
14	SR 84/Middlefield Rd	78	70	11%	38	22	87	81	7%	49	23
15	SR 1/SR92	21	16	31%	14	21	24	18	33%	25	23
16	Main St/SR 92	29	29	0%	18	50	33	52	-37%	47	50
	TOTAL PEDESTRIANS	**693**	**710**	**-2%**	**397**	**869**	**696**	**817**	**-15%**	**481**	**1,078**

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 24: Historical Pedestrian Counts Comparison – AM Peak Hour

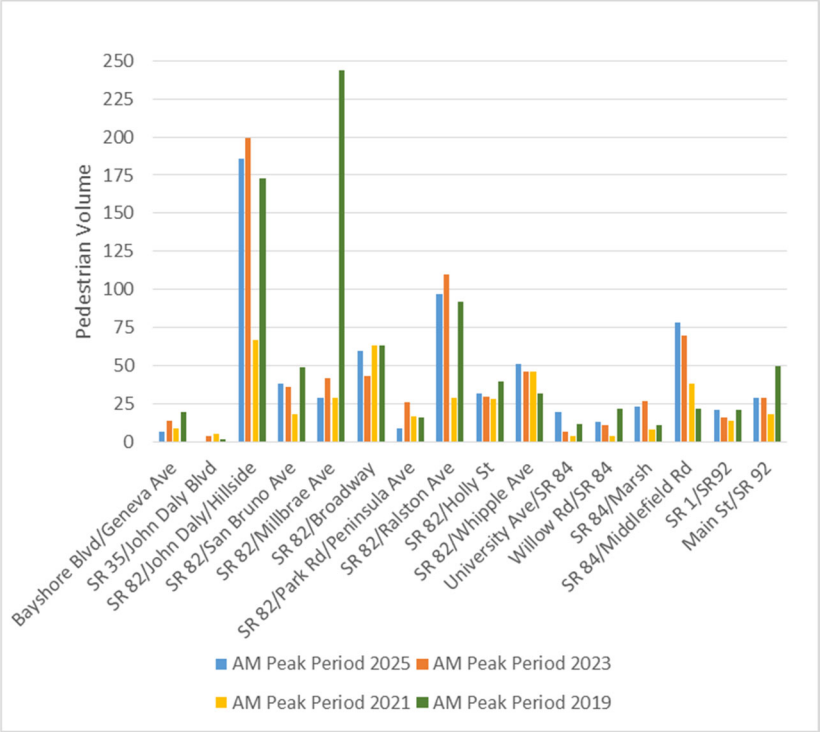
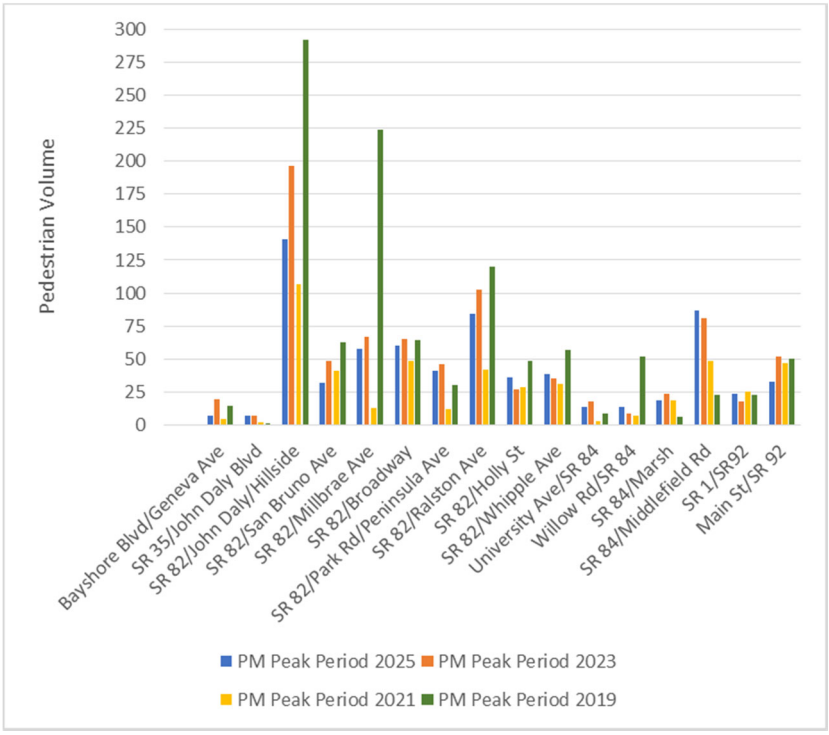


Figure 25: Historical Pedestrian Counts Comparison – PM Peak Hour



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	FY2017	FY 2015	FY 2025	FY 2023	FY 2021	FY 2019	FY 2017	FY 2015
SamTrans	10,782,073	7,796,753	4,503,358	10,670,850	11,816,760	13,158,703	34,217	30,387	13,620	35,150	38,700	42,981
Caltrain	9,055,262	5,052,371	1,295,656	17,662,773	18,648,850	18,995,161	29,754	20,453	4,099	63,597	62,190	58,245
BART (Colma and Daly City)	3,865,606	3,203,688	1,211,716	7,741,549	7,818,023	8,155,340	12,784	10,340	3,934	26,483	25,269	28,050
BART (South San Francisco, San Bruno, SFO, and Millbrae)	5,408,046	4,798,306	1,312,774	11,261,768	12,102,872	12,614,731	16,700	14,630	4,236	37,687	39,989	40,741
Combined Transit	29,110,987	20,851,118	8,323,504	47,336,940	50,386,505	52,923,935	93,455	75,810	25,889	162,917	166,148	170,017

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.

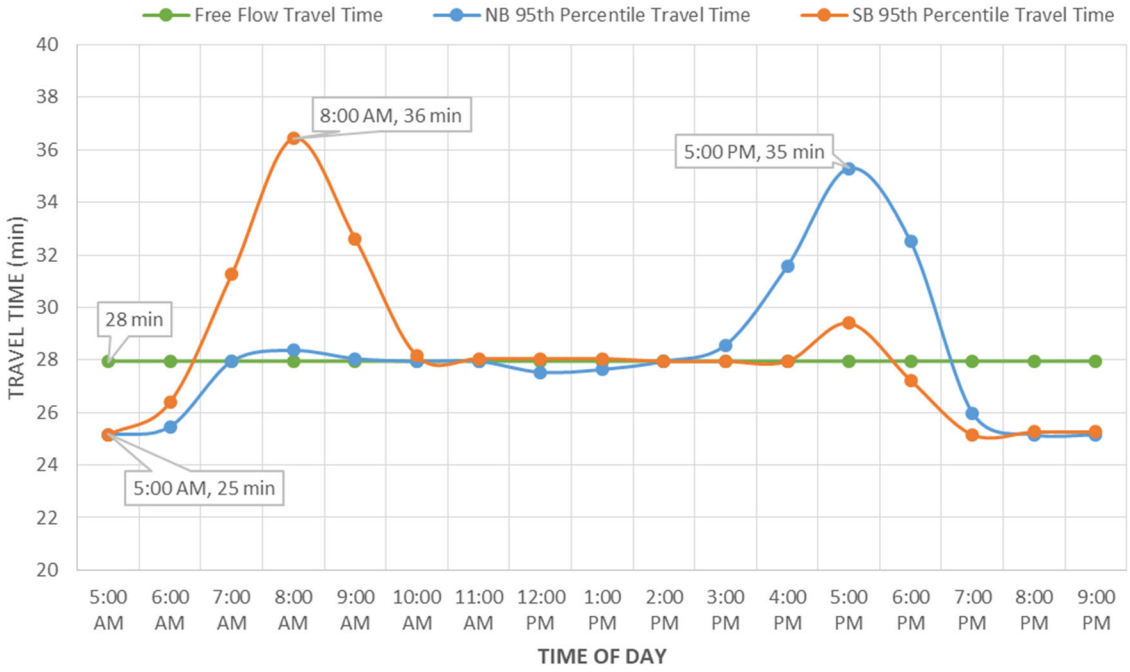
This method, the *90th or 95th percentile travel times*, is perhaps the simplest method to measure travel time reliability. It estimates how bad delay will be on specific routes during the heaviest traffic days. The one or two bad days each month mark the 95th or 90th percentile, respectively. Users 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.

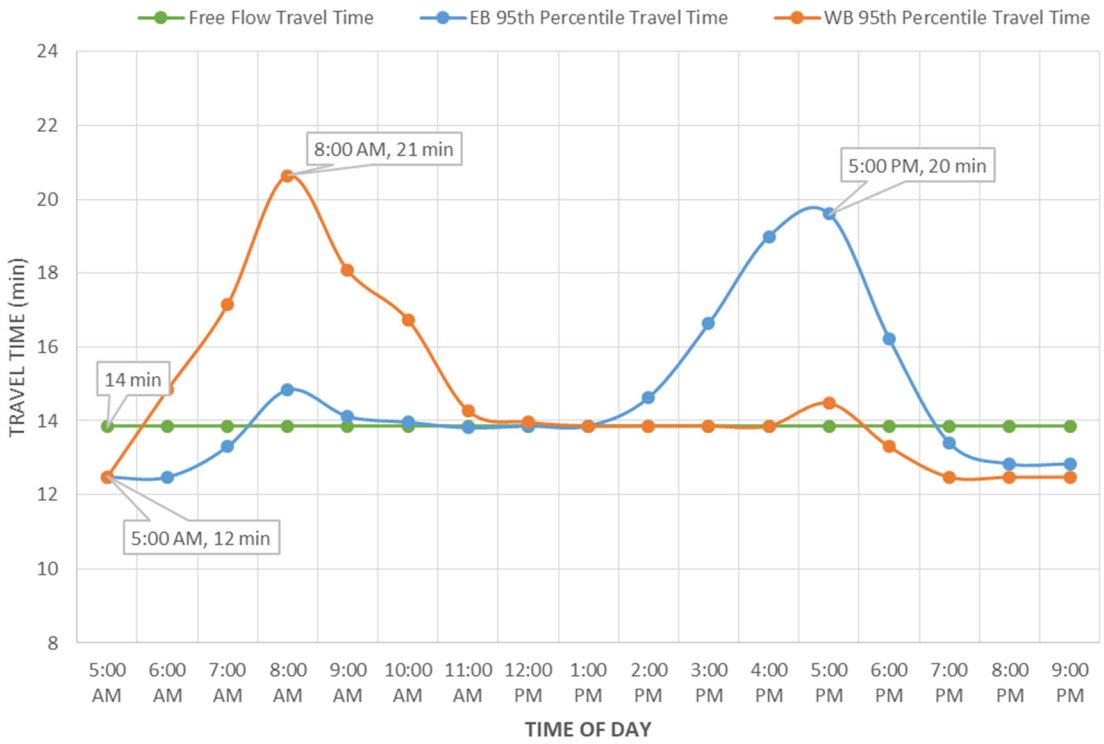
As an added value task, TJKM prepared travel time reliability charts for all freeways in San Mateo County where the data was available. This included I-280, SR-92 (I-280 to Alameda County Line), and US-101. Charts were prepared for the entire freeway from one end of the county to the other (with the 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 26: Travel Time Reliability Chart – I-280



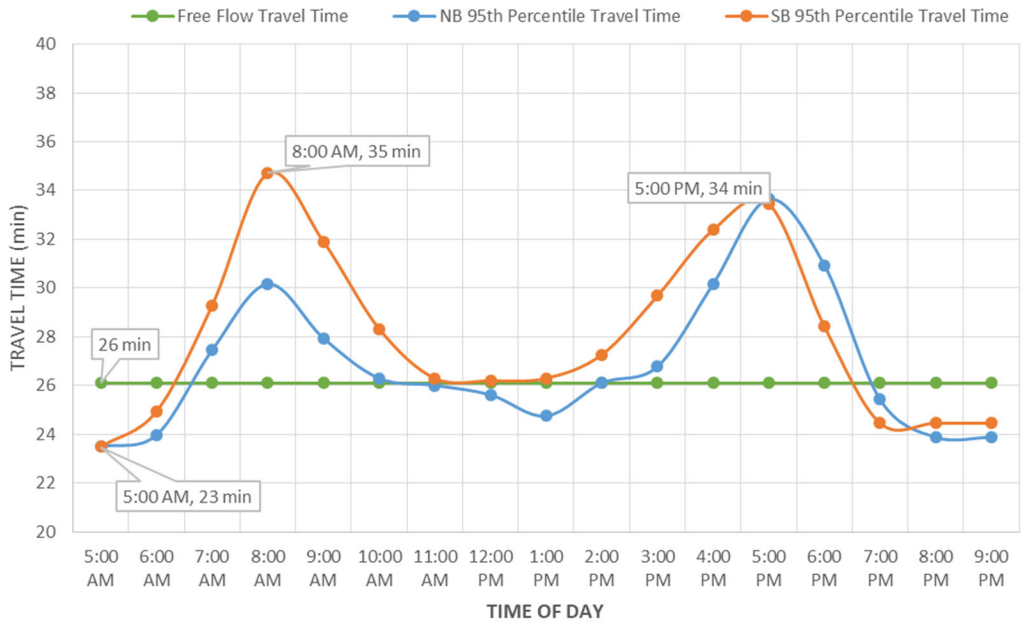
On I-280, the southbound direction experienced delays during the AM peak period from approximately 7:00 AM to 9:00 AM and the northbound direction experienced delays during the PM peak period from 3:00 PM to 7:00 PM. The maximum travel time was 36 minutes in the AM peak and 35 minutes in the PM peak, 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 27: 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 28: 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.

APPENDIX G: STATUS OF CAPITAL IMPROVEMENT PROJECTS

PROGRAMMING SUMMARY OF THE 2024 STIP
BY COUNTY

($1,000's)

County	Program Total	Totals Programmed by Year						FE Target	Under (Over) Target
		Prior	24-25	25-26	26-27	27-28	28-29		
Alameda	64,236	0	36,450	(12,617)	6,022	20,513	13,868	64,236	0
Alpine	1,223	0	3	20	0	0	1,200	1,273	50
Amador	3,580	0	2,050	1,530	0	0	0	4,632	1,052
Butte	9,330	0	165	8,840	40	151	134	8,433	(897)
Calaveras	1,117	0	0	0	0	1,077	40	1,117	0
Colusa	0	0	0	0	0	0	0	2,553	2,553
Contra Costa	43,154	0	(1,721)	17,037	(2,016)	20,017	9,837	43,154	0
Del Norte	105	0	11	10	11	38	35	0	(105)
El Dorado CTC	31,726	0	30	16,211	31	12,605	2,849	11,135	(20,591)
Fresno	43,433	0	(42,346)	42,346	0	42,893	540	43,433	0
Glenn	1,202	0	460	(728)	1,470	0	0	1,292	90
Humboldt	10,555	0	5,248	1,794	1,302	1,334	877	9,297	(1,258)
Imperial	777	0	77	82	82	279	257	24,630	23,853
Inyo	2,099	0	25	45	45	1,921	63	2,742	643
Kern	33,420	0	1,890	5,530	0	25,500	500	46,349	12,929
Kings	4,500	0	4,500	0	0	0	0	371	(4,129)
Lake	188	0	(68)	(86)	214	66	62	5,746	5,558
Lassen	6,120	0	(364)	3,240	2,580	80	584	8,062	1,942
Los Angeles	216,817	0	(7,000)	537	9,747	8,630	204,903	216,817	0
Madera	308	0	34	35	35	107	97	2,239	1,931
Marin	965	0	229	0	571	34	131	0	(965)
Mariposa	0	0	0	0	0	0	0	2,188	2,188
Mendocino	17,507	0	2,092	1,224	13,925	131	135	11,731	(5,776)
Merced	16,586	0	(29,616)	58	58	45,906	180	16,586	0
Modoc	897	0	608	195	47	47	0	3,775	2,878
Mono	8,280	0	505	3,125	100	4,550	0	9,097	817
Monterey	15,515	0	23,591	(23,436)	14,831	276	253	15,515	0
Napa	2,632	0	(1,129)	1,179	2,402	95	85	0	(2,632)
Nevada	4,568	0	4,391	6	41	65	65	5,431	863
Orange	84,272	0	(95,338)	99,238	0	61,002	19,370	71,965	(12,307)
Placer TPA	610	0	66	66	66	210	202	0	(610)
Plumas	5,316	0	(1,380)	2,730	3,858	54	54	3,630	(1,686)
Riverside	59,788	0	14,085	7,179	(14,617)	38,016	15,125	59,788	0
Sacramento	35,235	0	13,485	9,469	3,028	8,548	705	66,606	31,371
San Benito	223	0	0	58	58	57	50	0	(223)
San Bernardino	105,358	0	440	441	10,641	14,295	79,541	105,358	0
San Diego	254,156	(2,250)	25,700	33,730	138,609	41,691	16,676	74,241	(179,915)
San Francisco	37,590	0	0	(10,642)	1,874	45,989	369	37,590	0
San Joaquin	38,440	0	196	(12,929)	50,591	195	387	44,617	6,177
San Luis Obispo	16,289	0	(11,161)	2,676	16,480	8,294	0	17,613	1,324
San Mateo	7,710	0	113	113	1,711	5,405	368	39,000	31,290
Santa Barbara	19,352	0	95	18,523	96	332	306	20,122	770
Santa Clara	21,943	0	(4,999)	0	(14,038)	40,762	218	21,943	0
Santa Cruz	8,602	0	2,816	1,547	3,947	150	142	8,602	0
Shasta	2,274	0	46	50	1,854	169	155	7,323	5,049
Sierra	(218)	0	8	(291)	9	29	27	1,640	1,858
Siskiyou	6,772	0	(1,445)	4,450	393	754	2,620	6,802	30
Solano	1,631	0	36	84	1,028	256	227	0	(1,631)
Sonoma	20,565	0	0	3,100	1,637	15,567	261	17,499	(3,066)
Stanislaus	16,482	0	24,190	(8,375)	82	292	293	16,482	0
Sutter	1,005	0	83	(3,129)	3,922	67	62	3,205	2,200
Tahoe RPA	165	0	33	33	33	35	31	1,209	1,044
Tehama	1,129	0	334	(52)	(32)	879	0	15,180	14,051
Trinity	2,702	0	545	2,000	100	0	57	5,442	2,740
Tulare	24,432	0	6,182	0	(1,900)	20,150	0	21,032	(3,400)
Tuolumne	2,888	0	2,719	19	20	68	62	5,494	2,606
Ventura	6,010	0	137	4,804	137	487	445	107,857	101,847
Yolo	16,779	0	2,772	9,139	41	4,695	132	13,251	(3,528)
Yuba	(8,574)	0	16	(8,709)	16	53	50	6,609	15,183
Statewide Regional	1,329,766	(2,250)	(20,111)	221,499	261,182	494,816	374,630	1,361,934	32,168
Interregional Program	313,668	(5,996)	78,944	9,300	41,420	48,000	142,000	312,076	(1,592)
TOTAL	1,643,434	(8,246)	58,833	230,799	302,602	542,816	516,630	1,674,010	30,576

Cumulative Programmed	(8,246)	50,587	281,386	583,988	1,126,804	1,643,434
Cumulative Capacity	(43,613)	53,856	288,840	584,010	1,134,010	1,674,010
Cumulative Under (Over) Fund Estimate	(35,367)	3,269	7,454	22	7,206	30,576

PROGRAMMING SUMMARY OF THE 2024 STIP
ACTIVE TRANSPORTATION PROJECTS

($1,000's)

		Totals Programmed by Year					
County	**Total**	**Prior**	**24-25**	**25-26**	**26-27**	**27-28**	**28-29**
Alameda	17,213	0	0	3,000	5,063	9,150	0
Alpine	1,200	0	0	0	0	0	1,200
Amador	0	0	0	0	0	0	0
Butte	2,625	0	125	2,500	0	0	0
Calaveras	0	0	0	0	0	0	0
Colusa	0	0	0	0	0	0	0
Contra Costa	24,949	0	0	1,600	12,820	1,200	9,329
Del Norte	0	0	0	0	0	0	0
El Dorado CTC	0	0	0	0	0	0	0
Fresno	0	0	0	0	0	0	0
Glenn	0	0	0	0	0	0	0
Humboldt	4,671	0	1,158	1,079	1,297	1,137	0
Imperial	0	0	0	0	0	0	0
Inyo	0	0	0	0	0	0	0
Kern	0	0	0	0	0	0	0
Kings	0	0	0	0	0	0	0
Lake	894	0	0	0	894	0	0
Lassen	0	0	0	0	0	0	0
Los Angeles	46,254	11,950	0	9,432	24,872	0	0
Madera	0	0	0	0	0	0	0
Marin	571	0	0	0	571	0	0
Mariposa	0	0	0	0	0	0	0
Mendocino	3,015	1,815	0	1,200	0	0	0
Merced	0	0	0	0	0	0	0
Modoc	0	0	0	0	0	0	0
Mono	3,200	0	200	3,000	0	0	0
Monterey	0	0	0	0	0	0	0
Napa	2,376	0	0	0	2,376	0	0
Nevada	0	0	0	0	0	0	0
Orange	42,133	0	0	3,900	0	38,233	0
Placer TPA	0	0	0	0	0	0	0
Plumas	0	0	0	0	0	0	0
Riverside	0	0	0	0	0	0	0
Sacramento	7,140	0	249	708	2,804	3,379	0
San Benito	0	0	0	0	0	0	0
San Bernardino	4,500	0	0	0	4,500	0	0
San Diego	14,700	0	5,700	0	9,000	0	0
San Francisco	1,548	0	0	0	1,548	0	0
San Joaquin	0	0	0	0	0	0	0
San Luis Obispo	0	0	0	0	0	0	0
San Mateo	6,598	0	0	0	1,598	5,000	0
Santa Barbara	4,189	0	0	4,189	0	0	0
Santa Clara	34,370	0	8,500	0	3,632	22,238	0
Santa Cruz	8,172	0	2,772	1,500	3,900	0	0
Shasta	1,806	0	0	0	1,806	0	0
Sierra	0	0	0	0	0	0	0
Siskiyou	0	0	0	0	0	0	0
Solano	945	0	0	0	945	0	0
Sonoma	4,277	0	0	3,100	1,177	0	0
Stanislaus	0	0	0	0	0	0	0
Sutter	0	0	0	0	0	0	0
Tahoe RPA	0	0	0	0	0	0	0
Tehama	840	0	0	10	30	800	0
Trinity	0	0	0	0	0	0	0
Tulare	0	0	0	0	0	0	0
Tuolumne	2,700	0	2,700	0	0	0	0
Ventura	4,667	0	0	4,667	0	0	0
Yolo	0	0	0	0	0	0	0
Yuba	0	0	0	0	0	0	0
Statewide Regional	245,553	13,765	21,404	39,885	78,833	81,137	10,529
Interregional	26,897	0	17,597	9,300	0	0	0
TOTAL	272,450	13,765	39,001	49,185	78,833	81,137	10,529

2024 STATE TRANSPORTATION IMPROVEMENT PROGRAM - COUNTY SHARE

Does Not Include ITIP Interregional Share Proposals (See Separate Listing)
($1,000's)

San Mateo

								Project Totals by Fiscal Year						Project Totals by Component					
Agency	Rte	PPNO	Project	Ext	Del.	Voted	Total	Prior	24-25	25-26	26-27	27-28	28-29	R/W	Const	E & P	PS&E	R/W Sup	Con Sup
Highway Projects:																			
MTC		2140	Planning, programming, and monitoring	SB 184		Aug-22	85	85	0	0	0	0	0	0	85	0	0	0	0
SM C/CAG		2140A	Planning, programming, and monitoring	SB 184		Aug-22	72	72	0	0	0	0	0	0	72	0	0	0	0
South SF	loc	702D	Rt 101/Produce Ave Interchange reconstruction (ext 3-21)	Feb-23		Mar-23	5,000	5,000	0	0	0	0	0	0	0	0	5,000	0	0
Caltrans	101	658J	Mngd Lns,28 mi (Whipple-Rt380), landscape (split 10-19)(ext 6-22)	Dec-23		May-23	3,000	3,000	0	0	0	0	0	0	2,500	0	0	0	500
Daly/Bris/Colma	loc	658G	ITS Improvements in Daly City, Brisbane, & Colma			Jun-23	7,900	7,900	0	0	0	0	0	0	7,900	0	0	0	0
Caltrans	101	658D	Mngd Lns,28 miW hipple Rt380 (RIP,SCCP,LPP)(18S-11)(RW at CCA 6-23)			close	-2,320	-2,320	0	0	0	0	0	-2,320	0	0	0	0	0
Caltrans	92	668D	Rt 92/Rt 101 interchange improvements - Phase 2				5,628	5,628	0	0	0	0	0	0	0	2,411	3,217	0	0
SM C/CAG	loc	658M	Rt 101 Managed Lanes, Rt 380 to SF County line (ext 5-23)	Jun-24			5,477	5,477	0	0	0	0	0	0	0	0	5,477	0	0
Caltrans	101	658M	Managed Lanes, Rt 380 to SF County line(22S-23)				1,700	0	0	1,700	0	0	0	1,700	0	0	0	0	0
SM C/CAG		2140A	Planning, programming, and monitoring	SB 184			236	236	0	0	0	0	0	0	236	0	0	0	0
MTC		2140	Planning, programming, and monitoring	SB 184			88	88	0	0	0	0	0	0	88	0	0	0	0
SM C/CAG		2140A	Planning, programming, and monitoring				586	0	195	195	196	0	0	0	586	0	0	0	0
MTC		2140	Planning, programming, and monitoring				277	0	91	92	94	0	0	0	277	0	0	0	0
			Subtotal, Highway Projects				27,729	25,166	286	1,987	290	0	0	-620	11,744	2,411	13,694	0	500
	Total Programmed or Voted since July 1, 2022						27,729												
COVID Projects																			
SM C/CAG		2140A	Planning, programming, and monitoring	SB 184		Aug-22	163	163	0	0	0	0	0	0	163	0	0	0	0
Daly/Bris/Colma	loc	658G	ITS Improvements in Daly City, Brisbane, & Colma			Jun-23	3,097	3,097	0	0	0	0	0	0	3,097	0	0	0	0
	Total Programmed or Voted since July 1, 2022						3,260	3,260	0	0	0	0	0	0	3,260	0	0	0	0
	NEW 2024 PROGRAMMING																		
Highway Projects:																			
MTC		2140	Planning, programming, and monitoring				-277	0	-91	-92	-94	0	0	0	-277	0	0	0	0
MTC		2140	Planning, programming, and monitoring				471	0	91	92	94	96	98	0	471	0	0	0	0
SM C/CAG		2140A	Planning, programming, and monitoring				-586	0	-195	-195	-196	0	0	0	-586	0	0	0	0
SM C/CAG		2140A	Planning, programming, and monitoring				1,504	0	308	308	309	309	270	0	1,504	0	0	0	0
			Subtotal, Highway Projects				1,112	0	113	113	113	405	368	0	1,112	0	0	0	0
Rail and Transit Projects:																			
			Subtotal, Rail and Transit Projects				0	0	0	0	0	0	0	0	0	0	0	0	0
Active Transportations Projects:																			
Pacifica			Manor Drive Overcrossing Improv Project			NEW	5,000	0	0	0	0	5,000	0	0	5,000	0	0	0	0
San Jose	AT	2374	Story-Keyes Complete Streets (ATP)			NEW	1,598	0	0	0	1,598	0	0	0	1,598	0	0	0	0
			Subtotal, Active Transportation Projects				6,598	0	0	0	1,598	5,000	0	0	6,598	0	0	0	0
	Total New 2024 STIP Programming						7,710												

2024 STATE TRANSPORTATION IMPROVEMENT PROGRAM - COUNTY SHARE

Does Not Include ITIP Interregional Share Proposals (See Separate Listing)

($1,000's)

San Mateo

Agency	Rte	PPNO	Project	Ext	Del.	Voted	Total	Project Totals by Fiscal Year						Project Totals by Component					
								Prior	24-25	25-26	26-27	27-28	28-29	R/W	Const	E & P	PS&E	R/W Sup	Con Sup

Balance of STIP County Share, San Mateo	
Total County Share, June 30, 2023	44,505
Total Programmed or Voted Since July 1, 2022	27,729
Unprogrammed Share Balance	16,776
Share Balance Advanced or Overdrawn	0
Proposed New Programming	7,710
Minimum	31,644
Target	39,000
Maximum	105,761
Under (Over) Target	31,290

APPENDIX H: MEASURE A PROGRAM STRATEGIC PLAN

SAN MATEO COUNTY
Transportation Authority

San Mateo County Transportation Authority

Strategic Plan

2025-2029

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Executive Director's Message

San Mateo County and the region have come out of the COVID-19 pandemic facing major shifts in how people move around. The San Mateo County Transportation Authority (TA) and our local partner agencies have been working to adapt to travel patterns that are not solely focused on commutes to work, but also help our residents, visitors, and workers have the mobility options they need no matter how they choose to travel.

As we embarked on the development of the Strategic Plan 2025-2029, we looked back at what we accomplished in the previous five years, and we were proud to see we accomplished many of the goals identified in the previous Strategic Plan.

I am especially proud that we were able to award over $600 million to over 250 projects in Measure A and W funding to put San Mateo County sales tax funding to important projects throughout our county. Even more exciting was the completion of major investment projects such as the 25th Avenue Grade Separation Project in the City of San Mateo, the Caltrain Station Improvement project in the City of South San Francisco, the US 101 Express Lanes Project, and the California Drive Separated Bikeway in the City of Burlingame. Additionally, we adopted three key policy documents: the Short-Range Highway Plan, Alternative Congestion Relief/Transportation Demand Management Plan, and Regional Transit Connections Plan that help shape how we evaluate and fund critical infrastructure and operations projects.

I also want to highlight how the TA's role has expanded from our primary charge as the main transportation funding agency in San Mateo Conty to also providing technical assistance for multiple efforts in our Highway, Pedestrian & Bicycle, and Transportation Demand Management programs. It is important we continue supporting our local cities and agencies, and help them deliver projects, especially where increased coordination is needed across jurisdictional boundaries. This support will help us see more funding put to use and help accelerate getting projects on the ground faster.

The Strategic Plan 2025-2029 provides a refreshed look at how we continue to support and integrate Measure A and W programs. Through multiple rounds of collaboration and interviews with our agency partners and community stakeholders including community-based organizations, we resoundingly heard the need to further prioritize providing more multimodal options for travel, enhancing safety, reducing vehicle miles traveled, leading more projects that require interjurisdictional coordination, and providing further technical assistance where we can. I am proud that our Board has recently approved to set aside $2 million in sales tax interest to fund a new Technical Assistance program where we can dedicate resources to help local agencies deliver projects and secure additional grant funds.

On behalf of the TA, we hope the next five years will be an even more transformative period for transportation and mobility, and that Measures A and W can continue to be leveraged to help provide an ever-improving travel experience for our communities across San Mateo County, regardless of travel modes.

Sincerely,

April Chan
Executive Director

2

Acknowledgements

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3 Introduction

The purpose of the San Mateo County Transportation Authority (TA) Strategic Plan 2025-2029 (Strategic Plan) is to provide the policy framework for the implementation of San Mateo County's transportation sales tax Measures A and W. The Strategic Plan evaluates how funding is prioritized for projects proposed by Sponsors (such as county, cities, or transit agencies) and establishes future actions that the TA can help support or lead over the 2025-2029 five-year timeframe. This Strategic Plan carries forward work performed and investments made under the TA's Strategic Plan 2020-2024. Over the course of developing the Strategic Plan 2025-2029, TA staff partnered with the Board of Directors, Community Advisory Committee, local jurisdictions, transit agencies, State of California Department of Transportation District 4 Bay Area (Caltrans), City/County Association of Governments of San Mateo County (C/CAG), and other key stakeholders to update how the TA prioritizes funding allocation, expedites the administration of funds, and can improve technical assistance offerings for project implementation.

The Strategic Plan development process provided a chance for the TA to look back on achievements in six key funding areas covered by Measures A and W and carefully consider key policy updates that could better support the funding, planning, and implementation of transportation projects in San Mateo County. The Measure A Transportation Expenditure Plan and Measure W Congestion Relief Plans that were passed by the voters of San Mateo County both require the TA to adopt a new Strategic Plan every five years. The key funding areas addressed in the Strategic Plan reflect both sales tax measures and are shown in Figure 1.

Figure 1: Measures A and W Key Funding Areas

OBJECTIVES FOR UPDATING THE STRATEGIC PLAN 2020-2024

The objectives for updating the Strategic Plan 2020-2024 centered around retaining much of the policy developed previously and refreshing content to match input from local jurisdictions and other partners or stakeholders. The Strategic Plan 2020-2024 was the first effort from the TA to create a policy framework to address both the Measure A Goals and the Measure W Core Principles, which allowed the TA to create consolidated programs for many of the funding categories.

The Strategic Plan 2025-2029 development process aimed to improve transportation in San Mateo County through the following objectives:

- **Project Evaluation:** Assess the progress of projects funded in 2020-2024 and highlight notable achievements.
- **Stakeholder Engagement:** Engage agency stakeholders and Sponsors for input on how to improve internal processes, improve TA support to partner agencies and improve the TA's technical assistance offering.
- **Community Engagement:** Engage community stakeholders to gather input on their priorities are reflected in the project funding programs.
- **Grant Funding:** Optimize the Competitive Program evaluation criteria based on lessons learned and ensure projects are strategically aligned with external state and federal funding opportunities.
- **Planning Policy:** Apply new policies and integrate adopted planning efforts, such as the Short-Range Highway Plan, Alternative Congestion Relief/Transportation Demand Management Plan, and Regional Transit Connections Plan.

4

Measure A and Measure W Program Overview

4.1 MEASURE A (2009-2033)

In 1988, San Mateo County voters approved Measure A, a 20-year half-cent sales tax to fund and leverage other grant sources for transportation projects and programs in San Mateo County, organized around six primary categories for investment: Transit, Highways, Local Streets/Transportation, Grade Separations, Pedestrian and Bicycle, and Alternative Congestion Relief Programs. The approval of Measure A led to the creation of the TA to manage and administer the sales tax revenues generated in conformance with the Transportation Expenditure Plan (TEP). In 2004, San Mateo County voters reauthorized the Measure A half-cent sales tax and adopted a new TEP for an additional 25 years (from January 1, 2009, through December 31, 2033). The 2004 TEP established funding categories for Transit; Highways; Local Streets/Transportation; Grade Separations; Pedestrian and Bicycle; and Alternative Congestion Relief projects. The TEP requires the TA to develop and adopt a Strategic Plan that is updated at least once every five years.

GOALS

The Measure A TEP aims to:

- Reduce commute corridor congestion
- Make regional connections
- Enhance safety
- Meet local mobility needs

KEY STRATEGIES

To achieve these goals the Measure A TEP vision has also set forth several key strategies:

- Target key, congested corridors for highway and transit
- Continue to improve connections with regional transportation facilities
- Enhance safety in all aspects of the transportation system
- Meet local mobility needs, especially those of seniors and people with disabilities
- Meet the cities' and county's unique local transportation needs
- Leverage local, state and federal funds
- Encourage transportation projects that support transit-oriented development

4.1.1 Program Category Details

The percentage distribution of each program category is reflected in Figure 2. These funds may be used for transportation programs and projects as allowed in the TEP and for projects within San Mateo County, with the exception for Caltrain improvements and other projects that minimally extend into adjacent counties.

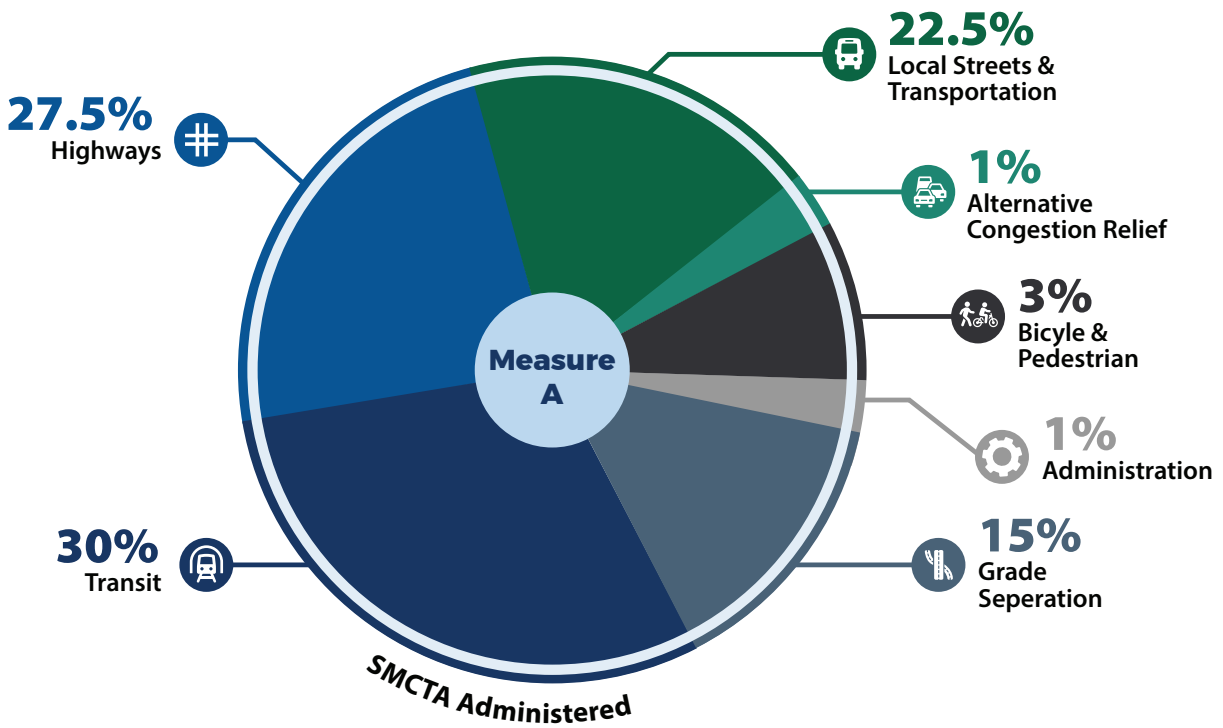

Figure 2: Measure A (2009-2033) TEP Program Categories

The TEP outlines restrictions in the use of Measure A funds with the purpose of targeting funding to transportation projects in San Mateo County and maximizing the leveraging of other funding sources:

- Measure A funds may not be used to supplant existing funds and resources on projects
- Measure A funds may be used only for transportation programs and projects as allowed in the TEP
- Projects must be within San Mateo County, apart from system-wide Caltrain improvements and other projects that minimally extend into adjacent counties
- The TEP further provides that "listed" projects are to be included in each Strategic Plan. Partial lists of candidate projects eligible for Measure A funding are included in the TEP for the Highways, Grade Separations, and Pedestrian and Bicycle program categories. The TA may from time to time update the list of projects. Projects can be further considered beyond those lists, and all projects which have received funding from Measure A previously but have not been fully funded, may be considered in addition listed projects and are referred to as "pipeline projects." Pipeline projects are important to consider for TA funding purposes to help see investments through to completion. The TA can also deprogram funding for a project, and thus remove a listed project from the Strategic Plan, if requested by the Sponsor or if a Sponsor fails to meet its obligations under the terms and conditions of the agreement governing TA support for the project.

An inventory of listed projects, contained in **Appendix B**, will be updated as needed and included in each subsequent Strategic Plan during the life of Measure A. The inventory of listed projects is not intended to be a comprehensive list of projects selected for funding from all the Measure A programs in the past, nor an inventory of all projects eligible for Measure A funds in the future. A description and purpose of each Measure A Program category is outlined in Table 1.

Program Category	Description	Purpose
Transit (30%)		
Caltrain (16%)	Existing commuter rail system providing train service in San Francisco, San Mateo, and Santa Clara Counties	Upgrade and expand Caltrain systemwide services and San Mateo County specific improvements; up to one half of funds may be used to support operations
Local Shuttles (4%)	Transit services provided with vehicles that are typically larger than vans and smaller than buses	Meet local mobility needs and provide access to regional transit
Accessible Services (4%)	Targeted transportation services for people that have special mobility needs	Provide paratransit and other transportation services to eligible seniors and people with disabilities
Ferry (2%)	Transit service provided by vessels on waterways	Provide infrastructure to support ferry services in San Mateo County
BART (2%)	Existing heavy rail system providing train services in San Francisco, San Mateo, Alameda and Contra Costa counties	Maintain and operate BART extension in San Mateo County
Dumbarton Corridor (2%)	A key rail corridor, currently in a state of disrepair, connecting the East Bay with the Peninsula	Construct stations and rail corridor improvements in East Palo Alto, Menlo Park and Redwood City
Highways (27.5%)		
Key Congested Areas (17.3%)	Highways in San Mateo County	Reduce congestion and improve safety on highways
Supplemental Roadways (10.2%)	Local, collector, arterial, state route roadways in San Mateo County	Reduce congestion and improve safety on roadways
Local Streets / Transportation (22.5%)	Transportation services, roadways owned and maintained by the cities and County of San Mateo	Improve and maintain local transportation facilities and services
Grade Separations (15%)	Eliminate at-grade railroad crossings	Improve safety and relieve local traffic congestion
Pedestrian and Bicycle (3%)	Pedestrian and bicycle facilities	Encourage walking and bicycling
Alternative Congestion Relief Programs (1%)	Commute alternatives and Intelligent Transportation Systems	Encourage efficient use of transportation network and reduce reliance on automobiles

Table 1: Measure A Program Description and Purpose

Note: Up to 1% of Measure A funds may be used for TA staff salaries and benefits

4.2 MEASURE W (2019-2049)

In 2018, San Mateo County voters approved Measure W, a 30-year half cent sales tax, from July 1, 2019, through June 30, 2048, to fund and leverage additional funding for transportation projects and programs in San Mateo County that are consistent with the Measure W Congestion Relief Plan. Measure W bolsters the successes of Measure A and helps continue transportation improvements for a fast-growing and changing county. This program, alongside Measure A, gives San Mateo County the ability to generate additional external resources to better meet the county's mobility needs with a large emphasis on transit programs. Measure W provides additional funding for transportation projects and programs in San Mateo County to implement transportation improvements as identified in the Measure W San Mateo County Congestion Relief Plan, which is organized around five investment categories: Countywide Highway Congestion Improvements; Local Safety, Pothole and Congestion Relief Improvements, Bicycle and Pedestrian Improvements, Regional Transit Connections, and County Public Transportation Systems.

The Measure W Congestion Relief Plan sets the program categories and percentage splits of the sales tax revenues with guidance from Measure W's eleven Core Principles:

- Relieve traffic congestion countywide
- Invest in a financially-sustainable public transportation system that increases ridership, embraces innovation, creates more transportation choices, improves travel experience, and provides quality, affordable transit options for youth, seniors, people with disabilities, and people with lower incomes
- Implement environmentally-friendly transportation solutions and projects that incorporate green stormwater infrastructure and plan for climate change
- Promote economic vitality, economic development, and the creation of quality jobs
- Maximize opportunities to leverage investment and services from public and private partners
- Enhance safety and public health
- Invest in repair and maintenance of existing and future infrastructure
- Facilitate the reduction of vehicle miles traveled, travel times and greenhouse gas emissions
- Incorporate the inclusion and implementation of complete street policies and other strategies that encourage safe accommodation of all people using the roads, regardless of mode of travel
- Incentivize transit, bicycle, pedestrian, carpooling, and other shared-ride options over driving alone
- Maximize potential traffic reduction associated with the creation of housing in high-quality transit corridors

4.2.1 Program Category Details

The fifty percent (50%) of Measure W funds dedicated to County Public Transportation Systems are administered by the San Mateo County Transit District (District), which owns and operates the SamTrans fixed-route bus system, as well as paratransit and microtransit services. The TA administers the other fifty percent (50%) of Measure W funds, which are dedicated to program categories for: Countywide Highway Congestion Improvements, Local Safety, Pothole and Congestion Relief, Bicycle and Pedestrian Improvements, and Regional Transit Connections. The percentage distribution of

each category is reflected in Figure 3. Local Investment Share and Grade Separation funds come from the Local Safety, Pothole, and Congestion Relief Improvements Program Category. Table 2 provides a description and purpose of each Measure W Program Category.

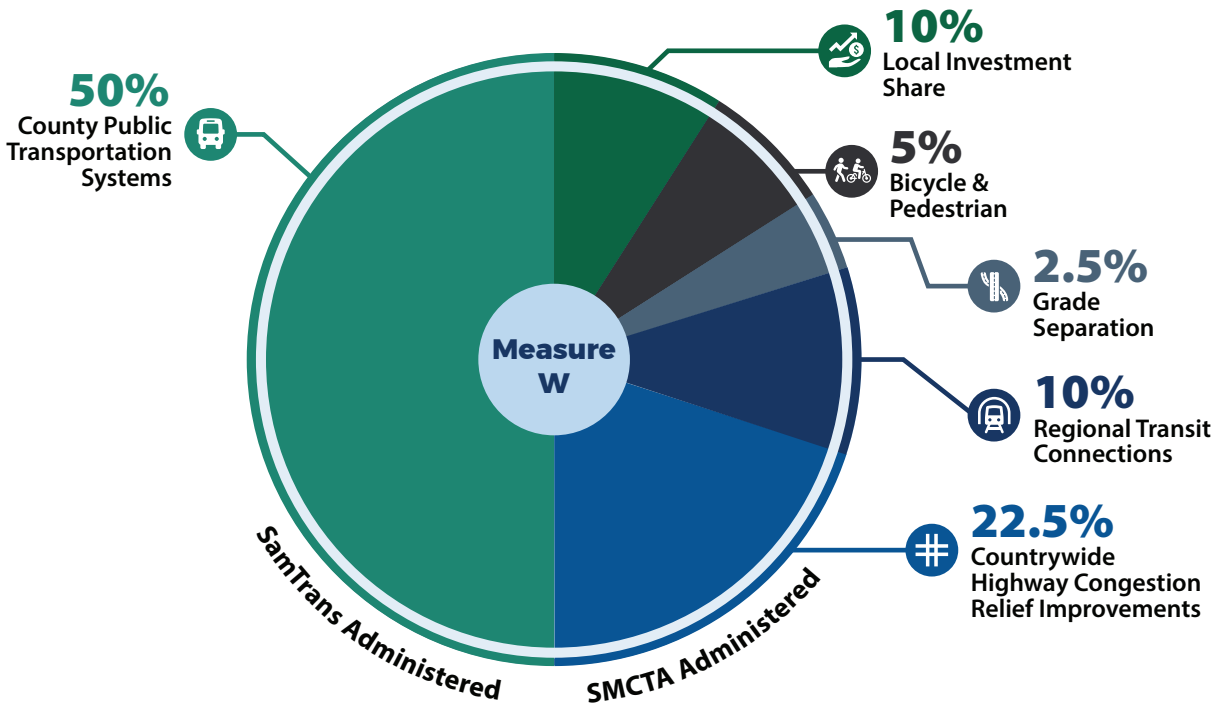

Figure 3: Measure W (2019-2049) Congestion Relief Plan Program Categories

Program Category	Description	Purpose
Countywide Highway Congestion Improvements (22.5%)	Focus on improvements to state highways and interchanges	Provide congestion relief, reduce travel times, increase person throughput, improve highway and interchange operations, safety and access, and deploy advanced technologies and communications on highway facilities in San Mateo County
Local Safety, Pothole & Congestion Relief Improvements - Local Investment Share (10%)	Local transportation programs and services; funds must be used for pavement rehabilitation if a city or the county has a Pavement Condition Index (PCI) Score less than 70	Investment in local transportation priorities including deployment of advanced technologies and communications on roads, paving streets and repairing potholes, and promoting alternative transportation
Local Safety, Pothole & Congestion Relief Improvements - Grade Separations (2.5%)	Separation of roadways crossing rail corridors	Elimination of rail crossings helps reduce local congestion and greenhouse gas emissions
Bicycle and Pedestrian Improvements (5%)	Bicycle and pedestrian programs and projects that incentivize mode shift to active transportation	Reduce traffic congestion by safely connecting communities and neighborhoods with schools, transit and employment centers; fill gaps in the existing bicycle/pedestrian network and safely cross barriers, and make walking and bicycling safer and more convenient
Regional Transit Connections (10%)	Services designed to improve transit connectivity between the county and the region, including rail, water transit, and regional bus service	Reduce congestion and improve transit connectivity between the county and the rest of the region, considering a project's support through public private partnerships
County Public Transportation Systems (50%)	Funds for public transportation that are administered by the District	Maintain and enhance bus, paratransit, Caltrain and other countywide mobility services

Table 2: Measure W Program Description and Purpose

4.3 MEASURES A AND W IN MOTION

In total, the TA awarded and allocated $609 million to over 259 projects and plans across San Mateo County in 2020-2024. The TA will be awarding one last Call for Projects (CFP) in December 2024 for the Measures A and W Bicycle & Pedestrian and ACR/TDM funds. These awards will allocate the remaining funds accrued within the two categories.

4.3.1 Measures A and W Budget and Awards

MEASURE A

Table 3 below summarizes the approved budget totals and the funds the TA awarded or programed for Measure A from the FY 2020-2024 plan. A year-by-year list of funding allocated for each category is shown in **Appendix B**. Key programs and projects have been highlighted to show how funds are being utilized across San Mateo County.

Categories	Funding Accrued	Funds Awarded or Programmed
Administration (1%)	$4,920,315	$4,920,315
Local Streets and Transportation (22.5%)	$110,707,097	$110,707,097
Transit (30%)	$145,138,207	$127,472,524
Highways (27.5%)	$135,308,673	$194,241,000*
Grade Separations (15%)	$49,370,314	$32,376,000
Alternative Congestion Relief Programs (1%)	$4,920,133	$4,374,000
Pedestrian and Bicycle (3%)	$14,760,946	$14,311,203
Total	**$465,125,685**	**$488,402,139***

Table 3: Measure A Total Funding Budgeted by Category FY 2020-2024

**Funds have been accruing since the 2017 CFP as the TA waited to finish the Short-Range Highway Plan (SHRP) before conducting another CFP which allowed for more money to be allocated than was accrued during this period.*

All categories, besides Administration, must be programmed and awarded funding. Pass-through categories, including funds to local cities for transportation services, local roadways, and Administration, are automatically programmed with the adoption of each fiscal year budget. The Local Streets and Transportation category is pass-through to local cities for transportation services and roadways owned and maintained by the cities and County of San Mateo.

Of the total $465.1 million TA funds accrued for Measure A Projects and Programs, the TA has awarded or programmed a total of $488.4 million. Table 4 summarizes the 151 projects and programs that have received funding through Measure A. Funds awarded through FY 2020–2024 have generally remained within the accrued amount except for the Highways category. Highway funds have been accruing since the 2017 CFP and the TA applied those funds to project awards during the FY 2020-2024 CFP cycles.

Categories	Subcategory	Number of Projects/Programs
Transit	Caltrain	4
	Local Shuttles	113 (24 Active Routes)
	Ferry	2
Highways	-	7
Grade Separations	-	4
Alternative Congestion Relief	-	5
Pedestrian and Bicycle	-	16
Total Projects and Programs Funded	**-**	**151**

Table 4: Measure A Total Number of Projects and Programs Funded FY 2020-2024

MEASURE W

Table 5 below summarizes approved budget totals that the TA could award under Measure W during fiscal years (FY) 2020 through 2024. A year-by-year list of funding allocated for each category is shown in **Appendix B**. Key programs and projects have been highlighted to show how funds are being utilized across San Mateo County.

Categories	Funding Accrued	Funds Awarded or Programmed
TA Administration and Oversight*	$697,584	$697,584
Local Safety, Pothole, and Congestion Relief (12.5%)	$61,460,344	$61,460,344
Regional Transit Connections (10%)	$49,028,758	$450,000
Countywide Highway Congestion Relief Improvements (22.5%)	$110,314,706	$40,634,490
Bicycle and Pedestrian Improvements (5%)	$24,514,379	$16,756,042
Total	**$246,015,771**	**$120,898,460**

Table 5: Measure W Total Funding Budgeted by Category FY 2020-2024

**Measure W Administrative and Oversight were allocated 1-1.5% from the Categories in FY 2024 and prior years. Starting in FY 2025, these areas are being funded by Measure W interest income only.*

All categories besides TA Administration and Oversight must be programmed and awarded funding. For many pass-through categories such as Local Safety, Pothole, and Congestion Relief, the funding is automatically programmed with the adoption of each fiscal year budget.

Of the total $246.0 million allocated TA funds accrued for Measure W Projects and Programs, the TA has awarded or programmed a total of $120.9 million. Table 6 summarizes the 108 projects and programs that have received funding through Measure W. Measure W funds awarded through FY 2020-2024 have remained below the accrued amount. Regional Transit Connections (RTC) awards are currently awaiting final adoption at the time of this writing; the TA has not awarded any funds from that category aside from creating the RTC plan. Additionally, the TA has been preserving Countywide Highway Congestion Improvement funds for multimodal projects.

Categories	Subcategory	Number of Projects/Programs
Regional Transit Connections (10%)	-	1
Countywide Highway Congestion Improvements (22.5%)	Congestion Improvements	14
	Transportation Demand Management (TDM)	15
Bicycle and Pedestrian Improvements (5%)	CFP Awards	22
	Safe Routes to Schools (SRTS) Programs and Audits	56
Total Projects and Programs Funded	**-**	**108**

Table 6: Measure W Total Number of Projects and Programs Funded FY 2020-2024

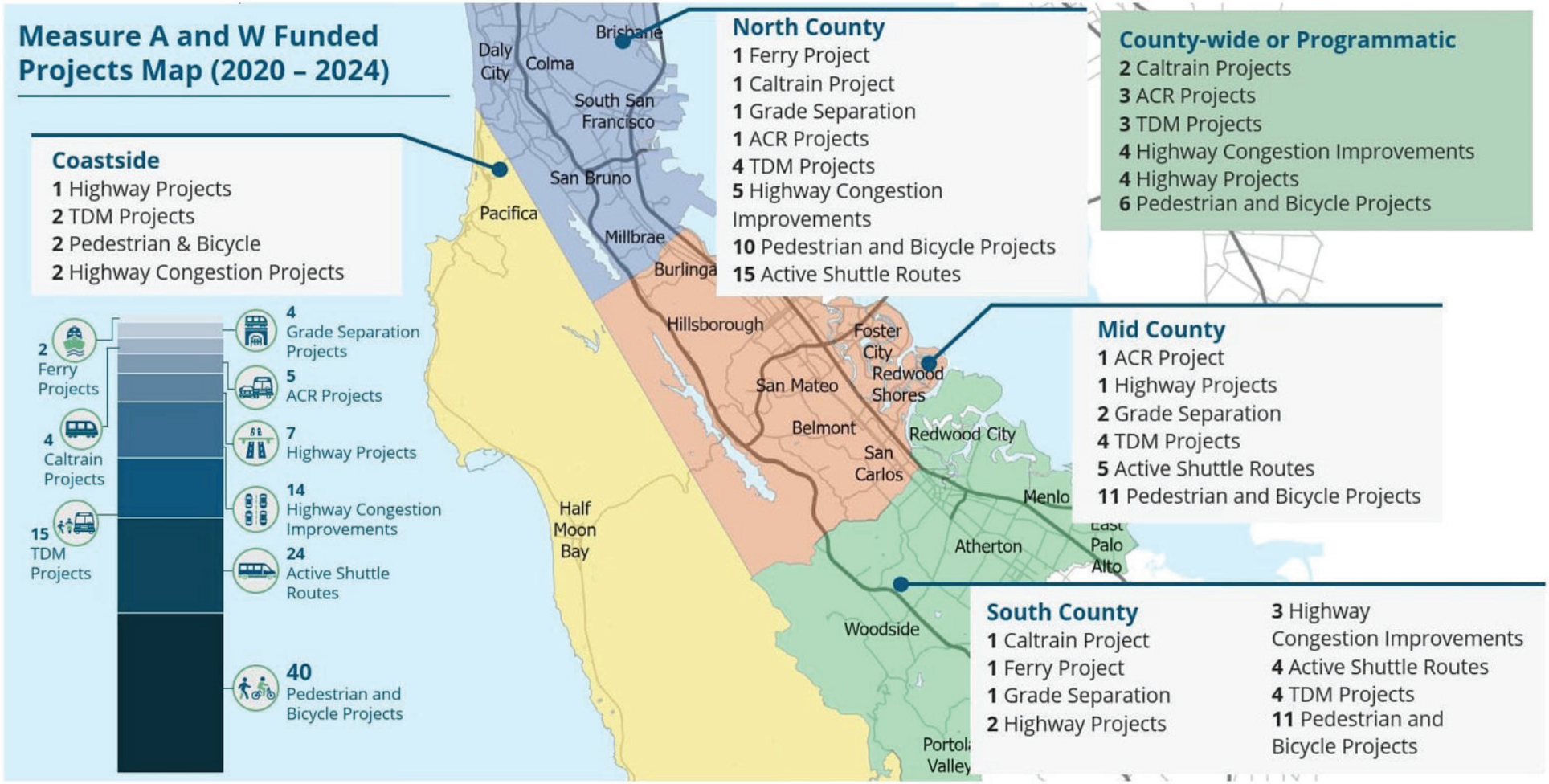

Figure 4: Measures A and W Projects and Programs Funded FY 2020-2024

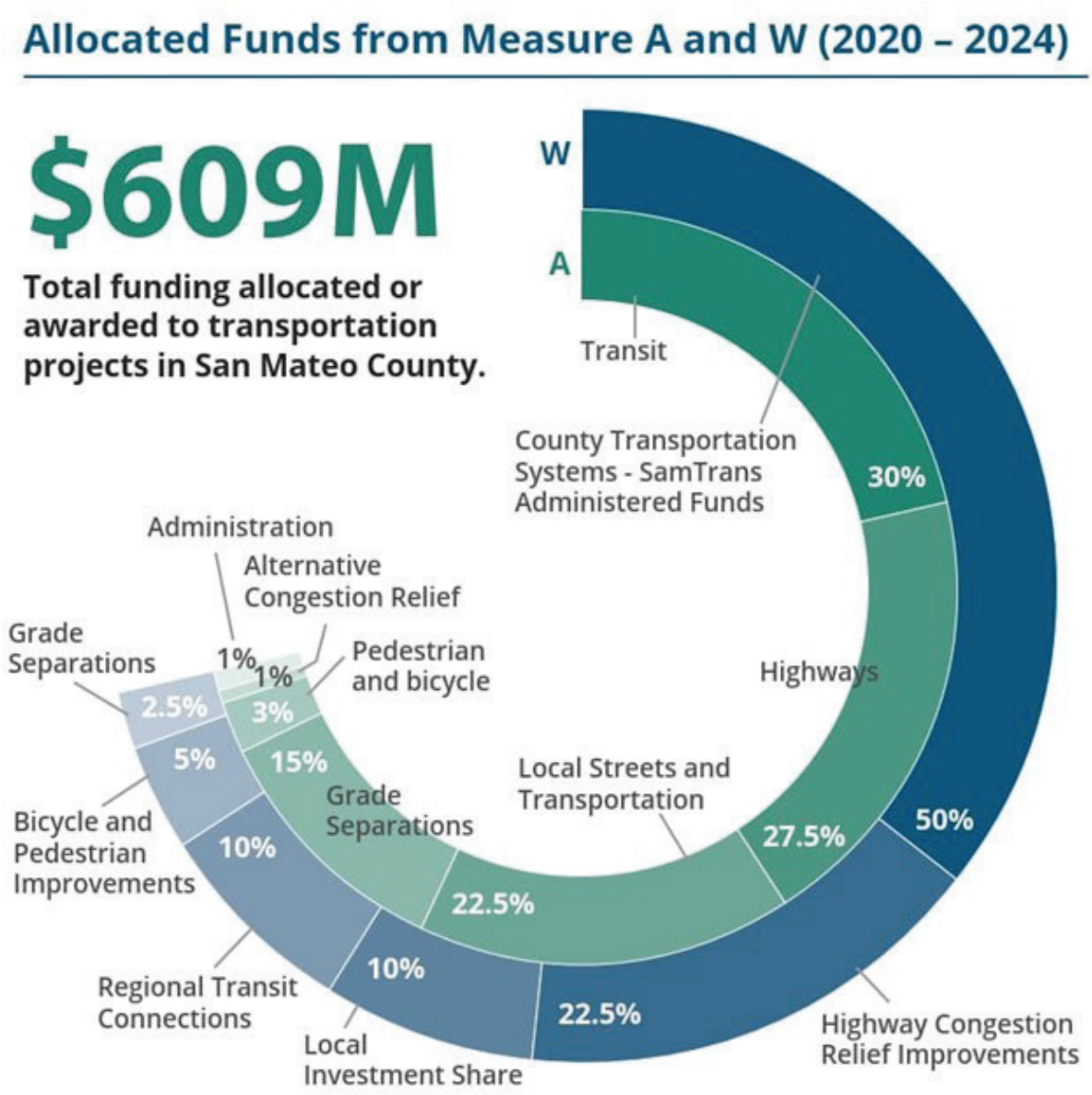

Figure 5: Measures A and W Allocated Funds FY 2020-2024

4.3.2 Key Projects and Programs

Measures A and W have funded several key projects and programs over the past five years, including:

MEASURE A

Transit

- Caltrain upgrades and improvements:
  - South San Francisco Station (completed construction)
  - Atherton Station Closure (under construction)
  - Peninsula Corridor Electrification Project (completed construction)

- Ferry upgrades and improvements:
  - Redwood City Ferry Project (Preliminary Engineering and Environmental Phase)
  - South San Francisco Ferry Terminal Project (Planning and Pre-environmental Phase)
- Shuttle funds: 113 shuttles funded to meet local mobility needs and connect areas to transit stations.

Highways

- Projects completed and closed out:
  - Route 1 Safety & Operational Improvements Project (Wavecrest Road - Poplar Street, Half Moon Bay)
  - Railroad Avenue Extension Project (South San Francisco)
  - San Pedro Creek Bridge Replacement Project (Pacifica)
- Projects nearing completion and in final stages of construction or landscaping:
  - US 101 / Broadway Interchange Project (Burlingame)
  - US 101 / Willow Interchange Project (Menlo Park)
  - US 101 Express Lanes Project (I-380 to Santa Clara County)
  - Highway 92 / El Camino Real Interchange Project (San Mateo)

Grade Separations

- Projects in progress or completed:
  - 25th Avenue Project (San Mateo)
  - Whipple Avenue (Redwood City)
  - Broadway Project (Burlingame)
  - South Linden Avenue/Scott Street (South San Francisco)

Pedestrian & Bicycle

- Projects completed and closed-out:
  - Middlefield Road Class II Bike Lanes (Atherton)
  - Enhanced Pedestrian & Bicycle Visibility Project (Daly City)
  - Kennedy SRTS Project, Jefferson/Cleveland SRTS & Peninsula Bikeway Project, and Highway 101 Pedestrian and Bicycle Undercrossing (Redwood City)
  - El Camino Real/Angus Avenue Intersection Improvements and Transit Corridor Pedestrian Connection Project (San Bruno)
  - Sunshine Gardens Safety and Connectivity Project (South San Francisco)
  - San Carlos Avenue Pedestrian and Bicycle Improvement Project (San Carlos)
  - Class II & III Bike Facilities Project (East Palo Alto)
  - 28th Avenue Bike Boulevard Implementation Project (San Mateo)
  - San Mateo Drive Pedestrian and Bicycle Improvement Project (San Mateo)

- Burlingame Station Pedestrian Improvements Project and California Drive Class IV Bikeway (Burlingame)
- Menlo Park Bike/Ped Enhancement Project (Menlo Park)
- Eucalyptus Avenue Streetscape & SRTS Project (Hillsborough)
- Eucalyptus Pathway Project (Hillsborough)

ACR

- Programs with ongoing or one-time support:
  - Commute.org's Operations and TDM Monitoring
  - County TDM Monitoring Program and San Mateo County Express Lanes Joint Powers Authority (JPA) Equity Program

MEASURE W

Countywide Highway Congestion Relief Improvements

- Transportation Demand Management (TDM)
  - Pedal for Purpose E-Bicycle Pilot Program (Half Moon Bay)
  - Eucalyptus Pedestrian Pathway Project (Hillsborough)
  - Essential Wheels E-Bike Loaner Program (Redwood City)
  - Burlingame and Millbrae Bicycle Sharing Program (Burlingame and Millbrae)

Bicycle and Pedestrian

- Completed Projects and Programs:
  - Burlingame Station Pedestrian Improvements (Burlingame)
  - Ralston Avenue Corridor Project- Segment 3 (Belmont)
  - Vision Zero Community Outreach Program (Daly City)
- Safe Routes to School (SRTS)
  - Four CFPs – 48 projects awarded
  - Walking audits at 8 schools

4.4 PLANS AND PROGRAMS

One of the key next steps identified in the previous Strategic Plan 2020-2024 was to update and create plans and programs to help guide the allocation of Measure A or Measure W funds that guide transportation-related improvements throughout the county. Table 7 summarizes the relevant TA Plans and Programs, along with other related County and Regional Plans and Programs.

TA PLANS AND PROGRAMS HIGHLIGHTED PROGRESS

Source	Description and Connection to Funding Measures
Short-Range Highway Plan (SRHP): 2021-2030	The SRHP establishes a strategy for directing Measures A and W funding towards highway improvements in San Mateo County. This plan also includes a policy framework for making investment decisions. This plan considers twenty-two existing projects and eight new projects for Measures A and W funding. Through the SRHP, the TA established the criteria to decide which highway projects are of countywide significance such that the TA could sponsor the projects itself. Of the thirty listed projects, seven meet the criteria for countywide significance. This plan decides the costs and benefits of projects and will allow the TA to assign scores for projects when responding to funding requests. Lastly, the SRHP highlights the challenges in delivering $2.9 billion in eligible highway projects.
2021-2030 Highway Capital Improvement Program (CIP)	The Highway CIP was developed to assess the cost of proposed highway improvements for San Mateo County and compare the costs to projected Measures A and W sales tax revenues over the next 10 years. The CIP reviews the thirty projects, estimates their costs, and compares these projects' needs to projected sales tax revenues.
Alternative Congestion Relief (ACR)/ Transportation Demand Management (TDM) Plan	The ACR/TDM Plan, adopted in 2022, is a guide for initiating and selecting projects and programs for the Measure A ACR category and Measure W TDM subcategory. These programs and projects are to help reduce automobile use, and to incentivize and create efficient sustainable transportation networks. The ACR/TDM Plan functions as a guide for a TDM call-for-projects cycle and created dedicated subcategories for Measure A Plan-based initiatives, such as providing funding for Commute.org operations and the Countywide TDM Monitoring Program. This plan received the American Planning Association California Transportation Planning Award of Merit.
101 Corridor Connect	The 101 Corridor Connect program looks at ways to improve active transportation, public transportation, and highway and local road improvements within one mile of either side of highway 101 in San Mateo County. The program is divided into three focus areas: North County, Mid County, and South County. The strategies look at how people and goods get around within these sections and recommends a list of transportation improvement projects.
Regional Transit Connection Plan (RTC)	The RTC Plan, adopted in 2024, provides long-term policy guidance and financial planning for 10% of Measure W funds through competitive grant programs. These programs will fund transit improvements that connect San Mateo County with its adjacent counties.

Table 7: TA Plans and Programs

RELATED COUNTY & REGIONAL PLANS AND PROGRAMS

There are several recently completed or ongoing transportation planning efforts in San Mateo County which utilize, reference, and support the use of Measures A and W funds towards mobility projects and plans across San Mateo County.

- Metropolitan Transportation Commission (MTC) Plan Bay Area 2050+
- MTC Bay Area Express Lane Strategic Plan
- MTC Regional Active Transportation Plan & Complete Streets Policy
- California Department of Transportation District 4 (Caltrans) Bike & Pedestrian Plans
- Caltrans US 101 South Comprehensive Multimodal Corridor Plan
- US 101 Mobility Action Plan
- City/County Association of Governments of San Mateo County (C/CAG) Countywide Transportation Plan
- C/CAG Comprehensive Bicycle and Pedestrian Plan (CBPP)
- C/CAG Congestion Management Program
- C/CAG Local Road Safety Plan
- C/CAG and TA Countywide Automated Vehicles Strategic Plan
- San Mateo County Transit District's Reimagine SamTrans
- SamTrans Express Bus Feasibility Study
- SamTrans El Camino Real Speed & Reliability Study
- SamTrans Strategic Plan & Capital Improvement Program
- Caltrain Business Plan
- Caltrain Corridor Crossings Strategy
- Caltrain Capital Improvement Program
- Commute.org Strategic Plan 2025
- San Mateo County Express Lanes JPA US 101 Equity Study

5

Strategic Plan 2025-2029 Development Process

5.1 SUMMARY OF WORK FOR STRATEGIC PLAN

The previous Strategic Plan 2020-2024 created the first consolidated Strategic Plan that aligned the Measure A Goals and Measure W Core Principles to have one set of programs, guidelines, and policies. The Strategic Plan 2020-2024 included an assessment of Measures A and W program categories, stakeholder engagement, public outreach, and initiatives to improve project delivery. It also combined the evaluation process and criteria across the Measures A and W goals and core principle weights (**Appendix H**). The Strategic Plan 2025-2029 proposed recommendations on areas of improvement and efficiency based on the experiences and lessons learned from the past five years.

5.2 INTEGRATION OF STANDALONE POLICY DOCUMENTS

Since the adoption of the previous Strategic Plan 2020-2024, there have been multiple plans and programs adopted by the TA that provide updated program guidelines and policies which have been integrated into the Strategic Plan 2025-2029.

5.2.1 Recently Completed Plans & Programs

2021-2030 SHORT-RANGE HIGHWAY PLAN (SRHP)

The TA developed a policy framework for making investment decisions in the SHRP that established a strategy for how to direct Measures A and W sales tax revenues toward highway improvements in San Mateo County. The SRHP complements the Strategic Plan by providing technical metrics that allow the TA to use the Strategic Plan evaluation criteria to uniformly assign scores to projects for the Measures A and W Highways program CFP cycles. Additionally, the SRHP established a definition of Countywide Significance for the TA, specific to the competitive Highways program where projects must meet at least two of the following screening criteria:

- Project serves a significant amount of through traffic
- Project serves a significant amount of inter-county traffic
- Project significantly improves connections between two or more geographic areas of the county
- Project significantly improves access to a major activity center

The Countywide Significance definition in the Strategic Plan 2025-2029 is revised to require that projects meet at least two of the following screening criteria:

- Project serves a significant amount of person throughput, inclusive of all modes
- Project serves a significant amount of inter-county traffic
- Project significantly improves connections between two or more geographic areas of the county
- Project is a priority component of a countywide or regional multijurisdictional effort

This updated definition reframes traffic throughput as person throughput to be more inclusive of all transportation modes and removes the screening criteria of improving access to major activity centers that was included in the SRHP definition.

2021-2030 HIGHWAY CAPITAL IMPROVEMENT PROGRAM (CIP)

The TA developed the Highway CIP by working with eligible highway Sponsors, which include cities, the County of San Mateo, C/CAG, and Caltrans. Through a project inventory process, the Highway CIP established a list of previously and newly submitted Highway projects organized by project phase with associated baseline cost estimates. This list of projects included in the Highway CIP, along with the list of projects in the Measures A and W Expenditure Plans, informs which projects are eligible to apply for funding during the Measures A and W Highways CFP cycles. The Highway CIP sets the stage for the TA to allocate Measures A and W funds to the highest-performing projects in the areas of San Mateo County that show the greatest need.

ALTERNATIVE CONGESTION RELIEF/TRANSPORTATION DEMAND MANAGEMENT PLAN (ACR/TDM)

The ACR/TDM Plan sets the program guidelines and policies for the competitive TDM program, which consists of the Measure A ACR program category and the Measure W TDM program category. Since the competitive TDM program was not included in the Strategic Plan 2020-2024, the program guidelines, policies, and evaluation criteria adopted in the ACR/TDM plan have directly informed the competitive TDM program CFP process. Furthermore, the program guidelines and policies adopted in the ACR/TDM plan have been used to inform updated guidelines and policies for other competitive funding programs.

REGIONAL TRANSIT CONNECTIONS PLAN (RTC)

The RTC Plan establishes the program guidelines and policies for the competitive Measure W RTC program. The RTC Plan formally sets program goals, guidelines, subcategories, and policies that directly inform the CFP process for the competitive RTC program. Furthermore, the RTC Plan amends the project evaluation and selection methodology included in the Strategic Plan 2020-2024, providing updated evaluation criteria and thematic areas for 2025-2029. These updates will be the basis for the first CFP for the competitive RTC program, planned for Spring 2025.

The plan also includes a CIP that identifies projects that may be eligible for funding from the RTC program and will assist in long-term policy guidance and financial planning for the program. The projects included aim to meet the RTC program's main goal of reducing congestion and improving transit connectivity between San Mateo County and the connecting counties. The CIP provides an example of projects that may be eligible for the program and is not an exhaustive list of all potential projects that could receive funding from the program. Allocations of funding will be determined by a CFP process that will take place on a four-year cycle.

5.3 STAKEHOLDER OUTREACH

The Strategic Plan 2025-2029 stakeholder outreach effort has focused on the following objectives:

- Review projects funded and completed between 2020 and 2024, along with past progress and accomplishments
- Hear from partners and Sponsors about how the TA may be able to improve processes or provide additional support
- Refresh data on San Mateo County demographics, travel patterns, funding projects, and grant funding conditions
- Update and review with stakeholders and Sponsors competitive evaluation criteria to align with state and federal funding programs and promote equity
- Update program administration by standardizing guidelines, policies, and monitoring requirements along with formalizing the intent of the TA's Technical Assistance Program
- Integrate standalone planning/policy efforts into the Strategic Plan framework (including the SHRP, ACR/TDM Plan, and RTC Plan)

5.3.1 Workshops

The TA facilitated workshops with the Community Advisory Committee (CAC), TA Board of Directors members, and the C/CAG Technical Advisory Committee (TAC) in Winter 2024 to understand which Measure A Goals and Measure W Core Principles are the most important and how funding should be prioritized to help develop evaluation criteria for the selection of projects. Participants and committee members were asked to reflect on their top priorities for the TA over the next five years and weigh in on proposed changes introduced in the next strategic plan. Input from the committees will also help shape how funding is allocated over the next five years and to guide where the TA should focus their technical assistance program. In Fall 2024, each of these bodies received a presentation to provide input on resulting proposed policy changes for inclusion in the Strategic Plan 2025-2029.

5.3.2 TA Board of Directors Ad-Hoc Committee

Three meetings were held with the Strategic Plan Ad Hoc Advisory Committee of the TA Board of Directors to provide updates on the progress of the Strategic Plan to present feedback received from other stakeholders and to confirm that the proposed key actions for the updated plan align with the agency's priorities over the next five-year period.

5.3.3 Stakeholder Advisory Group and Technical Advisory Group

The TA made two presentations to the Stakeholder Advisory Group (SAG) and the Technical Advisory Group (TAG) in Spring and Summer 2024 to provide an overview of the Strategic Plan 2025-2029 and seek feedback. The SAG is comprised of representatives from non-profits, large employers, business groups, transit, and constituent advocacy groups. The TAG is comprised of representatives from the cities, county, transit agencies, special districts, and other governmental partners.

5.3.4 Partner Interviews

The TA facilitated 15 one-on-one interviews in October 2024 with representatives from project and community partners to review the proposed Key Strategies for the Strategic Plan 2025-2029 and provide the opportunity for any additional feedback.

Discussion questions were tailored to each audience to gather in-depth feedback on how each organization has navigated the existing processes with the TA and what barriers exist for organizations to access funding or actively participate in the selection of projects. Partner interview notes are in **Appendix D-4**.

Individual interviews were held with representatives from:

- Caltrain (two interviews: one with Caltrain Planning, one with Caltrain Real Estate)
- Caltrans
- City/County Association of Governments of San Mateo County
- City of East Palo Alto
- City of Half Moon Bay
- City of San Mateo
- City of South San Francisco
- Commute.org
- El Concilio (a community-based organization (CBO))
- Peninsula Chinese Business Association (CBO)
- San Mateo County Transit District
- San Mateo County
- San Mateo County Economic Development Association (Business organization)
- San Mateo County Office of Education (home agency of Safe Routes to School program)
- Silicon Valley Bicycle Coalition (CBO)

5.3.5 Outreach Themes

The workshops, as described above, with stakeholders were structured around six key discussion questions. The general themes that emerged from the comments from various stakeholders are summarized below:

1. What has been the TA's biggest accomplishment over the last 5 years?
    - Aligning the Measure W Core Principles with the Measure A Goals and seeing those values reflected in the selection and funding of transportation projects in the county.
    - Investment into grade separation and electrification projects.
    - Focus on the safety of pedestrians and cyclists.
    - Adopting a more fair geographic distribution approach to provide an opportunity for small and coastal communities to better compete for funding.
    - The distribution of local streets and roads funds provided directly to local agencies.

2. Where do you see the biggest opportunity for improvement for the TA in the next five years?
   - Strategies to streamline implementation and mobilize funding for projects faster.
   - Technical assistance for local jurisdictions that are under-resourced and/or understaffed.
   - Support for cross-jurisdictional multimodal projects.
   - Safety and improved access regardless of mode.
   - Reduction of vehicle miles travelled (VMT) and greenhouse gas emissions.
3. How should equity continue to be considered or elevated by the TA for the next five years?
   - Re-examine the definition of "equity" to better align with industry standards.
   - Leverage new relationships with CBOs and streamline compensation for their assistance on projects.
   - Support outreach in multiple languages.
   - Prioritize seeking feedback from a variety of underserved communities.
   - Place stronger focus on environmental justice and incorporate criteria for public health.
4. Are there areas TA Technical Assistance should be modified or expanded?
   - The Technical Assistance Program is incredibly important to support cities and towns in applying for funding to advance local and county-wide projects.
   - Enhance support throughout the CFP process.
   - Gain a better understanding of the biggest challenges and barriers for cities and towns applying for funding.
5. Should the definition of "countywide significance" be updated or expanded?
   - Consideration for multijurisdictional projects.
   - Expand to include multimodal projects with better pedestrian, bicycle, and transit considerations.
   - Greater focus on sustainable forms of transportation and equity.
6. Are there any other actions or considerations for the next five years we should consider that we have not discussed?
   - Consider autonomous vehicles (AV) and safety.
   - Seek creative solutions to help finance projects.

Overall, the input received from the participants was very positive. Virtually all participants stated that they felt the SMCTA staff are helpful and responsive, SMCTA processes are efficient, and communication is clear. Many also stated that they felt that SMCTA is going in the right direction, and the proposed changes outlined in the proposed key actions were well received.

The main themes from the interview participants are summarized below:

- Call for Projects:
  - Consider making the grant amounts larger as small grants can be difficult to pursue.
  - Continue streamlining grant application processes to make it easier to apply.

  - Alter application processes to allow for specific project applications rather than requiring projects to fit within a single category.
  - Provide examples of projects that would be eligible for funding.
  - Assist with agency partnerships as multi-agency grants score better.
  - Compile resources for jurisdictions to reference and help them to be more competitive.
- Technical training ideas:
  - Active transportation (e.g., bike parking, rapid implementation options)
  - EV charging
  - Parking and curbside management
  - Safe Routes to School walk audits
  - Designing with transit
  - Group facilitation
  - Grants and funding strategies
  - Level of service analysis for multi-modal projects
- CBO bench:
  - Create a CBO collaborative within the county or specific communities
  - Implement multi-year agreements
- Funding:
  - Provide assistance with tracking funding.
  - Provide implementation funds for completed planning projects.
- Other comments:
  - Ensure earlier coordination and planning of grade separation process with Caltrain and funding partners
  - Coordinate on the corridor/county level to improve planning.
  - Use highway funds to support the SamTrans Grand Boulevard Initiative (GBI).
  - Create a transportation design/review checklist.
  - Have the TA sponsor projects to better coordinate cities conducting similar work.
  - Promote the TA via social media and make presentations to industry groups. Better name recognition would assist the TA with better intersecting with businesses.
  - Ensure best practice recommendations from design reviews are not mandates.

Section 12 details how stakeholder feedback was considered in the development of key actions for the Strategic Plan 2025-2029.

6

San Mateo County Travel Patterns and Needs

This section details countywide travel patterns and assesses transportation needs within San Mateo County.

Discussions of equitable community prioritization from previous plans, existing demographics, travel patterns, and emerging transportation technologies demonstrate where San Mateo County can most effectively implement various program improvements and congestion management strategies. The COVID-19 pandemic, which occurred during the Strategic Plan 2020-2024 period, also influenced the way people live and travel in San Mateo County. While changes are evident in the near-term, the TA will monitor long-term trends to assess potential impacts to TA projects and programs.

The spatial equity metrics featured throughout this assessment reveal that equity-burdened communities in San Mateo County often face additional barriers due to pollution and lack of transit. When measured at countrywide, statewide, and local levels, these burdens remain visible in many of the same communities, such as Foster City, Redwood City, and South San Francisco. This suggests that transportation-related investments in communities with multiple overlapping needs will produce the greatest share of benefits for the entire county and lead to indirect positive impacts on VMT, daily traffic congestion, and commute times.

6.1 DEMOGRAPHICS

According to the most recent 2022 American Community Survey (ACS) 1-Year Estimates, San Mateo County has a population of 729,181 people, with a total land area of 448.6 square miles, averaging a density of 1,625 residents per square mile.

The county's unemployment rate is low (2.2%) compared to the state (4.4%), and the median income of households with at least one employed member is about $145,388.

Due in part to a comparatively high number (18.5%) of San Mateo County residents aged 65 and older, and a median age of 41.4 years, the countywide disability rate is about 10.3%. Among residents 75 years and older, the disability rate is about 26.3%.

According to the 2020 Decennial Census, about 36% of county residents are white. The second largest population group by race is Asian (29%), followed by Hispanic or Latino (25%), Two or More Races (5%), Black or African American (2%), and Native Hawaiian or Pacific Islander (1%).

6.1.1 Change in Population By Geography

As of 2024, San Mateo County is comprised of 20 census-designated cities and towns and several unincorporated communities. Within the county, urban area populations range from 1,507 (Town of Colma) to 105,661 (City of San Mateo) residents.

Population density is largely concentrated along the Bay Area Rapid Transit (BART) and Caltrain corridors, consistent with the regional growth strategy (**Appendix C-2**). Population estimates were calculated in Plan Bay Area 2040 using a pre-pandemic data model that was released in 2018. Population Projection Model Estimates predict that by 2040, San Mateo County total population will increase from the projected year 2020 population of 796,925 to approximately 916,590. This would be a total projected increase of approximately 15% by 2040.

San Mateo County has a larger number of adults aged 55 or older compared to other counties. With 31.4% of San Mateo County's population aged 55 or older, its senior population is larger in percentage than San Francisco County (30.5%) and Alameda County (27.9%). In response to its growing aging population, the county will need to examine what transportation options best serve this age group, and how to grow and expand services in an efficient and effective manner. Urbanized areas around

South San Francisco, San Bruno, Millbrae, and Burlingame are likely to grow the most, with more modest increases in Daly City, Redwood City, San Carlos, San Mateo, East Palo Alto and other census-designated cities and towns (**Appendix C-2**).

6.1.2 Population Change by Age

The California Department of Finance-projected changes in population by age group are shown in Figure 6 for the period between 2020 and 2060. These projections demonstrate that populations aged 45-64 will continue to make up the largest age cohort in the county. The county will need to continue to invest in infrastructure improvements to serve the needs of the increasingly older adult population who may be aging in place and not able to rely solely on a motor vehicle for transportation over the next 30 years.

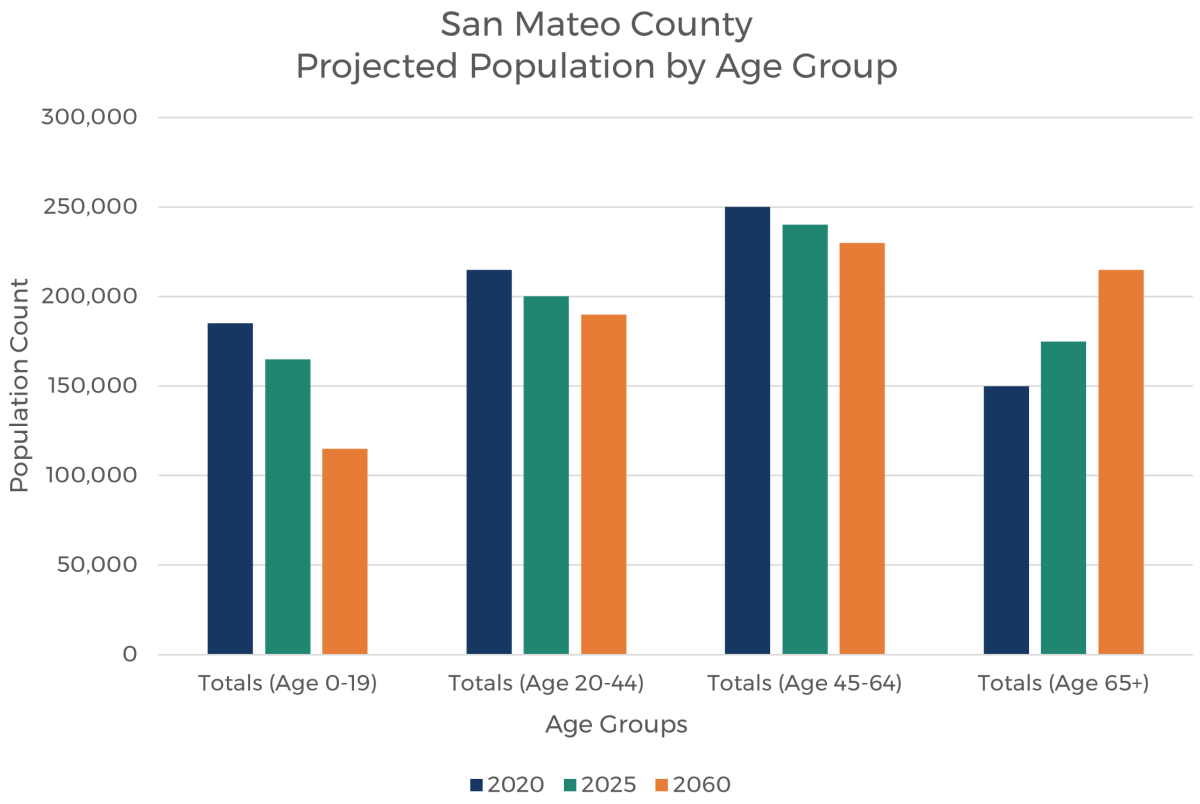

Figure 6: San Mateo County Projected Population by Age Group

Source: California Department of Finance, 2022

6.1.3 Pre-Pandemic and Post-Pandemic Demographic Overview

As shown in Figure 7, Census data shows that county population decreased between 2019 and 2022, consistent with statewide population trends. Data demonstrates that median household income and median age has increased between pre-pandemic and post-pandemic years. Growth among the population over 65 signals an expanding need for infrastructure and transportation policy that caters to a population cohort with the highest relative disability rate.

This further emphasizes the ongoing need for more inclusive universal design, transit and accessible services, and Complete Street projects throughout the county. Although median income has grown and the unemployment rate has decreased, poverty rates among non-white residents significantly increased between 2019 and 2022, underscoring the need for ongoing investment strategies that help reduce transportation cost and pollution burden and improve access to jobs across the county.

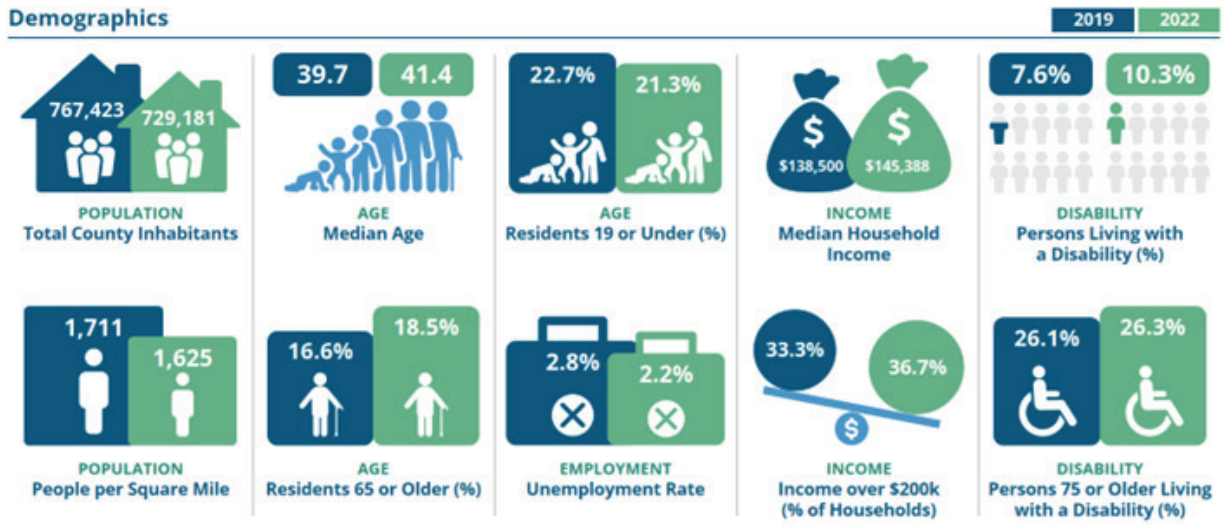

Figure 7: Pre-Pandemic and Post-Pandemic Demographic Comparison

Source: 2022 American Community Survey 1-Year Estimates, 2019 ACS 1-Year Estimates

6.2 TRAVEL TRENDS

As shown in **Figure 8**, a comparison of the mode share data for commute trips in the county from the ACS for the years 2017, 2020, and 2022 for San Mateo County residents shows that transit mode share (for rail and bus combined) has declined from 10.4% in pre-pandemic conditions to 7.3% in 2022 after the pandemic. Rates of walking to work have remained static between 2017 and 2022 at roughly 2.5%. Most significantly, the work-from-home population has increased from 4.7% in pre-pandemic conditions to almost 19% after the pandemic. Driving alone continues to be the largest mode overall, however, the percentage of total trips in the drive-alone category has steadily declined from 69% in 2017 to 59% in 2022. These trends will continue to be monitored as return-to-work requirements change over the next five years.

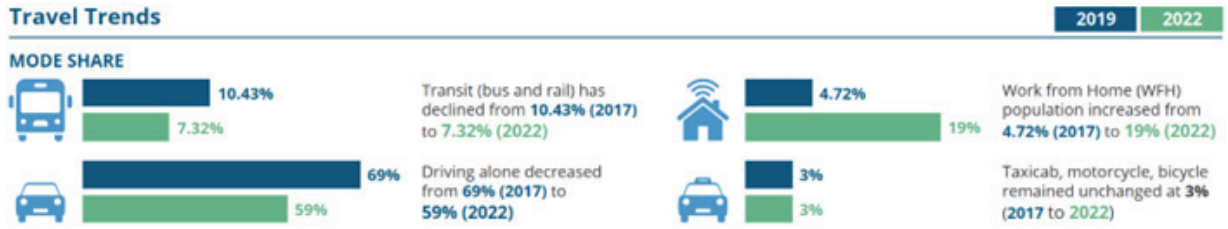

Figure 8: Means of Transportation to Work

Source: American Community Survey 1 Year Estimates, San Mateo County, 2017, 2020, 2022

6.2.1 Transit Ridership

Figure 9 shows the average year-to-date ridership data from 2017 to 2023 which includes counts for SamTrans bus, paratransit, Caltrain, BART, Oyster Point Ferry, and commuter shuttles.

While both Caltrain and BART saw significant growth in ridership leading up to 2017, the pandemic was a turning point with ridership steadily declining between 2018 and 2021 for rail transit services due to changes in commute patterns with many people no longer commuting to the office as before, and some people adopting a hybrid schedule. While both agencies continue to struggle to return to pre-pandemic levels, Caltrain has seen weekend ridership buoyed recently by special services to San Francisco Giants games and other special events. In August 2023, BART was at 47% of pre-pandemic levels; in contrast, SamTrans bus service had returned to about 89% of pre-pandemic levels. The District implemented its Reimagine SamTrans network in 2024 to include more frequent weekday and weekend service on key routes and introducing new routes in response to community input.

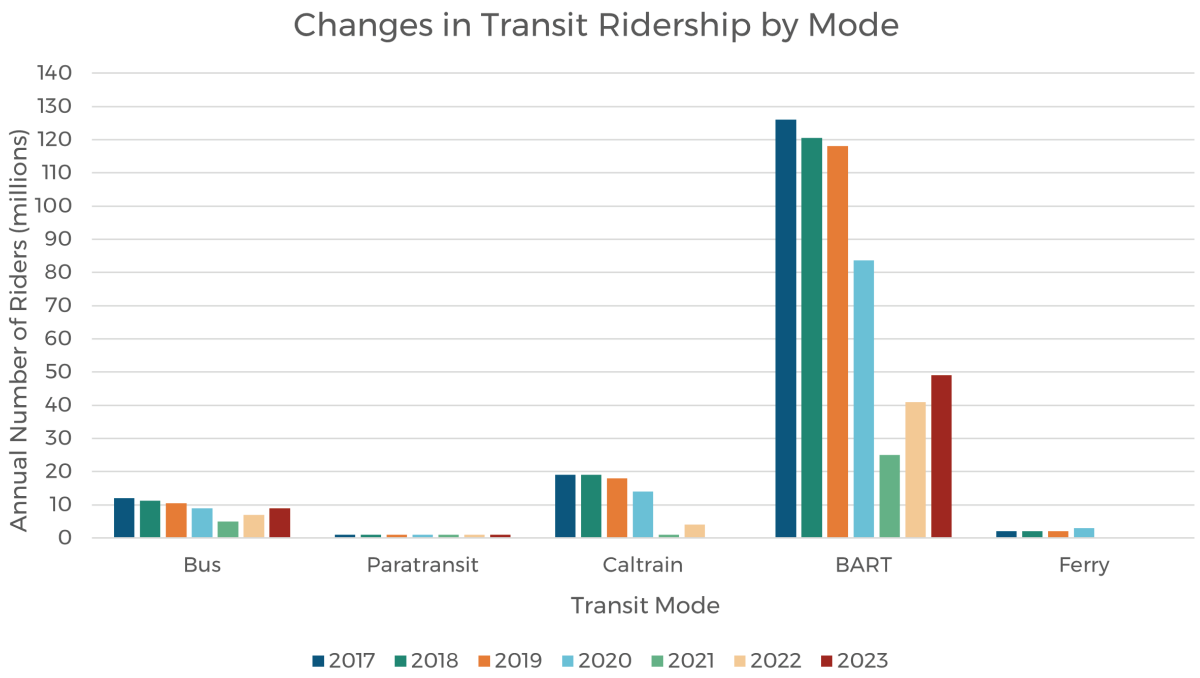

Figure 9: Changes in Transit Ridership by Mode

Source: SamTrans Ridership (Meeting Agenda Packets), Caltrain, BART, and the Water Emergency Transportation Authority (WETA)

6.2.2 Vehicle Miles Traveled

VMT is a metric of vehicle traffic that measures the number of miles traveled by automobiles over a given period and region. VMT is shown below for each incorporated city in San Mateo County, between 2017 and 2020 to indicate fluctuations in the County's travel patterns.

Daily VMT totals are shown in San Mateo County by year, from 2017 to 2022, which is currently the most recent year of data availability from the California Highway Performance Monitoring System (**Appendix C-3**). Daily VMT in the county grew steadily from 2017 and peaked at 20,121.68 in 2019. From 2020 to 2022, Daily VMT remained below 16,000. A consistent decrease of nearly 25% in daily VMT signals that long-term pandemic outcomes have significantly altered the ways San Mateo County conducts daily vehicle trips.

Between 2020 and 2022, VMT has trended downward in local arterial streets throughout nearly every city, signaling a reduced volume of traffic-related emissions at local levels. As shown in Figure 10, State Highway VMT through San Mateo County observed an opposite trend, consisting of positive VMT change between 2021 and 2022. Highway VMT increases point to considerations of enhanced alternatives for long-haul, single-occupancy vehicle commuters who travel along multi-county corridors, and the identification of communities where additional VMT-reducing implementations could produce the greatest share of countywide benefits.

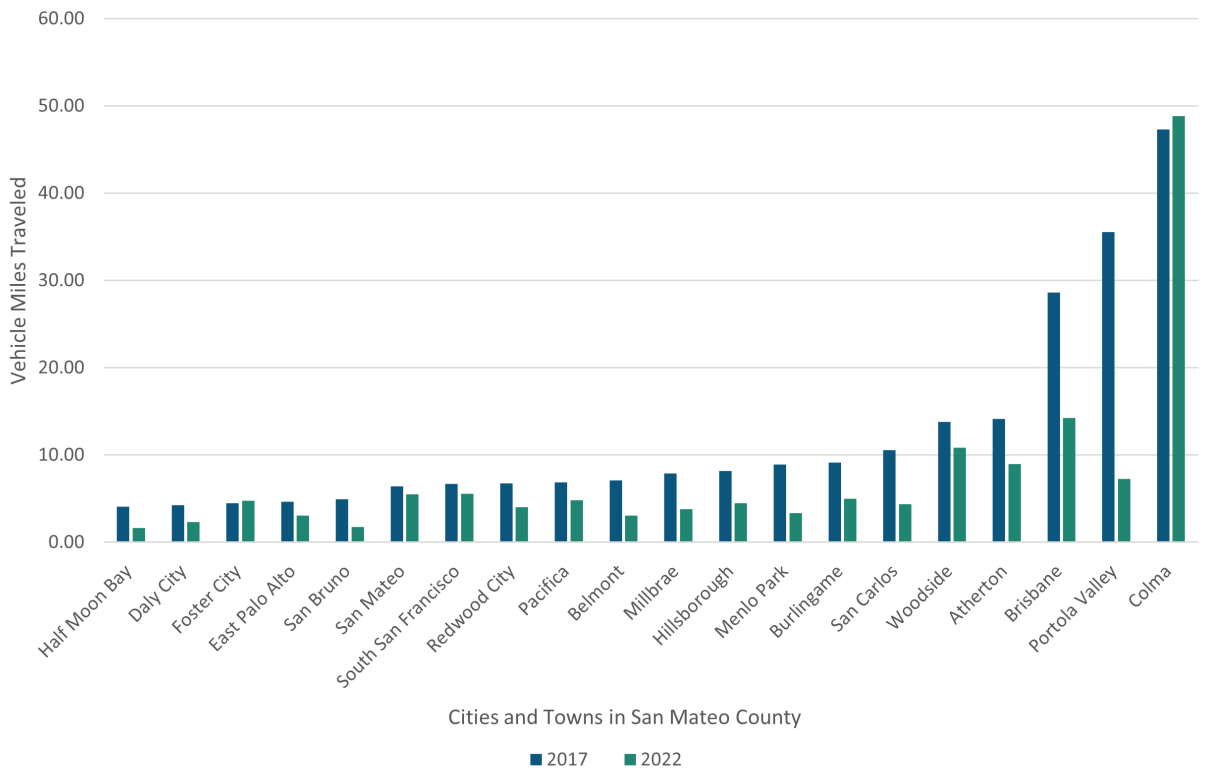

Figure 10: Per Capita VMT Trends by Urbanized Area

Source: California Highway Performance Monitoring System data, 2017-2022

6.2.3 Daily Trip Patterns

Analyzing daily trips by trip length is a critical step in assessing targeted actions for reducing countywide VMT. Trips under one mile in length represent an opportunity to reduce single-occupancy vehicle trips by promoting trips on foot. Furthermore, trips from one to three miles in length could be reduced by increasing bicycle trips, and three-to-five-mile private automobile trips could be reduced through transit ridership increases.

TRIPS WITHIN SAN MATEO COUNTY

Figure 11 below displays a daily average of trip lengths that originate and terminate in San Mateo County from the fall of 2022, using a sample size of 2.24 million trips taken by 705,000 trip-takers. From this sample, about one third of daily trips in the county for all purposes (e.g., work, school, grocery store, recreation, etc.) range from one to three miles in length. Fewer than 30% of trips from this sample are greater than five miles in length, yet about 50% of trips from the same sample are completed by drivers of single-occupancy vehicles (not counting private vehicle passengers, rideshare users, or commercial vehicle motorists, who account for an additional 25% of trips in this sample). Overall, current conditions show a high volume of county trips with potential for conversion from single occupancy vehicle trips to pedestrian (0-1 mile), bicycle (1-3 miles), or public transit (3-5 mile) trips.

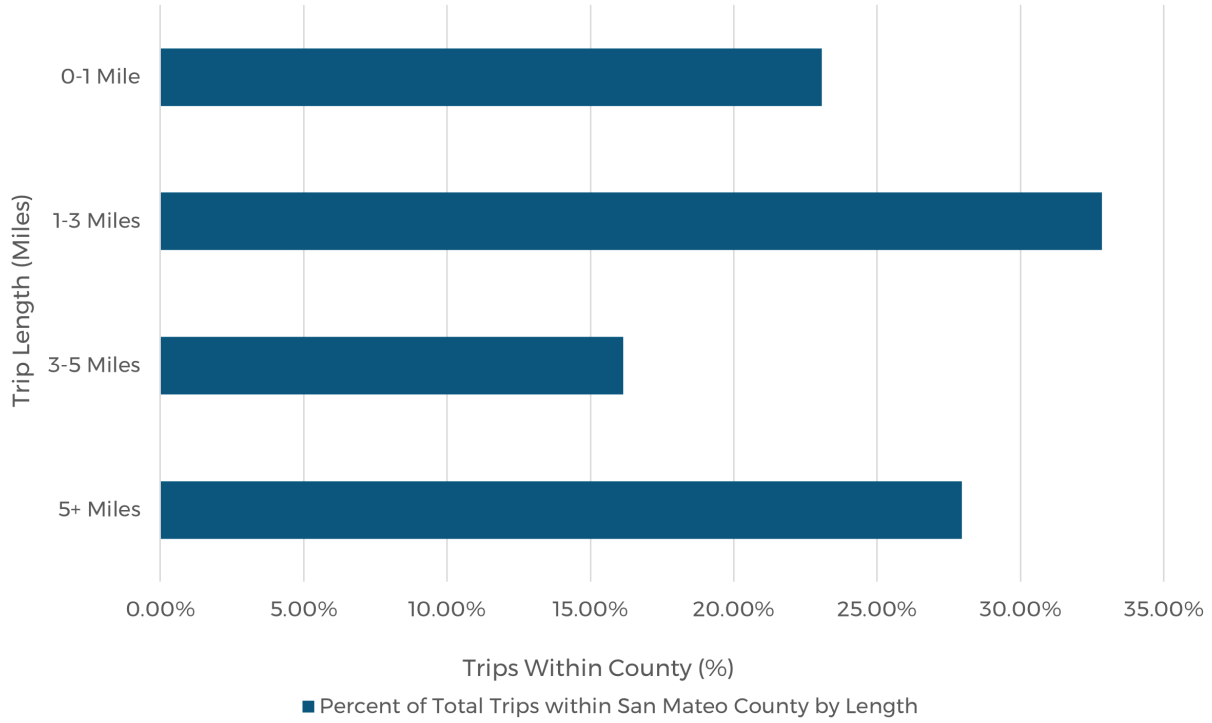

Figure 11: Percent of Total Daily Trips Within San Mateo County by Trip Length

Source: Replica, Fall 2022 Statistics for San Mateo County Trips.

The same sample in Figure 11 is applied to **Figure 12** below to display the percentage of daily trips within San Mateo County by the purpose of the trip. No trips that originate or terminate outside of San Mateo County are included in this sample, and each trip type listed below is defined by where the trip terminates. Recreational trips are defined by vehicle trips to restaurants, bars, or social events. Home trips are trips that terminate at the trip-taker's residence. Recreational trips and shopping trips represent significant shares of trips made completely within the county, highlighting a key consideration for future mobility and accessibility improvements that surround major shopping, eating, and entertainment destinations as a form of traffic congestion relief.

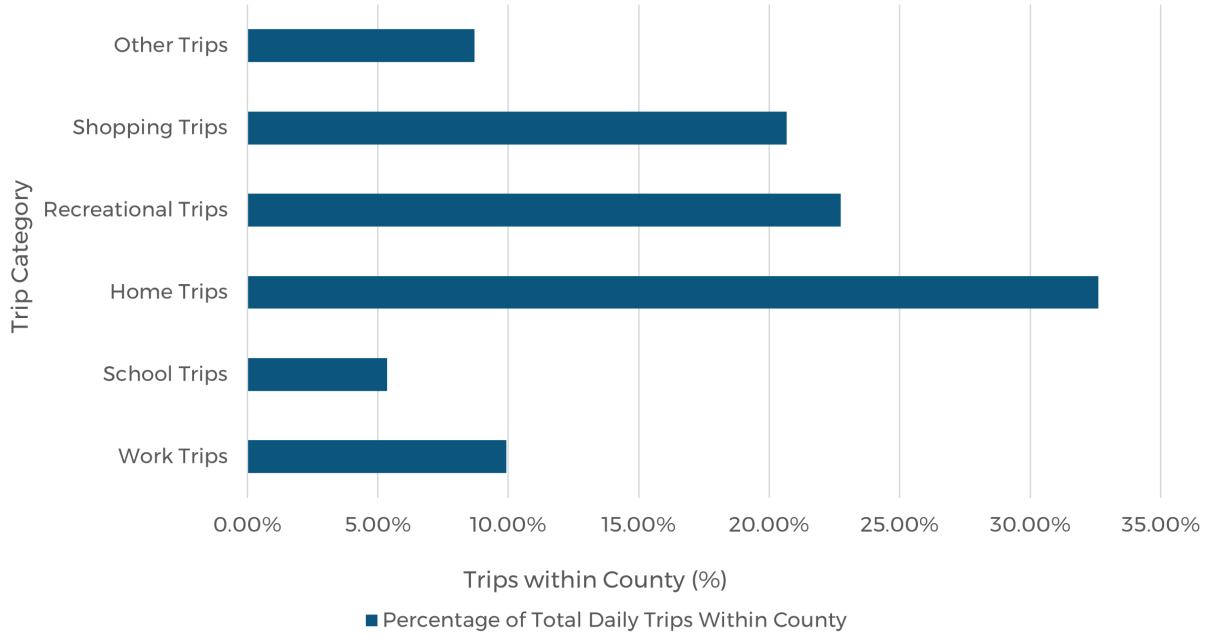

Figure 12: Daily Trip Destination by Trip Type Within San Mateo County

Source: Replica, 2022

TRIPS TO WORK IN SAN MATEO COUNTY FROM OUTSIDE THE COUNTY

The average number of daily work trips into San Mateo County was 129,744 (Appendix C-2). Origins include:

- Santa Clara County, 44,798 trips (35%)
- San Francisco County 40,076 trips (31%)
- Alameda County 29,095 trips (22%)
- Contra Costa County 7,888 (6%)
- Other counties 7,887 (6%)

TRIPS THROUGH SAN MATEO COUNTY

The trips that travel through San Mateo County, but do not originate or terminate within the county's boundaries, come from a sample size of about 250,000 trips (**Appendix C-2**). The greatest share of trips through San Mateo County are traveling from San Francisco County to the north, Santa Clara County, to the southeast, and Alameda County, to the west. These counties are also regionally significant for San Mateo County through trip destinations. Continued investment in regional transit connections could help address many of these commute patterns.

6.2.4 Average Daily Traffic

Figure 13 and Figure 14 show average traffic volumes along San Mateo County freeways during peak times, midday off-peak times, and all-day weekend times that pass through six San Mateo County freeway interchange points in May 2019, compared to May 2023.

Each location was calculated by a road segment zone of analysis, which outputs a volume of traffic that travels through each segment during a specific time frame. Peak AM and PM times were calculated as an average of traffic volumes between Monday and Thursday, for the hours of 6:00 AM to 10:00 AM, and 3:00 PM to 7:00 PM, respectively. Weekday Mid-Day volumes were calculated for the period between 10:00 AM and 3:00 PM, Monday through Thursday. Weekend All-Day volumes were calculated for a 48-hour period comprising an average of Saturday and Sunday volumes.

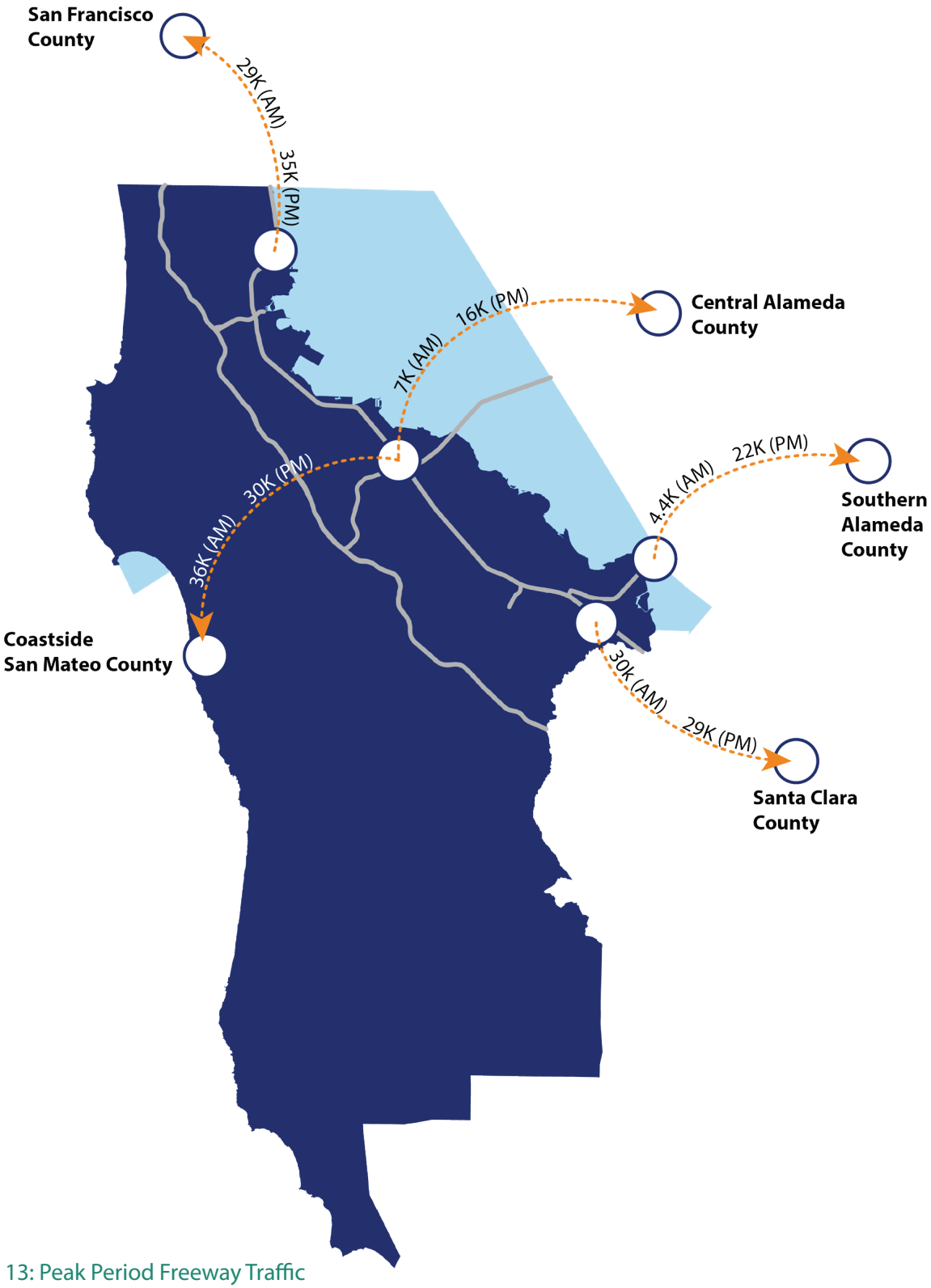

Figure 13: Peak Period Freeway Traffic Volumes in May 2019

Source: Streetlight Data, 2024

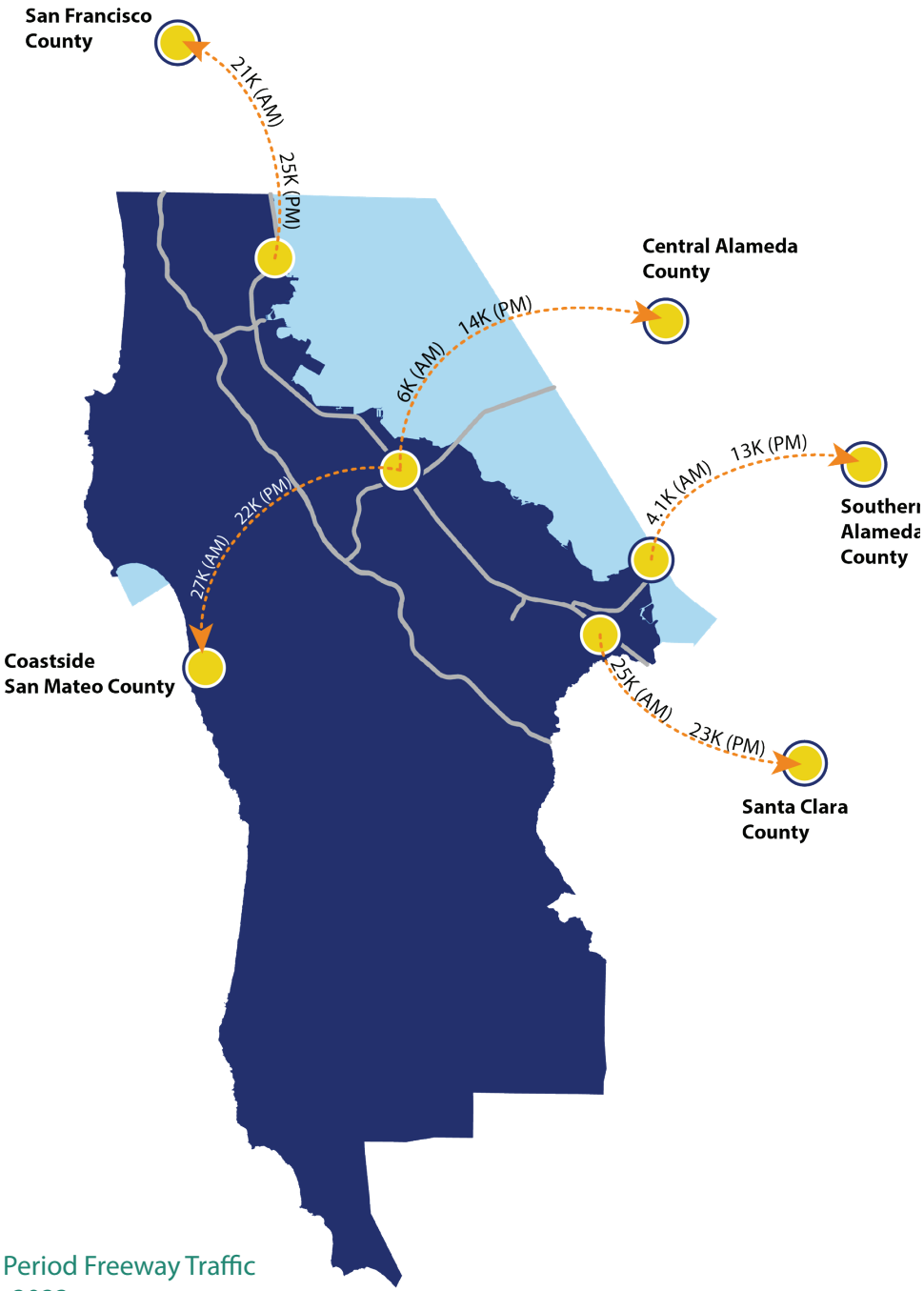

Figure 14: Peak Period Freeway Traffic Volumes in May 2023

Source: Streetlight Data, 2024

Between 2019 and 2023, there was a decrease in traffic volume along major San Mateo County corridors. The largest overall travel decreases occurred along US 101 near South San Francisco, both for northbound and southbound trips during the weekend (all day), weekday (all day), and rush hour times (weekday AM/PM peak). Further south along US 101, at the State Route 92 interchange, north and southbound traffic volumes have generally remained the same or increased slightly. The same is true along SR 92 near the San Mateo-Hayward Bridge.

6.3 NEW MOBILITY SERVICES AND AUTONOMOUS VEHICLES

In San Mateo County, several mobility projects and technological improvements to transportation are expected to take shape between 2025 and 2029. As of 2024, many of the projects that concern transit and freeway congestion relief are in pilot stages, with the intention of future implementation countywide.

6.3.1 Micromobility

Micromobility improvements consist of infrastructural enhancements catering to bicycles, scooters, small vehicles, and micro-transit services. Micromobility modes are usually offered by cities or third-party agents as on-demand vehicles that can be rented on a trip-by-trip basis. Typically, these services might include e-bike sharing programs or on-demand micro-shuttle services.

In December 2022, C/CAG released a San Mateo County Shared Micromobility Feasibility Study and Implementation Plan, with the purpose of defining what shared micromobility would mean for the county and determining if it is feasible to pursue. The plan conducted an analysis to determine how shared micromobility could address current transportation challenges and opportunities faced by the county, as well as how countywide resources and partnering agencies could be used to help develop the plan. The plan recommends establishing a multi-jurisdictional program with a single managing body responsible for procuring the shared micromobility infrastructure and equipment, while using one or more contracted third-party operators to maintain and finance the system rather than a public agency. Since 2022, several public-private partnerships between San Mateo County cities and independent micro-transportation contractors have begun as part of a larger process to integrate countywide micromobility for enhanced first mile/last mile connections.

BURLINGAME AND MILLBRAE SPIN BIKESHARE PROGRAM

In 2023, the Cities of Burlingame and Millbrae launched a joint bikeshare program with Spin. Spin is a San Francisco-based micromobility company that operates e-bikes and scooters in North American and European cities and college campuses. The program consists of e-bike "corrals" located near major transit stations, shopping centers, restaurants, parks, and libraries in both cities, where bikes can be rented via a smartphone app interface.

REDWOOD CITY BIRD SCOOTER SHARE PROGRAM

Bird, a global scooter share service, began a partnership with Redwood City in 2022 to offer a citywide shared micromobility program. The partnership was developed following RWCmoves, the Citywide transportation plan, which outlined goals for managing congestion, expanding connections, and making the city's transportation network more sustainable. In the first five weeks of Bird's scooter share service in Redwood City, over 7,400 trips occurred, traveling 11,980 total miles at an average of 1.6 miles per trip.

BAY WHEELS EXPANSION INTO SAN MATEO COUNTY

Owned by Lyft, in partnership with MTC and the Bay Area Air Quality Management District, Bay Wheels has expanded its bike sharing docking infrastructure and area of reach into Daly City as of May 2024. In prior years, the program expanded to San Jose and the East Bay, adding 24 new docking stations and 565 e-bikes in Oakland, Emeryville, and Berkeley to its inventory of over 6,000 bicycles at over 500 stations. Bay Wheels' expansion into Daly City represents a milestone for San Mateo County as it continues to implement regional connectivity programs that make county-to-county active transportation a more feasible drive-alone alternative.

In addition to a variety of bike, e-bike, scooter, and AV implementations planned for the Bay Area, various agencies like MTC plan programs, infrastructural expansions, and community outreach events to encourage a greater presence of micromobility enhancements in the region.

6.3.2 Mobility Hub Projects

In 2021, MTC awarded pilot funding to six regionally significant mobility hubs throughout the Bay Area in an effort to enhance connectivity between transportation modes and close regional gaps and disparities. Mobility hubs are locations that offer regional connectivity through transit and other shared transportation options, such as e-bike sharing and on-demand micro shuttles, enabling connections to a more diverse range of destinations that are best served by various modes of transportation. The six mobility hubs chosen for funding focused on providing seamless multi-modal connections through enhancements to wayfinding, mode-specific infrastructure, electric vehicle (EV) charging stations, and even bicycle repair facilities. Two of the selected Mobility Hub Pilot Projects are in San Mateo County, located at the Millbrae Transit Center and Burlingame Square.

The Millbrae Transit Center Mobility Hub is a conversion from a previously existing parking lot to a multimodal transit hub. The hub centralizes bike share facilities and EV charging stations to encourage connections to BART, Caltrain, downtown Millbrae, and an existing Class III bicycle facility located on El Camino Real. The Burlingame Square Transit Hub Pilot focuses on improvements to pedestrian and bicycle connectivity at a transit-adjacent plaza, with added seating areas, bicycle racks, additional lighting, and improved pedestrian wayfinding signage.

Lastly, the TA, in partnership with the City of San Mateo and the District, is developing the US 101/SR 92 Mobility Hub and Smart Corridor Plan. The plan will develop a 1.4 mile Class IV separated bikeway and convert the existing park and ride facility beneath the freeway into a mobility hub. The goals of the project are to expand transportation options, increase access to safe, high-quality transit, reduce emissions and enhance public health, and improve conditions for all non-motorized forms of transportation.

6.3.3 Transportation Network Companies

Transportation Network Companies (TNC) are on-demand transportation service providers that allow passengers to reserve a ride through a web or app-based interface. In recent years, TNCs like Uber and Lyft have gained a significant presence in most American cities, including in cities in San Mateo County. TNCs have carved out a place among other transportation services by offering mobility options, at times in competition with both single occupant vehicles and transit. Since their emergence, TNCs have quickly become a legitimate mode that transportation users consider when making transportation options. The quick rise of TNCs has also enabled them to mature quickly compared to other options within the new mobility class – in particular AVs, which have been on a slower growth trajectory, as is described further in the next section.

6.3.4 Autonomous Vehicles

An automated or autonomous vehicle uses sensors to make its own judgements while driving, unlike a connected vehicle, which is a vehicle that can share data with other vehicles and infrastructure, similar to most of the self-driving technology that exists today. The TA and C/CAG both accepted the San Mateo Countywide Automated Vehicles Strategic Plan in November 2024, which guides how the county could best adopt autonomous vehicles for use on its roads. The plan acknowledges that AVs have been rolled out in neighboring counties with varying levels of success, stating that San Mateo County will need to identify challenges in AV deployment all around the country to understand how the introduction of these vehicles can best prioritize the needs of residents.

From the current extent of community engagement that the county has conducted, four uses for the incoming vehicles were found to be most marketable for county constituents: personal use, ride-hailing, public transportation, and freight or goods movement. These use cases echo statewide principles, such as those established in the California Transportation Plan 2050, which guide future policy decisions for the introduction of AVs into the county. Plan Bay Area 2050 recognizes that AVs could fundamentally change transportation network design and operations as they currently exist in the county. In preparation for these changes, MTC and ABAG released an Autonomous Vehicles Perspective Paper, which recommends strategies that could support Plan Bay Area 2050's vision for AVs.

Waymo falls under the category of a ride-hailing service that would operate with AVs. As of May 2024, Waymo vehicles have been approved to begin service in several coastal communities in the county, north of the City of San Mateo. In May 2024, the autonomous service remains in testing phases throughout the county and use of vehicles engaging the driverless functions is limited to Waymo employees only. However, a California State Senate Bill has been in the works which would allow Bay Area communities to exhibit greater authority over the authorization, deployment, and use of AVs on their streets.

6.3.5 Electric Vehicles

Executive orders issued by former Governor Jerry Brown and Governor Newsom have set a goal for the installation of 250,000 EV charging stations by 2025, and five million EVs in use by 2030. The orders dictate that all new cars and passenger trucks sold in California must be zero-emission by the year 2035.

In effort to encourage these goals throughout the Bay Area and adhere to further goals set forth by the California Air Resources Board for 100% zero-emission transit fleets by 2040, the District has implemented a 100% zero emission bus goal that is slated for completion by 2034, six years ahead of schedule. This procurement would consist of 118 hydrogen fuel cell buses and 37 battery electric buses (subject to change). Caltrain has recently completed its efforts to replace its fleet with electric trains operating from San Francisco to San Jose, a modernization that will allow for greater frequencies, fewer service interruptions, and increased ridership onboard the service. While BART trains are already 100% electric, the agency has begun the process of installing EV charging stations

at Lafayette Station and Warm Springs Station as part of a pilot program. The intent of the pilot is to identify solutions to help the agency develop EV charging connectivity throughout the entire system, which will eventually deliver mobility benefits to San Mateo County neighborhoods served by BART. The previously mentioned Transit Mobility Hub Pilot Projects in Millbrae and Burlingame feature EV charging stations for private automobiles and e-bikes.

6.4 NEEDS ASSESSMENT

The previously summarized demographics and travel trends recommend the creation of a unified equity index to inform decision-making and future project prioritization, consideration of safety as a factor in future funding decisions, evaluation of previous TDM programs, consideration of the needs of the county's growing vulnerable populations (e.g., residents aged over 65), and inclusion of first/last-mile assessments as a factor in project selection and program evaluation.

6.4.1 Equity and Demographic Needs

IMPROVE UNDERSTANDING OF OLDER ADULT POPULATION MOBILITY NEEDS

Demographic trends for the county show that the population over 65 is the only age group that will increase in the county over time. Given this projected increase in potentially transit-dependent communities and communities with limited mobility, the TA should conduct specific community engagement with community members within this age range can help inform what transit and TDM investments to prioritize and provide an opportunity for the TA to better understand the needs of its fastest expanding population age group. In addition, an exploration into how well current transportation options meet senior population needs, identify any gaps, and develop areas for improvement or new services is recommended.

EVALUATE LESSONS LEARNED FROM EQUITY-FOCUSED PROGRAMS

Per Census data, the poverty rate in non-white communities in the county has increased over time, despite a decrease in unemployment rate and median wage increase. There has been a concerted effort to better integrate equity considerations within multiple levels of project development: from awarding funding to projects focused on or within equity priority areas to supporting projects that have specific equity program set-asides. In 2020, the San Mateo County Express Lanes JPA Board of Directors conducted an Equity Study to learn more about potential mobility improvements that the San Mateo 101 Express Lanes project could help address in equity communities. The study recommended an equity program designed to help with those needs. The study also recommended conducting an evaluation of this program as well as any other equity-focused TDM program in San Mateo County. As many of these equity focused initiatives have been implemented during the current strategic plan cycle, there is now an opportunity to review and assess how well the incorporation of equity has had of any impact within the communities projects are serving.

WORK WITH AGENCIES TO IMPLEMENT INITIATIVES THAT SUPPORT FIRST/LAST-MILE CONNECTIONS IN EQUITY PRIORITY AREAS

Federal, state, and local tools identify San Mateo County communities where rising poverty rates, high traffic congestion, and disproportionate impacts of pollution burden intersect. Expanding first/last-mile connections serves as an opportunity for the TA to work toward reducing traffic congestion and VMT in overburdened communities by replacing short drive-alone trips (50% of trips within San Mateo County being less than three miles in length) with active transportation. Enhancing first/last-mile connections in Equity Priority Areas will allow the TA to serve a larger ridership base while enabling additional opportunities for the TA to work with agencies to promote greater access to the county's major transit hubs.

6.4.2 Travel Trend Findings

ADVANCE MOBILITY HUB VISION AND TOOLKIT TO INFORM FUTURE PROJECTS

Mobility hubs provide opportunities to reduce VMT through enhanced first/last-mile connections and the offering of multimodal transportation options. Building on the work from the US 101/SR 92 Mobility Hub and Smart Corridor Plan and MTC's Mobility Hub Playbook, the TA can continue to explore how mobility hubs can increase access to transit as well as encourage new users to non-automobile travel. The opportunity lies around creating a corridor or countywide standard for the types and sizes of mobility hubs that would be successful in the county. This includes developing a mobility hub toolkit specific to San Mateo County, exploration of potential mobility hub locations, and any supplemental planning to ensure transit and non-automobile connections are considered.

PRIORITIZE IMPROVEMENTS ALONG OVERLAPPING HIGH TRAFFIC STRESS AND HIGH-INJURY CORRIDORS

Data gathered for the High Injury Network and High-Stress Network in C/CAG's CBPP show that corridors where humans perceive bicycling as having lower levels of comfort coincide with roadway characteristics of high-injury-density corridors. Identifying improvements to bicycle facilities to raise comfort levels is critical and requires targeted engagement with the bicycling community to understand the gaps and potential improvements. Future studies can include highlighting specific corridors from the High Injury Network to develop improvement plans and upgrade bicycle facilities with additional traffic-calming roadway measures. This approach will simultaneously improve safety and help current and potential new cyclists feel comfortable on roadways, therefore working to replace a greater number of drive-alone trips on San Mateo County arterials and highways with active transportation trips.

IMPLEMENT SERVICE-ENHANCING TRANSIT AMENITIES ALONG HIGHWAY ARTERIAL ROADS

Data in this Strategic Plan demonstrates that VMT reductions throughout San Mateo County are not occurring due to a greater modal split, but rather because of work and lifestyle changes at a collective level. Along highways, peak AM/PM traffic volumes remain high compared to pre-pandemic levels. Corridor-wide improvements to bus routes along arterials, parallel to heavily congested freeways, will help replace longer distance commuting trips and VMT with increased transit ridership. Preliminary work from the 101 Corridor Connect project is an example of the exploration into creating complementary non-automobile mobility options along a major corridor to help alleviate and encourage mode shift. This same exploration can be extended to other major corridors within the county, such as El Camino Real and Interstate 280. There is the recognition that these other major corridors in San Mateo County have unique functionalities and travel uses, so each study would be tailored to accommodate those characteristics.

7

Financial Outlook

The TA retains dedicated sales tax consultants who helped to provide updated sales tax projections for Measures A and W for the five-year Strategic Plan period of FY 2025 to FY 2029. The five-year total sales tax projection for Measure A is $617.5 million and $308.7 million for Measure W resulting in a total of $926 million that can be made available for transportation projects in San Mateo County, as shown in Table 8.

Sales Tax Measure	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Total
Measure A	$117,988,326	$120,285,501	$123,292,638	$126,374,955	$129,534,328	$617,475,748
Measure W	$58,994,163	$60,142,750	$61,646,319	$63,187,477	$64,767,164	$308,737,873
Total	**$176,982,489**	**$180,428,251**	**$184,938,957**	**$189,562,432**	**$194,301,492**	**$926,213,621**

Table 8: Sales Tax Projections for FY 2025 to FY 2029

Note: FY 2025-FY 2026 sales tax projections provided by the TA's sales tax consultant in mid-January 2024. Assumed annual growth of 2.5% for FY 2027 to FY 2029.

The TA's FY 2025 Adopted Budget identifies unprogrammed available budget amounts from 2024 and prior years for the Original Measure A (1988), New Measure A (2004), and Measure W (2018) Expenditure Allocations & Authorizations (**Appendix E**)

Table 9 and Table 10 take the total sales tax projections for Measures A and W, respectively, for the 2025-2029 five-year timeframe (shown in Table 10) and calculates the projected funding for each program category using the mandated percentage split of the sales tax revenues. The tables also add the unprogrammed amounts to the applicable categories of the sales tax projections for Measures A and W, respectively, and show the total of unprogrammed funds and sales tax projections for each category.

Program Categories	Mandated Percentage Split	FY 2024 and Prior Unprogrammed Funds	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Subtotal (FY 2025 to FY 2029)	Total Unprogrammed Funds and Sales Tax Projections
Transit	30%	$145,332,742	$35,396,498	$36,085,650	$36,987,791	$37,912,487	$38,860,298	$185,242,724	$330,575,466
Caltrain	16%	$55,229,945	$18,878,132	$19,245,680	$19,726,822	$20,219,993	$20,725,492	$98,796,120	$154,026,065
Local Shuttles	4%	$12,177,418	$4,719,533	$4,811,420	$4,931,706	$5,054,998	$5,181,373	$24,699,030	$36,876,448
Paratransit	4%	$0	$4,719,533	$4,811,420	$4,931,706	$5,054,998	$5,181,373	$24,699,030	$24,699,030
Ferry	2%	$14,165,256	$2,359,767	$2,405,710	$2,465,853	$2,527,499	$2,590,687	$12,349,515	$26,514,771
Dumbarton Rail Corridor	2%	$26,711,578	$2,359,767	$2,405,710	$2,465,853	$2,527,499	$2,590,687	$12,349,515	$39,061,093
BART within San Mateo County	2%	$0	$2,359,767	$2,405,710	$2,465,853	$2,527,499	$2,590,687	$12,349,515	$12,349,515
Highways	27.5%	$53,406,562	$32,446,790	$33,078,513	$33,905,475	$34,753,113	$35,621,940	$169,805,831	$223,212,393
Local Streets & Transportation	22.5%	--	$26,547,373	$27,064,238	$27,740,844	$28,434,365	$29,145,224	$138,932,043	$138,932,043
Grade Separations	15%	$67,126,056	$17,698,249	$18,042,825	$18,493,896	$18,956,243	$19,430,149	$92,621,362	$159,747,418
Pedestrian & Bicycle	3%	$8,946,946	$3,539,650	$3,608,565	$3,698,779	$3,791,249	$3,886,030	$18,524,272	$27,471,218
Alternative Congestion Relief	1%	$4,305,841	$1,179,883	$1,202,855	$1,232,926	$1,263,750	$1,295,343	$6,174,757	$10,480,598
Administration	1%	$0	$1,179,883	$1,202,855	$1,232,926	$1,263,750	$1,295,343	$6,174,757	$6,174,757
Total	**100%**	**$242,069,602**	**$117,988,326**	**$120,285,501**	**$123,292,638**	**$126,374,955**	**$129,534,328**	**$617,475,748**	**$859,545,350**

Table 9: Allocation of Measure A Sales Tax Projections to Mandated Program Categories and FY 2024 and Prior Unprogrammed Funds (in 2024 Dollars)

Program Categories	Mandated Percentage Split	FY 2024 and Prior Unprogrammed Funds	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Subtotal (FY 2025 to FY 2029)	Total Unprogrammed Funds and Sales Tax Projections
Regional Transit Connections	10%	$51,846,147	$11,798,833	$12,028,550	$12,329,264	$12,637,495.40	$12,953,432.80	$61,747,575	$113,593,722
Countywide Highway Congestion	22.5%	$74,893,095	$26,547,373	$27,064,238	$27,740,844	$28,434,364.65	$29,145,223.80	$138,932,043	$213,825,138
Local Safety, Pothole & Congestion Relief	10%	--	$11,798,833	$12,028,550	$12,329,264	$12,637,495.40	$12,953,432.80	$61,747,575	$61,747,575
Grade Separations	2.5%	$13,076,537	$2,949,708	$3,007,138	$3,082,316	$3,159,373.85	$3,238,358.20	$15,436,894	$28,513,431
Bicycle & Pedestrian	5%	$13,601,468	$5,899,416	$6,014,275	$6,164,632	$6,318,747.70	$6,476,716.40	$30,873,787	$44,475,255
Total	**50%**	**$153,417,247**	**$58,994,163**	**$60,142,750**	**$61,646,319**	**$63,187,477**	**$64,767,164**	**$308,737,873**	**$462,155,120**

Table 10: Allocation of Measure W Sales Tax Projections to Mandated Program Categories and FY 2024 and Prior Unprogrammed Funds (in 2024 Dollars)

7.1 FUNDING OUTLOOK AND NEEDS

Figure 15 shows the Measures A and W unprogrammed funds and sales tax projections funds against the funding needs for the competitive program categories.

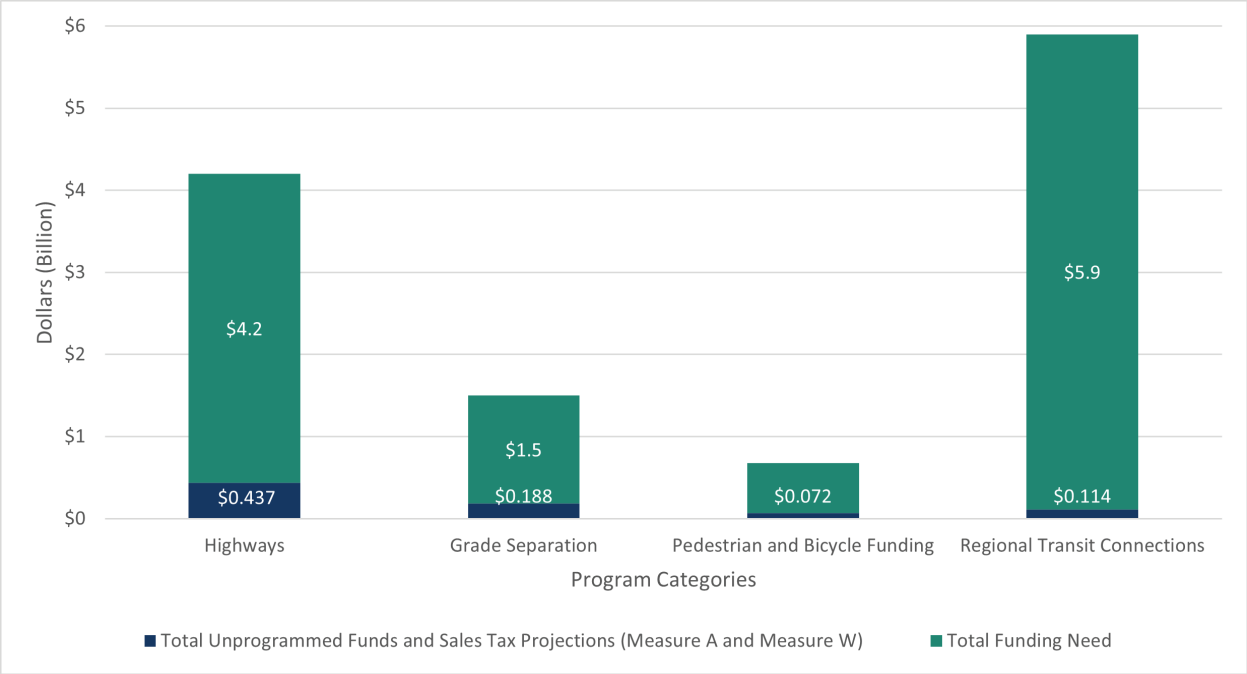

Figure 15: Measures A and W Unprogrammed Funds and Projected Sales Tax Funds and Total Funding Needs

7.1.1 Highway Funding Outlook

- The total combined unprogrammed funds and sales tax projections through FY2029 for Highway projects is $437 million.
- The SHRP CIP includes 30 projects at various stages of development, with cumulative project costs totaling $2.9 billion and the total cost of the "next feasible phase" for the 30 projects is $181.6 million.
- Inflation and construction cost escalation increases the original total cost estimate of $2.9 billion to $4.2 billion. The figure only represents high-level adjustment factors, and more information on each project will be assessed as they progress through the development process.

The unprogrammed Measures A and W funds and sales tax projections for Highway projects of $437 million can fund 10.5% of the $4.2 billion Highway program.

7.1.2 Grade Separation Funding Outlook

The total combined unprogrammed funds and sales tax projections through FY 2029 for Grade Separation projects is $188 million.

There are three Grade Separation Pipeline projects remaining as adopted by the TA Board of Directors, including:

- The Broadway Burlingame Grade Separation Project
- The South Linden Avenue & Scott Street Grade Separation Project
- Menlo Park's Ravenswood Avenue Grade Separation Project

The unprogrammed Measures A and W funds and sales tax projections for Grade Separation projects of $188 million can fund 12.5% of the projected $1.5 billion+ Grade Separation program.

7.1.3 Pedestrian and Bicycle Funding Outlook

- The total combined unprogrammed funds and sales tax projections through FY 2029 Pedestrian and Bicycle projects is $72 million.
- The C/CAG Comprehensive Bicycle and Pedestrian Plan includes a summary of the cost estimates for the bicycle facilities recommended in this plan, which estimated the total need for all countywide bikeway backbone network and trail projects at $426.7 million in 2020 dollars.
- Inflation and construction cost escalation in recent years increases the original total cost estimate of $426.7 to a projected estimate of $676.7 million. The figure only represents high-level adjustment factors, and more information on each project will be assessed as they progress through the development process.

The unprogrammed Measures A and W funds and sales tax projections for Pedestrian and Bicycle projects of $72 million can fund 10.6% of the $676.7 million Pedestrian and Bicycle program.

7.1.4 Regional Transit Connections Program Funding Outlook

- The total combined unprogrammed funds and sales tax projections for highway projects is $114 million.

The unprogrammed Measure W funds and sales tax projections for RTC projects of $114 million can fund 2% of the $5.9 billion RTC program.

8

Programming, Allocation, and Monitoring Guidelines

8.1 PROJECT SELECTION CATEGORIES

The TA Strategic Plans have historically categorized Measures A and W funding programs and subcategories into three categories: Agreement-Based Programs, Plan-Based Programs, and Competitive Programs. This plan removes the Plan-Based Programs category since multiple plans were adopted in the prior Strategic Plan period, but the TA may elect to update those individual plans as conditions change in the future. Additional plans may be developed for individual funding programs periodically to guide updates and reflect best practices over time in the future and updates to the Strategic Plan also qualify as plan-based changes. The results of which are now either agreement-based, competitive-based, or a combination of the two for the Strategic Plan 2025-2029.

The programs included in the Agreement-Based category are governed by agreements that are either specified in the Measure A Expenditure Plan or the Measure W Congestion Relief Plan. The programs included in the Competitive Program category are governed by a CFP cycle or on a first-served, ready-to-go basis. These program designations are shown in Table 11.

Agreement-Based		
Measure A	**Measure W**	
Local Streets & Transportation	Local Safety, Pothole & Congestion Relief (Local Investment Share)	
BART	N/A	
Caltrain		
Dumbarton Rail Corridor		
Ferry		
Competitive		
Measure A	**Measure W**	**Project Selection Approach**
Highways	Countywide Highway Congestion Improvements	Call for Projects process guided by the Short-Range Highway Plan (SRHP) and Highway Capital Improvement Program (CIP)
Alternative Congestion Relief (ACR)	Transportation Demand Management (TDM)1	Call for Projects process guided by the ACR/TDM Plan
Pedestrian & Bicycle	Bicycle & Pedestrian	Call for Projects process
Local Shuttle2	N/A	Call for Projects process guided by the Peninsula Shuttle Study
N/A	Regional Transit Connections	Call for Projects process guided by the Short-Range Transit Plan (SRTP) and Transit CIP
Grade Separations	Local Safety Pothole & Congestion Relief Improvements (Grade Separations)	Fund pipeline projects on a rolling basis

Table 11: Project Selection Approach

Notes:
1 The Measure W TDM program is a subcategory of the Measure W Countywide Highway Congestion Improvements program.
2 The Measure A Local Shuttle program is a subcategory of the Measure A Transit program

8.2 STANDARD GUIDELINE ELEMENTS

The following sections describe standard guidelines and policies that are generally applicable to all TA funding programs. However, individual programs in the Competitive Program category may specify additional guidelines and requirements as part of each subsequent CFP that also must be adhered to.

8.2.1 Eligible Sponsors

The designated participants in the Measures A and W programs are the project initiator, the Sponsors, the project manager/operator, and the TA. Table 12 defines the eligibility requirements, roles, and responsibilities of each of these participants.

Participant	Eligibility	Roles and Responsibilities
Project Initiator	**Any person or entity**	**Develops scope for the initial project**
Sponsor	Measure A: identified in Expenditure Plan for each program category Measure W: as determined through the Strategic Plan development process	• Submit funding request or CFP applications to the TA • Develop funding plan • Coordinate with the TA to identify appropriate implementing agency • Submit monitoring reports • Sign primary grant agreement and project supplement(s)
Implementing Agency	The agency who is responsible for leading funding award on behalf of an eligible Sponsor. The TA may act as an implementing agency, if requested.	• Plan/engineer/construct projects • Operate services • Sign primary grant agreement and project supplement(s) when applicable
Transportation Authority	Identified in the Measure A Expenditure Plan and the Measure W Congestion Relief Plan as the manager/ administrator of the Measures A and W programs	• Evaluate and prioritize projects • Coordinate with Sponsor to determine implementation lead • Program and allocate funds • Oversight of projects / programs • Sign primary grant agreement and project supplement(s)

Table 12: Measures A and W Participants and Responsibilities

8.2.2 TA Board of Directors Approval

The TA Board of Directors makes fund programming decisions based on recommendations developed during CFP processes. These decisions reserve funds for specific projects or a program of projects. Either concurrent with the programming or in a separate action, the Board of Directors will allocate funding and track allocated funds as part of the TA's annual budget approval process. This series of actions ensures timely availability of funds.

8.2.3 Primary Grant Agreement and Project Supplement(s)

Historically, the TA has executed separate funding agreements and memoranda of understanding, or amendments thereto, for each phase of each project. To streamline and expedite future contracting processes, the TA has developed a new primary grant agreement through which the TA and Sponsors will document the structure of their relationships and related obligations. Concise individual project supplements will detail each funded project and any specifically-associated requirements during the 10-year term of the primary grant agreement.

To be eligible for TA Measures A and W funding over the next 10 years, the TA will require Sponsors' governing boards to adopt resolutions authorizing the Sponsors' chief executive/mayor/chair, or designee, to sign a primary grant agreement with the TA.

8.2.4 Matching Funds

The TA requires that Sponsors provide matching funds for all individual funding requests. The matching funds can either be supplied from the options below:

- Local general funds
- Local investment funds from Measure A Local Streets/Transportation and Measure W Local Safety, Pothole, and Congestion Relief Improvements that are discretionary transportation funds provided for each local jurisdiction
- External local, county, regional, state, and federal grants or other funding sources

Navigating through the network of external funding and securing matching funds may be complicated for Sponsors. To aid local jurisdictions in obtaining funds as needed to meet the minimum matching funds requirement, the TA has provided a representative summary of existing federal, state, and local funding programs that can be leveraged with Measures A and W funding contained in **Appendix G**, although these programs are subject to change. As resources permit, the TA will work with Sponsors to maximize the amount of matching funds secured for each project, which is discussed further in **Section 11**.

8.2.5 Timely Use of Funds

As part of TA funding agreements, Sponsors have been required to comply with timely-use-of-funds requirements pertaining to project initiation timelines and invoicing for the Highways, ACR/TDM, Bicycle & Pedestrian, and RTC competitive funding programs. The Strategic Plan 2025-2029 extends these requirements to all TA funding programs with additional guidelines for defining what constitutes project initiation. Projects that fail to meet the outlined requirements will be at risk of being deprogrammed and the awarded funds may be reprogrammed to other projects. Project deprogramming will be implemented using the following tiered monitoring system.

PROJECT INITIATION REQUIREMENTS

- For project awards identified as "fully funded" as the result of a TA allocation, the project must be initiated within 12 months of the funding award. At a minimum, this includes the execution of a funding agreement or project supplement, along with the submittal of the first request for reimbursement of a Sponsor's own staff's work, release of a Request for Proposal for pre-construction work (PLAN or PID, PA/ED or PE/EV, and PS&E phases), or release of a construction bid opportunity.
- If a Sponsor does not initiate work within 12 months of the funding award as indicated in required Quarterly Status Reports, the TA will require a meeting with the Sponsor's chief executive and project staff to review reasons for the delay. The TA Executive Director or Executive Officer may approve one six-month extension, at their discretion, if a reasonable strategy and commitment by the Sponsor are agreed to. Projects granted this extension must be able to initiate the project within 18 months of the funding award. The TA may de-program a project if these requirements are not met and may provide additional exceptions on a case-by-case basis for extenuating circumstances.
- For projects awards that have requested to use Measure A and/or Measure W funding as leverage for other external grant opportunities, the TA will monitor a timeline for the applicable project phase to be fully funded: Projects costing under $5 million must be fully funded within two years, and projects costing over $5 million must be fully funded within five years. Once a project becomes fully funded, the project initiation requirements detailed above will apply.

INVOICING REQUIREMENTS

- Sponsors will be required to invoice at minimum once a quarter from project initiation.
- The TA will update the Quarterly Status Reports format to include a stoplight to monitor and report on invoicing compliance
- If a project does not bill two quarters in a row, a project will be deemed inactive, and the TA will require a meeting with the Sponsor's chief executive and project staff to review project progress. If a project does not bill for one year, then the TA Executive Director or Executive Officer may consider recommending the Board of Directors de-program the project.

ATTRIBUTION REQUIREMENTS

- Sponsors must include attribution that indicates work was funded with "Measure A Funds" or "Measure W Funds" or "Measures A/W Funds from the TA." This provision applies to any project, or publication, that is funded in part or in whole by "Measure A Funds" or "Measure W Funds" or "Measures A/W Funds." Acceptable forms of attribution include TA branding on Project-related documents, construction signs, public information materials, and any other applicable documents. Sponsor must comply with the TA's External Attribution Guide, which may be updated from time to time and will be available on the TA's website.

8.2.6 Monitoring and Reporting Requirements

GENERAL REQUIREMENTS

All TA-funded projects are subject to monitoring and reporting requirements. Historically, monitoring and reporting requirements varied for each individual funding program. The Strategic Plan 2025-2029 merges the disparate requirements into a single requirement of formal reporting to the Quarterly Status Reports (QSRs). The TA may require additional monitoring requirements for Sponsors on a case-by-case basis. These requirements will also be included in the forthcoming

Principal Agreements that each eligible Sponsor must adopt to receive funding from the TA.

- Capital projects
  - Sponsors will be required to submit formal reports to be included in the TA Quarterly Status Reports (QSRs) during the planning, design development, and construction of capital projects. The content of the QSRs will be focused on project scope, schedule, budget, cash flow, and identification of potential project risks. A final report documenting the final project scope, schedule, and budget along with photo evidence will be required.
- Operational projects
  - Sponsors will be required to submit QSRs with content focused on project performance for operating projects. Sample performance measures include ridership, service effectiveness (cost per passenger), service quality, and customer satisfaction. If performance measures indicate less than acceptable performance, the TA will work with the Sponsor to set up a mitigation program and achieve improvements as a condition of continued funding from the TA.

MAJOR PROJECTS ADVANCEMENT POLICY

For projects with projected total costs over $25 million, Sponsors must present a presentation to the TA Board upon completion of the Preliminary Engineering and Environmental Clearance (PE/EV or PA/ED) phase of work prior to requesting funding for Final Design, Right-of-way, and Construction phases of work. The Sponsors must present information on project needs, benefits, impacts, and costs/funding plan to the TA Board of Directors and Community Advisory Committee. This can be done as part of the Draft Recommendations for a Calls for Projects cycle or as a standalone presentation.

The intent of the Major Projects Advancement Policy is to better inform the TA Board of Directors and Community Advisory Committee about potential trade-offs and impacts of projects earlier on in the development process once these considerations are known upon the completion of environmental review. This policy also applies to projects exempt from environmental review but with projected costs over $25 million. Required analysis and impact assessment should be discussed with TA Executive and Director-level staff during preliminary engineering scoping.

As a Key Action for the Strategic Plan 2025-2029, the TA will also be developing Program Management Guidelines with updates to the oversight process for projects over $25 million.

CREDIBLE FUNDING PLAN

A Credible Funding Plan requirement applies to all projects subject to the Major Advancement Policy. The Credible Funding Plans should clearly lay out the TA's maximum contribution and how a Sponsor will use other local funds or external grant sources to fully fund the project. The Sponsors should acknowledge their responsibility for securing the remaining funding or request assistance from the TA. TA staff will create a standard template and review Credible Funding Plans to assess the assumptions for potential external grant awards.

The following level of effort is required based on the phase of work being request for funding in a CFP cycle:

- **Planning (PLAN):** For planning requests only that phase of work needs to be identified for funding.
- **Project Initiation Document (PID), Pre-Environmental/Environmental (PE/EV), or Project Approval and Environmental Document (PA/ED)**: Following the development of a

planning study, a planning level cost estimate will be required for the total project cost and a full funding plan with estimated costs for all future phases of work is required to signed by the Public Works Director (or similar position). Additionally, a description of how the project aligns with the California State Transportation Agency's (CalSTA) Climate Action Plan for Transportation Infrastructure goals by describing how a project is working to meet the metrics identified in the California Department of Transportation (Caltrans) Systemwide Investment Strategy (CSIS). This will be critical to understanding how the project may be able to leverage external state funding.

- **Final Design (PS&E), Right-of-Way (ROW), or Construction (CON):** Following the completion of preliminary engineering and environmental review phase, a revised preliminary engineering cost estimate will need to be prepared. The full funding plan with updated costs for all future phases of work is required to be signed by the Public Works Director (or similar position) for projects under $25 million and by the City Manager (or other similar executive position) for projects over $25 million in total cost.

8.3 TA ROLES AND RESPONSIBILITIES

8.3.1 Funding Agency

The primary role of the TA is to act as the funding agency to administer the Measures A and W transportation sales tax revenues. As part of this role, the TA actively assists Sponsors with leveraging funds and securing external grant awards, especially for major projects over $25 million.

8.3.2 Sponsor

In 2016 and 2019, the TA Board of Directors authorized the agency to become an eligible Sponsor for the Measure A Key Congested Areas and Supplemental Roadways categories through minor Transportation Expenditure Plan amendments because the TA was not listed as an eligible Sponsor in the Measure A TEP (Reso 2016-12 and 2019-25). Subsequently in the 2021 Short-Range Highway Plan, the TA limited itself to sponsoring highway projects of countywide significance.

The Measure W Congestion Relief Plan does not specify eligible Sponsors for individual funding programs and permits eligible Sponsors to be further clarified in guidelines for each required Strategic Plan. However, consistent with the TA Board's direction in the Short-Range Highway Plan (adopted June 2021), the TA should continue to be eligible for projects of countywide significance in the Measure W Countywide Highway Congestion Improvements category.

8.3.3 Technical Assistance

The TA will take on an expanded technical assistance role to aid current and potential Sponsors in project delivery in various TA funding programs through several technical offerings, as described in the Technical Assistance Program in **Section 11**.

8.4 ADDITIONAL CONSIDERATIONS

8.4.1 Special Circumstance Requests

There will be special circumstances when Sponsors need to request Measures A and W funding outside the established funding processes discussed in **Section 5.** The TA Board of Directors may make funding available outside established CFP cycles upon request based on the following criteria:

- Urgency
  - A project that calls for immediate construction to address a public safety need
  - A project that can realize significant cost savings if it can be constructed in an earlier timeframe
  - Loss of funding sources if the project is not constructed within a certain timeframe
  - Expected escalation of project development and construction costs outpaces the rate of growth of Measures A and W revenues
- Impact to the Measures A and W programs
  - Potential of the funding advance delaying other projects
  - Financial fees associated with advancing funds (the potential saving in implementation costs should be considered)

The TA will determine the method of delivering the advance at the time the request is granted by the TA Board of Directors. The TA should also develop CIPs to determine if advancing funds by either borrowing from other programs or using financing would be an economically and fiscally prudent means of delivering high-priority projects at a lower cost (adjusted for inflation) compared to waiting and implementing projects strictly using a pay-as-you-go approach.

8.4.2 Financing and Bonding Backed by Sales Tax Revenue

Both Measures A and W allow the TA to bond against their future tax revenues for the purpose of advancing the commencement of or expediting the delivery of transportation programs and projects. The bonding capacity is limited by future anticipated Measure A or Measure W revenues. The TA will weigh the benefits of bonding to facilitate timely implementation of programs and projects and avoidance of escalating construction costs against the costs of issuing debt. In recent years, interest rates have been relatively low, and the bonding agencies have been particularly receptive to issuing bonds supported by sales tax revenues. However, it will remain important for the TA to weigh the costs of a bond issue and the interest payments that will be required against the costs of deferring or delaying projects until the natural flow of funds is sufficient to move forward.

9

Agreement-Based Programs Administration

These programs and projects are not subject to a competitive project selection process governed by the TA and include the following program categories or subcategories:

- Local Streets and Transportation
- Paratransit
- BART
- Caltrain
- Dumbarton Rail Corridor
- Ferry

9.1 LOCAL STREETS & TRANSPORTATION PROGRAM

The Local Streets & Transportation Program consists of the Measure A Local Streets and Transportation program category and the Measure W Local Safety, Pothole & Congestion Relief Improvements (Local Investment Share) program category. These funds are generally intended to provide direct support to local jurisdictions for repaving, maintenance, and other local transportation improvements.

9.1.1 Measure A Local Streets and Transportation

The Measure A Transportation Expenditure Plan states:

Annually, 22.5% of the tax revenue will be allocated to Cities and the County to fund the improvement or maintenance of local transportation, including streets and roads. The County and Cities may use funding to: maintain or improve local streets and roads by paving streets and sidewalks and repairing potholes; promote or operate alternative modes of transportation, which may include funding shuttles or sponsoring carpools, bicycling and pedestrian programs, and develop and implement traffic operations and safety projects including signal coordination, bike/pedestrian safety projects, eliminating hazardous conditions or acquiring right-of-way.

The annual distribution shall be based 50% on population and 50% on road miles, which will be adjusted annually.

9.1.2 Measure W Local Safety, Pothole & Congestion Relief Improvements (Local Investment Share)

The Measure W Congestion Relief Plan states:

A total of twelve and one-half percent (12.5%) of Tax Proceeds will be invested in major arterial and local roadway improvements in key congested areas throughout the County. These investments will be focused on improving safety, reducing congestion, and supporting all modes of travel on the County's roadway system. Eligible investments include, but are not limited to, the following: implement advanced technologies and communications on the roadway system; improve local streets and roads by paving streets and repairing potholes; promote alternative modes of transportation, which may include funding

shuttles or sponsoring carpools, bicycling and pedestrian programs; plan and implement traffic operations and safety projects, including signal coordination, bicycle/pedestrian safety projects, and separation of roadways crossing the Caltrain rail corridor.

Each year, ten percent (10%) of the annual Tax Proceeds (out of the 12.5% total Tax Proceeds designated for this Category) will be allocated to each of the Cities and the County on a formula basis to be used for any of the purposes designated in the paragraph above. The annual distributions will be based 50 percent (50%) on population and 50 percent (50%) on road miles, and will be adjusted annually. Each of the Cities and the County will be required to demonstrate that Tax Proceeds would be used to enhance and not replace its current investments for transportation projects and programs. If a City or the County has a Pavement Condition Index score (a "PCI Score") of less than 70, it must use Tax Proceeds under this Category exclusively for projects that will increase their PCI score until such time as they reach a PCI of 70 or greater. Each of the Cities and the County will be required to transmit an annual report on projects funded, including how the funded projects reflect the Core Principles, subject to guidance established by the District and/or the Authority. Use of Tax Proceeds by Cities and the County under this Category shall be subject to audits.

9.1.3 Program Specific Guidelines

The program specific guidelines and requirements for this funding program are detailed in Table 13.

Program Guideline Category	Guideline Requirement
Eligible Sponsors	Cities and County
Eligible Projects	Paving, maintenance and repair, traffic lights and signage, operations, safety projects, and/or other transportation projects or programs
Matching Funds	N/A
Timely Use of Funds: Expenditure Timeline	Funds may be spent at the Sponsor's discretion.
Additional Monitoring and Reporting Submittals	Annual reports must be submitted to SMCTA on how the funding was expended. SMCTA audits the reports to ensure funding is only used for transportation-related purposes.

Table 13: Local Streets & Transportation Program Guidelines

9.2 PARATRANSIT

The Paratransit Program is a subcategory of the Measure A Transit Program and includes no comparable Measure W program category. Paratransit is for persons with disabilities who cannot independently use SamTrans bus service some of the time or all the time. The San Mateo County Transit District provides paratransit using Redi-Wheels on the bayside of the county and RediCoast on the coastside.

9.2.1 Measure A Transit Accessible Services

The Measure A Transportation Expenditure Plan states:

Annually, 4% of the tax revenue will be allocated to support the operating and capital needs of providing paratransit or other accessible services to eligible seniors and people with disabilities.

9.2.2 Program Subcategory Specific Guidelines

The program specific guidelines and requirements for the Accessible Services program subcategory are detailed in Table 14.

Program Guideline Category	Guideline Requirement
Eligible Sponsors	The District
Eligible Projects	Operating
Matching Funds	N/A
Timely Use of Funds: Expenditure Timeline	Funds may be spent at the Sponsor's discretion.
Additional Monitoring and Reporting Submittals	N/A

Table 14: Transit Accessible Services Program Subcategory Guidelines

9.3 BART

The BART Program is a subcategory of the Measure A Transit Program and includes no comparable Measure W program category. The BART Program comprises 2% of Measure A funds.

9.3.1 Measure A Transit BART

The Measure A Transportation Expenditure Plan states:

Provide financial assistance as SamTrans' local match for capital investments and operating expenditures associated with the existing San Mateo County/SFO BART Extension.

9.3.2 Program Subcategory Specific Guidelines

The program specific guidelines and requirements for the BART program subcategory are detailed in the Table 15.

Program Guideline Category	Guideline Requirement
Eligible Sponsors	BART
Eligible Projects	Capital and Operating
Matching Funds	N/A
Timely Use of Funds: Expenditure Timeline	Funds may be spent at the Sponsor's discretion.
Additional Monitoring and Reporting Submittals	N/A

Table 15: Transit BART Program Subcategory Guidelines

9.4 CALTRAIN

The Caltrain Program is a subcategory of the Measure A Transit Program and includes no comparable Measure W program category. The Caltrain Program comprises 16% of Measure A funds.

9.4.1 Measure A Transit Caltrain

The Measure A Transportation Expenditure Plan states:

Continue the current program to rebuild and upgrade Caltrain. Funding would be provided for San Mateo County's share of the capital cost of system wide improvements, including conversion of the line from diesel to electric operation. Funding would also be provided for existing stations upgrades, including expanded parking. Up to one-half of the available funding may be utilized to support operating costs.

9.4.2 Program Subcategory Specific Guidelines

The program specific guidelines and requirements for the Caltrain program subcategory are detailed in Table 16.

Program Guideline Category	Guideline Requirement
Eligible Sponsors	Caltrain/JPB
Eligible Projects	Capital and Operating
Matching Funds	N/A
Timely Use of Funds: Expenditure Timeline	Primary grant agreement and project supplement(s) Execution (all subcategories): Fund recipients must complete a primary grant agreement and project supplement(s) and begin work within one year of allocation unless the TA approves the use of requested funding as leverage for other external grant programs. Operations Subcategory Awards: Operations funding must be spent within four years of executing a primary grant agreement and project supplement(s). Capital Subcategory Awards: For Planning, PE/EV, and PS&E phases: All work on capital projects must be completed within three years of effective date of the executed primary grant agreement and project supplement(s) date if funds are awarded for only one phase of work. If the TA awards funds for more than one phase, it may allow work to be completed within up to five years from primary grant agreement and project supplement(s) execution.

Program Guideline Category	Guideline Requirement
	For awards that fully fund ("last dollar in") ROW and CON phases: For ROW only, work on the funded phase must be completed within three years from primary grant agreement and project supplement(s) execution. For funds awarded to ROW and CON phases together, or funds awarded for only CON, the funded work must be completed within five years of execution of the primary grant agreement and project supplement(s). For ROW and CON awards that do not fully fund a phase ("TA funds used as leverage"): a Sponsor has up to five years to secure full funding for the applicable phase(s) and to execute a primary grant agreement and project supplement(s). The same ROW and CON timely use of funds requirements from the previous section applies once the primary grant agreement and project supplement(s) is executed.
Additional Monitoring and Reporting Submittals	Quarterly reporting is required for all projects funded by the annual capital contribution allocations and for special project allocations.

Table 16: Transit Caltrain Program Subcategory Guidelines

9.4.3 Additional Requirements or Policies

- Operating and capital contributions must be made in accordance with the formulas agreed to by the three JPB member agencies for systemwide contributions.
- The Caltrain CIP developed a definition that was agreed upon by all three member agencies for systemwide and local county-specific projects.
- Special project allocations will establish individual timely-use-of-funds requirements and agreement expiration dates.
- The JPB may request the TA Board of Directors to program and allocate funding using any available unprogrammed funds after the operating and capital contributions for local San Mateo County capital projects.
- Each fiscal year, the TA may allocate up to 50% of funds collected and not previously allocated to be used for the San Mateo County operating contributions to Caltrain. Up to 50% of future projected sales tax revenue may be used for operating contributions and multi-year operating contribution agreements.

9.5 DUMBARTON RAIL CORRIDOR

The Dumbarton Rail Corridor Program comprises 2% of Measure A funds.

9.5.1 Measure A Transit Dumbarton Rail Corridor

The Measure A Transportation Expenditure Plan states:

Funding provided for station facilities and rail corridor improvements in the communities of Redwood City, Menlo Park and East Palo Alto in conjunction with the Dumbarton Rail Corridor.

9.5.2 Program Subcategory Specific Guidelines

The program specific guidelines and requirements for the Dumbarton Rail Corridor program subcategory are detailed in Table 17.

Program Guideline Category	Guideline Requirement
Eligible Sponsors	The District
Eligible Projects	Capital
Matching Funds	N/A
Timely Use of Funds: Expenditure Timeline	Primary grant agreement and project supplement(s) Execution (all subcategories): Fund recipients must complete a primary grant agreement and project supplement(s) and begin work within one year of allocation unless the TA approves the use of requested funding as leverage for other external grant programs. Operations Subcategory Awards: Operations funding must be spent within four years of executing a primary grant agreement and project supplement(s). Capital Subcategory Awards: For Planning, PE/EV, and PS&E phases: All work on capital projects must be completed within three years of effective date of the executed primary grant agreement and project supplement(s) date if funds are awarded for only one phase of work. If the TA awards funds for more than one phase, it may allow work to be completed within up to five years from primary grant agreement and project supplement(s) execution. For awards that fully fund ("last dollar in") ROW and CON phases: For ROW only, work on the funded phase must be completed within three years from primary grant agreement and project supplement(s) execution. For funds awarded to ROW and CON phases together, or funds awarded for only CON, the funded work must be completed within five years of execution of the primary grant agreement and project supplement(s). For ROW and CON awards that do not fully fund a phase ("TA funds used as leverage"): a Sponsor has up to five years to secure full funding for the applicable phase(s) and to execute a primary grant agreement and project supplement(s). The same ROW and CON timely use of funds requirements from the previous section applies once the primary grant agreement and project supplement(s) is executed.
Additional Monitoring and Reporting Submittals	Quarterly reporting is required.

Table 17: Transit Dumbarton Rail Corridor Program Subcategory Guidelines

9.5.3 Additional Requirements or Policies

- Upon completion of the SamTrans Dumbarton Feasibility Study, the District may request the TA Board consider whether the Measure A Dumbarton category can fund non-rail improvements along the corridor that do not preclude future rail stations or service.
- Any consideration of future programming and allocation of funds for non-rail improvements would require a separate action from the Board to make a minor amendment to the 2004 Measure A TEP based on feasibility considerations to maximize the opportunity to accomplish Dumbarton Rail Corridor transit use.

9.6 FERRY

The Ferry Program is a subcategory of the Measure A Transit Program and includes no comparable Measure W program category. The Ferry Program comprises 2% of Measure A funds.

9.6.1 Measure A Transit Ferry

The Measure A Transportation Expenditure Plan states:

Provide financial assistance as local match funds for cost-effective ferry service to South San Francisco and Redwood City.

9.6.2 Program Subcategory Specific Guidelines

The program specific guidelines and requirements for the Ferry program subcategory are detailed in Table 18.

Program Guideline Category	Guideline Requirement
Eligible Sponsors	City of South San Francisco and City of Redwood City
Eligible Projects	Capital and Operating
Matching Funds	N/A
Timely Use of Funds: Expenditure Timeline	Primary grant agreement and project supplement(s) Execution (all subcategories): Fund recipients must complete a primary grant agreement and project supplement(s) and begin work within one year of allocation unless the TA approves the use of requested funding as leverage for other external grant programs. Operations Subcategory Awards: Operations funding must be spent within four years of executing a primary grant agreement and project supplement(s). Capital Subcategory Awards: For Planning, PE/EV, and PS&E phases: All work on capital projects must be completed within three years of effective date of the executed primary grant agreement and project supplement(s) date if funds are awarded for only one phase of work. If the TA awards funds for more than one phase, it may allow work to be completed within up to five years from primary grant agreement and project supplement(s) execution. For awards that fully fund ("last dollar in") ROW and CON phases: For ROW only, work on the funded phase must be completed within three years from primary grant agreement and project supplement(s) execution. For funds awarded to ROW and CON phases together, or funds awarded for only CON, the funded work must be completed within five years of execution of the primary grant agreement and project supplement(s). For ROW and CON awards that do not fully fund a phase ("TA funds used as leverage"): a Sponsor has up to five years to secure full funding for the applicable phase(s) and to execute a primary grant agreement and project supplement(s). The same ROW and CON timely use of funds requirements from the previous section applies once the primary grant agreement and project supplement(s) is executed.
Additional Monitoring and Reporting Submittals	Quarterly reporting is required.

Table 18: Transit Ferry Program Subcategory Guidelines

9.6.3 Additional Requirements or Policies

Redwood City and South San Francisco agreed to split the projected funding 50/50 following the passage of Measure A.

10 Competitive Program Administration

Competitive programs are those in which new projects proposed within each program category will compete for funding. The competitive programs are:

- Highway
- Transportation Demand Management
- Pedestrian and Bicycle
- Peninsula Shuttle Program
- Regional Transit Connections
- Grade Separations

10.1 CFP PROCESS

As described above, Measures A and W provide funding for a multitude of mobility programs in San Mateo County. While some programs call for direct, formulaic allocations (such as the Local Streets and Transportation category), other programs require programming and allocation actions by the Board, sometimes through a competitive selection process known as a "Call for Projects". The frequency of CFPs differs by program.

The five general categories of criteria that are considered for project evaluation and selection during CFPs are: Need, Effectiveness, Equity & Engagement, Readiness, and Funding Leverage. The Strategic Plan 2025-2029 lays out specific evaluation criteria and supersedes previous Board-adopted short-range planning documents (Short-Range Highway Plan, Alternative Congestion Relief/Transportation Demand Management Plan, and Regional Transit Connections Plan). The criteria are reexamined with each TA Strategic Plan and may be modified, subject to Board approval, to retain flexibility and account for new policy directives, initiatives, and legislation that further promotes expenditure plan goals.

TA staff develop CFP funding recommendations based on input from CFP Project Review Committees. Funding recommendations from staff are then presented to the TA Board, which approves and programs the project awards, either as presented or with amendments.

10.1.1 Roles of Different Stakeholders & Decision Makers

PROJECT REVIEW COMMITTEES

Project Review Committees, referred to above and sometimes called "Evaluation Committees," are comprised of technical staff and stakeholders with interests and/or experience in relevant CFP topics. These committees score and recommend funding for projects based on selection criteria set by the TA Strategic Plan or listed in a related Board-adopted short-range planning document. For example, in the Ped/Bike CFP, the Project Review Committee often consists of county and regional technical staff (e.g., staff from Caltrans, MTC, the District, Peninsula Corridor Joint Powers Board (owner and operator of Caltrain) and volunteers from the county and/or C/ CAG Bicycle and Pedestrian Advisory Committees.

COMMUNITY ADVISORY COMMITTEE

The CAC provides input to staff for CFPs but does not direct staff's work. CAC members generally provide input on whether proposed projects are eligible and in alignment with each Measure and its respective Goals/Core Principles, but do not conduct detailed evaluation scoring as part of Project Review Committees. CAC members can also recommend additional considerations, such as limiting awarded projects to a certain score threshold to retain funding for future CFP cycles. Staff

recommendations to the Board may take the CAC's input into account. In addition, the CAC can share its input directly with the Board.

TA BOARD

The TA Board's role is to consider input from staff, Project Review Committees and the CAC, as well as funding capacity, to program and allocate funds to eligible projects, and may make modifications to proposed programs of projects. The Board may periodically assemble an ad hoc committee of its own members to work with staff before a final proposed program of projects is presented for Board approval.

10.1.2 Evaluation Criteria and Equity

A priority for the TA and its stakeholders for the Strategic Plan 2025-2029 is to elevate Equity as a primary evaluation category for all competitive funding programs. Following the adoption of the previous Strategic Plan 2020-2024, three competitive programs have implemented modified evaluation criteria to include Equity as an evaluation category in project selection and prioritization. The remaining programs that will now include the new Equity evaluation category include the Highway, Pedestrian & Bicycle, and Grade Separation programs.

For each Competitive Program the Equity evaluation category will include five individual evaluation criteria. The criteria are based on the ACR/TDM Equity evaluation category and have been expanded to include additional principles of equity as shown below.

1. **Location-Based Equity:** does the project's geographic extent fall within a local, countywide, regional, state, or federal level equity priority community?
2. **User-Based Equity:** does the project positively impact transportation affordability, mobility, or access for disadvantaged communities and serve more than one type of mode of travel? Tools such as the Housing and Transportation Affordability Index from the Center of Neighborhood Technology can help identify metrics such as transportation costs as percent of income and availability of autos per household.
3. **Environmental Justice:** does the project fall within an Environmental Justice (EJ) community (i.e., California Office of Environmental Health Hazard Assessment CalEnviroScreen 4.0) and positively impact those communities with respect to pollution and other public health factors?
4. **Community Engagement/Involvement:** does the project have demonstrated support from relevant community stakeholders and CBOs in and around the affected communities? To what extent has the project involved/included community stakeholders/members in the project planning process, not solely as part of an areawide/citywide planning process?
5. **Mitigation of Harmful Impacts:** does the project introduce any potential negative impacts for historically disadvantaged communities? If so, does the project identify ways to address/mitigate these impacts?

The evaluation criteria and associated scoring rubric metrics for each Competitive Program for the Equity evaluation category may vary slightly to best align with the goals and challenges of each program but will each follow the general principles as described above. While the Equity evaluation criteria will replace the previous Strategic Plan 2020-2024 sustainability evaluation category, the sustainability evaluation criteria will be relocated to other evaluation categories.

10.1.3 Geographic Distribution Framework

The Highways, Pedestrian & Bicycle, and Transportation Demand Management Programs each employ a geographic distribution framework to dedicate targets for available funds to different geographic areas and project subcategories, ensuring more parity in distributing funding awards. The two geographic area categories are small/coastal jurisdictions and mid/large jurisdictions. Unincorporated San Mateo County, Caltrans, the District, and Caltrain will be considered on a case-by-case basis as different project locations may have different contexts. For instance, projects or programs proposed in unincorporated communities of less than 20,000 people are eligible under the Small and Coastal category, while a countywide effort would be considered under the Mid and Large category.

The following jurisdictions are eligible to apply under each category.

Small and Coastal Jurisdictions	**Mid and Large Jurisdictions**
• Atherton	• Belmont
• Brisbane	• Burlingame
• Colma	• Daly City
• Half Moon Bay	• East Palo Alto
• Hillsborough	• Foster City
• Pacifica	• Menlo Park
• Portola Valley	• Millbrae
• Woodside	• Redwood City
	• San Bruno
	• San Carlos
	• San Mateo
	• South San Francisco

10.2 HIGHWAY PROGRAM

The Highway Program consists of the Measure A Highways and Measure W Countywide Highway Congestion Improvements program categories to allow the TA to administer one consolidated funding program. The Highway Program and related policies are guided by the SRHP and corresponding Highway CIP which was adopted in 2021. The Strategic Plan 2025-2029 provides guidance that supersedes the SRHP. Projects must be included in the 2021-2030 CIP (or subsequent updates), the Measure A TEP, or the Measure W Congestion Relief Plan to be eligible for funding in the Highway Program. Additional projects may be considered with prior approval by TA staff on a case-by-case basis. The Highway Program comprises 27.5% of the total annual funds collected through Measure A and 22.5% of the total annual funds collected through Measure W.

10.2.1 Measure A Highways

The Measure A Transportation Expenditure Plan states:

The Highway Program is divided into two components; funding for highway projects in key congested areas as designated by city, county and TA engineers and confirmed by public input; and funding for supplemental projects for all types of roadways (local-collector-arterial-state route) anywhere in the County.

- ***Key Congested Areas (KCA)**: Each of these projects is deemed to be of equal importance and they are not expressed in any priority order – **17.3% of Measure A funds***
  - Highway 280 North Improvements
  - Coastside Highway Improvements
  - Highway 92 Improvements
  - Highway 101 Mid-County Improvements
  - Highway 101 South Improvements
- ***County-wide Supplemental Roadway Projects (SR)**: This project provides funding for supplemental roadway projects critical for congestion reduction in addition to those identified in the key congested areas. Supplemental roadway projects may include any type of roadway (local-collector-arterial-state route) anywhere in the County. A partial list of Candidate Projects is included below. Additional Candidate Projects may be submitted to the TA for consideration to account for changing needs during the 25 year term. Funds will not be adequate to construct all Candidate Projects. The TA will determine Candidate Project selection criteria and prioritization in the Strategic Plan as provided in the Implementation Guidelines. – **10.2% of Measure A funds***
  - Route 35 (I-280-Sneath Lane) widening
  - US 101/Produce Avenue Interchange
  - Route 92 (I-280-Route 35) truck climbing lane
  - Willow Road adaptive signal control system

- US 101 (Sierra Point Parkway – SF/SM County Line) auxiliary lanes
- Geneva Avenue extension
- I-280/John Daly Boulevard Overcrossing (north side) widening
- Junipero Serra Boulevard Improvements in Daly City, Colma and South San Francisco
- US 101/Candlestick Point Interchange
- US 101 (Sierra Point Parkway – San Bruno Avenue) auxiliary lanes
- I-280/I-380 local access improvement
- Highway 101/Sierra Point Pkwy Interchange replacement and Lagoon Way extension
- Triton Drive widening (Foster City)
- Sand Hill Road signal coordination
- *Woodside Road Widening (US 101-El Camino Real)*

10.2.2 Measure W Countywide Highway Congestion Improvements

The Measure W Congestion Relief Plan states:

A total of twenty-two and one-half percent (22.5%) of Tax Proceeds will be invested in highway projects throughout the County designed to: provide congestion relief; reduce travel times; increase person throughput; improve highway and interchange operations, safety and access; and deploy advanced technologies and communications on the highways. Eligible candidate projects will be focused on highway and interchange facilities, including Highway 101, Highway 280, and other highways and their interchanges. Eligible candidate projects can include bicycle and pedestrian components or facilities that are incorporated into and enhance safety for a larger highway or interchange project.

Investment will be made on a discretionary basis according to criteria and award schedules established by the Authority.

- **Highway Congestion Infrastructure Projects**: The focus of this program is on highways and highway interchanges, although projects that alleviate congestion on connecting arterial streets that impact the highway system are also eligible. – **21.5% of Measure W funds**
- **Transportation Demand Management (TDM)**: TDM efforts with a nexus to vehicle miles travelled (VMT)/congestion relief that encourage non-Single Occupancy Vehicles (SOV) trips and off-peak trip demand. This program subcategory is discussed further in the Transportation Demand Management Program section – **1% of Measure W funds**

10.2.3 Program Specific Guidelines

The program specific guidelines and requirements for this funding program are detailed in Table 19.

<table>
<tr><th>Program Guideline Category</th><th>Guideline Requirement</th></tr>
<tr><td>Funding Cycles</td><td>2 Years</td></tr>
<tr><td>Eligible Sponsors/ Eligible Sponsors</td><td>Caltrans, cities and county, C/CAG, TA for countywide significant projects, Express Lane JPA, and Commute.org (for countywide TDM)</td></tr>
<tr><td>Matching Funds (Standard and Equity Based)</td><td>A minimum 10% funding match is required with each phase of work for all projects. A cash match is required for all phases of work except for right of way acquisition</td></tr>
<tr><td>Minimum Funding Request</td><td>N/A</td></tr>
<tr><td>Maximum Funding Request</td><td>N/A</td></tr>
<tr><td>Maximum Project Contribution (All Phases)</td><td>Up to 50% of total project cost (Countywide Significance)
Up to 75% of total project cost (local projects only)</td></tr>
<tr><td>Number of Applications</td><td>N/A</td></tr>
<tr><td>Timely Use of Funds: Expenditure Timeline</td><td>Allocated Measures A and W funds are generally expected to be expended on the project within the following time horizons:
<table><tr><th>Phase</th><th>Upper Duration (months)</th></tr><tr><td>Preliminary Planning Study</td><td>18</td></tr><tr><td>Project Initiation Document</td><td>18</td></tr><tr><td>Project Approval/Environmental Document</td><td>30</td></tr><tr><td>Design</td><td>36</td></tr><tr><td>Construction</td><td>42</td></tr></table>If the scope of work cannot be completed within the time of performance for the phases specified above, Sponsors must submit a request in writing to the TA no later than six months before the end of the time for performance to request a time extension. The TA will review the request and grant an extension if it is deemed to be justified at the TA's discretion.</td></tr>
<tr><td>Additional Monitoring and Reporting Submittals</td><td>N/A</td></tr>
</table>

Table 19: Highway Program Guidelines Table

10.2.4 Additional Requirements or Policies

GEOGRAPHIC DISTRIBUTION AND PROGRAM CATEGORIES

The Highway Program incorporates the following geographic distribution and program category framework to allow the TA to more fairly evaluate projects against projects in similar settings in San Mateo County. The geographic categories follow the geographic distribution framework described in **Section 10.1.3**. The proposed distribution targets are as follows:

- Small/Coastal (15%)
- Mid/Large (50%)
- Countywide Significance (35%)

Projects are eligible to apply under the Countywide Significance category that satisfy the requirements laid out in the definition for Countywide Significance stated below:

- Projects must meet at least two of the following screening criteria:
- Project serves a significant amount of person throughput, inclusive of all modes
- Project serves a significant amount of inter-county traffic
- Project significantly improves connections between two or more geographic areas of the county
- Project is a priority component of a countywide or regional multijurisdictional effort

PEDESTRIAN/BICYCLE HIGHWAY OVERCROSSINGS

"Standalone overcrossings" refers to an individual Pedestrian/Bicycle overcrossing that is not a part of a larger highway interchange, operational or safety project. Both the 1988 and Measure A 2004 TEPs include funding for Pedestrian and Bicycle projects in a category listed separately from the Highway Program category of projects. Only 0.01% of revenues under Original Measure A were set aside for Pedestrian and Bicycle projects. The percentage allocation for these projects increased relatively dramatically to 3% in New Measure A. The 2004 TEP includes a non-exclusive list of potential Pedestrian and Bicycle eligible for part of this 3%, including "paths, trails and bridges over roads and highways," and specifically names overcrossings of Highway 101 at or near Millbrae Avenue, Hillcrest, Hillsdale Boulevard, Ralston Avenue and Willow Road. This clearly indicates the voters' intent to fund standalone overcrossings for bicycle and pedestrian use from the 3% portion of Measure A funds in this Pedestrian and Bicycle program and not as singular projects from the Measure A Highway Program. As with under Measure A, Measure W enumerated that a standalone Pedestrian and Bicycle overcrossing would not be eligible under the Measure W Highway Program separately from a larger highway or interchange, operational or safety project.

ACCESSORY BICYCLE AND PEDESTRIAN ELEMENTS

Many Highway Program projects include accessory/complementary bicycle and pedestrian infrastructure; examples include US 101/Woodside (State Route 84) Interchange and Highway 1/ Manor Avenue Overcrossing. Complete Streets elements that help all users of the transportation are eligible components of projects and are encouraged to address many of the evaluation criteria used in the TA's Calls for Projects. The New Measure A Supplemental Roadways Category allows for the funding of some projects not directly included in the highway system, such as arterials. Those roadway projects could include Complete Streets elements but may not be solely pedestrian and/or bicycle infrastructure. The Measure W Congestion Relief Plan explicitly states: "Eligible candidate projects

can include bicycle and pedestrian components or facilities that are incorporated or enhance safety for a larger highway or interchange project." Measure W Highway funds must be spent on projects on or across the highway system; the Congestion Relief Plan does not have a "Supplemental Roadways" subcategory comparable to New Measure A.

10.2.5 Evaluation Criteria

Projects submitted to the Highway Program are evaluated and prioritized by a TA-assembled review committee. Evaluation criteria for the Highway program are separated into five thematic areas and are weighted by Measure W core principles. The legend for the abbreviations is in **Appendix H-2**.

All potential candidate projects submitted for funding consideration will be evaluated based on the evaluation criteria listed in Table 21. Note that planning studies and environmental phase requests will be evaluated solely based on the Need, Equity & Community Engagement, Readiness, and Funding Leverage categories given the lack of technical analysis likely not completed until the completion of the more detailed environmental document. However, point values will be reweighted for comparison with all projects. The pre- and post-environmental phase evaluation category weights for the Highway program are detailed in Table 20.

Strategic Plan Evaluation Categories	Pre-Environmental Phases	Post-Environmental Phases
Need	50%	25%
Effectiveness	N/A	40%
Equity & Community Engagement	30%	25%
Readiness	10%	5%
Funding Leverage	10%	5%

Table 20: Highway Program Evaluation Criteria Weightings

Highway Program Evaluation Criteria (Measures A and W)	Applicable Measure W Core Principles	Applicable Measure A Goals	Maximum Points Available
Need			**25**
Severity of current and projected congestion	W1, W2, W4, W5, W6, W8, W10	A1	5
Need to improve access and connections to jobs, housing, transit hubs and other high activity centers, supporting existing economic activity and spurring new economic development in the vicinity	W1, W2, W4, W8, W9, W10, W11	A2	5
Project recognized in adopted statewide, regional, county or local planning and fund programming documents and demonstrates coordination with adjacent projects/integration of inter-related projects	W1, W2, W3, W4, W5, W6, W8, W9	A4	5
Identified safety issue (e.g., documented collision history due to site conditions that is average for the facility type) higher than	W1, W6, W8, W9, W10	A3	4
Project is primarily an operational improvement (e.g., safety or ITS) rather than infrastructure expansion (e.g., adding general purpose lanes)	W1, W2, W4, W6, W8	A4	3
Regional/Countywide significance, including where applicable, location and relevance on the State Highway Congestion & Safety Performance Assessment for San Mateo County	W1, W2, W6, W8	A1, A2	3
Effectiveness			**40**
Potential increase in person through-put through accommodating multiple transportation modes (e.g., pedestrian & bicycle access as well as transit infrastructure) where contextually appropriate and to the extent feasible (Complete Streets), including infrastructure for transit (e.g., express lanes, bus only lanes)	W1, W2, W3, W4, W5, W6, W8, W9, W10, W11	A2, A4	7
Ability to relieve congestion/performance improvement (e.g., reduces/eliminates bottleneck) and associated potential travel time savings	W1, W2, W4, W5, W8, W10, W11	A1	7
Potential VMT reduction per capita	W2, W3, W4, W8, W9, W10, W11	A1	7
Ability to address safety issue (e.g., project improves site conditions to reduce potential for collisions)	W1, W6, W8, W9, W10	A3	7
Value: Benefit relative to the amount of funding requested (high impact, low cost - "bang for the buck")	W1, W3, W4, W5, W6, W7, W8		5
Degree to which project reduces GHG emissions and improves air quality	W1, W3, W5, W6, W8, W9, W10	A1	4
Innovative low environmental impact/green infrastructure, including resiliency elements to address climate change	W2, W3, W6, W9	A3, A4	2
Project accounts for long term repair/maintenance needs and ownership (e.g., uses materials with long life cycles, low maintenance costs & has a funding plan for maintenance)	W7	A4	1
Equity & Community Support			**25**
Location Based Equity: Project improves transportation options for disadvantaged communities/areas	W2	A4	8
User Based Equity: Project Improves transportation affordability, access, or mobility for disadvantaged users	W2	A4	5
Environmental Justice: Degree to which project mitigates pollution and/or improves public health conditions for vulnerable populations	W3, W6, W8	A3, A4	7
Impact project has on low income, transit dependent, and/or other historically disadvantaged communities	W3, W6, W8	A4	0*

Highway Program Evaluation Criteria (Measures A and W)	Applicable Measure W Core Principles	Applicable Measure A Goals	Maximum Points Available
Demonstrates stakeholder support, community engagement, and CBO/advocacy involvement			5
Readiness			**5**
Clear and complete proposal			2
Project status and schedule			1
Has a credible cost estimate and funding plan			1
Ease and speed of implementation			1
Funding			**5**
Percent of matching fund contribution			4
Private sector contribution, including public/private partnerships			1
		Total	**100**

Table 21: Highway Program Evaluation Criteria

** No associated positive point value, up to 2 possible negative points (-2 – 0 range)*

10.3 TRANSPORTATION DEMAND MANAGEMENT PROGRAM

The Transportation Demand Management (TDM) program consists of the Measure A Alternative Congestion Relief (ACR) program category and the Measure W TDM subcategory from the Highway program. The TDM Program comprises 1% of the total annual funds collected through Measure A and 1% of the total annual funds collected through Measure W. The TDM Program CFP is guided by the ACR/TDM Plan and includes the following five goals:

- Provide Congestion Relief
- Increase Sustainable Transportation Options
- Promote Sustainability and Health
- Encourage Economic Development Opportunities
- Invest Funding Equitably

10.3.1 Measure A Alternative Congestion Relief

The Measure A Transportation Expenditure Plan states:

This program category provides 0.8% of the tax revenue to encourage efficient use of the transportation network through ride sharing, flexible work hours and other commute alternatives. It also provides 0.2% of the tax revenue for the planning and design of information systems and Intelligent Transportation Systems, which facilitate more efficient use of available highway and transit capacities.

10.3.2 Measure W Transportation Demand Management

The Measure W TDM subcategory from the Highway program comprises 1% of the total annual funds collected through Measure W and is eligible for projects that demonstrate a nexus to VMT and congestion reduction. The TDM subcategory encourages programs and projects that reduce highway congestion including, but not limited to, non-Single Occupant Vehicle (SOV) trips and off-peak trip demand.

10.3.3 Program Specific Guidelines

The program specific guidelines and requirements for this funding program are detailed in Table 22.

Program Guideline Category	Guideline Requirement
Funding Cycles	2 Years
Eligible Sponsors/ Eligible Sponsors	Cities, County, Commute.org, and C/CAG for all available funds.
The District and Caltrain for Measure W TDM Competitive funds only	
Matching Funds (Standard and Equity Based)	Standard Match: A minimum 10% match is required for all applications regardless of sub-category. TA Local Streets and Transportation funds are an eligible source of matching funds. Funding from other TA funding categories, however, is not considered as an eligible match. The TA will not consider previously incurred costs or previously expended or encumbered funds towards the matching requirement. Staff time in-lieu match is also not accepted. Equity Priority Locations: A reduced 5% match may be requested in advance of submitting for project/program applications located in MTC Equity Priority Communities, Re-Imagine SamTrans Equity Priority Areas, or C/CAG CBPP Equity Focus Areas.
Minimum Funding Request	N/A
Maximum Funding Request	$500K (TA may increase the max award up to $1 million if the Cycle 3 CFP is still undersubscribed)
Maximum Project Contribution (All Phases)	Eligible Sponsors are limited to submitting up to three applications per Call for Projects cycle total across all sub-categories.
Number of Applications	Must expend all funds within two years of the executed primary grant agreement and project supplement(s) date
Timely Use of Funds: Expenditure Timeline	Require periodic post-occupancy reporting. C/CAG partner with Commute.org for administering monitoring & reporting processes across the county. Set up a process to help project owners struggling to achieve TDM targets
Additional Monitoring and Reporting Submittals	Eligible Sponsors are limited to submitting up to three applications per Call for Projects cycle total across all sub-categories.

Table 22: Transportation Demand Management Program Guidelines Table

10.3.4 Additional Requirements or Policies

PROGRAM SUBCATEGORIES

Sponsors apply to the TDM Program directly through program subcategories based on project eligibility. The percentage of funds for each subcategory is taken from the available TDM Program funds for each associated Measure. These subcategories are:

Program Subcategory	Percentage of Funds
Intelligent Transportation Systems (ITS)	20%
Commute.org Operations & Shuttle Administration	60%
Countywide TDM Monitoring Program	10%
TDM Competitive Funds	10%

Measure A TDM Program Subcategories:

Program Subcategory	Percentage of Funds
ACR/TDM Planning Funds	10%
TDM Competitive Funds	90%

Measure W TDM Program Subcategories:

GEOGRAPHIC DISTRIBUTION

The TDM program employs the geographic distribution framework for the TDM Competitive Projects funding described in **Section 10.1.3**. The distribution targets are as follows:

- Small/Coastal (30%)
- Mid/Large (70%)

10.3.5 Evaluation Criteria

Projects submitted to the TDM program are evaluated and prioritized by a TA-assembled review committee. Evaluation criteria for the TDM program were developed in the ACR/TDM Plan and are separated into five evaluation categories. Table 23 shows the evaluation criteria that all potential candidate projects submitted for funding consideration will be evaluated against.

Transportation Demand Management Program Evaluation Criteria (Measures A and W)	Applicable Measure W Core Principles	Applicable Measure A Goals	Maximum Points Available
Need			**40**
Provide congestion relief and/or reduce VMT	W1, W6, W8, W9	A1	10
Increase sustainable transportation options and provide incentives for alternatives to solo driving	W1, W6, W8, W9, W10, W11	A4	10
Promote sustainability, health, and/or safety	W1, W3, W6, W8	A3	10
Improve access to employment, job centers, business districts, and/or retail opportunities	W2, W4, W8, W11	A2	10
Effectiveness			**25**
Qualitative explanation of how success of project will be evaluated	W1, W2, W3, W4, W5, W6, W7, W8, W9, W10, W11	A4	15
Project recognized in adopted statewide, regional, county or local planning and fund programming documents	W1, W2, W3, W4, W5, W6, W8, W9	A4	5
Benefit relative to the amount of funding requested (high impact, low-cost projects – "bang for the buck")	W1, W3, W4, W5, W6, W7, W8		5
Equity & Community Support			**25**
Location Based Equity: Project improves transportation options for disadvantaged communities/areas	W2	A4	8
User Based Equity: Project Improves transportation affordability, access, or mobility for disadvantaged users	W2	A4	5
Environmental Justice: Degree to which project mitigates pollution and/or improves public health conditions for vulnerable populations	W3, W6, W8	A3, A4	7
Impact project has on low income, transit dependent, and/or other historically disadvantaged communities	W3, W6, W8	A4	0*
Demonstrates stakeholder support, community engagement, and CBO/ advocacy involvement	-	-	5
Readiness	**-**	**-**	**5**
Clear and complete proposal	-	-	2
Project status and schedule	-	-	1
Has a credible cost estimate and funding plan	-	-	1
Ease and speed of implementation	-	-	1
Funding	**-**	**-**	**5**
Percent of matching fund contribution	-	-	4
Private sector contribution, including public/private partnerships	-	-	1
		Total	**100**

Table 23: Transportation Demand Management Program Evaluation Criteria

** No associated positive point value, up to 2 possible negative points (-2 – 0 range)*

10.4 PEDESTRIAN & BICYCLE PROGRAM

The Pedestrian & Bicycle Program consists of the Measure A Pedestrian & Bicycle program category and the Measure W Bicycle & Pedestrian program category. The Pedestrian & Bicycle Program comprises 3% of the total annual funds collected through Measure A and 5% of the total annual funds collected through Measure W.

10.4.1 Measure A Pedestrian & Bicycle

The Measure A Transportation Expenditure Plan states:

This project provides funding for the construction of facilities for bicyclists and pedestrians. Eligible projects include paths, trails and bridges over roads and highways. A partial list of Candidate Projects is included below. Additional Candidate Projects may be submitted to the TA for consideration to account for changing needs during the 25-year term. Funds will not be adequate to construct all Candidate Projects. The TA will determine Candidate Project selection criteria and prioritization in the Strategic Plan as provided in the Implementation Guidelines.

10.4.2 Measure W Bicycle & Pedestrian

The Measure W Congestion Relief Plan states:

A total of five percent (5%) of Tax Proceeds will be invested in bicycle, pedestrian, and active transportation projects. Programming of funds under this Category will give priority to those projects that are designed to help reduce traffic congestion by safely connecting communities and neighborhoods with schools, transit, and employment centers; fill gaps in the existing bicycle and pedestrian network; safely cross barriers such as major roads, rail corridors, and highways; improve existing facilities to make them safer and more accessible for cyclists and pedestrians; and make walking or biking a safer and more convenient means of transportation for all county residents and visitors. Bicycle, pedestrian, and other transportation programs that incentivize mode shift to active transportation options will be eligible for funding.

Investment will be made on a discretionary basis according to criteria and award schedules established by the Authority.

10.4.3 Program Specific Guidelines

The program specific guidelines and requirements for this funding program are detailed in Table 24.

Program Guideline Category	Guideline Requirement
Funding Cycles	2 Years
Eligible Sponsors/ Eligible Sponsors	Cities, County, C/CAG, and Commute.org for all subcategories. Public transit agencies that operate in San Mateo County for Measure W funds only. Schools and school districts only for the Safe Routes to School subcategory.
Matching Funds (Standard and Equity Based)	Standard Match: A minimum 10% match is required for all applications regardless of sub-category. TA Local Streets and Transportation funds are an eligible source of matching funds. Funding from other TA funding categories, however, is not considered an eligible match. The TA will not consider previously incurred costs or previously expended or encumbered funds towards the matching requirement. Staff time in lieu of matching funds also is not accepted. Equity-based Reduced Match: A reduced 5% match may be requested in advance of proposal submittal for projects/programs located in MTC Equity Priority Communities, Re-Imagine SamTrans Equity Priority Areas, or C/CAG Comprehensive Bicycle and Pedestrian Equity Focus Areas (Scores between 8 to 10 only). Applicants may not submit proposals assuming use of the reduced match without prior approval of TA staff.
Minimum Funding Request	N/A
Maximum Funding Request	Pre-construction (PLAN, PE/EV, PS&E, ROW) Phases: $2 million Construction (CON) Phase: $3.5 million Education & Encouragement Programs: $250,000 Total awards per Sponsor per CFP: Up to $5 million
Maximum Project Contribution (All Phases)	N/A
Number of Applications	Jurisdictions are limited to sponsoring and submitting up to 3 applications per CFP cycle.
Timely Use of Funds: Expenditure Timeline	Projects or programs must complete a primary grant agreement and project supplement, begin work within one-year of an award, and expend funds within two years of executing the project supplement planning/ promotion or up to five years if pre-CON and CON phases are awarded.
Additional Monitoring and Reporting Submittals	N/A

Table 24: Pedestrian & Bicycle Program Guidelines Table

10.4.4 Additional Requirements or Policies

PROGRAM SUBCATEGORIES

Sponsors apply to the Pedestrian & Bicycle Program directly through program subcategories based on project eligibility. These subcategories are:

Program Subcategory	Percentage of Funds
Competitive Plans & Capital Projects	90%
Education & Encouragement	5%
Safe Routes to School (SRTS)	5%

GEOGRAPHIC DISTRIBUTION

The Pedestrian & Bicycle Program will the geographic distribution framework described in **Section 10.1.3** for the Competitive Plans & Capital Projects subcategory, promoting a fairer distribution of funding awards across San Mateo County. The proposed distribution targets are as follows:

- Small/Coastal: 30%
- Mid/Large: 70%

10.4.5 Evaluation Criteria

Projects submitted to the Pedestrian & Bicycle Program are evaluated and prioritized by a TA-assembled review committee. Evaluation criteria for the Pedestrian & Bicycle program were updated in the Strategic Plan 2025-2029 and are separated into five thematic areas. Table 25 shows the evaluation criteria that all potential candidate projects submitted for funding consideration will be evaluated against.

Pedestrian/Bicycle Program Evaluation Criteria (Measures A and W)	Applicable Measure W Core Principles	Applicable Measure A Goals	Maximum Points Available
Need			**20**
Accommodates multiple transportation modes (pedestrian, bicycle & access to transit) and may include amenities at transit stations, such as bike lockers micromobility stations	W1, W2, W4, W5, W6, W8, W10	A4	5
Extent that project serves a transportation need (recreation ok if it also serves a commute purpose)	W1, W2, W4, W8, W9, W10, W11	A4	4
Need for safety improvement/enhancement (e.g., project located in area with high rate of documented pedestrian or bicycle use collisions, or where significant barriers exist)	W1, W2, W3, W4, W5, W6, W9	A3	4
Near high density/affordable housing (e.g., Planned Development Areas) in proximity to high quality transit service (high ridership & frequent service)	W1, W2, W4, W8, W10, W11	A2	4
Project recognized in adopted statewide, regional, county or local planning and fund programming documents (e.g., San Mateo County Comprehensive Bicycle and Pedestrian Plan, City Bicycle and/or			
Pedestrian Plan, Vision Zero Plan, General Plan, Specific Plan, Climate Action Plan)	W1, W2, W6, W8	A4	3
Effectiveness			**45**
Degree to which the project reduces stress level, increases safety and accommodates people of all abilities	W1, W3, W4, W5, W6, W7, W8	A3	10
Enhances first/last mile connections to employment centers, TOD, transit stations, schools, and other high density/activity areas	W1, W2, W3, W4, W5, W8, W10, W11	A2	6
Potential increase in person throughput (mode share) and potential travel time savings	W1, W2, W4, W5, W8, W10, W11	A2, A4	6
Closes gap in or extends Countywide pedestrian and bicycle network	W1, W3, W5, W6, W8, W9, W10	A2	5
Degree to which project reduces GHG emissions and improves air quality	W2, W3, W4, W8, W9, W10, W11	A1	5
Potential VMT reduction per capita	W1, W6, W8, W9, W10	A1	5
Value: Benefit relative to the amount of funding requested (high-impact, low-cost projects -"bang for the buck")	W1, W2, W3, W6, W8, W9, W10		4
Innovative low environmental impact/green infrastructure, including resiliency elements to address climate change	W3, W6, W8	A3, A4	3
Project accounts for long term repair/maintenance needs (e.g., uses materials with long life cycles, low maintenance costs & has a funding plan for maintenance)	W6, W7	A4	1
Equity & Community Support			**25**
Location Based Equity: Project improves transportation options for disadvantaged communities/areas	W2	A4	8
User Based Equity: Project Improves transportation affordability, access, or mobility for disadvantaged users	W2	A4	5
Environmental Justice: Degree to which project mitigates pollution and/or improves public health conditions for vulnerable populations	W3, W6, W8	A3, A4	7

Pedestrian/Bicycle Program Evaluation Criteria (Measures A and W)	Applicable Measure W Core Principles	Applicable Measure A Goals	Maximum Points Available
Impact project has on low income, transit dependent, and/or other historically disadvantaged communities	W3, W6, W8	A4	0*
Demonstrates stakeholder support, community engagement, and CBO/advocacy involvement			5
Readiness			**5**
Clear and complete proposal			2
Project status and schedule			1
Has a credible cost estimate and funding plan			1
Ease and speed of implementation			1
Funding			5
Percent of matching fund contribution			4
Private sector contribution, including public/private partnerships			1
		Total	**100**

Table 25: Pedestrian & Bicycle Program Evaluation Criteria

** No associated positive point value, up to 2 possible negative points (-2 – 0 range)*

10.5 PENINSULA SHUTTLE PROGRAM

The Peninsula Shuttle Program consists of the Local Shuttles subcategory of Measure A Transit program category. The Peninsula Shuttle Program comprises 4% of Measure A funds. The Peninsula Shuttle Program is guided by the Peninsula Shuttle Study prepared by the District and Caltrain with input from Commute.org, C/CAG, and the TA. C/CAG often provides some funding for each competitive CFP.

The Peninsula Shuttle Program includes the following three goals:

- Connectivity: provide first/last-mile connections with regional transit
- Ridership: maximize ridership to help reduce corridor congestion
- Equity: sustain and enhance local mobility for transit-reliant populations

10.5.1 Measure A Transit Local Shuttles

The Measure A Transportation Expenditure Plan states:

This project sponsored by SamTrans would provide matching funding for the operation of local shuttle services.

Priority will be given to shuttle services which include a portion of the funding from businesses, employers and other private sector sources. Priority shall also be given to local services which connect with Caltrain, BART and future Ferry Terminals.

10.5.2 Program Specific Guidelines

The program specific guidelines and requirements for this funding program are detailed in Table 26.

Program Guideline Category	Guideline Requirement
Funding Cycles	2 Years
Eligible Sponsors/ Eligible Sponsors	Shuttle serves residents or employers in San Mateo County Applicants may include local jurisdiction or Commute.org; may also be partnered with other public, non-profit, or private entities to co-sponsor.
Matching Funds (Standard and Equity Based)	All new and existing shuttles require a minimum match of 25%
Minimum Funding Request	N/A
Maximum Funding Request	N/A
Maximum Project Contribution	N/A
Number of Applications	N/A
Timely Use of Funds: Expenditure Timeline	2 years
Additional Monitoring and Reporting Submittals	Applicant agrees to provide AVL and APC data to the District (either via their own system or one provided by the District). Applicant agrees to provide quarterly files summarizing ridership by stop and by trip (in format specified by the District), participation in annual survey by the District, and preparation of quarterly financial/progress reports required by the TA or C/CAG. The applicant agrees to manage customer service and rider feedback with summaries provided in quarterly progress reports.

Table 26: Peninsula Shuttle Program Guidelines Table

10.5.3 Additional Requirements or Policies

PROGRAM ELIGIBILITY

Eligible applicants, including local jurisdictions and/or public agencies within San Mateo County, can apply for funding to establish local shuttle services designed to assist resident and employee travel within the county and/or to connect with regional transportation service (e.g., major SamTrans routes, Caltrain, BART, and ferries). Although a public agency must be the applicant for the funds, they may use another entity such as the District, Commute.org, or others to manage and/or operate the service. Similarly, employers and private entities are not eligible to apply directly but may partner with a local jurisdiction or public agency to sponsor a project. Projects that are coordinated among multiple jurisdictions are encouraged. Other key eligibility requirements include:

- Shuttle Types:
  - Commuter Shuttles
  - Community Shuttles
- Serves county residents & employees
- Governing board resolution with non-supplantation of funds statement required

NEED & SERVICE PRINCIPLES

- Shuttle provides coordinated first/last mile connection to a major transit station or regional bus route: Eligible services include Caltrain, BART, WETA, and regional bus routes (including SamTrans ECR, 292, 110, 17, and 294, as well as Dumbarton Express)
- Shuttle is free, open to the public, and serves a range of users: Shuttles do not limit public access. A single employer does not account for >75% of ridership based on survey data.
- Shuttle vehicles are ADA-accessible and can accommodate bicycles: Shuttle provider opts into District shuttle contract or provides vehicle specifications and photos of independently operated shuttle vehicles

OPERATIONS & READINESS

- Applicant provides an operating plan and service map: Applicant provides operating plan summarizing proposed schedule, stops, and operator. Applicant provides photos of stops. Applicant agrees to notify the TA, C/CAG, and District in writing of service changes in advance of implementation or risk losing funding for periods where changes were implemented.
- SamTrans Shuttle Network Concurrence Review: District Operations Planning will provide a concurrence review of all submitted applications to assess the entire network of shuttles. The review will assess the overlap between existing and proposed bus/shuttle services and access for equity focus areas. Applicants agree to incorporate route or stop modifications recommendations, where feasible.

CUSTOMER SERVICE/INFORMATION

- Applicant provides a Marketing plan: Marketing plan identified to provide information and marketing materials to potential riders. Applicant will be responsible for providing the District with a GTFS feed accompanied by a list and map of stops for use on the District website, app, and third-party trip planning and real-time tracking apps.
- Provide signage at all stops: Applicant agrees to install signage at all stop locations.

PROCESS FOR NEW PROPOSED SHUTTLE SERVICES

Sponsors of new shuttles are required to attend a pre-submittal meeting with TA staff, SamTrans operations planning staff (for community and commuter shuttles), and Commute.org (for commuter shuttles only) for shuttle technical assistance prior to the submittal of an application. In the pre-submittal meeting, staff will agree on the most appropriate technical metrics to be used as assumptions for assessing the proposed service during the CFP. District staff will also confirm that the shuttle route(s) generally do not duplicate SamTrans fixed-route services and will make routing or stop suggestions.

10.5.4 Evaluation Criteria

Projects submitted to the Peninsula Shuttle Program are evaluated and prioritized by a TA and C/CAG-assembled review committee. Evaluation criteria for the Local Shuttles Transit Program were updated in the Peninsula Shuttle Study and are separated into three thematic areas. Table 27 shows the evaluation criteria that all potential candidate projects submitted for funding consideration will be evaluated against.

Peninsula Shuttle Program Evaluation Criteria (Measure A)	Applicable Measure A Goals	Maximum Points Available
First/Last Mile Need		**25**
Project serves new geographic areas and provides new and/or substantially different service	A2, A4	10
Percent of matching fund contribution		10
Assessment of first/last mile need	A2, A4	5
Ridership		**50**
Potential for increasing daily ridership	A1, A4	10
Potential to improve service productivity	A4	10
Potential to improve cost efficiency		10
Potential VMT reduction per capita	A1	10
Assessment of ridership growth potential	A4	10
Equity & Community Support		**25**
Location Based Equity: Project improves transportation options for disadvantaged communities/areas	A4	8
User Based Equity: Project Improves transportation affordability, access, or mobility for disadvantaged users	A4	5
Environmental Justice: Degree to which project mitigates pollution and/or improves public health conditions for vulnerable populations	A3, A4	7
Impact project has on low income, transit dependent, and/or other historically disadvantaged communities	A4	0*
Demonstrates stakeholder support, community engagement, and CBO/advocacy involvement		5
	Total	**100**

Table 27: Peninsula Shuttle Program Evaluation Criteria

** No associated positive point value, up to 2 possible negative points (-2 – 0 range)*

10.6 REGIONAL TRANSIT CONNECTIONS

The Regional Transit Connections (RTC) Program consists of the Measure W RTC program category. The RTC program is guided by the RTC Plan, adopted in October 2024, and associated CIP which includes the following four goals:

- Increase regional transit services and enhance infrastructure to improve transit speed and reliability.
- Establish more direct regional transit routes and supportive infrastructure to facilitate transit trips with fewer or cheaper transfers to increase transit use and reduce congestion in major highway corridors.
- Promote equitable regional transit programs, operations, and supportive infrastructure that improve connectivity between transit operators, enhance customer experience, help provide off-peak travel options, and increase safety for all riders.
- Develop a first/last-mile system that creates access for all ages and abilities to regional transit stations and supports connected micromobility.

10.6.1 Measure W Regional Transit Connections

The Measure W Congestion Relief Plan states:

A total of ten percent (10%) of Tax Proceeds will be invested in infrastructure and services that are designed to improve transit connectivity between the County and the region. Currently, the County is connected to neighboring counties and the broader region with a network of transit options including rail, water transit, heavy rail, and regional bus services. More and more county residents are traveling longer distances to get to their jobs. Today, over sixty percent (60%) of residents commute to jobs in neighboring counties, and the vast majority of them drive alone, increasing congestion on already crowded highways.

Investments from this Category will be prioritized based on a project's ability to reduce congestion, a project's ability to enhance mobility options by connecting the county to the rest of the region, and a project's support through public private partnerships.

Investment will be made on a discretionary basis according to criteria and award schedules established by the Authority.

10.6.2 Program Specific Guidelines

The program specific guidelines and requirements for this funding program are detailed in Table 28.

Program Guideline Category	Guideline Requirement
Funding Cycles	4 Years
Eligible Sponsors/ Eligible Sponsors	Public transit agencies that operate within or to/from San Mateo County including Peninsula Corridor Joint Powers Board (Caltrain), the District, AC Transit, WETA, BART, SFMTA, and VTA
Matching Funds (Standard and Equity Based)	Standard Match: A minimum 10% match is required for all applications regardless of sub-category. Matching funds can be any non-RTC funding source. The TA will not consider previously incurred costs or previously expended or encumbered funds towards the matching requirement. Staff time in-lieu match is also not accepted. Equity Priority Locations: A reduced 5% match may be requested in advance of submitting for project/program applications located in MTC Equity Priority Communities, ReImagine SamTrans Equity Priority Areas, or C/CAG CBPP Equity Focus Areas.
Minimum Funding Request	Require a minimum request of $500,000 per allocation except for planning or feasibility study phases in support of a capital project.
Maximum Funding Request	Limit individual requests/allocations per CFP cycle to $25 million for capital projects, $5 million for operational projects, and $5 million for first/last-mile projects (whether capital or operations).
Maximum Project Contribution (All Phases)	50% of total project cost
Number of Applications	Eligible Sponsors may submit up to three applications per RTC CFP cycle. If a Sponsor acts solely as the lead agency to support a regional transit-related program with a separate implementing agency, the eligible Sponsor may submit one additional application.
Timely Use of Funds: Expenditure Timeline	Primary grant agreement and project supplement(s) Execution (all subcategories): Fund recipients must complete a primary grant agreement and project supplement(s) and begin work within one year of allocation unless the TA approves the use of requested funding as leverage for other external grant programs. Operations Subcategory Awards: Operations funding must be spent within four years of executing a primary grant agreement and project supplement(s). Capital Subcategory Awards: For Planning, PE/EV, and PS&E phases: All work on capital projects must be completed within three years of effective date of the executed primary grant agreement and project supplement(s) date if funds are awarded for only one phase of work. If the TA awards funds for more than one phase, it may allow work to be completed within up to five years from primary grant agreement and project supplement(s) execution. For awards that fully fund ("last dollar in") ROW and CON phases: For ROW only, work on the funded phase must be completed within three years from primary grant agreement and project supplement(s) execution. For funds awarded to ROW and CON phases together, or funds awarded for only CON, the funded work must be completed within five years of execution of the primary grant agreement and project supplement(s). For ROW and CON awards that do not fully fund a phase ("TA funds used as leverage"): a Sponsor has up to five years to secure full funding for the applicable phase(s) and to execute a primary grant agreement and project supplement(s). The same ROW and CON timely use of funds requirements from the previous section applies once the primary grant agreement and project supplement(s) is executed.
Additional Monitoring and Reporting Submittals	N/A

Table 28: Regional Transit Connections Program Guidelines Table

10.6.3 Additional Requirements or Policies

PROGRAM SUBCATEGORIES

Sponsors apply to the RTC Program directly through program subcategories based on project eligibility. These subcategories are:

Program Subcategory	Percentage of Funds
Capital	60%
Operations	30%
First/Last-Mile	10%

GENERAL POLICIES

- All projects should align with MTC's Plan Bay Area 2050+ including Transit 2050+ and the Bay Area Transit Transformation Action Plan.
- To be compliant with the Measure W Congestion Relief Plan, RTC funds may only be used to supplement existing available funding and may not be used to replace (supplant) funds previously allocated to or budgeted for a project.
- Projects that may be eligible in multiple TA programs generally should apply for funding outside of the RTC Program first. For example, projects located primarily on the highway system should apply for funding from the TA's Highway program.
- If the 2004 Measure A is not renewed, Peninsula Shuttle Program routes that access regional transit would be eligible for funds from the first/last-mile subcategory.
- The TA may consider requests above the maximum requested amount each cycle, and/or recommend reduced funding awards, depending on whether the individual CFP cycle is over- or undersubscribed. As part of the Draft RTC Program of Projects, staff would provide an option for the TA Board of Directors to consider and provide direction for the Final RTC Program of Projects in each CFP cycle.
- The CIP should be updated after every two CFP cycles.

CAPITAL PROJECTS POLICIES

- Capital projects must be located within San Mateo County.
- All phases of work such as planning (planning, project study report, feasibility studies, etc.), PE/EV, design, ROW, and CON are eligible if they are in the support of the development and delivery of a capital project.
- RTC funds cannot be used for general state of good repair or maintenance projects.
- Maximum TA contributions include:
  - For projects over $25 million total for all phases of work, the TA will contribute up to 50% of the total cost toward the project
  - For projects under $25 million total for all phases of work, the TA will contribute up to 75% of the total cost toward the project

- Eligible applicants may request an exception to this policy if they can document that they have exhausted all other reasonable eligible local, county, regional, state, and federal funding opportunities. Eligible applicants must work with TA staff to have an approved credible funding plan and grant strategy prior to submitting a CFP application.

OPERATIONS PROJECT POLICIES

- Operations funds may be used to support services that extend beyond the San Mateo County borders into adjacent counties as long as costs paid with RTC funds are proportionate to anticipated service levels in San Mateo County relative to adjacent counties (i.e., based on proportions shares of boardings and/or alighting).
- Operations funds may not be used to support existing operations and are intended to support new or expanded services. Expanded services may include increased frequencies, customer experience programs, or service level augmentation for existing routes.
- A new service, program, or expanded service may apply with a ten percent (10%) match for its first award of RTC funds and is eligible to apply for only one directly subsequent call for projects with a 25% match requirement. A "new" service or program is one that has not received Measure W RTC funding previously. A service will no longer be considered "new" or "expanded" if it has received two awards for funding from this program.

FIRST/LAST MILE PROJECT POLICIES

- Capital first/last-mile projects must be identified as a priority project in a transit agency's station access improvement or equivalent plan. If an agency does not have such a plan, these funds may be used to develop one with no required match to ensure all agencies are equally able to support and identify priority first/last-mile projects in San Mateo County. If an agency wishes to include areas outside of San Mateo County, the agency must proportionally fund the effort based on the number of stations/terminals to be included within and outside the county.
- Projects must improve connections within three miles of regional transit connections.
- Capital projects for micromobility (includes bikeshare or scooter share) are eligible only if they directly support the regional transit network, such as with siting and construction of bikeshare stations that would provide access within three miles of, or on-site at, a transit station/terminal.
- Capital project investments from the RTC program for micromobility resulting in new operations would also be eligible for up to $2.0 million in operating funds each CFP cycle.
- Operations funds without a corresponding capital project for micromobility or bikeshare are also eligible if they support on-going implementation of a system in San Mateo County that directly supports first/last-mile access to transit stations/terminals.
- If a micromobility or bikeshare system is managed by a regional agency or extends outside of San Mateo County, the maximum San Mateo County contribution should be proportional to the services provided within the county.

10.6.4 Evaluation Criteria

Projects submitted to the RTC Program are evaluated and prioritized by a TA-assembled review committee. Evaluation criteria for the RTC Program were developed in the RTC Plan and are separated into five thematic areas. Table 29 shows the evaluation criteria that all potential candidate projects submitted for funding consideration will be evaluated against.

Regional Transit Connections Program Evaluation Criteria (Measure W)	Applicable Measure W Core Principles	Maximum Points Available
Connectivity		**30**
Increase access and connections to jobs, housing, transit hubs, and other high activity centers to support existing economic activity and spur economic development in the vicinity	W1, W2, W4, W6, W8, W10, W11	5
Improve service frequency (e.g., headways), reliability (e.g., on-time performance), and coordinated seamless connections with other transit systems (e.g., schedule alignment)	W1, W2, W6, W7, W8, W10, W11	10
Improves connectivity, integration, and coordination between local and regional transit services	W1, W2, W6, W8, W10, W11	10
Improve travel time savings	W1, W2, W8, W10	5
Sustainability & Cost Effectiveness		**20**
Reduce congestion on existing transit route/corridor	W1, W2, W4, W8, W10	4
Relieve congestion for regional trips and reduction in VMT per capita	W1, W2, W3, W5, W7, W8, W10, W11	4
Increase transit ridership and induce mode shift from SOV trips	W1, W2, W8, W10, W11	4
Value: Benefit relative to the amount of funding requested (high impact, low cost - "bang for the buck")	W1, W3, W4, W5, W6, W7, W8	3
Reduce GHG emissions and improve air quality	W2, W6, W10	2
Investment in clean air/zero emission vehicle technology	W3, W6, W8	2
Private sector contribution, including public/private partnerships (e.g., value capture of terminal land with revenues reinvested in support of service)	W2, W4, W5	1
Safety & Customer Experience		**20**
Provide first/last-mile access options/accommodations as part of the project	W1, W2, W5, W6, W8, W9, W11	8
Improve safety for the transit service and for access to services for all users	W2, W6, W10	6
Promotes a high-quality transit rider experience through enhancements such as wayfinding, rider displays, amenities, programmatic security/enforcement strategies, etc.	W2, W6, W9, W10	6
Equity & Community Support		**25**
Location Based Equity: Project improves transportation options for disadvantaged communities/areas	W2	8
User Based Equity: Project Improves transportation affordability, access, or mobility for disadvantaged users	W2	5
Environmental Justice: Degree to which project mitigates pollution and/or improves public health conditions for vulnerable populations	W3, W6, W8	7
Impact project has on low income, transit dependent, and/or other historically disadvantaged communities	W3, W6, W8	0*
Demonstrates stakeholder support, community engagement, and CBO/advocacy involvement		5

Regional Transit Connections Program Evaluation Criteria (Measure W)	Applicable Measure W Core Principles	Maximum Points Available
Readiness		**5**
Clear and complete proposal		1
Project status and schedule		1
Has a credible cost estimate and funding plan		1
Ease and speed of implementation		1
Applicant experience and ability to deliver project on time and on budget with examples		1
	Total	**100**

Table 29: Regional Transit Connections Program Evaluation Criteria

** No associated positive point value, up to 2 possible negative points (-2 – 0 range)*

10.7 GRADE SEPARATION PROGRAM

The Grade Separation Program consists of the Measure A Grade Separation program category and the Measure W Local Safety, Pothole & Congestion Relief Improvements (Grade Separations) program category. The Grade Separation Program comprises 15% of the total annual funds collected through Measure A and 2.5% of the total annual funds collected through Measure W.

10.7.1 Measure A Grade Separation

The Measure A Transportation Expenditure Plan states:

This project provides funding for the construction or upgrade of overpasses and underpasses (grade separations) along the Caltrain and Dumbarton rail lines. The Candidate Projects are listed below. Funds will not be adequate to construct or upgrade all Candidate Projects. The TA will determine Candidate Project selection and prioritization in conjunction with the project sponsors, based upon the California Public Utilities Commission formula and the desire of the City involved.

10.7.2 Measure W Local Safety, Pothole & Congestion Relief Improvements (Grade Separations)

The Measure W Congestion Relief Plan states:

A total of twelve and one-half percent (12.5%) of Tax Proceeds will be invested in major arterial and local roadway improvements in key congested areas throughout the county. These investments will be focused on improving safety, reducing congestion, and supporting all modes of travel on the county's roadway system. Eligible investments include, but are not limited to, the following: implement advanced technologies and communications on the roadway system; improve local streets and roads by paving streets and repairing potholes; promote alternative modes of transportation, which may include funding shuttles or sponsoring carpools, bicycling and pedestrian programs; plan and implement traffic operations and safety projects, including signal coordination, bicycle/pedestrian safety projects, and separation of roadways crossing the Caltrain rail corridor.

Two and a one-half percent (2.5%) of the Tax Proceeds (out of the 12.5% total Tax Proceeds designated for this Category) will be invested in grade separations on a discretionary basis in accordance with criteria and award schedules established by the Authority.

10.7.3 Program Specific Guidelines

The program specific guidelines and requirements for this funding program are detailed in Table 30.

Program Guideline Category	Guideline Requirement
Funding Cycles	Competitive, Rolling for previously selected Pipeline Projects
Eligible Sponsors/ Eligible Sponsors	The District, JPB, cities and county
Matching Funds	Pre-construction: 10%
Construction: 50%	
Minimum Funding Request	N/A
Maximum Funding Request	N/A
Maximum Project Contribution (All Phases)	Up to 50% of total project cost
Number of Applications	N/A
Timely Use of Funds: Expenditure Timeline	N/A
Additional Monitoring and Reporting Submittals	N/A

Table 30: Grade Separation Program Guidelines Table

10.7.4 Additional Requirements or Policies

MEASURE A GRADE SEPARATION PROGRAM PRINCIPLES (2016)

Due to the high cost of grade separation projects and the limited funding available through Measure A, the Board adopted guiding principles setting the framework to establish a pipeline of grade separation projects. These criteria were adopted in 2013 and updated in 2016.

FUNDING

Focus remaining funding on the projects previously approved by the San Mateo County Transportation Authority (TA) for pre-construction funding but set aside up to $5 million to assist with planning for other eligible grade separation projects listed in the Transportation Expenditure Plan that were not funded in 2013 or 2014. Rapidly increasing grade separation project costs will require the TA to revisit the grade separation guidelines for Measure A and how Measure W funds are distributed.

PROGRAMMING AND ALLOCATION

Program and allocate funds to separate project phases:

- Planning – Study project alternatives and develop cost estimates for different options, including at least one that is consistent with the Caltrain/High-speed Rail Blended System.
- Preliminary Engineering/Environmental Assessment – Complete necessary State and/or Federal environmental assessment for the project; project must have (a) City Council approval to move forward, and (b) Caltrain concurrence with the selected project alternative.
- Design – Complete final design in close coordination with Caltrain to ensure railroad design standards are met and complete value engineering; project must have (a) City Council approval to proceed, and (b) Caltrain concurrence with the selected project alternative.
- Construction - Project must have a full funding plan; construction must be done by Caltrain; project must have (a) City Council approval and (b) demonstrated local community support to proceed.

Measure A funds will only be allocated to a particular phase when Sponsor demonstrates an earlier phase has been satisfactorily completed.

PROJECT SELECTION PROCESS

- In general, evaluation criteria should consider:
  - Project's ability to improve safety and relieve local traffic congestion at the crossing
  - Project's ability to improve railroad's operational flexibility
  - Project readiness
  - Project effectiveness
  - Geographic equity, considering where funds from the Grade Separation Program have previously been allocated
  - Extent to which project can support economic development
  - Funding leverage: Sponsor's ability to secure, at a minimum, matching funds for the construction of the project.

- Project must be supported by Caltrain, and Sponsor must include Caltrain as a project partner early in the planning process.
- Instead of utilizing a call-for-projects process, accept funding requests for the projects on an as-needed, first come first served basis, and taking into consideration Caltrain's assessment of the proposed project in the Caltrain Grade Crossing Hazard Analysis, and the project's ranking in the Public Utilities Commission's listed priorities, in addition to the evaluation criteria listed above.

10.7.5 Evaluation Criteria

Projects submitted to Grade Separation Program are evaluated and prioritized on a first-come, first-serve, ready-to-go basis. The Evaluation criteria for the Measure A Grade Separation Program shown in Table 31 was adopted in the previous Strategic Plan 2020-2024. No Measure W Grade Separation Program evaluation criteria has been developed pending the adoption of the Caltrain Corridor Crossings Strategy and updated funding plan for the next pipeline project (Broadway Burlingame).

Grade Separation Program Evaluation Criteria (Measure A)
Projects considered on an as-needed basis that demonstrate the ability to meet the following criteria
Project's ability to improve safety and relieve local traffic congestion at the crossing
Project's ability to improve railroad's operational flexibility
Project readiness
Project effectiveness
Geographic equity, considering where funds from the Grade Separation Program have previously been allocated
Extent to which project can support economic development
Funding leverage: Sponsor's ability to secure, at a minimum, matching funds for the construction of the project
Project must be supported by Caltrain, and Sponsor must include Caltrain as a project partner early in the planning process
The project's ranking in the Public Utilities Commission's listed priorities, in addition to the evaluation criteria listed above

Table 31: Measure A Grade Separation Program Evaluation Criteria

11 Technical Assistance Program

The Strategic Plan 2025-2029 formalizes and expands upon the current technical assistance offerings the TA provides into a Technical Assistance Program. The newly branded TA Technical Assistance Program consists of offerings available to eligible project initiators, Sponsors, and managers for all Measures A and W funding programs both during and between CFP cycles. With the adoption of the Strategic Plan 2025-2029, the TA will set aside $2 million in available Measure A interest earnings to fund the Technical Assistance Program and will periodically assess the need for additional funds.

CFP PLANNING & RESOURCES

To provide additional support in advance of CFP cycles, the TA will hold office hours periodically throughout each year to provide Sponsors with the opportunity to discuss potential projects and to provide feedback ahead of upcoming CFP's. The TA will provide dedicated times/availability and Sponsors will set up meeting requests through Zoom. The goal of these office hours is to guide project development and provide jurisdictions with the resources necessary to submit quality applications in the next CFP cycle.

In addition to holding office hours prior to CFP cycles, the TA will continue to offer optional pre-submittal meetings and early application reviews and will extend these offerings to each competitive Measures A and W program. Due to the high number of applications for some competitive programs, early application reviews are subject to availability and the number of potential applications.

TECHNICAL TRAININGS AND WORKSHOPS

The TA will offer technical trainings to partner agency staff on best practices for applicable Measures A and W program categories. A training plan and schedule will be developed and may cover topics requested by Sponsors, partner agencies, or to promote better compliance with TA requirements.

STAKEHOLDER ADVISORY GROUP (SAG) AND TECHNICAL ADVISORY GROUP (TAG) MEETINGS

The TA will continue to host SAG/TAG meetings each quarter, in conjunction with the District, to communicate TA updates, solicit input on TA programs and projects, and provide CFP lookaheads.

PROJECT IMPLEMENTATION SUPPORT

The TA will continue to offer project implementation support where the TA acts as the implementing agency in partnership with local jurisdictions to help deliver projects. The TA will assess whether it is effective for the TA to continue acting as the implementing agency during the construction phase of projects, or if this offering will only be available for pre-construction phases. Technical assistance budgets for project implementation will continue to be allocated separately as part of each CFP cycle.

Following construction of the 101/Broadway and 101/Willow landscaping projects, the TA will assess its effectiveness and capacity to continue to serve as the implementing agency for the construction phase to inform whether to continue as part of the Technical Assistance Program.

GRANT SUPPORT AND APPLICATION ASSISTANCE

In addition to supporting CFP applications, the TA may provide support to Sponsors requesting assistance for non-TA grant applications. Through strategic guidance and staff support, the TA will assist in identifying grant opportunities for potential projects and provide resources to help with preparing competitive applications for external funding opportunities to leverage Measures A W funds.

COMMUNITY BENEFIT ORGANIZATION (CBO) BENCH

The TA will formalize a bench of CBOs to support jurisdictions on projects to better reflect the needs of the underserved communities and strengthen grant applications. This will streamline the process of connecting Sponsors with community organizations and promote stronger applications with more community support.

BEST PRACTICE DESIGN REVIEWS

The TA will require any project wishing to request funding for a construction phase of work from the Ped/Bike and Highway Programs to have participated in Third-party Best Practice Design Review at a minimum of 30% design with TA staff and one of the TA's consultants. The level of review and potential recommendations will be determined by the complexity of the project and the potential cost/implementation timeline, which the TA understands will vary by project. The Best Practice Design Reviews will be available on an open, rolling basis. The reviews may also be extended to other program categories on a case-by-case basis.

CONSULTANT BENCH ACCESS

The TA will facilitate access to and provide funding for third-party consultant assistance for Sponsors who have received TA funding. The TA will utilize its consultant bench for project implementation support, technical trainings and workshops, grant assistance, and design reviews.

12 Key Actions for 2025-2029

Using the results of the workshops held and surveys distributed to the TA Board of Directors, CAC, C/CAG Congestion Management TAC, and SAG/TAG, the following key actions were developed to guide future TA staff actions for the Strategic Plan 2025-2029 timeframe:

1. Continue with the established CFP processes for the competitive Shuttle, Highway, Pedestrian & Bicycle, ACR and TDM programs, and implement a CFP for the newly adopted RTC program.
2. Update the Highway program CIP in coordination with the TA's Highway program Sponsors with a specific emphasis on updating the Measure A Supplemental Roadways list to better reflect multimodal arterial needs across San Mateo County that connect with the state highway system.
3. Promote and expand the Technical Assistance Program, as defined in **Section 11**, to aid Sponsors with funding and implementing projects. Continue to help secure funding from external grant programs, leveraging Measures A and W interest earnings when available.
4. Develop Program Management Guidelines to set expectations and standards for internal TA project management processes, reporting and monitoring requirements, and to establish processes for when the TA is implementing projects in partnership with an external agency as part of the Technical Assistance Program. As part of the Program Management Guidelines development, create enhanced oversight protocols and a change management processes for large Capital investment projects over $25 million.
5. Continue to implement the 101 Corridor Connect Program by adopting the North, Mid, and South County Multimodal Strategies and Active 101 initiatives. Partner with cities to create implementation plans for priority congestion management projects and monitor progress.
6. Execute new Primary Grant Agreements and project supplements with Sponsors to streamline how the TA documents award and use of Measures A and W funds for transportation programs and projects throughout San Mateo County.
7. Procure and implement a Grant Management platform to host all CFPs and to provide an easy-to-use platform for Sponsors to track and fill in quarterly reporting for all TA funding awards.
8. Develop a Key Performance Metrics dashboard and create a consolidated set of metrics for all funding programs that align with the California State Transportation Agency's Climate Action Plan for Transportation Infrastructure and the Caltrans Systemwide Investment Strategy which can be integrated into future reporting on projects. Continue to maintain the funded projects map and expand the included information to inform tracking of key performance indicators.
9. Support and participate in the Grand Boulevard Initiative (GBI) relaunch, an initiative to revitalize El Camino Real into a vibrant, people-friendly place. GBI is being led by the District in partnership with Caltrans, C/CAG, MTC, and local jurisdictions.
10. Increase coordination with C/CAG and Caltrans to strategically advance Measures A and W goals, exploring opportunities to combine funding for projects or streamline the number of county-level CFPs.
11. Further explore and consider debt financing or internal borrowing of funds as needed to advance projects.
    - Funding advances would be backed by future Measure A and/or Measure W receipts.
    - Need to consider financing costs and future construction cost increases.

12. Elevate the TA's presence within the transportation industry by participating or presenting at state and national industry conferences, attending regional industry events, participating in local forums, and hosting educational workshops that advance TA initiatives and priorities.
13. Begin preparations and identify activities to support reauthorization of Measure A.

SAN MATEO COUNTY TRANSPORTATION AUTHORITY

APPENDICES

SAN MATEO COUNTY Transportation Authority

Support provided by:

wsp

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SAN MATEO COUNTY Transportation Authority

A. TECHNICAL BACKGROUND ANALYSIS

The following memorandums were developed in support of the strategic plan for documentation:

Travel Trends & Needs Assessment Report

A memorandum that lists the technical information and sources to be used to develop a countywide travel trend and needs assessment. This includes using existing surveys, plans, or using other data to generate new information. The memorandum includes a review of land use, traffic patterns, population and growth projections, new mobility themes, and pre-/post-COVID analysis. Lastly, the memorandum includes a streetlight assessment and review of the C/CAG Congestion Management Program Monitoring update that was developed in 2023.

Review of Strategic Plan 2020-2024 Progress

A memorandum that reviews and summarizes funded projects during the 2020-2024 period by Measure A and W funding program category. The memorandum will highlight projects that reached construction or completion and will review and summarize TA planning and policy efforts that have occurred during this time period such as the update to the Short-Range Highway Plan, development of the Alternative Congestion Relief/Transportation Demand Management Plan and Regional Transit Connections Plan, and the start of the 101 Corridor Connection Program, among others. Lastly, the memorandum reviews and summarizes the progress TA staff has made toward the Next Steps achieved from the TA Strategic Plan 2020-2024 action items.

Financial Projections and Funding Sources

A memorandum that provides updated sales tax projections for Measure A and Measure W for the five-year Strategic Plan period and the remainder of each of measure. The memorandum will also include the total funding need by category and identify the remaining need to show how the TA funding can be leveraged with other external funding opportunities.

Program and Policy Updates

A series of memorandums detailing specific recommendations based on the findings from previous tasks which will guide TA staff, stakeholders, and the Board Ad-Hoc committee in how updates will be incorporated into the TA Strategic Plan 2025-2029.

Policy & Program Recommendations

A memorandum to establish how each TA funding program will incorporate changes to better consolidate and standardize TA program guidelines to make the programs more consistent. The memorandum highlights each program and summarizes what has worked well and where the major areas for improvement will be.

Evaluation Criteria Recommendations

A memorandum to establish how competitive program evaluation criteria will be updated to better align with external grant funding evaluation criteria. The memorandum will include ways to streamline the review process to make the application process easier for sponsors.

Monitoring Process & Reporting Requirements Recommendations

A memorandum to understand how updates to the monitoring process and reporting requirements will be changed resulting from a concurrent effort to update the TA's Project Delivery Process. Additionally, the

memorandum, will include inclusion of any changes resulting from the TA's concurrent procurement of a grant management platform.

Technical Assistance Program Recommendations

A memorandum that reviews the TA Strategic Plan 2020-2024 which provides some guidance on expanding the TA's role providing technical assistance and formalizing a better definition in the next iteration of the Plan. Lastly, the memorandum includes a high level roles and responsibilities for TA and local agency staff.

Program Administration & Guidelines Update Memorandum

The last memorandum uses the agreed upon recommendations from the final memorandums above and drafts the updated Program Administration & Guidelines for each of the TA's funding program categories plus a general policy section to consolidate all of recommendations that may extend to multiple programs. Each funding program section is developed as a standalone sub-chapter to allow the applicable program to be easily referenced for each subsequent TA funding Calls for Projects.

SAN MATEO COUNTY Transportation Authority

B. REVIEW OF FY 2020-2024 FUNDING AND PROJECTS

SAN MATEO COUNTY Transportation Authority

B-1 MEASURE A

B-1-1 FUNDING BY YEAR

TOTAL FUNDING

Funding Year	Funding Amount
2020	$75,530,000
2021	$68,564,327
2022	$96,495,540
2023	$108,272,000
2024	$116,264,000
Total	**$465,125,867**

STAFF SUPPORT FUNDING

Fiscal Year	Budget
2020	$910,000
2021	$800,000
2022	$964,955
2023	$1,082,720
2024	$1,162,640
Total	**$4,920,315**

LOCAL STREETS AND TRANSPORTATION FUNDING

Fiscal Year	Budget
2020	$20,475,000
2021	$18,000,000
2022	$21,711,497
2023	$24,361,200
2024	$26,159,400
Total	**$110,707,097**

TRANSIT FUNDING

Transit Categories	Fiscal Year	Budget
Caltrain (16%)	2020*	$14,560,000
	2021*	$12,800,000
	2022*	$15,439,286
	2023	$17,323,520
	2024	$18,602,240

Transit Categories	Fiscal Year	Budget
	Subtotal	**$78,725,046**
Local Shuttles (4%)	2020	$3,640,000
	2021	$3,200,000
	2022	$3,859,822
	2023	$4,330,880
	2024	$4,650,560
	Subtotal	**$19,681,262**
Accessible Services (4%)	2020	$3,640,000
	2021	$3,200,000
	2022	$3,859,822
	2023	$4,330,880
	2024	$4,650,560
	Subtotal	**$19,681,262**
Ferry (2%)	2020**	$0
	2021	$948,744
	2022	$1,929,911
	2023	$2,165,440
	2024	$2,325,280
	Subtotal	**$7,369,375**
Dumbarton Corridor (2%)	2020	$1,820,000
	2021	$1,600,000
	2022	$1,929,911
	2023	$2,165,440
	2024	$2,325,280
	Subtotal	**$9,840,631**
BART (2%)	2020	$1,820,000
	2021	$1,600,000
	2022	$1,929,911
	2023	$2,165,440
	2024	$2,325,280
	Subtotal	**$9,840,631**
Total		**$145,138,207**

**FY 2020, 2021, and 2022 allocated separate funds to transfer to SamTrans for Caltrain. These funds were combined with the general Caltrain funds.*
***No funds allocated to Ferry in FY 2020.*

SAN MATEO COUNTY Transportation Authority

HIGHWAYS FUNDING

Highways Categories	Fiscal Year	Budget
Key Congested Corridor Programs (17.3%)	2020	$15,743,000
	2021	$13,840,000
	2022	$16,693,728
	2023	$18,731,056
	2024	$20,113,672
	Subtotal	**$85,121,456**
Supplemental Roadway Projects (10.2%)	2020	$9,282,000
	2021	$8,160,000
	2022	$9,842,545
	2023	$11,043,744
	2024	$11,858,928
	Subtotal	**$50,187,217**
Total		**$135,308,673**

GRADE SEPARATION FUNDING

Fiscal Year	Budget
2020*	$0
2021	$1,215,583
2022	$14,474,331
2023	$16,240,800
2024	$17,439,600
Total	**$49,370,314**

**No funds allocated to Grade Separations in FY 2020.*

ALTERNATIVE CONGESTION RELIEF FUNDING

Alternative Congestion Relief Categories	Fiscal Year	Budget
Future ACR projects	2020	$342,964
	2021	$275,389
	2022	$392,420
	2023	$504,320
	2024	$1,162,640
	Subtotal	**$2,677,733**
Commute.org	2020	$567,036
	2021	$524,611
	2022	$572,353

Alternative Congestion Relief Categories	Fiscal Year	Budget
	2023	$578,400
	2024	$0
	Subtotal	**$2,242,400**
Total		**$4,920,133**

PEDESTRIAN AND BICYCLE FUNDING

Fiscal Year	Budget
2020	$2,730,000
2021	$2,400,000
2022	$2,894,866
2023	$3,248,160
2024	$3,487,920
Total	**$14,760,946**

B-1-2 INVENTORY OF LISTED PROJECTS

CALTRAIN

Project / Programs	Funds Awarded	Status
Caltrain Operations	$15,200,000	Programmatic
Caltrain Capital Programs	$22,700,000	Programmatic
Atherton Station Closure	$4,100,000	Construction (CON) is expected to be completed mid-2024
South San Francisco Station	$23,000,000	The CON phase was completed December 2020.
Total Funds Awarded	**$65,000,000**	

SHUTTLE SERVICE

Fiscal Year	Number of Shuttles Funded
FY 2019–2020	33
FY 2021-2022	28
FY 2023	28 (Funding extended to FY 2021-2022 shuttles due to COVID-19)
FY 2024-2025	24
Total Shuttles Funded	**113**

FY 2024-2025 ACTIVE SHUTTLE ROUTES

Route Name	City	Sponsor
Brisbane-Bayshore Caltrain	Brisbane	Commute.org
Brisbane Crocker Park	Brisbane	Commute.org
Burlingame Bayside	Burlingame	Commute.org

Route Name	City	Sponsor
Burlingame Point	Burlingame	Commute.org
Daly City Bayshore	Daly City	Daly City
Daly City Seton	Daly City	Commute.org
Foster City Commuter	Foster City	Commute.org
Hillsdale Caltrain Commuter	Foster City	Commute.org
Millbrae Burlingame Commuter	Millbrae, Burlingame	Commute.org
North Foster City	Foster City	Commute.org
One Tower Place	South San Francisco	Commute.org
Oyster Point BART	South San Francisco	Commute.org
Oyster Point Caltrain	South San Francisco	Commute.org
Oyster Point Ferry	South San Francisco	Commute.org
Redwood City Midpoint	Redwood City	Commute.org
Redwood LIFE Caltrain	Redwood City	Commute.org
Seaport Centre	Redwood City	Commute.org
SKY - Skyline College Express	San Bruno	San Mateo County Community College District
South City Shuttle	South San Francisco	South San Francisco
Utah-Grand BART	South San Francisco	Commute.org
Utah-Grand Caltrain	South San Francisco	Commute.org
Utah-Grand Ferry	South San Francisco	Commute.org
Willow Road	Menlo Park	Menlo Park
South City Shuttle - West	South San Francisco	South San Francisco

FERRY PROJECTS

Project	Funds Awarded	Sponsor Updates
Redwood City Ferry Project	$3,660,000	- The Feasibility Study was completed in October 2020 - The Business Plan was allocated $160,000 in April 2021 and completed in April 2022 - Preliminary Engineering and Environmental phase (PE/ENV) were allocated $3.5M in June 2022 - Expected to be completed by June 2025
South San Francisco Second Ferry Terminal Project	$350,000	- The feasibility study and pre-environmental phase was allocated $350,000 in July 2020 - Expected to be completed by June 2025
Total Funds Awarded	**$4,010,000**	

SAN MATEO COUNTY Transportation Authority

HIGHWAYS

CFP Cycle	Sponsor	Project	Funds Awarded	Phase Funded/ Status
2021	Redwood City	U.S. 101 / Woodside Road (SR 84) Interchange Project	$50,000,000	CON
	San Carlos	US 101/ Holly Street Interchange and Pedestrian Overcrossing Project	$10,250,000	Cancelled Spring 2023
	TA and C/CAG	US 101 Managed Lanes Project North of I-380	$11,323,000	PS&E
	TA and C/CAG	US 101/ SR 92 Direct Connector Project	$10,200,000	Project Approval/ Environmental Documents (PA/ED)
2023	Redwood City	US 101/ Woodside Road (SR 84) Interchange and Port Access Project	$78,861,000	- Right-of-Way (ROW) ($5.4M) - CON ($73.461M)
	TA and C/CAG	US 101/ SR 92 Area Improvements	$12,107,000	CON
	TA and C/CAG	US 101 Managed Lanes Project North of I-380	$21,500,000	- PA/ED ($2.15M) - PS&E ($19.35M)
Total Funds Awarded			**$194,241,000**	

Projects Completed & Closed-out:

- Route 1 Safety & Operational Improvements Project (Wavecrest Road - Poplar Street) (Half Moon Bay)
- Railroad Avenue Extension Project (South San Francisco)
- San Pedro Creek Bridge Replacement Project (Pacifica)

Projects nearing completion and in final stages of construction or landscaping:

- U.S. 101 / Broadway Interchange Project (Burlingame)
- U.S. 101 / Willow Interchange Project (Menlo Park)
- U.S. 101 Express Lanes Project (Previously the U.S. 101/ Managed Lanes Project) (TA and C/CAG)
- Highway 92 / El Camino Real Interchange Project (City of San Mateo)

GRADE SEPARATION

Project	Funds Awarded	Status	Estimated Phase Completion
25th Avenue Project (San Mateo)	$23,800,000	CON	Completed 2021
Broadway Project (Burlingame)	$3,325,000	PS&E	September 2024
South Linden Avenue/Scott Street (South San Francisco/San Bruno)	$4,950,000	PA/ED	May 2025
Whipple Avenue (Redwood City)	$301,000	PLAN	July 2021
Total Funds Awarded	**$32,376,000**		

SAN MATEO COUNTY Transportation Authority

ALTERNATIVE CONGESTION RELIEF

Sponsor	Project/ Programs	Funds Awarded	Status	Estimated Completion
San Mateo (City)	101/92 Mobility Hub and Smart Corridor Concept Plan	$255,000	PLAN	July 2024
City/County Association of Governments (C/CAG)	Countywide Shared, Connected, and Autonomous Vehicles Strategic Plan	$255,000	PLAN	July 2024
Commute.org	Operations & TDM Monitoring	$2,964,000	Programmatic	
San Mateo County Express Lanes Joint Powers Authority (SMCEL-JPA)	Express Lane JPA Equity Program	$400,000	Programmatic	
San Mateo County Transportation Authority (TA)	County TDM Monitoring Program	$500,000	Programmatic	
Total Funds Awarded		**$4,374,000**		

PEDESTRIAN AND BICYCLE

CFP Cycle	Sponsor	Project	Funds Awarded	Stage Funded/ Status
2020	Burlingame	California Drive Bicycle Facility	$800,000	CON
	Menlo Park	Middle Avenue Pedestrian/Bicycle Rail Crossing Project	$1,130,000	CON
	San Bruno	Huntington Bikeway and Pedestrian Safety Project	$2,000,000	PA/ED, PS&E, ROW, CON
	Redwood City	El Camino Real Corridor Safety Project	$300,000	PA/ED, PS&E
	San Mateo (City)	Hillsdale Caltrain Station Bicycle Access Gap Closure	$153,000	PLAN, PA/ED, PS&E
	Portola Valley	RRFB on Portola Road at Corte Madera Road	$102,703	CON
2022	San Mateo (City)	Fashion Island Boulevard/19th Avenue Class IV Bikeway Complete Streets	$2,200,000	PA/ED, PS&E, CON
	South San Francisco	Junipero Serra Blvd and Westborough Blvd Pedestrian and Bicycle Improvements	$450,000	Feasibility Study
	Belmont	Belmont Village Pedestrian and Bicycle Improvements	$300,000	PS&E, CON
	Burlingame	California Drive Bicycle and Pedestrian Improvement Project	$1,635,000	PS&E, ROW, CON
	Atherton	El Camino Real Complete Streets Gap Closure	$550,000	Feasibility Study
	Colma	Serramonte Boulevard Bicycle and Pedestrian Improvement Project	$1,846,500	PS&E, CON

CFP Cycle	Sponsor	Project	Funds Awarded	Stage Funded/ Status
	San Carlos	Holly Street-Highway 101 Interchange Project	$1,000,000	CON
	Half Moon Bay	Pacific Coast Bikeway North	$980,000	CON
	Hillsborough	Eucalyptus Pathway Project	$389,000	Completed
	Brisbane	Santa Clara to Tulare Walkway	$475,000	PA/ED, PS&E, CON
Total Funds Awarded			**$14,311,203**	

Projects Completed and Closed-out

- Middlefield Road Class II Bike Lanes (Atherton)
- Enhanced Pedestrian & Bicycle Visibility Project (Daly City)
- Kennedy SRTS Project, Jefferson/Cleveland SRTS & Peninsula Bikeway Project, and Highway 101 Pedestrian and Bicycle Undercrossing (Redwood City)
- El Camino Real/Angus Ave Intersection Improvements and Transit Corridor Pedestrian Connection Project (San Bruno)
- Sunshine Gardens Safety and Connectivity Project (South San Francisco)
- San Carlos Ave Pedestrian and Bicycle Improvement Project (San Carlos)
- Class II & III Bike Facilities Project (East Palo Alto)
- 28th Ave Bike Boulevard Implementation Project (City of San Mateo)
- San Mateo Drive Pedestrian and Bicycle Improvement Project (City of San Mateo)
- Burlingame Station Pedestrian Improvements Project and California Drive Class IV Bikeway (Burlingame)
- Menlo Park Bike/Ped Enhancement Project (Menlo Park)
- Eucalyptus Ave Streetscape & SRTS Project (Hillsborough)

Status of Projects Funded Prior to FY 2020:

- Mission Street Streetscape Project (Daly City): PS&E, CON
- Pacific Coast Bikeway Connectivity Project North (Half Moon Bay), PA/ED, PS&E, ROW
- Haven Avenue Streetscape Project (Menlo Park): PA/ED, PS&E, CON

SAN MATEO COUNTY Transportation Authority

B-2 MEASURE W

B-2-1 FUNDING BY YEAR

TOTAL FUNDING

Funding Year	Funding Amount
2020	$45,500,000
2021	$40,000,000
2022	$48,247,771
2023	$54,136,000
2024	$58,132,000
Total	**$246,015,771**

OVERSIGHT AND STAFF SUPPORT

Fiscal Year	Budget
2024	$697,584
TOTAL	$697,584

LOCAL SAFETY, POTHOLE, AND CONGESTION RELIEF FUNDING

Local Safety, Pothole, and Congestion Relief Categories	Fiscal Year	Budget
Local Investment Share (10%)	2020	$9,100,000
	2021	$8,000,000
	2022	$9,649,554
	2023	$10,827,200
	2024	$11,626,400
	TOTAL	**$49,203,154**
Grade Separations (2.5%)	2020	$2,275,000
	2021	$2,00,000
	2022	$2,412,389
	2023	$2,706,800
	2024	$2,863,001
	TOTAL	**$12,257,190**
TOTAL		**$61,460,344**

REGIONAL TRANSIT CONNECTION FUNDING

Fiscal Year	Budget
2020	$9,100,000
2021	$8,000,000

Fiscal Year	Budget
2022	$9,649,554
2023	$10,827,200
2024	$11,452,004
TOTAL	**$49,028,758**

COUNTYWIDE HIGHWAY CONGESTION IMPROVEMENTS FUNDING

Countywide Highway Congestion Improvements	Fiscal Year	Budget
Transportation Demand Management (TDM)	2023	$974,448
	2024	$1,030,680
	TOTAL	**$2,005,128**
Countywide Highway Congestion Improvements	2020	$20,475,000
	2021	$18,000,000
	2022	$21,711,497
	2023	$23,386,752
	2024	$24,736,329
	TOTAL	**$108,309,578**
TOTAL		**$110,314,706**

BICYCLE AND PEDESTRIAN FUNDING

Fiscal Year	Budget
2020	$4,550,000
2021	$4,000,000
2022	$4,824,777
2023	$5,413,600
2024	$5,726,002
TOTAL	**$24,514,379**

B-2-2 INVENTORY OF LISTED PROJECTS

REGIONAL TRANSIT CONNECTIONS

Project / Programs	Funds Allocated	Status
RTC Plan	$450,000	Programmatic

SAN MATEO COUNTY Transportation Authority

COUNTYWIDE HIGHWAY CONGESTION IMPROVEMENTS

CFP Cycle	Sponsor	Project	Funds Awarded	Stage Funded/Status
2021	TA and C/CAG	US 101/ SR 92 Area Improvement Project	$5,075,000	Specifications and Estimates (PS&E) and Right-of-Way (ROW), CON
	East Palo Alto	US 101/ University Avenue Interchange Improvements & Pedestrian Overcrossing	$5,700,000	CON
	TA and C/CAG	Roadway facility improvements between Highway 101 and Dumbarton Bridge	$4,500,000	Cancelled 2024
	Colma	El Camino Real Bike & Pedestrian Improvement Project	$1,800,000	Project Study Report (PSR)
	San Mateo County	Moss Beach SR-1 Congestion & Safety Improvements	$1,145,000	PSR
	Pacifica	Highway 1/ Manor Drive Overcrossing Project	$2,700,000	PID and PA/ED
2023	Menlo Park	Willow Road Pedestrian and Bicycle Safety Improvements	$3,750,000	- PS&E ($450K) - ROW ($25K) - CON ($3.025M)
	East Palo Alto	University Avenue Grand Corridor	$1,050,000	- PLAN ($200K) - PA/ED ($50K) - PS&E ($750K)
	South San Francisco	US 101/ Produce Ave	$2,700,000	PS&E
	Colma and South San Francisco	El Camino Real Bicycle and Pedestrian Improvement Project	$2,295,000	PA/ED
	South San Francisco	J. Serra Blvd and I-280/ Westborough Blvd Interchange Project	$1,486,790	- PID ($459k) - PA/ED ($978k)
	San Mateo County	Moss Beach SR-1 Congestion & Safety Improvements	$3,531,000	PA/ED
	Half Moon Bay	Half Moon Bay Highway 1 Corridor Study	$875,000	PLAN
	Millbrae	El Camino Real Corridor Multi-Modal Transportation Plan	$1,530,000	- PLAN ($1,080,000) - PID ($400K)
Total Funds Awarded			**$38,137,790**	

SAN MATEO COUNTY Transportation Authority

TRANSPORTATION DEMAND MANAGEMENT

	Sponsor	Projects and Programs	Funds Awarded	Stage Funded/ Status
2022 CFP Cycle	Half Moon Bay and County of San Mateo	Midcoastside TDM Plan	$200,000	PLAN
	Burlingame	Citywide TDM Plan	$100,000	PLAN
	Redwood City	Bicycle Parking Guidelines	$72,000	PLAN
	Redwood City	TMA Feasibility and Implementation Study	$100,000	PLAN
	Commute.org	JUHSD Workforce Housing TDM	$83,000	PLAN
	Half Moon Bay	Pedal for a Purpose E-Bicycle Pilot Program	$200,000	Non-Infrastructure
	Colma	Rideshare Voucher Program	$67,500	PLAN
	Colma	El Camino Real/Mission Road Access to Transit Multimodal Crossing Improvement	$162,000	PS&E
	Brisbane	Commuter Shuttle Stop Improvement Project	$200,000	CON
	Hillsborough	Eucalyptus Pedestrian Pathway Project	$200,000	Completed October 2023
	Redwood City	Essential Wheels E-Bike Loaner Program	$200,000	Non-Infrastructure
	Burlingame and Millbrae	Burlingame and Millbrae Bicycle Sharing Program	$400,000	Non-Infrastructure
	Menlo Park	El Camino Real and Ravenswood Avenue Crossing Improvement	$200,000	CON
	Burlingame	California Drive Congestion Management Video Detection Project	$144,200	CON
	Daly City	Westmoor Ave and Westbridge Ave Intersection Quick Build	$168,000	PS&E, CON
Total Funds Awarded			**$2,496,700**	

BICYCLE AND PEDESTRIAN AND BICYCLE

	Sponsor	Project	Funds Awarded	Stage Funded/ Status
2020 CFP Cycle	Redwood City	Hopkins Avenue Traffic Safety Implementation	$1,200,000	CON
	Burlingame	Burlingame Station Pedestrian Improvements	$600,000	Completed

	Sponsor	Project	Funds Awarded	Stage Funded/ Status
	San Mateo County	Santa Cruz Avenue and Alameda de las Pulgas Improvement Project	$700,000	PA/ED, PS&E
	Daly City	John Daly Boulevard/Skyline Boulevard Pedestrian Connection Project	$620,800	PS&E, CON
	Portola Valley	RRFB on Alpine Road at Golden Oaks Drive	$58,226	ROW, CON
	Daly City	Vision Zero Community Outreach Program	$50,000	Programmatic
	Belmont	Ralston Avenue Corridor Project - Segment 3	$1,000,000	Completed
2022 CFP Cycle	Redwood City	Redwood Avenue Pedestrian Improvements	$2,000,000	CON
	Menlo Park	Middle Avenue Complete Streets project	$1,215,000	PS&E, CON
	San Mateo County	Alameda de las Pulgas Complete Street Project	$2,000,000	CON
	San Mateo County	Santa Cruz Avenue Complete Street Project	$2,000,000	CON
	Redwood City	Access to Downtown Bikeway Corridors	$615,000	PA/ED, PS&E
	East Palo Alto	East Bayshore Road Pedestrian Improvements Project	$400,000	PLAN, PA/ED, PS&E
	Colma	Design of El Camino Real Complete Street Project from Mission Road to City of South San Francisco (Segment B)	$603,000	PS&E
	Pacifica	Esplanade & Palmetto Bicycle & Pedestrian Improvement Project	$583,504	PS&E, CON
	Daly City	Lake Merced Blvd Street Reallocation and Bicycle Lane Study	$498,750	PLAN, PS&E, CON
	Burlingame	Occidental Avenue Bike and Ped Improvement and Traffic Calming Project	$435,000	PS&E, CON
	Burlingame	South Rollins Road Traffic Calming Project	$440,000	PS&E, CON
	San Mateo County	Alpine Road Corridor Improvement Project	$990,000	PID
	South San Francisco	ECR Master Plan	$100,000	PLAN
	Daly City	Daly City Vision Zero Design Standards	$65,000	PLAN
	Redwood City	Vision Zero Programs	$100,000	PLAN
SRTS[16]		Four Calls for Projects – 48 projects awarded	$381,762	Programmatic

	Sponsor	Project	Funds Awarded	Stage Funded/ Status
		Walking audits at 8 schools	$100,000	Programmatic
Total Funds Awarded			**$16,756,042**	

SAN MATEO COUNTY Transportation Authority

C. EXISTING CONDITIONS

C-1 COUNTY DEMOGRAPHIC DATA SOURCES

U.S. Census Bureau and American Community Survey (ACS)

Data from the U.S. Census Bureau characterize San Mateo County's modal split by vehicle type and travel mode (e.g. walk, drive alone, bus) as their primary means of transportation throughout San Mateo County.

Highway Performance Monitoring System (HPMS)

The Highway Performance Monitoring System (HPMS) Public Road Database is a federally mandated planning and inventory assessment tool that assesses the functionality of freeways to provide information to state and federal legislators. Caltrans retrieves and publishes California subsets of the HPMS database on an annual basis, which is further disaggregated to represent data at a countywide level. For the purposes of this report, data from the HPMS will be used to evaluate Daily Vehicle Miles Traveled (VMT) from 2017 to 2022.

C/CAG Travel Demand Model

The City/County Association of Governments of San Mateo County is mandated by congestion management program legislation to produce a countywide Travel Demand Model, used to project future transportation conditions, predict the needs of transportation projects, and identify the effectiveness of transportation infrastructure improvements. The Travel Demand Model compares existing (2024) and future (2040) conditions, identified for each Traffic Analysis Zone (TAZ) defined within the boundaries of San Mateo County.

At a geographical level, projections for change in population will be measured by the predicted increase or decrease of persons per acre within each TAZ. The Travel Demand Model also outputs a projected change in jobs, resulting in a spatial analysis of the difference in the number of jobs, between 2024 and 2040, existing or predicted by the TDM to exist in each TAZ within the County.

San Mateo County Open Data Portal

The County of San Mateo maintains an active and regularly updated database of several demographic, economic, environmental, and transportation related indicators that can be used to assess existing conditions throughout the County. For the purposes of this report, year-to-date transit ridership data from the data portal are used to enumerate yearly ridership comparisons of SamTrans bus, commuter shuttle, and paratransit services. Since SamTrans connects to additional transit services that operate within or near the County, such as Caltrain and BART, additional ridership data from connecting transit services will be referenced in relation to SamTrans operations within the County.

Streetlight

Streetlight is a data analytics tool that uses location-based data to characterize and model transportation characteristics at a community level. Outputs from the software will be used to compare pre- and post-pandemic trends along San Mateo County highway corridors to evaluate updated changes in traffic along roadways.

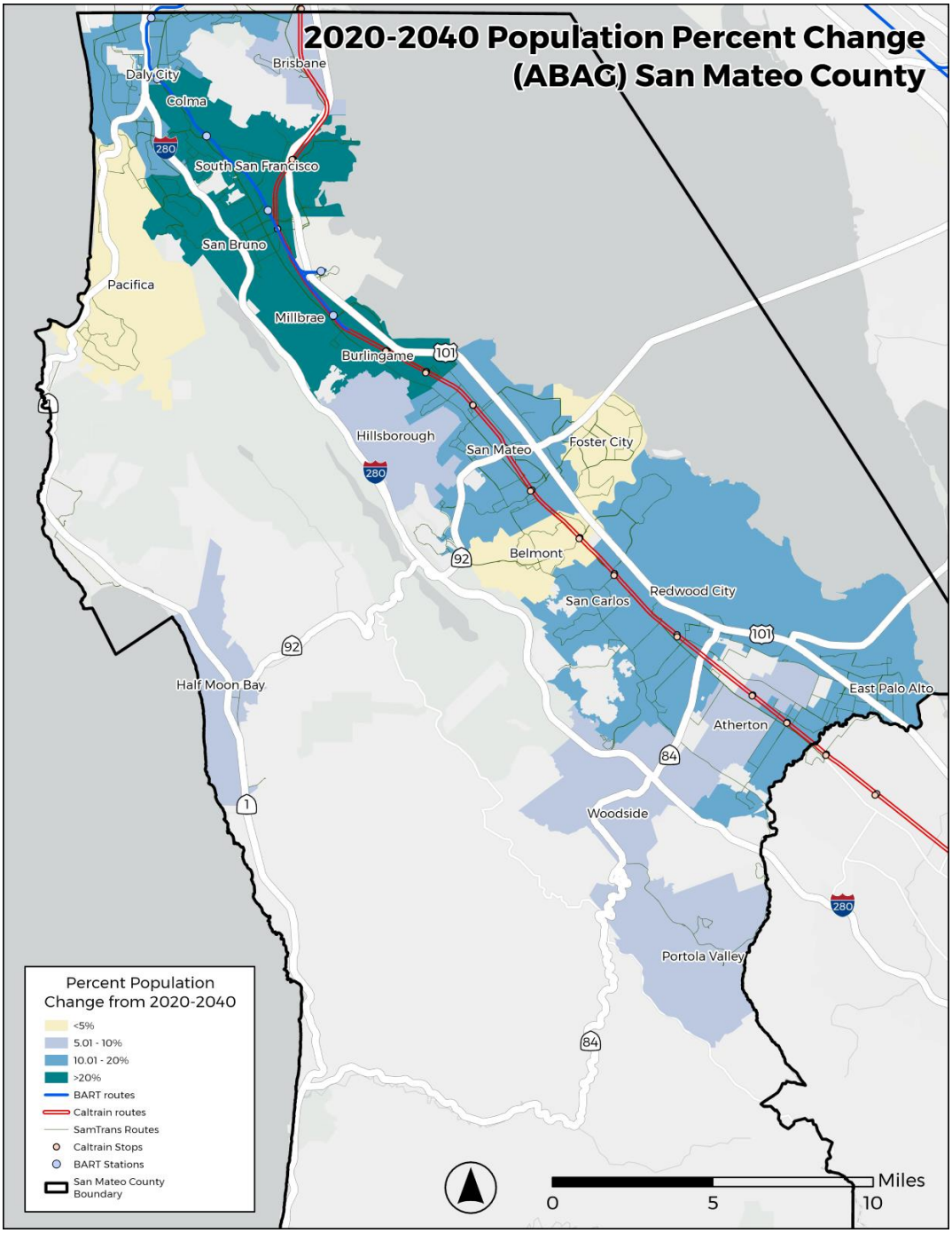
Replica

Replica is a widely used data analytics tool that is used to visualize indicators related to transportation and the built environment. Exported outputs from Replica are used to model daily San Mateo County trips, aggregated by trip distance. The results of this model present an overview of the travel patterns typically followed by San Mateo County residents.

C-2 TOTAL DAILY TRIPS

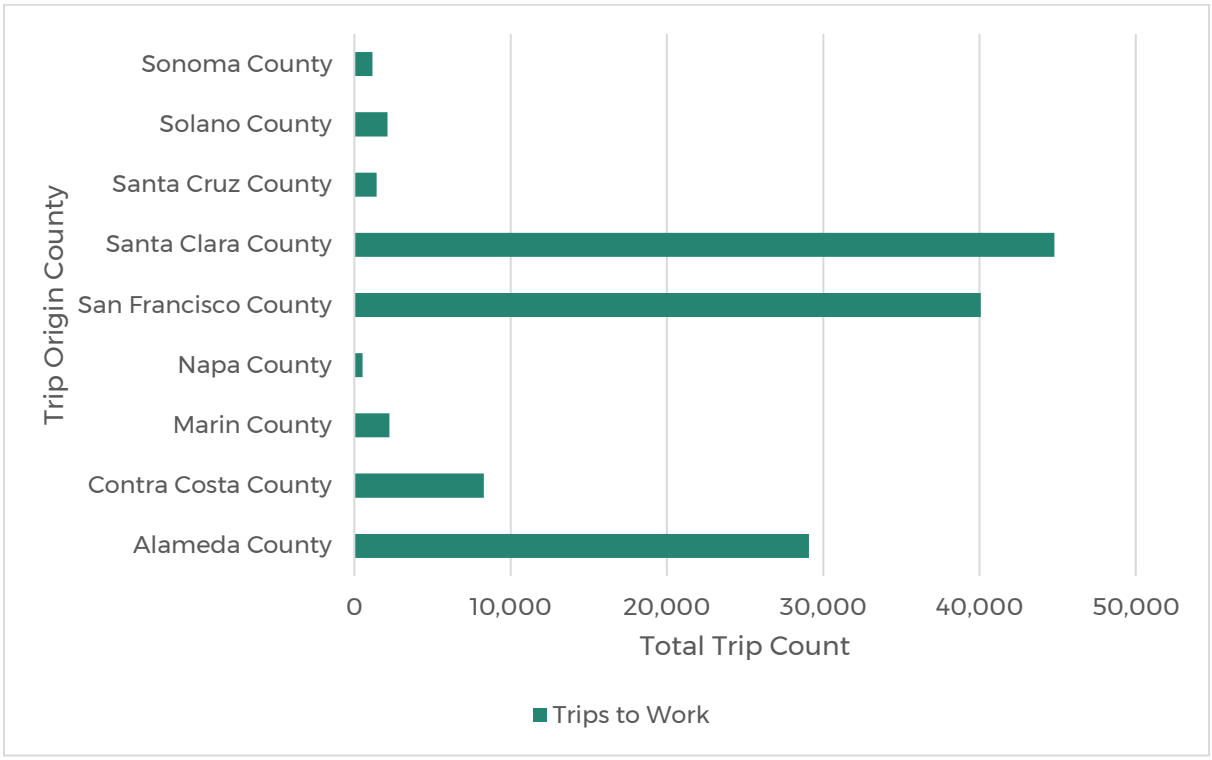
The figure below uses 2020 Census Data as baseline and Association of Bay Area Governments (ABAG) 2040 projections to visualize the projected change in population of census-designated cities and towns. Please note that changes in population in unincorporated areas are not included.

2020-2040 Population Percent Change in Urbanized Areas of San Mateo County



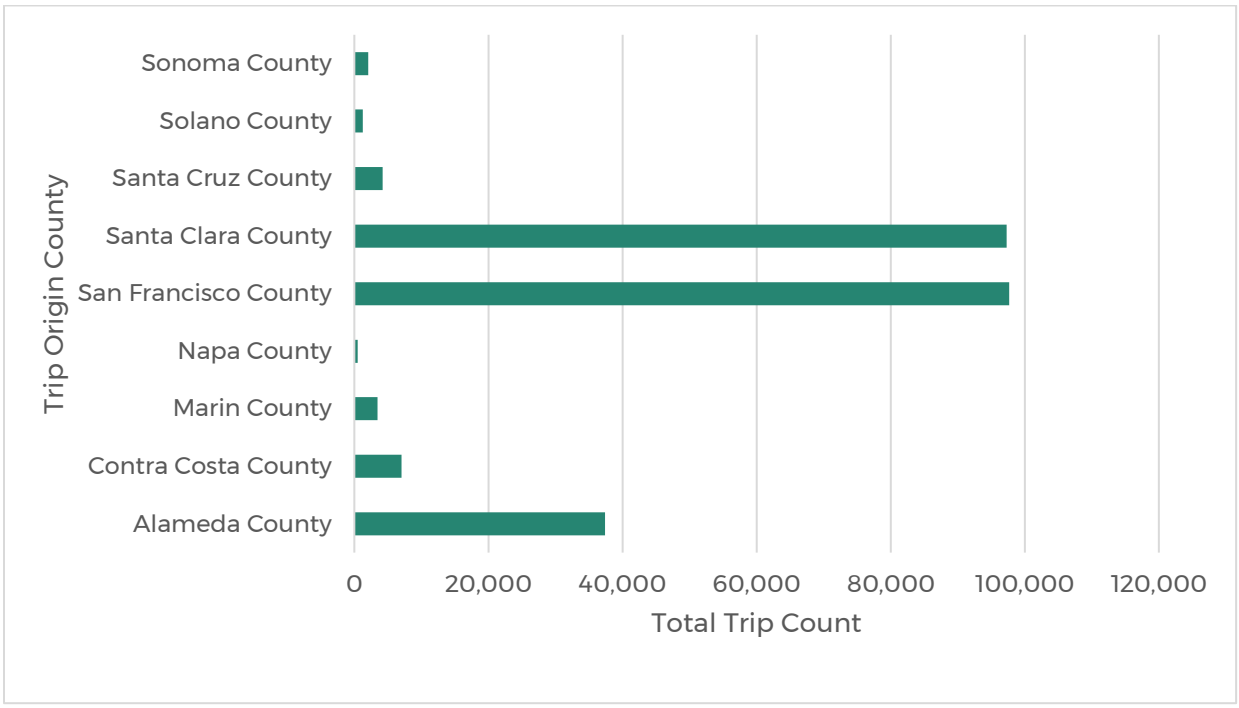
Source: 2020 Decennial Census, 2040 Projection from Association of Bay Area Governments

Trips to Work in San Mateo County from Outside the County



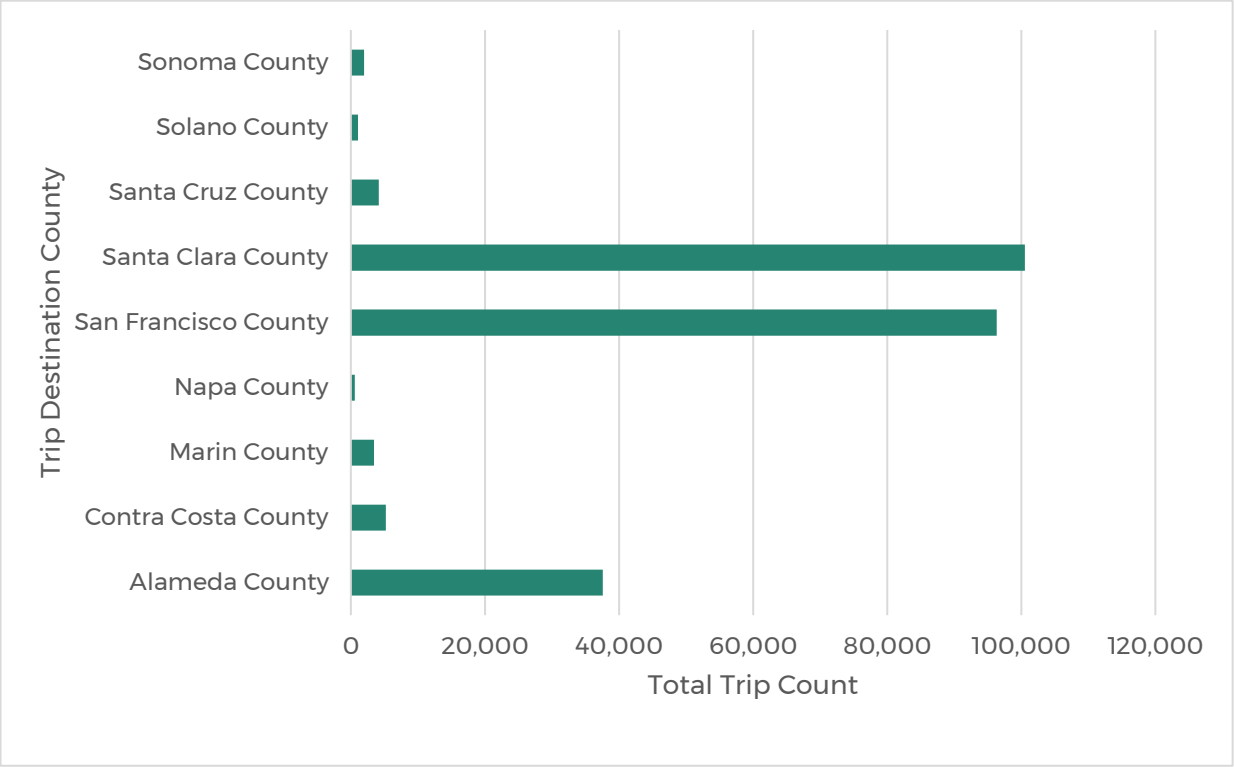
Source: Replica, 2022

Trips Through San Mateo County by Trip Origin



Source: Replica, 2022

Trips Through San Mateo County by Trip Destination



Source: Replica, 2022

SAN MATEO COUNTY Transportation Authority

C-3 VMT DATA

Vehicle Miles Traveled (VMT) is a metric of vehicle traffic that measures the number of miles traveled by automobiles over a given period and region. VMT is shown below for each incorporated city in San Mateo County, between 2017 and 2020 to indicate fluctuations in the County's travel patterns.

Year	2017	2018	2019	2020	2021	2022
Count [1000's]	18,793.99	19,287.56	20,121.68	15,476.17	15,229.18	15,693.72

Source: California Highway Performance Monitoring System (HPMS) Data, 2017-2022

	VMT (Thousands)					
Jurisdiction	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Atherton	99.96	105.46	130.68	105.69	90.38	61.64
Belmont	192.43	186.13	222.90	134.79	115.91	81.88
Brisbane	133.82	132.74	154.05	53.57	91.77	65.59
Burlingame	276.17	275.56	329.05	170.14	201.27	152.52
Colma	70.44	70.67	88.53	76.43	100.34	75.69
Daly City	460.13	446.95	450.85	292.32	308.74	232.16
East Palo Alto	137.51	108.36	128.14	78.14	75.98	86.48
Foster City	148.22	141.82	164.58	212.70	173.31	152.57
Half Moon Bay	51.25	41.28	44.37	27.07	25.47	18.57
Hillsborough	95.13	94.01	89.00	72.30	64.21	48.98
Menlo Park	316.55	297.97	332.25	135.89	148.71	107.36
Millbrae	182.62	162.00	197.86	82.85	106.38	84.27
Pacifica	268.39	264.12	313.01	235.23	230.38	175.34
Portola Valley	163.48	138.78	153.31	37.25	35.48	30.86
Redwood City	566.46	567.64	688.41	441.74	417.94	324.59
San Bruno	220.23	189.32	195.08	99.48	97.80	71.96
San Carlos	313.15	312.42	366.77	184.06	136.75	128.21
San Mateo	667.53	634.62	765.08	543.74	847.84	556.03
South San Francisco	446.99	444.15	535.55	563.99	464.75	351.23
Woodside	77.28	79.10	96.60	70.19	73.00	54.66
State Highways	13,154.58	13,885.87	13,864.77	11,222.30	10,818.02	12,372.54

Source: California Highway Performance Monitoring System (HPMS) 2017-2022

SAN MATEO COUNTY Transportation Authority

D. OUTREACH AND ENGAGEMENT

Strategic Plan Update (2025-2029)

The San Mateo County Transportation Authority (TA) updates its Strategic Plan every five years to provide a policy framework for the implementation of the local transportation sales taxes known as Measures A and Measure W. The current Strategic Plan (2020-2024) is set to expire by the end of this year.

As part of the Strategic Plan 2025-2029 development process, we are reevaluating how we prioritize funding for projects proposed by project sponsors (such as the county, cities, or transit agencies) and establish future actions that the TA can help support or lead over the next five years.

Project Overview

The Strategic Plan is a five-year plan that identifies the policies, procedures, and methods for effectively administering funds generated from Measure A and 50 percent of funds from Measure W.

The goal of the Strategic Plan update is to ensure funding is aligned with community needs and evolving priorities and facilitate efficient and impactful resource allocation. Community and stakeholder input will help shape how funding is given out and where the TA should focus its resources next five years.

Why is the TA updating its Strategic Plan?

The Strategic Plan update is a chance for the TA to look back on achievements in six key funding areas covered by Measure A and W. These funding areas include:

The TA is excited to work with agency committees, county partners, cities, towns and the public to learn how to prioritize funding allocation, expedite the administration of funds, and how to improve technical assistance offerings for project implementation.

Timeline

Phase 1

April - May 2024

Travel Patterns & Needs Assessment

Review of Strategic Plan 2020-2024 Progress

Phase 2

June - July 2024

Financial Projection Updates

Policy Update Recommendations

Phase 3

August 2024

Evaluation Criteria Recommendations

Program Administration, Technical Assistance, & Monitoring Recommendations

Phase 4

Sep. - Dec. 2024

Create the Admin and Public Review Draft

TA Board Adoption

GOALS

The 2025-2029 TA Strategic Plan aims to improve transportation in San Mateo County through the following objectives:

- **Project Evaluation:** Asses the progress of funded and completed projects from 2020-2024 and highlight notable achievements.
- **Stakeholder Engagement:** Ask stakeholders and city/town sponsors for input on how to improve internal processes, how to support partner agencies, and plan for technical assistance.
- **Community Engagement:** Ensure public input and priorities are reflected in the project funding programs.
- **Optimize Grant Funding:** Ensure evaluation criteria for projects are strategically aligned with state and federal funding opportunities.
- **Integration of Planning Policy:** Integrate individual planning initiatives, such as the Short-Range Highway Plan and Alternative Congestion Relief/Transportation Demand Management Plan into a cohesive Strategic Plan for San Mateo County.

What is Technical Assistance?

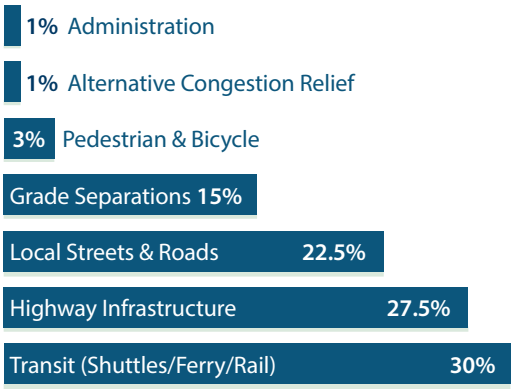
Technical assistance provided by the TA is intended to advance sponsor project delivery by:

- Offering technical trainings for local jurisdictions such as Complete Streets best practice workshops;
- Providing TA staff and consultant support to lead projects on behalf of local jurisdictions when staffing needs arise or multijurisdictional coordination is required; and,
- Obtaining grant funds to help sponsors better leverage Measure A and W funds.

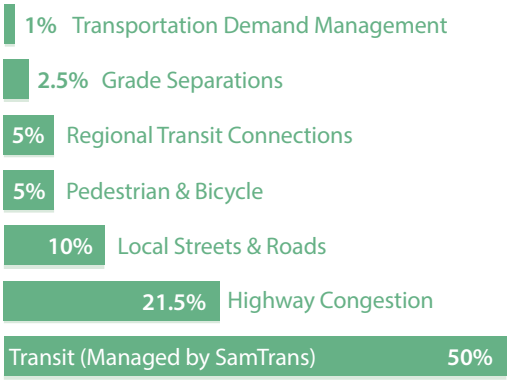
How Are Funds Used Today?

The charts show how Measure A and Measure W funds are currently allocated. While the allocations cannot be changed during the Strategic Plan update process, the funding categories helps to provide insights on the available budget.

Measure A (2009-2033)



Measure W (2019-2049)



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info@smcta.com

TransportationAuthority

PeninsulaMoves

D-2 TALLY OF MEASURE A/W GOAL PRIORITIZATION

The following document details results form early engagement with representative committees of SMCTA and their partner agency, C/CAG. The thematic analysis is reflective of input received from the following channels:

- SMCTA Board Kick-off – March 7, 2024
- SMCTA SAG and TAC Presentation – April 4, 2024
- SMCTA SAG and TAC Survey
- C/CAG TAC Survey

KEY THEMES

- **Overall Satisfaction** – Largely, stakeholders have indicated satisfaction with the amount of funding delivered to sponsors and the technical assistance provided to implement projects.
- **Support for Small and Coastal Communities** – Stakeholders emphasized the importance of distributing funds and providing technical assistance to small communities, coastal communities, and sponsors that are located along county borders.
- **Educational Opportunities** – Stakeholders have appreciated and would enjoy more educational opportunities such as webinar series on complete streets and bicycle and pedestrian facilities.
- **Equity** – Continue to prioritize underserved and underrepresented communities but be cautious about creating an disadvantaging communities that don't have significant equity priority communities.
- **Geographic Distribution** – Continue to distribute funds evenly amongst the county.
- **Climate Change** – Invest in projects that have measurable impacts on GHG reductions, encourage drivers to use alternate modes and build resilience.

BIGGEST ACCOMPLISHMENTS

- Technical assistance.
- Responsiveness to questions.
- Diversification of projects.
- Amount of funding delivered to sponsors, and amount of money in coffers.
- Greater competitiveness amongst smaller communities for project funding.

BIGGEST OPPORTUNITIES

- Determine ways to get money into the hands of sponsors more quickly.
- Streamline processes for technical assistance.
- Streamline contracting mechanisms by grouping projects of similar types under one procurement.
- Maximize opportunities for flexibility within the Strategic Plan.

EQUITY

- Emphasizing equity can negatively impact the competitiveness of some communities with smaller equity populations.
- Continue to consider the equitable distribution of funds by geography.
- Continue to fund projects at county borders and along the coast.
- The definition of equity should be clarified. Serving underrepresented communities is a different goal than distributing funds amongst geographic communities.
- Continue to work with CBOs, host pop-up events and provide translation and interpretation.
- Partner efforts with other agencies like the Air Quality District.
- Investigate the diversity of contractors and the TA itself.
- Consider a committee that could serve in the capacity of advising on issues of diversity and equity.

TECHNICAL ASSISTANCE

- Particularly important for small and coastal communities.
- Determine who isn't applying for funding and engage them in conversations.
- Continue hosting educational webinar series.
- Provide technical assistance related to complete streets.

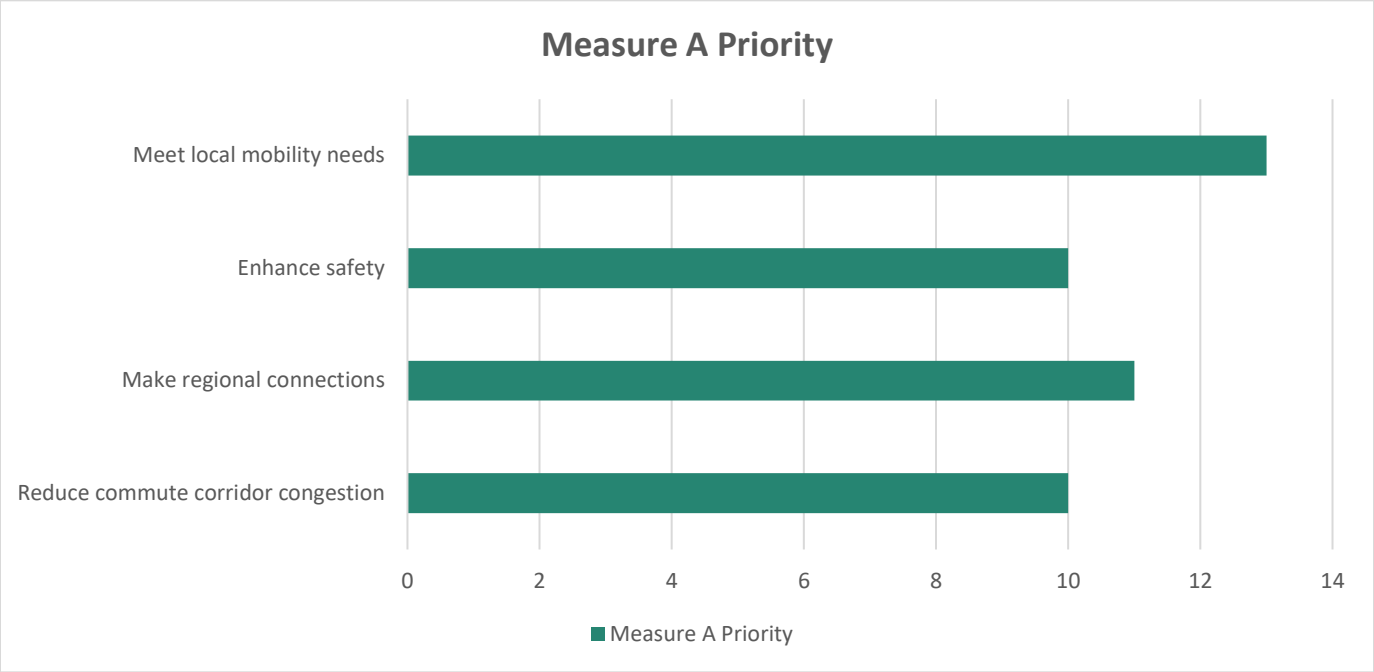
COUNTYWIDE SIGNIFICANCE

- Determine a factor of measurability for GHG reduction.
- Consider a dollar value threshold.
- Consider the number of partners.
- Focus on areas of higher density affordable housing.
- Focus on projects adversely impacted by climate risks.
- Consider projects that would reduce car trips.

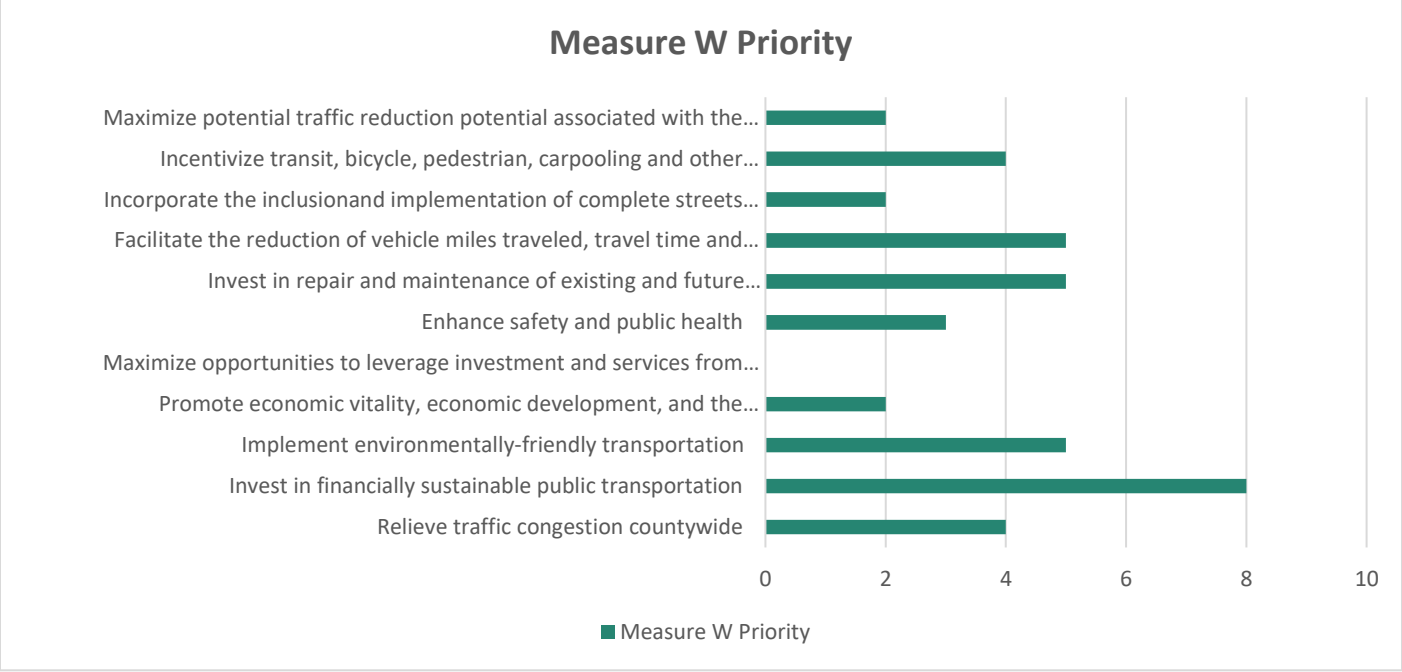
ADDITIONAL CONSIDERATIONS

- Consider the impact of the Bay Area Transit tax in 2026.
- Increase funding caps for multi-jurisdictional projects.
- Contemplate a strategy for tax measure reauthorization.
- Continue to implement creative financing processes as projects become more expensive.

MEASURE A PRIORITY



MEASURE W PRIORITY



D-3 TALLY OF TOP 5 PROJECT PRIORITIZATION

The following table summarizes the Priority Project Types for the Next Five Years as voted on by the TA Board of Directors and TA CAC. Top five project priorities are bolded. Additional written in prioritizations included:

- Electrification strategy and incentivizing EVs, EV Shuttles, Caltrain, etc.
- Improvements to Dumbarton Rail
- Cross county speed cameras at red light signals
- Requirements of highway projects to include 20% bike infrastructure for safety

Category	Project Types	Aggregated Votes
Pedestrian & Bicycle Program	**Low-cost quick build/rapid implementation**	**6**
	Transformative all ages and abilities corridor enhancements	4
	Safety and spot improvements	2
	Encouragement and educational programs	2
	Safe Routes to School	**7**
	Master & corridor planning	4
	Gap closures	1
Highway Program	Interchange safety and operational enhancements	0
	Multimodal arterial highway corridors	0
	Managed lanes	0
	Pedestrian and bicycle freeway crossings	**7**
	Intelligent Transportation Systems & communication upgrades	2
	Corridor safety & operational improvements	2
Grade Separations Program	Pipeline Project Completion	2
	Planning for future projects	2
	Corridor planning	**5**
ACR/TDM Program	Intelligent Transportation Systems/Signal Synchronization	0
	Shared Autonomous Vehicles Pilots	2
	Mobility Hubs & Transit Stop Improvements	2
	Transit passes and subsidies	3
	Micromobility programs and e-bike subsidies	2
	Transit access, crossings, and safety improvements	3
Transit Program	Transit Operations Support	4
	Express Buses	1
	Ferry Terminals	0
	Station Upgrades & Mobility Hubs	3
	Major corridor speed and reliability projects	1

Category	Project Types	Aggregated Votes
	Caltrain Capital & Special Projects	3
	Paratransit	0
	Local Shuttles	4
Local Streets & Roads Program	**Maintenance & Repaving Project**	**8**
	ADA Curb Ramps	0
	Traffic Signal & Sign Maintenance	0

D-4 STAKEHOLDER INTERVIEW OVERVIEW

1. Caltrain Planning

October 10, 2024

Dahlia Chazan - Caltrain Chief of Planning

Overview and look ahead of next 5 years. TA should add a slide about why we are updating the Strategic Plan and its relevance to Measures A &W.

What are ways SMCTA and Caltrain can continue to stay in the loop and build on our practices, especially on the planning slide? Procedural answer - working on finalizing CIP which expresses Caltrain's initiatives to others and can work together on implementation grant strategy for CIP. From Planning perspective that has key aspects, we will see funding for planning work. Planning is also taking lead on CIP itself. Perhaps a quarterly check-in on CIP would make sense?

There was interest in Caltrain having system scale/3 county scale planning documents to say ok we've prioritized station improvements, station access, EV charging, etc. up and down the corridor. How can we apply competitively as they come up? As anticipated, we experienced some challenges about 3 different counties with different rules.

The small group may not want to meet with all 18 of us at Caltrain, but perhaps it could be ongoing as part of the CIP?

Loves the CBO bench. In the past, it has not been clear about whether we get them gift cards or how we pay them. We don't have as much engagement in immediate terms, but want to say big thumbs up.

Technical trainings: think it'll benefit TA for jurisdictions embarking on grade crossings; important for jurisdictions to have realistic view of the process.

Potential funding opportunities - we are striving to get more organized; need to bolster our grants side - coordinating more and thinking ahead of what programs make sense to structure our work plans to line up.

Caltrain used to just be internal funds transfers with no documentation and have been cleaning things up.

Caltrain has been trying to spend down old money of which we don't have agreements.
Would like to see and support something like highlights of SMCTA funded Caltrain projects - top 5 things we did over the last 5 years because Caltrain does want to help.

2. Caltrain Real Estate

   October 14, 2024

   Li Zhang, Chief of Commercial & Business Development

   Robert Barnard, Chief, Rail Design and Construction

   They're involved in the process of RFP for on call planning and engagement.

   Involvement through the process - they would want to know what is actually being included and don't want to slow down the process too much.

   Grade separations have been first come first serve for the most part; it would be helpful for earlier, coordinated planning.

   Would appreciate more coordination at the corridor scale about being more strategic; one corridor one voice.

   They have really appreciated the set up quarterly meetings to get everyone in order.

   Staff training events will definitely be helpful.

   Overall, appreciates the communication between TA and Caltrain.

3. Half Moon Bay

   October 14, 2024

   Matthew Nichols, Public Works Analyst

   Helen Wolter. Sustainability Analyst

   Overall, Half Moon Bay has had a positive experience working with the TA and has found the team to be very responsive

   The $200,000 grant put Half Moon Bay in a tough position for contractors. It is a bit too small to be taken seriously. There were a few hiccups with the contractor. There have been discussions around whether contractors assigned Half Moon Bay less seasoned staff because it is a smaller contract.

   They suggested a funding system in which local cities can access additional money for implementation upon successful completion of a plan. There are plans that require feasibility and/or implementation studies, and it can be difficult to find the funding for this. Plans that end up sitting on the shelf don't help anyone. It would be helpful to have funding for next steps once a plan is written.

   The e-bike situation is something that takes up time for Half Moon Bay. On the state level, the legislation is changing so quickly that it can be hard for local jurisdictions to keep track of e-bike policies. Some assistance mitigating that would be helpful.

   Technical assistance workshops would be appreciated.

Workshops getting into the details of implementing alternative transportation would be helpful. Half Moon Bay has questions like: What are best practices for bike parking? How do you convert car parking to bike parking?

There are no best practices standards for EV parking in San Mateo County. There are great examples from Sonoma and Contra Costa Counties' EV parking strategies.

Parking management and curbside management workshops would be helpful. The downtown business district is very anti-parking management. The Coastal Commission has also played a role in limiting parking management. Helen believes the congestion due to lack of parking is blocking access.

The TA is transitioning all grant applications to the eCivis platform. This will streamline the grant process so that all funding agreements, notifications, and documentation will be in the same place

Ped/Bike and ACR/TDM grants: The Ped/Bike program was oversubscribed. It was great that the TA let the City know to transition to ACR/TDM. The applications were similar enough that it wasn't a huge lift to apply. Keeping grant applications relatively similar makes it easier for cities to apply.

They suggested the idea of cities applying for funding for a specific project, and then the TA determining which grant application the project falls under on the back end.

They appreciate the Grand Boulevard Initiative relaunch and are excited for bike lanes on El Camino Real.

The coast is sometimes overlooked by the TA: Suggestion for an east/west connection program across the Peninsula. The ACR/TDM grant program has small coastal and mid/large buckets. The TA is looking to apply this type of categorizing to other funding programs so that the smaller cities are not overlooked.

4. Commute.org

   October 14, 2024

   John Ford, Executive Director

   Carmen Chen, TDM Program Manager

   Emma Shlaes, TDM Program Manager

   Discussion of setting aside $200,000 to help some of the cities.

   General consensus that it would lead to better leverage some of the funding.

   They like the CBO bench as a one stop shop.

   Geographic area - having one public engagement cycle.

   Thinks staff continued support will help, especially with equity being a larger focus in the future.

   Call for Projects - grant management platform part of next 5-year plan for all applicants.

Suggestion: people still have difficulty understanding what ACR TDM: maybe some testimonials or project examples.

ACR TDM easier than bike/ped funding.

C/CAG didn't renew streetlight in August; didn't apply - not totally clear for many the role of C/CAG vs TA.

Maybe TA can provide some support on parking management and curb space management.

5. East Palo Alto

   October 14, 2024

   Batool Zaro, Senior Engineer

   Mirza Anwarbeg, Engineer

   East Palo Alto has participated mostly in Bike/Ped call for projects.

   They noted that the TA team has been really helpful with submitted applications.

   Consolidated software would help keep track of them a little better.

   Trainings are really helpful.

   Having grant application support for RM 3 made a huge difference for them.

   Grant management platform would be easier to track.

   Thinks the CBO bench could be helpful with engagement on projects, also potentially go door to door canvassing on behalf of projects or getting notices out or scheduling meets.

6. Silicon Valley Bicycle Coalition

   October 14, 2024

   Matt Jones - Policy Director

   Matt is relatively new so doesn't have too much to speak on the relationship with the TA, but for the most part feels that it's been pretty good working together.

   ECR technically a highway - can make it more bike/ped friendly.

   Biking - improve crossings that can accommodate cyclists better, freeways; rail stations, Bay trail.

   Advocate for protected infrastructure.

   Programs like shared bike service.

   RTC just adopted for micromobility for more funding.

7. Caltrans

October 15, 2024

Jacob Buffenbarger, Transportation Planner

Janani Thiagarajan, Associate Planner

Trisha Tran, Associate Planner

They cover various cities and with SMCTA and SamTrans supporting the cities, it would help people get on the same page.

Highlighted the relaunch of GBI being a good example for coordination.

Thinks coordination will be good, especially to piggyback on plans - take that directly and put into our CNCP.

Caltrans feels pretty in the loop about TA projects and commented that TA has really good communication, especially compared to some of their other jurisdictions.

Jacob believes we're similarly aligned in wanting projects that reduce VMT and SOV and that promote bike/ped.

Policy level - highway program coming out of Planning should qualitatively assess TA staff to support.

When it gets to PID - maybe need to add something because we didn't identify it earlier.

No additional comments - just wanted to highlight that San Mateo County is a very involved county.

8. Safe Routes to School

October 15, 2024

Theresa Vallez-Kelly, SRTS Coordinator

Superintendents are stretched, walked audits to address some of the recommendations.

We encourage them to apply, especially if $$ will be doubled from TA but would need to go out and engage with the superintendents and principals.

Hard to do follow up actions after the walking audits.

It would be helpful to have more examples of how to use the funding.

Talking about success stories; here's how this funding has been used to make this improvement for example.

GEMS is pretty easy to use.

More safety for kids around schools - like the safe routes to school trainings.

Cities and schools don't talk to each other, Daly City and SSF are responsive to schools but not all the cities.

Trainings/partnerships between schools, walk audits can change from hearing firsthand.

Enjoy working with Patrick and the TA and excited for the potential for additional funds.

Can get temporary funding from C/CAG to see if things work; cycle 7 for funding later.

Would be cool if we could figure out a way to school travel fellowship or think of intersection.

9. South San Francisco

   October 15, 2024

   Matthew Ruble, Senior Civil Engineer

   John Wilson, Associate Civil Engineer

   Billy Gross, Principal Planner

   Call for projects - helpful or more difficult for consolidation?

   Working with the TA is a breath of fresh air compared to other organizations that provide grants. Ability to get on a call with someone or ask if this is the right fit is great. Changing out our project or meaningful impact - especially compared to other grants.

   But application process is a little frustrating - it's in a word document and moving entry fields can be a little clunky which is just a technical thing.

   Communication is excellent.

   Mostly just used office hours.

   Multi agency grant applications score better - so helping smooth some of those partnerships.

   Grant tracking tool - just TA grants for now.

   Some regional body could be a one stop shop to host all grants for transportation when they're due and effort levels.

   C/CAG countywide transportation plan – 3-ish months.

   TA's thoughts on transformative projects infrastructure vs quick build.

   Hard projects - there are some missing links. For example, I need $12 million compared to the easier quick builds so the projects remaining are usually the ones that are harder to tackle.

10. County of San Mateo

    October 17, 2024

    Joel Slavit, Senior Sustainability Specialist

    Krzysztof Lisaj, Deputy Director of Engineer and Resource Protection

    Tim Cheng, Senior Civil Engineer,

    Chanda Singh, Senior Planner

Assuming best practice will be tailored based on project for technical trainings.

Trying to right size for each type of project.

Funding for Caltrans have master agreement then supplementary funds.

Has been really helpful to have Patrick available to answer questions about viability about projects.

Two different calls for projects made it a bit difficult.

Cost of a project doesn't change, regardless of small area or large area. If we have a project like a bike/ped and unincorporated community, would it not have the same opportunities as a larger jurisdiction? Answer: they all have the same maximum funding in each bucket. Increasing the maximum because they're getting more expensive across the board. Trying to give more dedicated funding streams.

Until they have cooperative agreement with Caltrans, hard to get anything from them.

Love the bike/ped trainings from 2022.

Sensitive to those issues.

Longer discussion in general about geographical equity vs social equity.

Opportunity for technical trainings for agencies and their roles.

11. SamTrans Planning

October 17, 2024

Cassie Halls, Manager Major Corridors

Chelsea Schultz, Manager, Strategic Planning

Josh Mello, Executive Officer, Real Estate

Technical trainings: Complete Streets Training, bike safety training, ped safety training, and expanding what those trainings are offered for.

GBI - putting limitations on highway funds for El Camino projects, only fund projects that align with GBI to push projects in the right direction or global vision.

Hard to know all the other planning efforts going on, and don't want SamTrans to miss out on providing that feedback.

TA is well positioned like C/CAG for multimodal plan.

Interested in engaging more formally - design review checklist for transportation.

There is value in formalizing SamTrans review.

Whose role is it? Just got funding from MTC for implementation plan for coordinated plan for ECR; given that we have funding we may want to provide technical assistance to cities that aren't as far along.

We're also updating highway program of definition of countywide existence, not just traffic relief, but projects that include throughput so ECR is a project of countywide significance; so TA can sponsor, can apply to own programs and take pressure away from cities of leading these efforts.

Has SamTrans done trainings for staff for facilitation? IAP2 - coordinating, facilitating trainings.

There was coordination with public works for Bus Stop Design Guidelines, but not formal training.

Has TA supported Transit Oriented Development before?

Colma Park & Ride Lot and new HQ - could be some transportation elements to support redevelopment projects.

12. San Mateo County Economic Development Association (SAMCEDA)

October 17, 2024

Rosanne Foust, Executive Director

Don Cecil, Consultant and Principal of MC Bay Area

They've been involved through Peninsula Moves and wanted to highlight 101-84 Woodside.

Give examples of where businesses have been involved: What is in it for them? Be part of discussion. For example, Stanford/Belmont Notre Dame project to purchase Ralston.

How do you get the TA to be a better partner with the city? In terms of with developers, during the entitlement phase, or other phases? The TA isn't someone the city or developer thinks about when they're fighting to get as much square footage approved as they can.

How we interact now about private sector contribution: Cities have transportation impact fee. A lot of developers east side of 101 in Burlingame.

How do you elevate larger projects instead of smaller entitlement ones? Looking at impact fees and development.

Grade separations - city should be lead on large infrastructure project that they're not used to. Dumbarton Rail example.

Private sector would want to know how to triage - lesson learned from Broadway.

In the past we've allowed local partners to come up with ideas and TA has just been funding, but more dose of reality.

We're trying to figure out how to get involved earlier with parameters, so things are more realistic. Whipple Avenue grade separation is poster child.

Google/Meta putting in $50 million in Express Lanes is over for now post pandemic, but the Express Lanes project needs to be finished.

Freeway projects should check more boxes.

This Strategic Plan needs to be able to tell story of reauthorization of Measure A.

What should we be promoting better? Suggestion of better social media strategy. It's figuring out how to market/do PR better about the TA on social media and working with advocates. Presentations to Rotaries, Lions, Kiwanis, smaller events; 2-3 a month.

13. City/County Association of Governments of San Mateo County (C/CAG)

October 18, 2024

Jeff Lacap - Transportation Planner

Consolidated CFPs: Wasn't involved in ACRTDM, but C/CAG submitted some projects for that so he can't speak if it was helpful. Maybe can be more like OBAG call, some sort of coordination there.

More countywide significant project coordination.

Thinks there's a lot of resources available to cities which is great.

Potentially how to incorporate transit design assessment in review.

Great to keep Complete Streets checklist in mind, especially when going out for Regional Funding.

Timeline for third party review: about 2 months. Example: Getting ATP funds, want to make sure there's planning involved instead of one off to let people know it's available earlier on.

Think CBO bench is great.

14. El Concilio

October 18, 2024

Dr. Ana Angel Avendano, Executive Director

Some barriers include helping people get childcare to attend meetings or being able to bring their children. Think about multiyear contract like they have with the County.

How can the TA better involve CBOs as part of our community outreach for Transport projects in SM County and are there barriers to participating we should be aware of?

There are opportunities to get orgs more involved. Outreach grant program provides for this. Also community collaboratives…we are a part of several. We want to know who is serving in this area, and this helps. If there isn't a community collaborative, be involved in the community. Showing up to events and meetings helps.

Barriers – we love to incentivize community members because they are giving their time and expertise. Not just money, but childcare, meals, etc.

TA is considering establishing a CBO bench: I like the relationship with grantee…want multi-year. Better than one year. Has one for three years with another organization. That works really well.

What has worked well with our previous partnerships? Having opportunity to provide input on a timeline. Not too many projects at once. They are expanding their case management and promotores especially in north county and a little in south county.

When is the Office of Sustainability bringing you in on projects? Working on a storm water project at the beginning stages. Providing an equity lense…beginning to work on next round where they are being asked what outreach methods to use for conversations.

It would be great if you released an RFP and have a webinar about what the TA needs.

15. Peninsula Chinese Business Association

    October 18, 2024

    Johnny Darosa, Executive Director

    Norman Ip, President

    Getting information out to different groups may not always be one shoe fits all and you will want to look at different projects and areas differently

    How can the TA better involve CBOs: Communicate through the education process. How do we motivate people to participate? Projects are very complex. To understand the projects takes time. Layers of education….starting in elementary school. They are cornerstone between their community and government. They help their community understand programs. They need a lot of support from the TA to educate them on projects and programs.

    Is there a language issue? Answer: No, not really. When they get info from the government, they need to make it more simple as it's too complicated.

    CBO bench? Good idea. Make it easy for CBOs to participate…offer different ways to participate. Make it into smaller asks so the CBOs can choose.

    What has worked well? How did the recent partnership work for you? Answer: We don't have a standard for all projects. There is no size fits all. For each project, we digest it and then provide a proposal back to TA. Sometimes town hall, sometimes one on one, sometimes radio or social. We need to determine most efficient way. Project by project.

16. City of San Mateo

    October 18, 2024

    Jay Yu, Engineering Manager

    Matt Fabry, Director of Public Works

    Katherine Sheehan, Deputy Director of Public Works

Call for projects: The reason we go for a lot of TA funding, because it's not convoluted. Quick response and easy to do. They are in support. They have gotten a lot of funding.

101 Corridor Connect – better coordinate projects. TA will be using it in the future to begin projects across the county. Larger funded effort but doesn't affect CFP of other projects.

Is the TA considering public feedback? Yes.

Is the landscape shifting with the types of things cities are going? Is the CFP adjusted to that? Grade separation is a huge issue…SM city doesn't rank too high because SM city doesn't meet some of the criteria. Can't get the money for quad gates, for example, because they don't have safety issues. So, criteria aren't aligned with where they are going. Trying to predict where money is coming from, so it's ok. Last five years they haven't been getting as much money. Worked around the restrictions by being creative partnering with other jurisdictions, etc. Compiling resources would help to be able to be more competitive. TA could help with that. Especially for quick build projects.

Technical Assistance: a training on compiling resources. Fold into quick build…planning and operations folds into design criteria. Technical assistance on how to analyze LOS for multi-modal projects. Need help to determine if a project is feasible. No way to do that currently. Metrics/snapshot of progress…how to measure success. Answer: the KPI dashboard should solve that.

How the TA is aligning with the Climate Action Plan? TA is trying to consolidate the metrics and how they are analyzed.

Like the best practice review for projects. SM City wants to make sure that if they don't do what the best practice recommendation that they are still eligible for funding. Patrick: No, it won't affect funding. Would outline tradeoffs but doesn't affect eligibility. Also worried about consultant's schedule for the review. The TA pays for the consultant's review. Thinking about higher level trade-offs – is there anything that limits feasibility of projects.

Funding: is the funding agreement one per agency? Answer: yes. SM likes that.

They think that the TA is moving in a positive direction. Things are in a good place.

SAN MATEO COUNTY Transportation Authority

E. EXPENDITURE ALLOCATIONS & AUTHORIZATIONS

SAN MATEO COUNTY Transportation Authority

Original Measure A Expenditure Allocations & Authorizations

		% of Measure [1]	% of Remaining Active Competitive Programs	Total Sales Tax Receipts up to June 2023 [2] A	FY24 Estimated Interest Income B	Cumulative Closed and Programmed Project Budgets C	Unprogrammed Available Budget from all Prior Years D = A + B - C	FY25 Proposed Budget E	Cumulative Total Available to be Programmed F = D + E
	Competitive and Discretionary Programs Authorizations								
1	Caltrain Improvements	21.6%	42.4%	$325,077,235	$510,307	$323,476,792	$2,110,750	$984,477	$3,095,227
2	Paratransit	3.1%		$56,112,993	$0	$56,112,993	$0	$0	$0
3	Dumbarton Rail	1.7%		$18,316,709	$0	$18,316,709	$0	$0	$0
4	Streets and Highways	29.3%	57.6%	$361,941,658	$693,167	$361,941,658	$693,167	$1,337,247	$2,030,414
5	Local Streets and Roads	20%		$203,264,468	$0	$203,264,468	$0	$0	$0
6	Caltrain Grade Separation	22.8%		$238,723,749	$0	$238,723,749	$0	$0	$0
7	Bicycle Program	0.01%		$120,542	$0	$120,542	$0	$0	$0
8	Transportation System Management	0.7%		$7,121,256	$0	$7,121,256	$0	$0	$0
9	Administrative	0.75%		$7,622,418	$0	$7,622,418	$0	$0	$0
10	**Total**	**100%**	**100%**	**$1,218,301,028**	**$1,203,474**	**$1,216,700,585**	**$2,803,917**	**$2,321,724**	**$5,125,641**

1 Allocation % is based on Original Measure A Expenditure Plan
2 Inception to date receipts may not align with allocation % due to interest income being only allocated to the remaining active categories

New Measure A Expenditure Allocations & Authorizations

			% of Measure [1]	Total Sales Tax Receipts up to June 2023 A	FY24 Adopted Budget B	Cumulative Closed and Programmed Project Budgets C	Unprogrammed Available Budget from all Prior Years D = A + B - C	FY25 Proposed Budget E	Cumulative ICAP [2] F	Cumulative Total Available to be Programmed G= D + E - F
1	**Pass-Through Annual Program Allocations**									
2	Local Streets/Transportation		22.5%	$274,413,356	$26,159,400			$26,550,000		
3	Transit - Paratransit		4%	$48,784,596	$4,650,560			$4,720,000		
4	Transit - SFO BART Extension		2%	$24,392,298	$2,325,280			$2,360,000		
5	**Sub-total Pass-Through Annual Program Allocations**			$347,590,251	$33,135,240			$33,630,000		
6	**Administration Allocations**									
7	TA Administration		1%	$12,196,149	$1,162,640			$1,180,000		
8	**Sub-total Administration Allocations**			$12,196,149	$1,162,640			$1,180,000		
9	**Competitive and Discretionary Programs Authorizations**									
10	Alternative Congestion Relief		1%	$12,196,149	$1,162,640	$9,052,948	$4,305,841	$1,180,000	$54,106	$5,431,735
11	Intelligent Transportation Systems [3]	20%		$2,439,230	$232,528	$510,000	$2,161,758	$236,000	$0	$2,397,758
12	Commute.org Operations	60%		$7,327,148	$0	$7,327,148	$0	$708,000	$0	$708,000
13	Commute.org TDM Monitoring Program [3]	10%		$692,800	$0	$692,800	$0	$118,000	$0	$118,000
14	TDM Competitive Projects	10%		$1,736,971	$930,112	$523,000	$2,144,083	$118,000	$54,106	$2,207,977
15	Grade Separations		15%	$182,942,237	$17,439,600	$133,255,781	$67,126,056	$17,700,000	$811,585	$84,014,471
16	Highways		27.5%	$335,394,102	$31,972,600	$314,653,307	$52,713,395	$32,450,000	$2,302,065	$82,861,330
17	Key Congested Corridors	63%		$210,993,381	$20,113,672	$229,618,606	$1,488,447	$20,414,000	$1,448,208	$20,454,239
18	Supplemental Roadways	37%		$124,400,721	$11,858,928	$85,034,701	$51,224,948	$12,036,000	$853,857	$62,407,091
19	Pedestrian and Bicycle		3%	$36,588,447	$3,487,920	$31,129,421	$8,946,946	$3,540,000	$162,317	$12,324,629
20	Transit - Caltrain		16%	$195,138,387	$18,602,240	$160,621,432	$53,119,195	$18,880,000	$729,492	$71,269,703
21	Transit - Dumbarton		2%	$24,392,298	$2,325,280	$6,000	$26,711,578	$2,360,000	$108,211	$28,963,367
22	Transit - Ferry		2%	$24,392,298	$2,325,280	$12,552,322	$14,165,256	$2,360,000	$108,211	$16,417,045
23	Transit - Local Shuttle Service		4%	$48,784,597	$4,650,560	$41,257,739	$12,177,418	$4,720,000	$216,423	$16,680,995
24	**Sub-total Competitive and Discretionary Program Authorization**			$859,828,516	$81,966,120	$702,528,950	$239,265,686	$83,190,000	$4,492,410	$317,963,276
25	**Total**		100%	$1,219,614,916	$116,264,000	$702,528,950	$239,265,686	$118,000,000	$4,492,410	$317,963,276

1 Allocation % is based on New Measure A Transportation Expenditure Plan (TEP)
2 Indirect Cost Allocation Plan (ICAP) calculates the indirect cost rate used to recover overhead costs related to agency indirect administrative overhead and capital projects
3 New subcategories created from the Alternative Congestion Relief/Transportation Demand Management Plan adopted January 2022

SAN MATEO COUNTY Transportation Authority

New Measure W Expenditure Allocations & Authorizations

		% of Measure [1]	Total Sales Tax Receipts up to June 2023 A	FY24 Adopted Budget B	Cumulative Closed and Programmed Project Budgets C	Unprogrammed Available Budget from all Prior Years D = A + B - C	FY25 Proposed Budget E	Cumulative ICAP [3] F	Cumulative Total Available to be Programmed G= D + E - F
1	Total Measure W Revenue	100%	$411,203,734	$116,264,000			$118,000,000		
2	SamTrans Managed 50%	50%	$205,601,867	$58,132,000			$59,000,000		
3	TA Managed 50%	50%	$205,601,867	$58,132,000			$59,000,000		
4	**Pass-Through Annual Program Allocations**								
5	Local Streets/Transportation	10%	$41,120,372	$11,626,400			$11,800,000		
6	**Sub-total Pass-Through Annual Program Allocations**		**$41,120,372**	**$11,626,400**			**$11,800,000**		
7	**Administration Allocations**								
8	TA Administration and Oversight [2]	N/A	$936,924	$697,584			$0		
9	**Sub-total Administration Allocations**		**$936,924**	**$697,584**			**$0**		
10	**Competitive and Discretionary Program Authorization [3]**								
11	**Bicycle and Pedestrian Improvements**	5%	$20,443,071	$5,726,002	$12,567,605	$13,601,468	$5,900,000	$185,404	$19,316,064
12	**Countywide Highway Congestion Improvements**	22.5%	$91,993,821	$25,767,009	$42,867,735	$74,893,095	$26,550,000	$834,319	$100,608,776
13	Highway Projects 96%		$88,480,384	$24,736,329	$40,368,035	$72,848,678	$25,488,000	$685,996	$97,650,682
14	Transportation Demand Management (TDM) 4%		$3,513,437	$1,030,680	$2,499,700	$2,044,417	$1,062,000	$148,323	$2,958,094
15	TDM Planning & Policy [4] 10%		$693,004	$103,068	$472,000	$324,072	$106,200	$0	$430,272
16	TDM Competitive Projects 90%		$2,820,433	$927,612	$2,027,700	$1,720,345	$955,800	$148,323	$2,527,822
17	**Grade Separations**	2.5%	$10,221,536	$2,863,001	$8,000	$13,076,537	$2,950,000	$92,702	$15,933,835
18	**Regional Transit Connections**	10%	$40,886,143	$11,452,004	$492,000	$51,846,147	$11,800,000	$370,808	$63,275,339
19	**Sub-total Competitive and Discretionary Program Authorization**	40%	$163,544,571	$45,808,016	$55,935,340	$153,417,247	$47,200,000	$1,483,233	$199,134,014
20	**Total**	50%	$205,601,867	$58,132,000	$55,935,340	$153,417,247	$59,000,000	$1,483,233	$199,134,014

1 Allocation % is based on Measure W Congestion Relief Plan (CRP)
2 Measure W Administrative and Oversight were allocated 1-1.5% from the Categories in FY24 and prior years. Starting FY25 and beyond these areas are funded by Measure W interest income only.
3 Indirect Cost Allocation Plan (ICAP) calculates the indirect cost rate used to recover overhead costs related to agency indirect administrative overhead and capital projects.
4 New subcategory created from the Alternative Congestion Relief/Transportation Demand Management Plan adopted January 2022

SAN MATEO COUNTY Transportation Authority

F. PIPELINE PROJECTS FROM 2020-2024 STRATEGIC PLAN PERIOD

Pedestrian and Bicycle

Sponsor	Project Title	Current Status	Next Funding Phase	Project Type
Large Capital Projects				
San Mateo (City)	Fashion Island Blv/19th Ave Class IV Bikeway Complete Streets	PS&E	CON	Transformative all ages and ability corridor enhancements
South San Francisco	Junipero Serra Blvd and Westborough Blvd Pedestrian and Bicycle Improver	PLAN	PID	Safety and spot improvements
Belmont	Belmont Village Pedestrian and Bicycle Improvements	PS&E	CON	Safety and spot improvements
Burlingame	CA Drive Bicycle and Pedestrian Improvement Project	PS&E	CON	Safety and spot improvements
Atherton	El Camino Real Complete Streets Gap Closure	PLAN	PID	Gap Closures
Menlo Park	Middle Avenue Pedestrian/Bicycle Rail Crossing Project	PS&E	CON	Safety and spot improvements
San Bruno	Huntington Bikeway and Pedestrian Safety Project	CON	CON	Safety and spot improvements
Small Capital Projects				
Redwood City	Access to Downtown Bikeway Corridors	PA/ED	PS&E	Transformative all ages and ability corridor enhancements
East Palo Alto	East Bayshore Road Pedestrain Improvement Project	PA/ED	PS&E	Safety and spot improvements
Colma	Design of El Camino Real Complete Street Project from Mission Road to Cit	PS&E	ROW	Transformative all ages and ability corridor enhancements
Burlingame	South Rollins Road Traffic Calming Project	PS&E	ROW	Safety and spot improvements
San Mateo County	Alpine Road Corridor Improvement Projects	PLAN	PA/ED	Safety and spot improvements
Brisbane	Santa Clara to Tulare Walkway	PS&E	CON	Low-cost quick build/rapid implementation
San Mateo (City)	Hillsdale Caltrain Station Bicycle Access Gap Closure	PS&E	CON	Gap Closures
Planning/ Promotions				
South San Francisco	ECR Master Plan	PLAN	PID	Master & Corridor Planning
Daly City	Daly City Vision Zero Design Standards		N/A	Safety and spot improvements
Redwood City	Vision Zero		N/A	Safety and spot improvements

Project Type Key
Low-cost quick build/rapid implementation
Transformative all ages and ability corridor enhancements
Safety and spot improvements
Encouragement and educational programs
Safe Routes to School
Master & Corridor Planning
Gap Closures

Highway

Sponsor	Project Name	Current Status	Next Funding Ph	Project Type
Menlo Park	Willow Road Pedestrian and Bicycle Safety Improvements	ROW	CON	Multimodal arterial highway corridors
Redwood City	US 101/Woodside Road (SR 84) Interchange and Port Access	ROW	CON	Interchange safety and operational enhancements
East Palo Alto	University Avenue Grand Corridor	PLAN	PA/ED	Multimodal arterial highway corridors
South San Francisco	US101/Produce Avenue	PS&E	CON	Multimodal arterial highway corridors
SMCTA and C/CAG	US 101 Managed Lanes Project North of I-380	PS&E	CON	Managed Lanes
Colma and South San Fr	El Camino Real Bicycle and Pedestrian Improvement Projects	PA&ED	PS&E	Multimodal arterial highway corridors
South San Francisco	Junipero Serra Blvd and I-280/Westborough Blvd Interchange Project	PLAN	PS&E	Pedestrian and bicycle freeway crossings
San Mateo County	Moss Beach SR-1 Congestion and Safety Improvements	PA&ED	PS&E	Interchange safety and operational enhancements
Half Moon Bay	Half Moon Bay Highway 1 South Project	PLAN	PID	Multimodal arterial highway corridors
Pacifica	Manor Drive Overcrossing Project	PA&ED	PS&E	Pedestrian and bicycle freeway crossings
Millbrae	El Camino Real Corridor Multi-Modal Project	PLAN	PA/ED	Multimodal arterial highway corridors
SMCTA and C/CAG	US 101/SR 92 Direct Connectors Project	PA&ED	PS&E	Managed Lanes

Project Type Legend
Interchange safety and operational enhancements
Multimodal arterial highway corridors
Managed Lanes
Pedestrian and bicycle freeway crossings
Intelligent Transportation Systems & Communication upgrades
Corridor Safety and operational improvements

Grade Separation

Sponsor	Project Name	Current Phase (2024 Q4)	Next Funding Phase	Project Type
Burlingame	Broadway Grade Separation Project	PS&E (activity 13)	CON	Grade Separation with Station
Menlo Park	Ravenwood Avenue Grade Separation Study	PLAN	PSR	Grade Separation
South San Francisco/San Bruno	South Linden Avenue and Scott Street Grade Sep. Plan Study	PAED (12)	PS&E	Grade Separation

Project Type Legend
Grade Separation
Grade Separation with Station

ACR/TDM

Sponsor	Project Name	Last award date	Current Phase (from FY24 Q4 report)	Next Funding Phase	Project Type
Intelligent Transportation Systems					
San Mateo	101/92 Mobility Hub and Smart Corridor Concept Plan	2022	PLAN	N/A	Mobility Hubs & Transit Stop Improvements
C/CAG	Countywide Shared, Connected, and Autonomous Vehicles Strategic Plan	2022	PLAN	N/A	Intelligent Transportation Systems/Signal Synchronization
Planning					
San Mateo County	Midcoast TDM Plan	2022	PLAN	N/A	Micromobility programs and e-bike subidies
Half Moon Bay	Midcoast TDM Plan	2022	PLAN	N/A	Micromobility programs and e-bike subidies
Burlingame	Citywide TDM Plan	2022	PLAN	N/A	Micromobility programs and e-bike subidies
Redwood City	Bicycle Parking Guidelines	2022	PLAN	N/A	Transit access, crossings and safety improvements
Redwood City	TMA Feasibility and Implementation Study	2022	PLAN	N/A	Micromobility programs and e-bike subidies
Competitive - Small/Coastal Jurisdictions					
Commute.org	JUHSD Workforce Housing TDM	2022	PLAN	N/A	Micromobility programs and e-bike subidies
Half Moon Bay	Pedal for a Purpose E-Bicycle Pilot Program	2022	Non-Infra	N/A	Micromobility programs and e-bike subidies
Colma	Rideshare Voucher Program	2022	PLAN	N/A	Transit passes and subsidies
Colma	El Camino Real/Mission Road Access to Transit Multimodal Crossing Improvements	2022	PS&E	CON	Mobility Hubs & Transit Stop Improvements
Competitive - Medium/ Large Jurisdictions					
Redwood City	Essential Wheels E-bike Loaner Program	2022	Non-Infra	N/A	Micromobility programs and e-bike subidies
Burlingame	Burlingame and Millbrae Bicycle Share Program	2022	Non-Infra	N/A	Micromobility programs and e-bike subidies
Millbrae	Burlingame and Millbrae Bicycle Share Program	2022	Non-Infra	N/A	Micromobility programs and e-bike subidies

Project Type Legend
Intelligent Transportation Systems/Signal Synchronization
Shared Autonomous Vehicles Pilots
Mobility Hubs & Transit Stop Improvements
Transit passes and subsidies
Micromobility programs and e-bike subidies
Transit access, crossings and safety improvements

Transit

City	Project Name	Current Phase)	Next Funding Phase
Redwood City	Redwood City Ferry Terminal Project	Preliminary Engineering & Environmental	PS&E
South San Francisco	South San Francisco Second Ferry Terminal Project	Planning (Feasibility Study)	PA&ED

Project Type
Ferry Terminals
Ferry Terminals

Project Name	Project Type
Brisbane Bayshore Caltrain	Transit operations support
Brisbane Crocker Park	Transit operations support
Burlingame Bayside	Transit operations support
Burlingame Point	Transit operations support
Daly City Seton	Transit operations support
Foster City Commuter	Transit operations support
Hillsdale Caltrain Commuter	Transit operations support
Millbrae Burlingame Commuter	Transit operations support
North Foster City	Transit operations support
Redwood City Midpoint	Transit operations support
Redwood City Redwood Life	Transit operations support
Redwood City Seaport Centre	Transit operations support
South San Francisco One Tower Place	Transit operations support
South San Francisco Oyster Point BART	Transit operations support
South San Francisco Oyster Point Caltrain	Transit operations support
South San Francisco Oyster Point Ferry	Transit operations support
South San Francisco Utah Grand BART	Transit operations support
South San Francisco Utah Grant Caltrain	Transit operations support
South San Francisco Utah Grand Ferry	Transit operations support
Daly City Bayshore	Transit operations support
Menlo Park Willow Road	Transit operations support
Skyline College Daly City BART Express	Transit operations support
South City Shuttle (East)	Transit operations support
South City Shuttle (West)	Transit operations support

Project Type Legend
Transit operations support
Express Buses
Ferry Terminals
Station Upgrades & Mobility Hubs
Major corridor speed and reliability projects
Caltrain Capital and Special Projects
Paratransit
Local Shuttles

SAN MATEO COUNTY Transportation Authority

G. SUMMARY OF FEDERAL, STATE, REGIONAL, AND LOCAL FUNDING SOURCES

Pedestrian and Bicycle

Grant Program	Summary	Eligible Costs	Max Award	Low-cost quick build/rapid implementation	Transformative all ages and ability corridor enhancements	Safety and spot improvements	Encouragement and educational progams	Safe Routes to School	Master & Corridor Planning	Gap Closure
CA Active Transportation Program	This program funds safe routes to school, pedestrian, bicycle, and trail projects. Furthermore, at least 25 percent of the program's funding must be provided for disadvantaged communities	Planning, Design, ROW, Construction	N/A	X	X	X	X	X		X
CMAQ - Federal	Provides a flexible funding source to state and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not	Planning, Design, ROW, Construction		X	X	X				X
CMAQ - State	meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter (nonattainment areas) and for former nonattainment areas that are now in compliance (maintenance areas).	Planning, Design, ROW, Construction		X	X	X				X
RAISE	The local and Regional Project Assistance Program supports surface transportation projects that are difficult to fund through traditional federal programs and have a significant local or regional impact.	Planning, Design, ROW, Construction	$25M	X	X	X				X
	The Local and Regional Project Assistance Program (the RAISE/BUILD program) to provide grants for surface transportation projects that will have significant local or regional impacts. Eligible projects include highway or bridge projects, passenger or freight rail projects, port infrastructure projects, and surface transportation components of airport projects, among other surface transportation projects.	Planning, Design, ROW, Construction								
	The new selection criteria to "improve mobility and community connectivity." Projects within Areas of Persistent Poverty can have the federal match limit waived	Planning, Design, ROW, Construction								
Safe Streets and Roads for All (SS4A)	A. Developing a comprehensive safety action plan or Action Plan (i.e., the activities in Table 1, as well as the supplemental planning and demonstration activities described in Section; B. Conducting planning, design, and development activities for projects and strategies identified in an Action Plan; and C. Carrying out projects and strategies identified in an Action Plan.	Planning and Construction	Planning - $100,000 to $10,000,000/ Construction $2,500,000 to $25,000,000	X	X	X				
RCP & RCE	Program will restore community connectivity by removing, retrofitting, or mitigating highways or other transportation facilities that create barriers to community connectivity, including to mobility, access, or economic development.	Planning and Construction	Planning - 80/20%: Construction 50/50% ($100M)	X	X	X				X
MEGA (INFRA)	Provides funidng to support, large and complex projects that are difficult to fund by other means and likely to generate national or regional ecnomic, mobility, or safety benefits. Projects include highway or bridge carried out on the National Highway Freight Network, US code, or National Highway Systems, freight including intermodal or freight rail, a railway-highway grade separation or elimination project and intercity passenger rail project.	Planning and Construction	$500M	X	X	X				X
ATIIP	competitive grants to help communities plan, design, and construct safe and connected active transportation networks such as sidewalks, bikeways, and trails that connect destinations such as schools, workplaces, residences, businesses, recreation areas, and medical facilities within a community or metropolitan region.	Planning and Construction	$15M	X	X	X				X
HSIP	Aims to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-state-owned public roads and roads on tribal lands. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance.	Construction		X		X				
Recreational Trails Program	provides funds annually to develop non-motorized recreational trails and trails-related facilities.	Construction								
Surface Transportation Block Grant	Provide formula funding for projects to preserve and improve the conditions and performance of surface transportation, including highway, transit, intercity bus, bicycle and pedestrian projects.	Construction		X	X	X				
Transportation Alternatives (TA) (§11109; 23 U.S.C. 133(h))	Provide funds set-aside funds for projects and activities that were previously eligible under the Transportation Alternatives Program under the Moving Ahead	Construction		X	X	X				
	for Progress in the 21st Century Act. This encompasses a variety of smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, safe routes to school projects, etc.	Construction								
Road Repair and Accountability Act of 2017 (SB1)	SB1 provides additional funding for bridges and culverts repair and maintenance under Road Maintenance and Rehabilitation Account.	Construction		X						
Flexibile Funding Programs Surface Transportation Block Grant	Provide formula funding for projects to preserve and improve the conditions and performance of surface transportation, including highway, transit, intercity bus, bicycle and pedestrian projects.	Construction		X	X	X				
Transportation Infrastructure Investments	Provide funding to green transportation systems emphasizing in economic growth and equitable recovery from COVID-19. Focuses on increasing mobility options through rails, transit and active transportation projects	Construction		X	X	X				
Prop 1B: Transportation Bonds	Focuses on improving state highways and local roads, transit networks, passenger rail, freight mobility, and air quality.	Construction		X	X	X				
Safe Routes to School	Funding may be used for small capital infrastructure and special projects on or near public school sites.	Planning and Construction						X		

Highway

Grant	Grant Summary	Max Award	Interchange safety and operational enhancem	Multimodal arterial highway e	Managed La		
MEGA-INFRA	Provides funidng to support, large and complex projects that are difficult to fund by other means and likely to generate national or regional ecnomic, mobility, or safety benefits. Projects include highway or bridge carried out on the National Highway Freight Network, US code, or National Highway Systems, freight including intermodal or freight rail, a railway-highway grade separation or elimination project and intercity passenger rail project.	$500M	X	X	X	)	
Rural Surface Transportation Grant Program	Provide funds for projects to improve and expand the surface transportation infrastructure in rural areas in order to increase connectivity, improve the safety and reliability of the movement of people and freight, generate regional economic growth and improve quality of life.		X	X	X	)	
Surface Transportation Block Grant	Promotes flexibility in state and local transportation decisions and provides flexible funding to best address state and local transportation needs.		X	X	X	)	
Congestion Mitigation and Air Quality Program (CMAQ)	Provides a flexible funding source to state and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not met the national ambient air quality standards for ozone, carbon monoxide, or particulate matter (nonattainment areas) and for former nonattainment areas that are now in compliance (maintenance areas).		X	X	X	)	
Highway Safety Improvement (HSIP)	Aims to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-state-owned public roads and roads on tribal lands. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance.						
Wildlife Crossing Pilot Program	The WCPP provides funding for construction and non-construction projects. Construction Projects include engineering, design, permitting, right-of-way acquisition, and other activities related to the construction of infrastructure improvements, such as the building of a wildlife crossing overpass or underpass. Non-Construction projects include planning, research, and educational activities that are not directly related to construction of infrastructure improvements, such as a hot spot analysis of WVCs. All projects should seek to protect motorists and wildlife by reducing the number of WVCs and improve habitat connectivity for terrestrial and aquatic species.						
Wildlife Corridor and Fish Passage	Construction of fish culverts, bypass channels, wildlife crossing and undercrossings.						
Bridge Investment Program	Provide grants on a competitive basis to improve bridge condition and safety, efficiency, and reliability of the movement of people and freight over bridge.		X	X	X	)	
Bridge Formula Program	Provide funds to replace, rehabilitate, preserve, protent, and construct highway.	Small under $100M, Large over $100M	X	X	X	)	
National Highway Performance Program (NHPP)	Provides support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a state's asset management plan for the NHS.		X	X	X	)	
National Highway Freight Program (NHFPP)	Improve the efficient movement of freight on the National Highway Freight Network (NHFN) and support: • investing in infrastructure and operational improvements that strengthen economic competitiveness, reduce congestion, reduce cost of freight; • improving the safety, security, efficiency, and resiliency of freight transportation in rural and urban areas; • improving the state of good repair of the NHFN; • using innovation and advanced technology to improve NHFN safety, efficiency, and reliability; • improving the efficiency and productivity of the NHFN; • improving state flexibility to support multi-state corridor planning and address highway freight connectivity; • reducing the environmental impacts of freight movement on the NHFN.		X	X	X	)	
Railway-Highway Crossings Program	Provides funds for safety improvements to reduce transportation emissions, defined as carbon dioxide emissions from on-road highway sources		X	X			
Carbon Reduction Program	Provide funds for projects designed to reduce transportation emissions, defined as carbon dioxide emission from on-road highway sources		X				
Promoting Resilience Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT)	Provide fund to help make surface transportation more resilient to natural hazards, including climate change, sea level rise, flooding, extreme weather events, and other natural disasters through support of planning activities, resilience improvements, community resilience and evacuation routes, and at-risk costal infrastructure		X	X			
Advanced Transportation Technologies and Innovation	Provide competitive grants to deploy, install, and operate advanced transportatoin techonogies to improve safety, mobility, efficiency, system performance, intermodal connectivity, and infrastructure return on investment						
Congestion Relief Program	Provide discretionary grants to advance innovative, integrated, and multimodal solutions to congest relief in the most congested metropolitan areas.		X	X	X		
Emergency Relief Program	Provide fundings for emergency repairs and permanent repairs on Federal-aid highways and roads, tribal transportation facilities, and roads on Federal lands that have suffered serious damage from natural disasters or catastrophic failure from external cause.		X	X	X		
Reconnecting Communities Pilot Program	Provide grants, on a competitive basis, to restore community connectivity by removing, retrofitting, or mitigating highways or other transportation facilities that create barriers to community connectivity, including barriers to mobility, access, or economic development.		X	X	X		
Transportation Alternatives (TA) (§11109; 23 U.S.C. 133(h))	Provide funds set-aside funds for projects and activities that were previously eligible under the Transportation Alternatives Program under the Moving Ahead for Progress in the 21st Century Act. This encompasses a variety of smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, safe routes to school projects, etc.		X	X	X		
Flexible Funding Programs- Surface Transportation Block Grant Program	Provide formula funding for projects to preserve and improve the conditions and performance of surface transportation, including highway, transit, intercity bus, bicycle and pedestrian projects.		X	X	X	)	
Road Repair and Accountability Act of 2017 (SB1)	SB1 provides additional funding for bridges and culverts repair and maintenance under Road Maintenance and Rehabilitation Account.		X	X			
Prop 1B: Transportation Bonds	Focuses on improving state highways and local roads, transit networks, passenger rail, freight mobility, and air quality.		X	X			
Rebuilding American Infrastructure with Sustainat	· The local and Regional Project Assistance Program supports surface transportation projects that are difficult to fund through traditional federal programs and have a significant local or regional impact. · The Local and Regional Project Assistance Program (the RAISE/BUILD program) to provide grants for surface transportation projects that will have significant local or regional impacts. Eligible projects include highway or bridge projects, passenger or freight rail projects, port infrastructure projects, and surface transportation components of airport projects, among other surface transportation projects. The new selection criteria to "improve mobility and community connectivity." Projects within Areas of Persistent Poverty can have the federal match limit waived		X	X	X	)	

Grade Separation

GRANT	Grant Summary	Max Award Amount	Grade Separation	Grade Sep
MPDG (INFRA, MEGA)	Provides funidng to support, large and complex projects that are difficult to fund by other means and likely to generate national or regional ecnomic, mobility, or safety benefits. Projects include highway or bridge carried out on the National Highway Freight Network, US code, or National Highway Systems, freight including intermodal or freight rail, a railway-highway grade separation or elimination project and intercity passenger rail project.	$500M	X	
RAISE	· The local and Regional Project Assistance Program supports surface transportation projects that are difficult to fund through traditional federal programs and have a significant local or regional impact.	$25M	X	
	· The Local and Regional Project Assistance Program (the RAISE/BUILD program) to provide grants for surface transportation projects that will have significant local or regional impacts. Eligible projects include highway or bridge projects, passenger or freight rail projects, port infrastructure projects, and surface transportation components of airport projects, among other surface transportation projects.			
	The new selection criteria to "improve mobility and community connectivity." Projects within Areas of Persistent Poverty can have the federal match limit waived			
Local Bridge Seismic Retrofit	Provides the 11.5% required match for the federal Hwy bridge replacement funds.	88.5%/11.5% match	X	
Railway-Highway Crossings Program (RHCP) - Section 130 CPUC	Provide funding for safety improvements to reduce the number of fatalities, injuries, and crashes at public railway-highway grade crossings. reduce the number and severity of highway accidents and to improve safety for motorists, bicyclists, and pedestrians at existing at-grade railroad crossings	100% of Project Cost	X	
Reconnecting Communities Pilot Program	Provide grants, on a competitive basis, to restore community connectivity by removing, retrofitting, or mitigating highways or other transportation facilities that create barriers to community connectivity, including barriers to mobility, access, or economic development.	Planning - 80/20%: Construction 50/50% ($100M)	X	
Rural Surface Transportation Grant Program	Provide funds for projects to improve and expand the surface transportation infrastructure in rural areas in order to increase connectivity, improve the safety and reliability of the movement of people and freight, generate regional economic growth and improve quality of life.	may not be applicable to SMCTA		
Transportation Alternatives (TA) (§11109; 23 U.S.C. 133(h))	Provide funds set-aside funds for projects and activities that were previously eligible under the Transportation Alternatives Program under the Moving Ahead		X	
	for Progress in the 21st Century Act. This encompasses a variety of smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, safe routes to school projects, etc.			
Flexible Funding Programs- Surface Transportation Block Grant Program	Provide formula funding for projects to preserve and improve the conditions and performance of surface transportation, including highway, transit, intercity bus, bicycle and pedestrian projects.		X	
Railroad Crossing Elimination	• Track relocation. • The improvement or installation of protective devices, signals, signs, or other measures to improve safety, provided that such activities are related to a separation or relocation project described above. • Other means to improve the safety and mobility of people and goods at highway-rail grade crossings (including technological solutions). • A group of related projects described above that would collectively improve the mobility of people and goods. • The planning, environmental studies, and fin	Planning $100K/ No Limit for construction	X	
Section 190 Grade Separation Program - CPUC	provides state funds to local agencies to grade separate at-grade crossings (crossings), or alter, or reconstruct existing grade separations.		X	
Road Repair and Accountability Act of 2017 (SB1)	SB1 provides additional funding for bridges and culverts repair and maintenance under Road Maintenance and Rehabilitation Account.			
Prop 1B: Transportation Bonds	Focuses on improving state highways and local roads, transit networks, passenger rail, freight mobility, and air quality.		X	

ACR/TDM

GRANT	Grant Summary	Max Award	Intelligent Transportation Systems/Signal Synchronization	Shared Autonomous Vehicles Pilots	Mobility Hubs & Transit Stop Improvements	Transit passes and subsidies	Micromobility programs	Transit
Strengthening Mobiltiy and Revolutionizing Transportation (SMART)	The SMART Grants Program funds multiple technology areas, as listed below. Projects must demonstrate at least one technology area and may demonstrate more than one technology area. USDOT will evaluate each application on its merits, and there is no expectation that applications demonstrate more than one technology area. • Coordinated Automation • Connected Vehicles • Intelligent, Sensor-Based Infrastructure • Systems Integration • Commerce Delivery and Logistics • Leveraging Use of Innovative Aviation Technology • Smart Grid • Smart Technology Traffic Signals	$250K-$2,000,000	X					
CMAQ	Provides a flexible funding source to state and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not met the national ambient air quality standards for ozone, carbon monoxide, or particulate matter (nonattainment areas) and for former nonattainment areas that are now in compliance (maintenance areas).		X	X	X			X
Highway Safety, Rehabilitation, Preservation	Traffic light synchronization projects		X					
Advanced Transportation Technologies and Innovation	Provide competitive grants to deploy, install, and operate advanced transportatoin techonogies to improve safety, mobility, efficiency, system performance, intermodal connectivity, and infrastructure return on investment		X					
Congestion Relief Program	Provide discretionary grant to strategically deploy publicly accessible electric vehicle charging infrastructure, hydrogen fueling infrastructure, propane fueling infrastructure, and natural gas fueling infrastructure.							
Flexible Funding Programs- Surface Transportation Block Grant Program	Provide formula funding for projects to preserve and improve the conditions and performance of surface transportation, including highway, transit, intercity bus, bicycle and pedestrian projects.		X					

Transit

GRANT	Grant Summary	Min-Max Award Amount	Transit operations support	Express Busses	Ferry Terminals	Station Upgrades & Mobility Hubs	Major corridor speed and reliability projects	Caltrain Capital and Special Projects	Paratransit	Local Shuttles	
FTA 5307, 5309, 5310, 5312, 5314	Provide funding to public transit systems in Urbanized Areas for public transportation capital, planning, job access and reverse commute projects, as well as operating expenses in certain circumstances	5307 formula allocation	X		X	X	X		X	X	
Grants for buses and Bus facilities formula program (5339)	Provide funding through a competitive allocation process to states and transit agencies to replace, rehabilitate, and purchase buses and related equipment to construct bus-related facilities. The competitive allocation provide funding for major improvements to bus transit systems that would not be achievable through formula allocations.	80/20		X						X	
Low and No Emission Vehicle Program (loNo) (5339)	Provide competitive funding to state and local governmental authorities for the purchase or lease of zero-emission and low-emission transit buses, construction, and leasing of required supporting facilities	80/20		X						X	
FTA Passenger Ferry Boat Program	Provide funds for construction of ferry boats and ferry terminal facilities by ferry systems in the states, PR, and territories	80/20			X						
Capital Investments Grants (5309)	Provides competitive grants for transit capital investments including heavy rail, commuter rail. Light rail, streets cars, and bus rapid transit.	80/20		X			X		X	X	
Transit System Safety, Security, and Disaster Response		Allocated by legislature	X								
Public Transportation Modernization Improvement & Service Enhancement and Intercity Rail Improvement	Public Transportation Projects, Intercity Rail Improvements	Formula funds allocated to local agencies	X	X	X	X	X	X			
PTA funds and FRA	Funds for Intercity Rail Program		X	X	X	X	X	X	X	X	
STA from TDA	State Transit Assitance Funds from the Transit Development Act generated by a sales tax on fuel and diesel. Provides funding for transit operations, transit planning, bus and rail projects, bikeways, walkways, and specialized transit sevices for people with disabilities.	1/4 cent sales tax on fuel	X								
County LTF from TDA	Local Transportation Fund provides for public transit planning and operations as well as coordination between transit providers in the region. Bike and Pedestrian programs may be funded with LTF.	1/4 cent sales tax revenue	X	X	X						
County Sales Tax Measures	San Mateo County's Measure A tax measure	1/2 cent general sales tax authorized from January 1, 2009 to December 31, 2033.	X	X	X	X	X	X	X	X	
Other Local Funds	Any funds that the County recieves for transit programs from HUTA, Measure W, or General Funds	Measure W - 1/2 cent sales tax from July 2019- June 30, 2038	X	X	X	X	X	X	X	X	
Road Repair and Accountability Act of 2017 (SB1)	SB1 provides additional funding for bridges and culverts repair and maintenance under Road Maintenance and Rehabilitation Account.										
CA Cap and Trade Auction Proceeds	Auction proceeds distributed to the state's Greenhouse Gas Reduction Fund										
Low-Carbon Transit Operations (LCTOP)	Provides operating and capital assistance for transit agencies to reduce GHG emissions, improve mobility, with priority in DAC's		X	X	X	X				X	
Congestion Relief Program	Provide discretionary grant to strategically deploy publicly accessible electric vehicle charging infrastructure, hydrogen fueling infrastructure, propane fueling infrastructure, and natural gas fueling infrastructure.										
Accelerating Innovative Mobility (AIM) 5312	Provide competitive federal grants to support and advance innovation int the transit industry						X				
Innovative Coordinated Access and Mobility Grants	Provide competitive funding to support innovative projects for transportation services		X	X	X	X	X	X	X	X	
Advanced Driver Assistance Systems for Transit Bus Demonstration and Automated Transit Bus Maintenance and Yard Operations Demonostration Program (5312)	Provide competitive funding to help improve transit bus safety and efficiency, including bus yards. This ADAS program is part of FTA's Bus Automation Research Program.		X			X					
All Stations Accessibility	Provide competitive federal grants to assist eligible entities in financing capital projects to upgrade the accessibility of legacy rail fixed guideway public transportation systems for people with disabilities							X			
Area of Persistent Poverty	Provide competitive funding for planning studies for financial plans to improve transit services in areas experiencing long-term economic distress		X								
Bus Exportable Power Systems (BEPS)	Provide competitive grants that enables public transportation agencies, communities, and states to access resilient and flexible power options through hybrid electric bus fleet vehicles during major power disruptions.					X					
Enhancing Mobility Innovation (5312)	Provide funds to promotes technology projects that center passenger experience and		X			X					
	encourage people to get on board. Projects fall under two categories: 1) Accelerate										
	innovative mobility, 2) Software solutions.										
Enhanced Mobility of Seniors and Individuals with Disabilities (5310)	Provide formula funding to states and designated recipients to meet the transportation needs of older adults and people with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting these needs.							X			
Expedited Project Delivery Pilot Program (Fast Act- Sec. 3005(b))	Provide funds for expediting delivery of new fixed guideway capital projects, small starts projects, or core capacity improvement projects. These projects must utilize public- private partnerships, be operated and maintained by employees of an existing public transportation provider, and have federal share not exceeding 25 percent of the project cost			X			X	X			
Flexible Funding Programs- Congestion Mitigation and Air Quality Program	Provide funding to areas in nonattainment or maintenance for ozone, carbon monoxide, and/ or particulate matter. Funds may be used for any transit capital expenditures otherwise eligible for FTA funding as long as they have an air quality benefit.			X	X		X				
Flexible Funding Programs- Surface Transportation Block Grant Program	Provide formula funding for projects to preserve and improve the conditions and performance of surface transportation, including highway, transit, intercity bus, bicycle and pedestrian projects.						X				
Passenger Ferry Grant Program	Makes federal funding available competitively to assist in financing of capital projects to support passenger ferry systems in urbanized areas, such as ferry vessels, terminals, and related infrastructure.				X	X					
Electric or Low Emitting Ferry Pilot Program	Provide competitive funding for projects that support the purchase of electric or low- emitting ferries and the electrification of or other reduction of emissions from existing ferries.				X						
Helping Obtain Prosperity for Everyone (HOPE)	Provide funds to improve transit services or facilities in areas of persistent poverty through planning, engineering, technical studies, or financial plans for projects						X				
Metropolitan Statewide Planning and Non-Metropolitan Transportation Planning	Provide funding and procedural requirements for multimodal transportation planning in metropolitan areas and states.							X			
Mobility Access & Transportation Insecurity: Creating Links to Opportunity Research and Demonstration Program (5312)	Provide competitive fund for a research and demonstration effort to improve people's access to affordable transportation, especially in areas that currently lack efficient and convenient transit options and measure the effect of reducing transportation insecurity through							x			
	improved mobility access on people and their communities.										
Mobility on Demand (MOD) Sandbox Demonstration Program (5312)	Provide competitive fund for projects that promote innovative business models to deliver high quality, seamless and equitable mobility options for all travelers.			X	X	X	X	X			
Pilot Program for Transit Oriented Development Planning	Provide competitive funding to local communities to integrate land use and transportation planning with a transit capital investment that seek funding through the Capital Investment Grant (CIG) Program							X			
	Helps states and public transportation systems pay for protecting, repairing, and/or										
	replacing equipment and facilities that may suffer or have suffered serious damage as										
Public Transportation Emergency Relief Program - 5324 (Section 5324)	a result of an emergency, including natural disasters such as floods, hurricanes, and tornadoes. It provides authorization for Section 5307 and 5311 funds to be used for disaster relief in response to a declared disaster.										
Public Transportation Innovation 5312	Provide funiding to develop innovative products and services assisting transit agencies in better meeting needs of customers							X			
	Make funding available competitively to help fund capital projects to replace rail rolling						X				
Rail Vehicle Replacement Grants	stock, which is defined as revenue service, passenger carrying vehicles, or propulsion vehicles necessary for the provision of rail public transportation. This program is a set-aside										
	of the State of Good Repair Formula Grants Program.										
Real-Time Transit Infrastructure and Rolling Stock Condition Assessment Research and Demonstration Program (5312)	Provide competitive funding for innovative approaches to mitigate infrastructure deficiencies in public transportation using innovative technologies and designs.							X			
Redesign of Transit bus operator Compartment to Improve Safety, Operational Efficiency, and Passenger Accessbility Program	Support research projects to develop transit bus operator compartment designs that improve bus operator and public safety as well as bus operator access to vehicle instruments and controls without hindering the accessibility of passengers							x			
	Provides a source of funding to assist in the design and implementation of training and							X			
	technical assistance projects and other support services tailored to meet the needs of										
Rural Transit Assistance Program	transit operators in nonurbanized areas.										
Route Planning Restoration Program	Provide funds under the American Rescue Plan Act of 2021 for public transportation planning associated with the restoration of transit service reduce due to the COVID-19 pandemic.							X			
Safety Research and Demonstration (SRD) Program	Provide funds to support transit agencies to pursue innovative approaches to eliminate or mitigate safety hazards. SRD program focusses on demonstration of technologies and safer designs.							X			
Standards Development Program (SDP)	Provide competitive fundings to perform an assessment and develop voluntary standards and standards-related best practices, guidance, and tools in safety, and other areas to address transit industry needs.							X			
State of Good Repair	Provide capital assistance for maintenance, replacement, and rehabilitation projects of existing high-intensity fixed guideway and high-intensity motorbus systems to maintain a state of good repair. SGR grants are eligible for developing and implementing Transit Asset Management plans.			X	X			X			
Technical Assistance & Standard Development (5314)	Provide funding for technical assistance programs and activties that improve the management and delivery of public transportation and development of the transit industry workforce							X			
Transit Cooperative Research Program	Provide competitive funding for research program that develop near-term, practical solutions such as best practices, transit security guidelines, testing prototypes, and new planning and management tools.							X			
Zero Emission Research Opportunity	Provide funds for non-profit organizations to conduct research, demonstrations, testing, and evaluation of zero emission and related technology for public transportation applications.							X			
Transit and Intercity Rail Capital Program (TIRCP)	Provide funds to modernize CA's intercity, commuter, and urban rail systems, bus and ferry transit systems, reduce GHG, VMT, and congestion							X			
Transportation Infrastructure Investments	Provide funding to green transportation systems emphasizing in economic growth and equitable recovery from COVID-19. Focuses on increasing mobility options through rails, transit and active transportation projects							X			
Prop 1B: Transportation Bonds	Focuses on improving state highways and local roads, transit networks, passenger rail, freight mobility, and air quality.							X			
ATIIP	competitive grants to help communities plan, design, and construct safe and connected active transportation networks such as sidewalks, bikeways, and trails that connect destinations such as schools, workplaces, residences, businesses, recreation areas, and medical facilities within a community or metropolitan region.							X			

Local Streets & Roads

Grant	Grant Summary	Eligible Costs	Maintenance and Repaving Projects	ADA Curb Ramps	Traffic Signal and Sign Maintenance
State Fuel Excise Tax	Fuel Tax revenue for planning, construction, and maintaining CA's publically funded roadways and mass transit systems.	Streets, roadwasys, mass transit.	X	X	X
Federal Aid	Federal fuel tax revenue depositedi n to the federal Highway Trust Fund for road construction, maintenance, repair, and public transportation	Roads, maintenance and repair, and public transportation	X	X	X
State Aid	Various CA State Transportation Grants	Planning, roads, and transit	X	X	X
Incremental Excise Tax	Additional 2 cents per gallon on Gax Tax	Streets, roadwasys, mass transit.	X	X	X
Local General Funds	Various funds collected by the County including Measure A, Measure W, Measure K, Property Tax	Roads, maintenance and repair, and public transportation	X	X	X
County Sales Tax Measures	Measure W .5%, 2019 through 2049	Roads, maintenance and repair, and public transportation	X	X	X
Highway Users Tax Account (HUTA)	State taxes transferred and allocated to local agencies.	Roads, maintenance and repair, and public transportation	X	X	X
Local Transportation Funds	1/4% statewide sales tax for local transportation purposes	Local Transportation Fund provides for public transit planning and operations as well as coordination between transit providers in the region. Bike and Pedestrian programs may be funded with LTF.	X	X	X
Charging and Fueling Infrastructure	Provide discretionary grant to strategically deploy publicly accessible electric vehicle charging infrastructure, hydrogen fueling infrastructure, and natrual gas fueling infrastructure.	Construction of EV charging station and alternative fuels.			
National Electric Vehicle Infrastructure Formula Program	Provide funding to states to strategically deploy electric vehicle (EV) charging infrastructure and establish an interconnected network to facilitate data collection, access and reliability.	Construction of EV charging stations and network for data collection.			
Safe Streets and Roads for All	Provide a discretionary grant supporting local initiatives to prevent death and serious injury on roads and streets, commonly referred to as "Vision Zero" or "Toward Zero Deaths" initiatives.	Construction and plans for Streets, Roads, bike and pedestrian infrastructure.	X	X	
Transportation Alternatives (TA) (§11109; 23 U.S.C. 133(h))	Provide funds set-aside funds for projects and activities that were previously eligible under the Transportation Alternatives Program under the Moving Ahead for Progress in the 21st Century Act. This encompasses a variety of smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, safe routes to school projects, etc.	Construction of bike and pedestrian facilities		X	
Flexible Funding Programs- Surface Transportation Block Grant Program	Provide formula funding for projects to preserve and improve the conditions and performance of surface transportation, including highway, transit, intercity bus, bicycle and pedestrian projects.	Construction and maintenance of streets, roads, transit, and bicycle/pedestrian facilities.	X	X	X
Prop 1B: Transportation Bonds	Focuses on improving state highways and local roads, transit networks, passenger rail, freight mobility, and air quality.	Construction and maintenance of roads, transit, rail and freight.	X	X	X

SAN MATEO COUNTY Transportation Authority

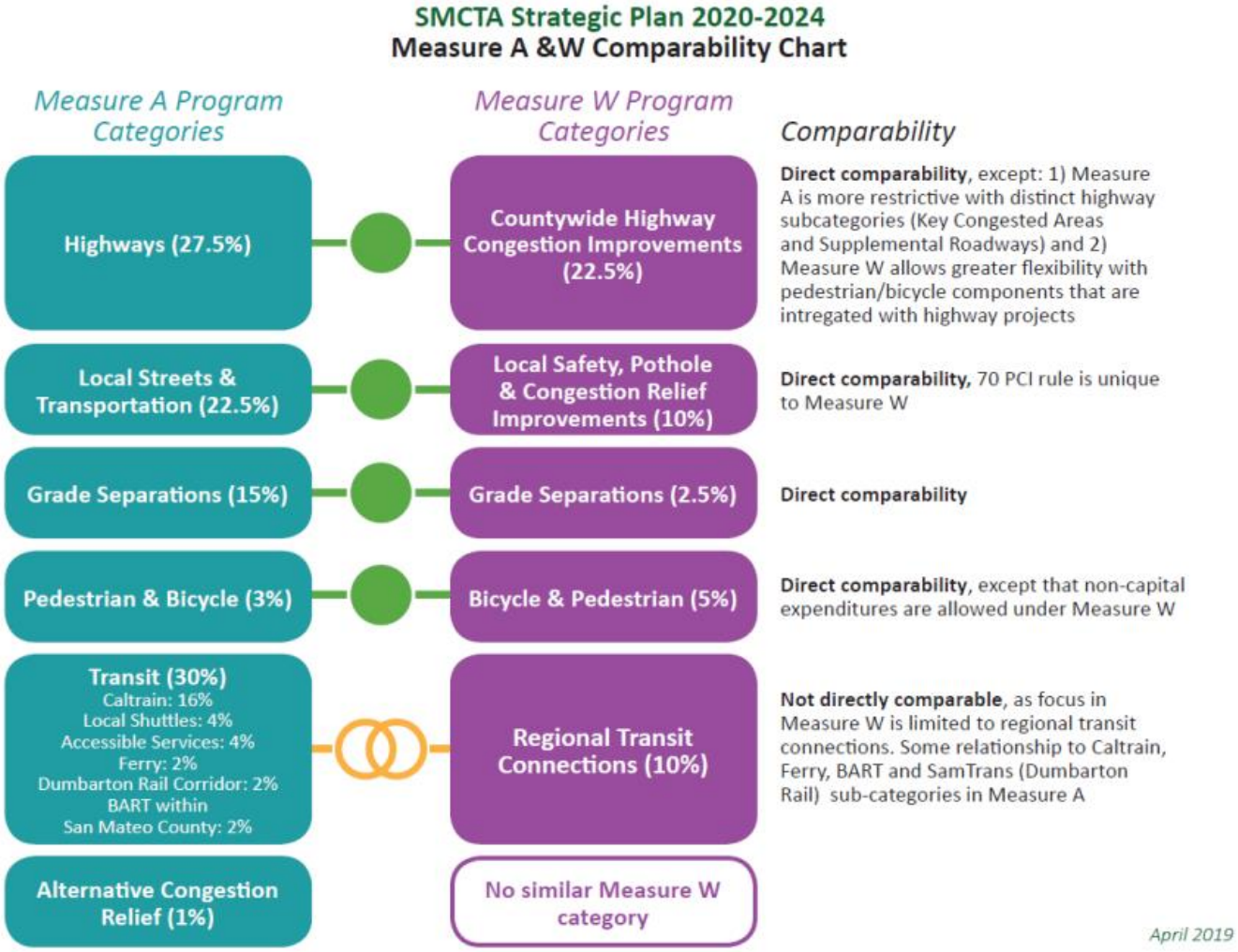
H. EVALUATION CRITERIA

SAN MATEO COUNTY Transportation Authority

H-1 2020-2024 EVALUATION CRITERIA DEVELOPMENT PROCESS

Commonalities Between Measure A and Measure W

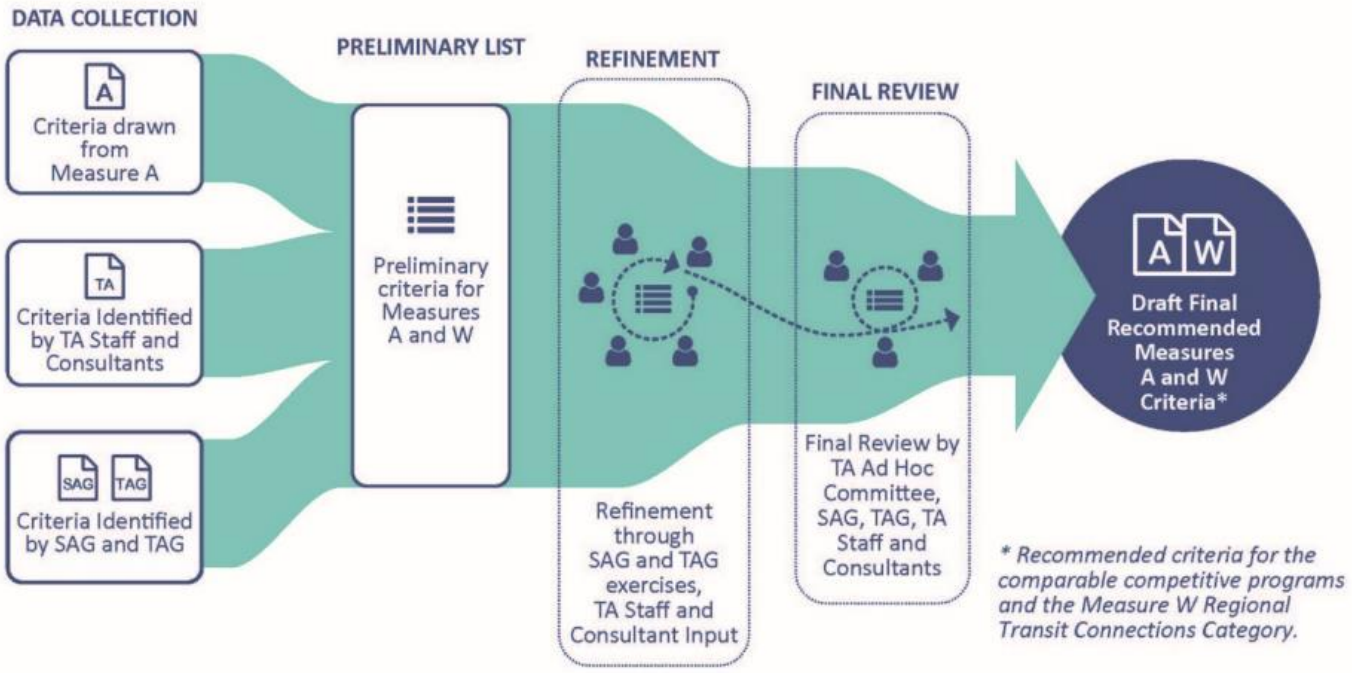
One of the initial outcomes of the stakeholder meetings was to determine whether it made sense to consolidate the project selection process for the common competitive program categories between the measures. There was general concurrence from the SAG and TAG, as well as the Board Ad Hoc Committee, that there was sufficient commonality in Measures A and W to support having a common selection process for the comparable competitive programs. The figure below illustrates the comparability between the program categories from both measures.



Evaluation Criteria Development Process

Significant input went into the criteria development process. As part of the SAG and TAG meetings, staff shared existing evaluation criteria used for the Measure A programs and added a few suggestions for each of the 11 Measure W Core Principles with respect to each of the funding categories. Working with that initial set of criteria, SAG and TAG members generated hundreds of evaluation criteria that were relevant to the Core Principles for each of the programs. The proposed evaluation criteria were brought back to the SAG and TAG for further refinement and consolidation through facilitated breakout sessions. Board Ad Hoc members, staff and consultant also contributed significant input into this process, which is illustrated below.

The recommended draft criteria for evaluating projects for Measures A and W funding applications were developed and refined through an iterative process with a Stakeholder Advisory Group (SAG), a Technical Advisory Group (TAG), input from Transportation Authority (TA) Board Ad Hoc members, consultants, and TA staff.



SAN MATEO COUNTY Transportation Authority

H-2 COMPETITIVE PROGRAM EVALUATION CRITERIA TABLES

Measure A Goals Key

ID	Description
A1	Reduce commute corridor congestion
A2	Make regional connections
A3	Enhance safety
A4	Meet local mobility needs

Measure W Core Principles Key

ID	Description
W1	Relieve traffic congestion countywide
W2	Invest in a financially sustainable public transportation system that increases ridership, embraces innovation, creates more transportation choices, improves travel experience, and provides quality, affordable transit options for youth, seniors, people with disabilities, and people with lower incomes
W3	Implement environmentally friendly transportation solutions and projects that incorporate green stormwater infrastructure and plan for climate change
W4	Promote economic vitality, economic development, and the creation of quality jobs
W5	Maximize opportunities to leverage investment and services from public and private partners
W6	Enhance safety and public health
W7	Invest in repair and maintenance of existing and future infrastructure
W8	Facilitate the reduction of vehicle miles traveled, travel times, and greenhouse gas emissions
W9	Incorporate the inclusion and implementation of complete street policies and other strategies that encourage safe accommodation of all people using the roads, regardless of mode of travel
W10	Incentivize transit, bicycle, pedestrian, carpooling, and other shared-ride options over driving alone
W11	Maximize potential traffic reduction potential associated with the creation of housing in high-quality transit corridors

I. GLOSSARY OF ACRONYMS

- ABAG – Association of Bay Area Governments
- ACR – Alternative Congestion Relief
- ACS – American Community Survey
- ATP – Active Transportation Program
- AV – Autonomous Vehicle
- BART – Bay Area Rapid Transit
- C/CAG - City/County Association of Governments of San Mateo County
- CAC – Community Advisory Committee
- CalSTA – California State Transportation Agency
- Caltrain - Peninsula Corridor Joint Powers Board
- Caltrans – State of California Department of Transportation District 4 Bay Area
- CBO – Community-Based Organization
- CBPP – C/CAG Comprehensive Bicycle and Pedestrian Plan
- CFP – Call for Projects
- CIP – Capital Improvement Program
- CON – Construction
- CSIS – Caltrans Systemwide Investment Strategy
- District – San Mateo County Transit District
- EJ – Environmental Justice
- EV – Electric Vehicle
- FY – Fiscal Year
- GBI – Grand Boulevard Initiative
- GHG – Greenhouse Gas
- HPMS – The Highway Performance Monitoring System
- ITS – Intelligent Transportation System
- JPA – Joint Powers Authority
- JPB – Joint Powers Board
- KCA – Key Congested Areas
- PA/ED – Project Approval/ Environmental Document
- PCI – Pavement Condition Index
- PE/EV - Preliminary Engineering and Environmental
- PID – Project Initiation Document

- PLAN – Planning
- PS&E – Plan, Specifications and Estimates- Final Design
- PSR – Project Study Report
- QSR – Quarterly Status Report
- MTC – Metropolitan Transportation Commission
- ROW – Right-of-Way
- RTC – Regional Transit Connection Plan
- SAG – Stakeholder Advisory Group
- SFMTA – San Francisco Municipal Transportation Agency
- SOV – Single Occupant Vehicle
- SR – Supplemental Roadways
- SRHP – Short Range Highway Plan
- SRTP – Short Range Transit Plan
- SRTS – Safe Routes to School
- Strategic Plan - Strategic Plan 2025-2029
- TA – San Mateo County Transportation Authority
- TAC – C/CAG Technical Advisory Committee
- TAG – Technical Advisory Group
- TAZ – Traffic Analysis Zone
- TDM – Transportation Demand Management
- TEP – Transportation Expenditure Plan
- TNC – Transportation Network Company
- TOD – Transit Oriented Development
- VMT – Vehicles Mile Traveled
- VTA – Valley Transportation Agency
- WETA – Water Emergency Transportation Authority

SAN MATEO COUNTY Transportation Authority

J. SUMMARY OF PUBLIC COMMENTS RECEIVED ON THE DRAFT STRATEGIC PLAN

The SMCTA Strategic Plan 2025 – 2029 was published online on November 5, 2024, and was available for public comment until November 19, 2024. The Strategic Plan was made available online with an easy-to-use virtual platform that enabled participants to place comments directly in the document online.

The virtual platform was available through SMCTA's website. The table below provides a summary of comments received online through the virtual tool. The table documents how comments have been answered or addressed in the Final Plan

SMCTA STRATEGIC PLAN 2025 – 2029 PUBLIC FEEDBACK

Comment	Resolution
Various spelling/grammar related comments	- Various sections have been edited to improve clarity and readability - Titles have been bolded for consistency - Revision to Community Advisory Committee has been updated - Readability has been improved
Regarding Section 6.2.2 – Vehicle Miles Traveled Can this be confirmed/check? My understanding from C/CAG VMT estimation tool is that the coastside (including HMB) is among the highest VMT per capita countywide.	The data source used for this estimation is the California Highway Performance Monitoring System (HPMS), which is produced and maintained by Caltrans. This is a measure of traffic volumes on roads maintained by Caltrans, divided by the number of maintained road miles in each city. VMT per capita was calculated by dividing the DVMT in each city (per HPMS) by the total population of each city (per American Community Survey). Since the majority of Colma's land uses are not residential and are typically associated with high VMT generators – i.e. car dealerships, big-box department stores and shopping centers, cemeteries that attract trip-takers from across the Bay Area, and SR-82, which serves as a primary connection between San Mateo and San Francisco counties, the comparatively high VMT is reasonable. Furthermore, while Half Moon Bay and the other coastal cities may have a residential population that drives more miles per day than their eastern counterparts, Half Moon Bay roads likely don't experience the level of traffic volume that Colma roads experience among all vehicles that travel in, out, and through both cities. According to HMPS, Colma has 7 miles of maintained roads, while Half Moon Bay has 30 miles. The VMT [1,000] per HPMS is nearly 76 in Colma, while Half Moon Bay's DVMT is only 19. Together, with the fact that Half Moon Bay's population (11,176 in 2022) is greater than Colma's population (1,550 in 2022), it is also

Comment	Resolution
	reasonable to say that the VMT on Colma's roads is high, relative to a very low population. On the other hand, the VMT experienced on Half Moon Bay's roads is lower overall (once again, due to total daily traffic volumes), relative to a population that is higher than Colma's (albeit low compared to the county average), leading to a lower VMT per-capita.
Regarding Section 6.2.2 – Vehicle Miles Traveled I think a little more narrative is needed to explain why Colma has the highest VMT and Half Moon Bay has the lowest. Do they VMT trip numbers by capita just include residents (that might explain the high VMT # for Colma). I don't understand the low VMT # for Half Moon Bay though as it is generally known that VMT is higher on the coastside due to the need to travel over to the bayside or north County for jobs and other destinations.	The Strategic Plan is not using the C/CAG VMT estimation tool, which seems to have a different methodology for calculating VMT. This model of VMT (Cal HPMS) is based on the total vehicle miles of travel per day that all roads experience within each Traffic Analysis Zone (TAZ), with each traffic analysis zone representing a city. C/CAG's VMT estimator tool is likely correct as well –as it is feasible that local trips in Half Moon Bay are generally longer in length than local trips in Colma, however, for purposes of this report, the HPMS tool is not a measure of local VMT and therefore doesn't only focus on trips being made at the local level. This can be viewed on page 106 of the California Highway Performance Monitoring Road Data (from 2022 – newest to-date).
Regarding Section 6.3 – New Mobility Services and Autonomous Vehicles My understanding is that several prior bikeshare programs have not done well in the County. Do we know how the listed programs are doing and if there is a daily turnover ratio greater than 1?	The SMCTA does not have that level of information, and the individual sponsors of those projects can be contacted for further information.
Regarding Section 8.2.5 – Timely Use of Funds For projects that are not fully funded, what is the deadline? Sometimes large projects take several years to secure all the funding.	This section indicates: For projects awards that have requested to use Measure A and/or Measure W funding as leverage for other external grant opportunities, the TA will monitor a timeline for the applicable project phase to be fully funded: Project under $5 million must be fully funded within two years, and projects over $5 million must be fully funded within five years of the funding agreement. Once a project becomes fully funded, the project initiation requirements detailed above will become active.
Regarding Section 8.2.5 – Timely Use of Funds If use on an agency's on-call consultant is used, I'm presuming an issued task order/work directive will	This is correct and has been noted.

Comment	Resolution
suffice (if so, perhaps this can be called out in a footnote)	
Regarding Section 8.2.5 – Timely Use of Funds Suggest adding hyperlink or footnote to location for the TA's External Attribution Guidelines.	These are being developed separately and will be provided on SMCTA's website when available.
Regarding Section 8.2.6 – Monitoring and Reporting Requirements Are capital projects subject to ongoing monitoring or reporting or evidence of maintenance? If so, suggest adding here similar to operational.	No, maintenance is the responsibility of each sponsor and should be monitored by the individual sponsor.
Regarding Section 8.2.6 – Monitoring and Reporting Requirements Suggest adding hyperlink to location, or resolution number to find policy.	No link necessary, this is the policy statement.
Regarding Section 8.2.6 – Monitoring and Reporting Requirements How does the TA define credible funding plan? Many grant sources are discretionary, highly competitive and not programmed for a specific project prior to the funding award (e.g. especially for active transportation) and there are limited sources for others (e.g. grade separations).	This is being developed as part of the forthcoming Project Delivery Guide.
Regarding Section 8.4.2 Financing and Bonding Backed by Sales Tax Revenue Noting not only does this work better in an environment of low interest rates but also when projects are prioritized and programmed in advance and the sponsor demonstrates a level of commitment/readiness.	Comment has been noted.
Regarding Section 9.1.3 – Program Specific Guidelines For Timely Use of Funds: Expenditure Timeline: - Can this table clarify whether multimodal projects (and perhaps to what extent) are eligible to use these funds? Would certain projects fall under "safety"? - Would a bike/ped path be eligible?	- Updated to include a more general blanket transportation project or program eligibility. - Yes, these would qualify under transportation projects. Timely use of funds updated to reflect local discretion.
Regarding Section 9.2 – Paratransit Suggest including definition of paratransit here.	Definition from SamTrans provided.

Comment	Resolution
Regarding Section 9.4.3 – Additional Requirements or Policies Could this language more strongly reinforce the potential that transit other than rail along with active transit could be more viable and a higher priority than future rail stations and service? The intent being that we don't halt investments along this corridor for the sake of not precluding future rail stations/service that isn't even desired.	This cannot be added at this time and will require a separate action by the SMCTA Board of Directors.
Regarding Section 10.2 – Evaluation Criteria and Equity Is there another assessment tool specific to the Bay Area or SMC that can be considered for pollution beyond CalEnviroScreen, which tends to not call out as many locations in SMC as it does for the Central Valley and SoCal.	This is not known at this time and will further be considered in partnership with C/CAG.
Regarding Section 10.3 – Geographic Distribution Framework What is the plan if one geographic area is undersubscribed for a CFP and another is oversubscribed? Can projects from the oversubscribed geographic area tap into the funding from the underutilized geographic area?	The fund splits are treated as targets to provide flexibility if one category is over or undersubscribed.
Regarding Section 10.3 – Geographic Distribution Framework What ar**e** the criteria for being small or mid/large jurisdictions? Is it under 20,000? For agencies like Belmont, that are on the small side compared to Redwood City, how do we compete?	Yes, the threshold is 20,000 residents. This was adopted as part of the ACR/TDM Plan previously and is being continued.
Regarding Section 10.4.3 – Program Specific Guidelines Allowing only 12 months for a preliminary planning study really doesn't allow much time for community engagement where it could be wise to have more.	Updated to 18 months.
Regarding Section 10.4.4 – Additional Requirements or Polices How were these percentages derived and is this provided in the appendices?	These were developed as part of discussions with stakeholders.

Comment	Resolution
Regarding Section 10.4.4 – Additional Requirements or Polices Also, if these percentages were applied during the last 5 years, how might have that changed the outcome of prior CFPs?	This is not part of the evaluation.
Regarding Section 10.6.3 – Program Specific Guidelines Expending funds within 2 years of executing a funding agreement can be limiting for community engagement and it can be critical for planning studies when there are significant trade-offs that need to be publicly vetted. Is this what is really intended?	This should be sufficient timing and SMCTA can consider expectations on a case by case basis.
Regarding Section 10.6.3 – Program Specific Guidelines How do projects that span two or more jurisdictions count toward the number of applications submitted? Multi-jurisdictional projects should be encouraged.	It will count toward the lead sponsor's number of applications if applied for jointly.
Regarding Section 10.6.4 – Additional Requirements or Policies How was this funding split derived and looking back at CFPs over the past 5 years, if this distribution target was in effect, how might it have changed the distribution of prior funding allocations?	This is not part of the evaluation.
Regarding Section 10.6.4 – Additional Requirements or Policies I understand the desire for a more fair distribution of funds across the County but a needed transformational project may cost the same regardless of whether it is in a small/coastal or mid/large size jurisdiction (possibly more considering CCC requirements on the coast). Also noting that some of the need for a project in a small /coastal jurisdiction may be generated from mid/large jurisdictions beyond.	This has been noted.
Regarding Section 11 – Technical Assistance Program I think the second paragraph frames the last sentence of the first paragraph in this section - i.e., TA will see how it's going and then decide whether to continue supporting CON phase. If TA decides not to continue providing technical assistance for CON, are there other considerations that can be built in, like TA supports securing consultant support to manage CON?	This will be determined at the future date.

Comment	Resolution
Regarding Section 11 – Technical Assistance Program For projects that are already passed 30% design that are seeking construction funding how does this apply?	A best practice design review will still be required, and changes may be requested, if feasible.
Regarding Section 11 – Technical Assistance Program What is the timeline for this, and will it be in place for the current Ped/Bike CFP?	This does not apply to the 2024 CFP and will apply to future cycles.
Regarding Section 11 – Technical Assistance Program Assuming the level of review will be relative to the complexity of the project.	The level of review and potential recommendations will be made based on the complexity and potential cost/implementation timeline which SMCTA understands will vary by project.

APPENDIX I: LAND USE GUIDELINES AND COMPLIANCE MONITORING

Transportation Demand Management Policy Implementation Guide

APRIL 2022

(Revised March 2025)

FOR **City/County Association of Governments of San Mateo County**

PREPARED BY **Advanced Mobility Group**

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Purpose

The *C/CAG TDM Policy Implementation Guide* is a companion document to the *C/CAG TDM Policy Update Approach* document dated September 9, 2021, which has been adopted as part of the San Mateo County Congestion Management Program (CMP). This guidance document describes the process, as well as agency roles and responsibilities to put the TDM Policy into action. For more details on the underlying rationale and methodology for the C/CAG TDM Policy please refer to the *C/CAG TDM Policy Update Approach* document.

The *Implementation Guide* addresses the following:

1. Determining whether a project meets the average daily traffic (ADT) project review threshold for compliance with the C/CAG TDM Policy
2. Developing a Compliant TDM Program
3. Understanding the Monitoring & reporting requirements
4. Local Jurisdiction exemption process
5. Step-by-step TDM Policy implementation process
6. Process flowchart

Project Review Threshold (ADT)

Unless a member jurisdiction has been exempted from the C/CAG TDM Policy according to the process described in this document, any new development project anticipated to generate at least 100 average daily trips (ADT) is subject to the TDM Policy and must therefore complete a TDM Checklist and implement associated measures to mitigate traffic impacts.

The C/CAG TDM Policy includes a tiered approach based on land use type and project size. The land use categories include: Non-Residential (office, industrial, institution), Non-Residential (medical and lodging), Non-Residential (retail), and Residential (multi-family), with distinct thresholds for "small" and "large" projects.

Determining Project ADT

Traditionally, trip generation methods have been most prominently documented in the ITE *Trip Generation Manual.* However, flexibility in choice of ADT calculation method is allowed. These methods may include, but are not limited to, the U.S. Environmental Protection Agency *Smart Growth Mixed-Use Trip Generation Tool* (US EPA MXD), San Diego Association of Governments (SANDAG) *Trip Generation for Smart Growth* guide, and even locally developed methods based on validated trip counts.

Non-Residential land uses will utilize ADT correlated with the project size in square footage, except for Retail, which will rely on ADT correlated with the estimated number of employees. Residential projects will utilize ADT correlated with the number of units as the threshold metric. Regarding Mixed-Use projects featuring multiple land uses on-site, ADT is to be calculated by combining the trip generation of the various uses.

The following table shows an approximate range for project sizes that will likely meet or surpass the 100 ADT threshold:

ADT Thresholds, Correlated with Approximate Project Size Characteristic[1] [2]

	Small Projects	Large Projects
Non-Residential: Office, Industrial, and Institutional	**100 – 499 ADT (10,000 – 49,999 sq. ft.)**	**500+ ADT (50,000+ sq. ft.)**
Non-Residential: Medical &Lodging	**100 – 499 ADT (10,000 – 49,999 sq. ft.)**	**500+ ADT (50,000+ sq. ft.)**
Non-Residential: Retail	**100 – 499 ADT (30-99 employees)**	**500+ ADT (100+ employees)**
Residential: Multi-Family	**100 – 499 ADT (20 - 49 units)**	**500+ ADT (50+ units)**

[1] The quantified square footage, employees, and units in this table demonstrate plausible project size relative to the estimated project ADT. The representative project size values are not exact. They are based on documented linear relationships between project size and respective site travel demand. More detail is available in research references cited in Appendix C & D of the companion *Policy Approach* document.

[2] The TDM Policy only applies to multi-family residential developments only. Single-family home developments are ***exempted*** from this TDM Policy

Implementing TDM Measures

All projects subject to the C/CAG TDM Policy shall implement a set of TDM measures identified in one of the following TDM Checklists, based on land use and ADT:

- Large Non-Residential (Office, Industrial, Institutional)
- Small Non-Residential (Office, Industrial, Institutional)
- Large Residential
- Small Residential
- Large Non-Residential (Medical/Lodging)
- Small Non-Residential (Medical/Lodging)
- Large Non-Residential (Retail)
- Small Non-Residential (Retail)

(Note that for Mixed Use projects, the land use type that generates the majority of ADT, as determined in the previous section, will define the TDM checklist that should be utilized, but the combined ADT of all the uses will determine whether the project is defined as "small" or "large".)

Applicants shall select all "Required" TDM measures and enough "Additional Recommended" measures within the Checklist to meet the minimum targeted trip reduction requirement. For all project types, except two, the minimum trip reduction requirement is 35% below baseline ADT for the project site. Transit-Oriented Development (TOD) projects within 0.5 miles of MTC-defined "high-quality transit" and small multi-family residential projects have a minimum 25% trip reduction.

The TDM Checklist categorizes development projects according to their proximity to "high quality" transit, defined as a transit station or stop featuring maximum 15-minute service frequency (headways) during weekday peak hours between 6-10 a.m. and 3-7 p.m. Some measures will only be required of projects meeting one of the above three geographic criteria. The categories are:

1. **Transit-Oriented Development (TOD)** – project located within 0.5 miles of "high quality" transit.
2. **Transit Proximate** – project located between 0.5 – 3 miles of "high quality" transit.
3. **Non-Transit Proximate** – project located more than 3 miles from "high quality" transit.

Importantly, the distances cited above for each category shall be measured along the traversable pathway between the project site and the nearest stop or station with "high-quality transit". In other words, this measurement should *not* be "as the crow flies". The same measurement method shall apply to all project categories.

Completing/Submitting the TDM Checklist

To facilitate implementation of the C/CAG TDM Policy, as well as for future TDM monitoring and data collection, project sponsors will be required to submit a TDM Checklist with their development application to the governing jurisdiction Planning Department, as part of the development review process. At the beginning of the CEQA process, or within 10 days of receipt of an application that meets the ADT threshold, the local jurisdiction will notify C/CAG. Such notice is to include a brief project description (land use type, size, location), and acknowledgement that the project will be subject to these TDM Policy Requirements.

In the course of its review of the development application and accompanying Checklist, the jurisdiction is expected to verify the accuracy and completeness of the applicant's TDM Checklist submittal. Such

review includes ensuring use of the appropriate Checklist (i.e., Small/Large, Non-Residential/Residential), and verifying that all "Required" measures are included, as well as sufficient additional "Recommended" measures to collectively achieve the target trip reduction percentage for the project type (25% or 35%). If needed, Commute.org will be available to help the local jurisdiction review the applicant's Checklist and help recommend appropriate TDM Checklist measures.

Once the local jurisdiction has verified the applicant's Checklist accuracy and completeness, the project proceeds through the jurisdiction's standard review process. If approved, the project is to be conditioned upon approval of both implementation of the selected measures in the Checklist and on-going monitoring and reporting requirements, as outlined in the following section. Then, at the conclusion of the development review process, the local jurisdiction staff forwards the final approved Checklist to C/CAG.

Monitoring & Reporting

Monitoring and reporting the status of TDM implementation is crucial to meeting local and regional land use and transportation policy goals. To accomplish this, C/CAG will partner with Commute.org to administer the monitoring and reporting process. As discussed below, efforts have been made to minimize, to the extent possible, local jurisdiction involvement in related monitoring and enforcement activities. (*Please refer to the C/CAG TDM Policy Update Approach document for discussion of thresholds that qualify projects for this level of review*).

Periodic Project Tenant Surveying

Upon completion and occupancy (full or partial) of a new development project, Commute.org will solicit survey participation through correspondence with an established point of contact at the project site. Commute.org will distribute standardized surveys to tenants with the intent of recording two particular datasets: 1) information from the tenant regarding the completeness of implementing TDM measures conditioned as part of project approval and 2) information regarding tenant employees' travel behavior, such as mode and frequency.

Two years after initial occupancy the tenant, property owner or other responsible party will self-certify that the TDM Measures chosen during project approval and included in the entitlement by the jurisdiction, are being implemented. Every two years thereafter for the initial six years, the tenant/property owner will again self-certify that required TDM measures continue to be implemented and will also survey their employees. Thereafter this review will occur triennially until post-occupancy year 20. Large multi-family residential projects are required to participate in TDM self-certification for the first six years of occupancy; after the sixth year of occupancy, no additional reporting is required. No reporting is required for small residential projects.

The TDM self-certification form and surveys will be provided by C/CAG and/or its designee, Commute.org.

Commute.org will prescribe a timeline during which the survey participants may gather requisite data, complete the survey, and return the survey. The survey data will be shared by Commute.org with C/CAG and local jurisdictions and incorporated into a TDM monitoring database to help manage land use impacts on the countywide CMP Network.

Collaborative Process to Remedy to TDM Implementation

Non-compliance/participation

This occurs when there is failure to confirm and/or implement agreed measures or to submit required TDM employee surveys. Resolution will likely require local jurisdiction support and involvement with the project developer or tenant, as compliance is ultimately a condition of the development approval. Consequently, Local jurisdictions shall assist monitoring and reporting efforts by also engaging in follow-up with developers or responsible project tenants that have not implemented TDM measures that were previously required as part of Conditions of Approval during the local development review process. The local jurisdiction may, on a case-by-case basis, invite Commute.org to assist issue resolution.

Trip reduction targets/mode share targets

Achieving trip reduction and mode share targets is intended to be a collaborative, non-punitive process; no fines to the project owner or tenant are proposed as part of this process. If a project reports trip reduction performance that is short of the C/CAG TDM Policy goals, then it is proposed that Commute.org, in collaboration with the project owner or tenant, review the selected Checklist measures for the affected project and determine whether other measures might be more appropriate, in order to achieve the established targets.

On the final page, a flowchart is provided to illustrate the process to implement the C/CAG TDM Checklist.

Determining C/CAG TDM Policy Exemption

As described in the *C/CAG TDM Policy Update Approach* document, a C/CAG member jurisdiction may request exemption from these requirements.

How Exemption Determination is Made

A member jurisdiction that has adopted its own TDM program intended to regulate travel demand impacts at land development projects may consider requesting an exemption from the C/CAG TDM Policy, provided the local jurisdiction can sufficiently prove that their adopted TDM measures meet or exceed trip mitigation impacts required by C/CAG. However, since California Government Code Section 65089 (b) still requires that Level of Service (LOS) standards apply to the countywide CMP Network, the burden of proof is on the local jurisdiction to document how their locally adopted travel demand metric will sufficiently mitigate traffic impacts on the CMP Network.

The local jurisdiction shall submit such a request in writing to C/CAG. The request must clearly document how their jurisdiction's adopted city-wide TDM regulations ensure projected SOV trip reduction percentages meet or exceed 25% for TOD and small residential projects, and 35% for all other project land use types. C/CAG will review the local jurisdiction's request for exemption and, if approved, will issue a confirmation of exemption. At the discretion of the C/CAG Executive Director, C/CAG may consider minor deviations from the criteria listed above where it can be objectively demonstrated that a locally adopted TDM plan is substantially consistent with these criteria and is likely to generate superior city-wide results to the C/CAG TDM Policy through implementation of trip reduction targets, monitoring, reporting, enforcement mechanisms and/or other documented measures that are materially more robust than those in the C/CAG policy. Such requests shall be supported by clearly

written, professionally prepared documentation submitted to C/CAG by the jurisdiction's public works director or city engineer. The decision of the C/CAG Executive Director may be appealed to the C/CAG Board by the affected jurisdiction by filing a formal request within 30 days of the C/CAG Executive Director's written decision.

This process for requesting an exemption would address a jurisdiction's overall TDM program or ordinance and would not apply on a project-by-project basis.

(Note: If C/CAG determines that a local jurisdiction is exempt, the jurisdiction must still provide written notification to C/CAG whenever it receives an application for a new development project expected to generate more than 100 ADT. In addition, the exempted jurisdiction shall share all monitoring results with C/CAG and Commute.org on a biennial basis.)"

Step-by-Step TDM Policy Implementation Process

This section describes each procedural step that needs to be followed by project applicants and the C/CAG member jurisdiction where their project is located, in order to effectively implement the C/CAG TDM Policy.

There are four (4) major procedural steps listed below, followed by more detailed explanation for each step:

1. TDM Policy Determination
2. Predevelopment Review
3. Development Review
4. Monitoring & Reporting

Step 1. TDM Policy Determination

The first action a local jurisdiction must take is to ascertain whether the TDM Policy applies to them or not (i.e., exemption). All C/CAG member jurisdictions are subject to the countywide TDM Policy *unless* they explicitly receive an exemption per the process explained above.

If a local jurisdiction is determined to be exempt by C/CAG, the jurisdiction must still notify C/CAG in writing when a new development project estimated to generate more than 100 ADT is submitted for review. If a local jurisdiction is not exempt it must comply with the C/CAG TDM Policy. For ease of implementation, it is recommended that each non-exempt jurisdiction incorporate these requirements either directly or by reference into its municipal code.

Step 2. Predevelopment Review

During predevelopment review, the local jurisdiction should advise prospective project applicants that are likely to meet the policy threshold (100 ADT) of the C/CAG TDM Policy requirements, and to advise of associated online information at https://ccagtdm.org, as well as assistance that is available from Commute.org and/or C/CAG staff.

Step 3. Development Review

Upon receipt of a development project application meeting the C/CAG TDM Policy threshold, the jurisdiction, as part of its overall application completeness review, will check the adequacy/completeness of the submitted TDM Checklist. This should include verifying that the applicant

has selected the correct Checklist (project size, land use type) and committed to all Required TDM measures as well as any Additional Recommended measures needed to collectively achieve the target trip reduction percentage for the project type (25% or 35%).

Once the local jurisdiction has confirmed the application is complete, the local jurisdiction will notify C/CAG. Such notice is to include a brief project description (land use type, size, location), and acknowledgement that the project will be subject to these TDM Policy Requirements. Alternatively, the local jurisdiction can forward the submitted TDM Checklist. C/CAG will not conduct further development review; it will simply file the notice and/or Checklist for administrative proof of record and future monitoring and reporting purposes.

As part of its approval, the local jurisdiction is to condition project approval (COA) on implementation of all TDM measures selected by the applicant in their submitted Checklist as well as the corresponding monitoring and reporting requirements. Once approved, the final TDM Checklist should be forwarded to C/CAG. Local jurisdictions are also responsible to ensure that any site design related TDM measures (ex. showers and locker facilities, bus pull-outs, etc.) are incorporated into final design plans prior to issuance of building permits.

Step 4. Monitoring & Reporting

This step effectively begins once the new development project is approved by the local jurisdiction. While projects project will have different TDM implementation schedules, it is nonetheless assumed there will be progress toward implementing the TDM measures that have been conditioned with project approval.

Two (2) years after project occupancy, Commute.org will distribute a survey to the appropriate project point of contact, who may be the original project owner, property manager, or on-site tenant(s)/TDM coordinator(s). The survey will consist of a TDM Self-Certification Form (i.e., self-reporting implemented TDM measures) along with brief questionnaire about user travel behavior at the project site.

Commute.org will then collect and analyze these surveys. If there is insufficient progress towards TDM Checklist implementation, Commute.org will work with the appropriate point of contact to develop potential solutions. The local jurisdiction shall also collaborate in this issue resolution, which may include potential enforcement.

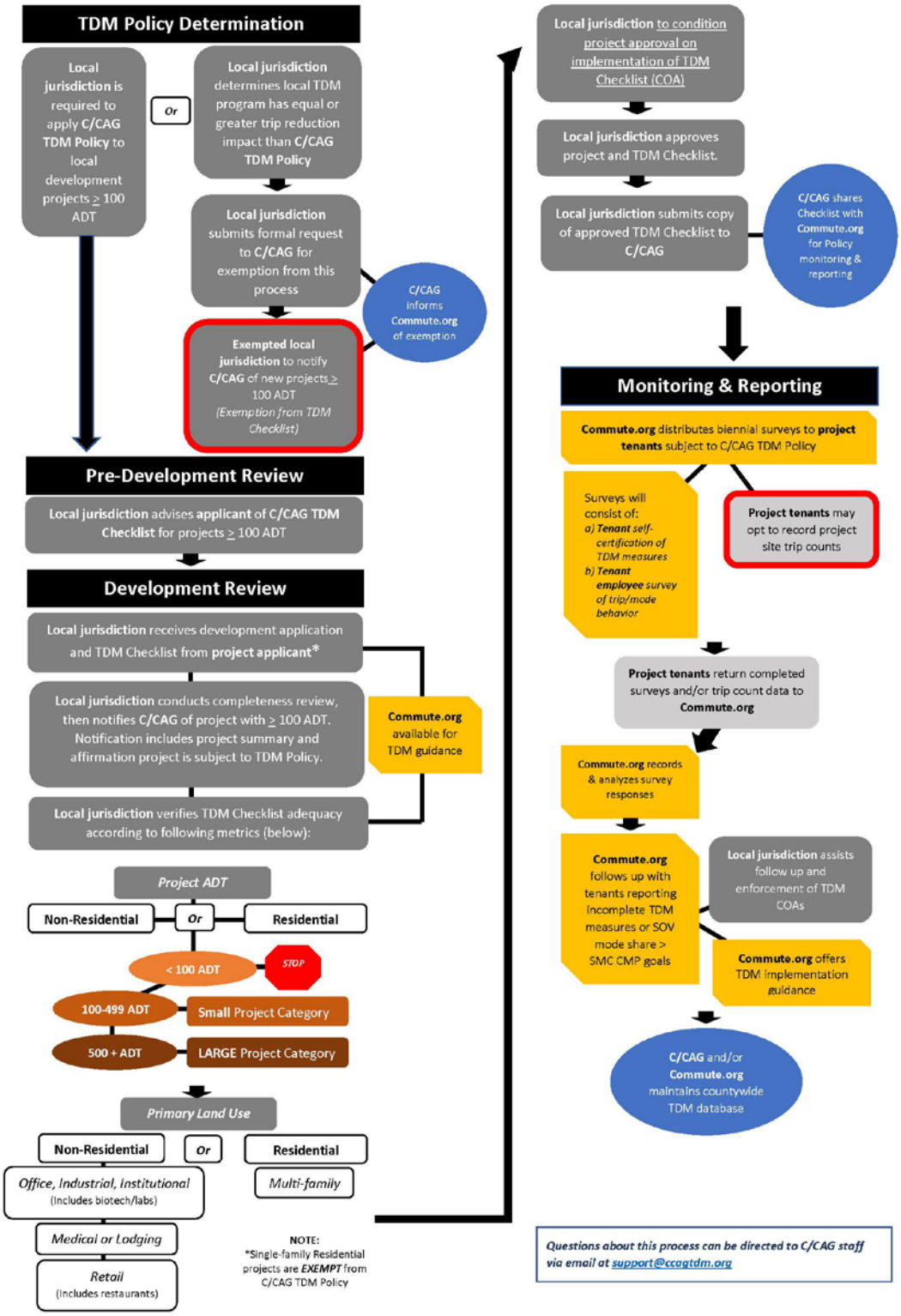
During this fourth and final procedural step, the biennial surveying process will repeat at affected projects for a duration prescribed in the companion *Policy Approach* document.

TDM Policy Process Flowchart

To illustrate the procedural sequence of events described in the previous section, a process flowchart is provided on the next page. As described throughout the *Implementation Guide*, the TDM Policy implementation process is a collaborative one - it relies on frequent data sharing and communication between local jurisdictions, project tenants, C/CAG, and Commute.org.

TDM Policy Process Flowchart

The sequence of events involved in implementing the C/CAG TDM Policy is illustrated below. The process is a collaborative one, which relies on frequent data sharing and communications between local jurisdictions, C/CAG, and Commute.org, the latter of which will assist policy administration at the regional level.



Questions about this process can be directed to C/CAG staff via email at support@ccagtdm.org

APPENDIX J: RTP PROJECTS

San Mateo County Projects included in Plan Bay Area 2040

Source: http://projects.planbayarea.org/

rtpId	title	agency	system	mode	What would this project/program do?	By when is this project anticipated to be open?	How much does this project/program cost?	How much of the project/program cost was included in previous plans?	How much of the project/program is covered in the plan period?
17-06-0015	Construct auxiliary lanes (one in each direction) on U.S. 101 from Marsh Road to Embarcadero Road	Caltrans	Street/Highway Facility	Auto	Add northbound and southbound auxiliary lanes.	2015	79	79	0
17-06-0001	Bicycle and Pedestrian Program		Bicycle/Pedestrian Facility	BikePed	Projects in this category are new bicycle (on-street and off-street) and pedestrian facilities, and facilities that connect existing network gaps, including but not limited to new multi-purpose pedestrian/bicycle bridges over US 101 and sidewalk gap closures	On-going through 2040	247	21	226
17-06-0027	Implement supporting infrastructure and Automated Transit Signal Priority to support SamTrans express rapid bus service along El Camino Real	San Mateo County Transit District (SamTrans)	Bicycle/Pedestrian Facility	BikePed	This project will institute necessary infrastructure and Automated Transit Signal Priority necessary to accommodate express rapid bus service along the length of El Camino Real from Palo Alto to Daly City.	2040	1	0	1
17-06-0016	Improve access to and from the west side of Dumbarton Bridge on Route 84 connecting to U.S. 101 per Gateway 2020 Study - Phased	San Mateo City/County Association of Governments (CCAG)	Street/Highway Facility	Auto	Improve access to /from the west side of Dumbarton Bridge (Route 84 connecting to U.S. 101) per Gateway 2020 Study (Phased implementation of short term projects. Environmental phase only for long term projects).	2040	39	3	36
17-06-0009	Improve operations at U.S. 101 near Route 92 - Phased	San Mateo City/County Association of Governments (CCAG)	Street/Highway Facility	Auto	US 101 operational improvements near Route 92. Project may have phased construction.	2025	258	2	256
17-06-0010	Improve U.S. 101/Woodside Road interchange	Redwood City	Street/Highway Facility	Auto	Modifies the Woodside Road Interchange at US 101.	2023	171	7	164
17-06-0008	Add northbound and southbound modified auxiliary lanes and/ or implementation of managed lanes on U.S. 101 from I-380 to San Francisco County line	San Mateo City/County Association of Governments (CCAG)	Street/Highway Facility	Auto	Add northbound and southbound modified auxiliary lanesÂ and/or implementation ofÂ managedÂ lanesÂ on U.S. 101 from I-380Â to San Francisco County line.	2024	222	5	217
17-06-0019	State Route 92-82 (El Camino) Interchange Improvement	San Mateo (City)	Street/Highway Facility	Auto	Widen the existing ramps and reconfigure the existing interchange from a full cloverleaf to a partial cloverleaf. Pedestrian and bicycle improvements would be included as part of the project.	2018	30	25	5
17-06-0012	U.S. 101 Interchange at Peninsula Avenue	San Mateo (City)	Street/Highway Facility	Auto	Construct southbound on and off ramps to US 101 at Peninsula Ave to add on and off ramps from southbound 101.	2023	89	9	80
17-06-0011	US 101 Produce Avenue Interchange	South San Francisco	Street/Highway Facility	Auto	Construct a new interchange on US 101 at Produce Avenue, connecting Utah Avenue on the east side of US 101 to San Mateo Avenue on the west side of US 101. This will allow for reconfiguration of the existing southbound ramps at Produce Ave and Airport Blvd, as well incorporation of the northbound off- and on- ramps at S. Airport Blvd into the interchange design.	2024	146	10	136
17-06-0025	US 101/University Ave. Interchange Improvements	East Palo Alto	Street/Highway Facility	Auto	On University Avenue across US-101, between Woodland Avenue and Donohoe Street; Add bike lanes and sidewalk and modify the NB and SB off-ramps to eliminate pedestrian/bicycle conflicts and improve traffic operations.	2019	11	0	11
17-06-0007	Modify existing lanes on U.S. 101 to accommodate a managed lane	San Mateo City/County Association of Governments (CCAG)	Street/Highway Facility	Auto	Modify existing lanes to accommodate an HOV lane from Whipple to San Francisco County Line and/ or an Express Lane from approximately 2 miles south of the Santa Clara County Line to San Francisco County Line. Work may include shoulder modification, ramp modifications, and interchange modifications to accommodate an extra lane. Work will be phased.	2020	365	15	350
17-06-0034	Construct Route 1 (Calera Parkway) northbound and southbound lanes from Fassler Avenue to Westport Drive in Pacifica	Pacifica	Street/Highway Facility	Auto	The Calera Parkway project will widen Highway 1 from four lanes to six lanes, from approximately 1,500 feet south of Fassler Avenue to approximately 2,300 feet north of Reina Del Mar Avenue, a distance of 1.3 miles, and will add a 16â¸-â¸¢ wide landscaped median between concrete barriers from San Marlo Way to Reina Del Mar Avenue	2021	58	9	49
17-06-0013	Reconstruct U.S. 101/Broadway interchange		Street/Highway Facility	Auto	Reconstructs the US 101/Broadway interchange.	2017	83	83	0
17-06-0024	Reconstruct U.S. 101/Sierra Point Parkway interchange (includes extension of Lagoon Way to U.S. 101)	Brisbane	Street/Highway Facility	Auto	Reconstruct a partial interchange and provide improved access to Brisbane, Bayshore Blvd and proposed Brisbane Baylands project. Lagoon Way extension connects to the reconstructed interchange and provides improved access to Brisbane, Daly City, and the pending 600-acre Brisbane Baylands development.	2030	17	8	9
17-06-0014	Reconstruct U.S. 101/Willow Road interchange	Menlo Park	Street/Highway Facility	Auto	The project proposes to reconstruct the existing US 101/Willow Road (Route 114) Interchange within the existing alignment to a partial cloverleaf interchange. Project includes class I bike paths and class II bike lanes.	2018	80	60	20
17-06-0020	Hwy 1 operational & safety improvements in County Midcoast (acceleration/deceleration lanes; turn lanes; bike lanes; pedestrian crossings; and trails)	San Mateo County	Street/Highway Facility	Auto	Operational and safety improvements for vehicles, bicycles, and pedestrians, along the Highway 1 corridor between Half Moon Bay and Pacifica. This could include acceleration lanes, deceleration lanes, turn lanes, bike lanes, enhanced crossings, and trail network improvements.	2020	29	4	25
17-06-0035	I-280 improvements near D Street exit	Daly City	Street/Highway Facility	Auto	Improve the on and off-ramps and approaches for I-280 near the D Street exit in Daly City	2025	1	0	1
17-06-0023	Route 1 Improvements in Half Moon Bay	Half Moon Bay	Street/Highway Facility	Auto	In Half Moon Bay, On Route 1: Improve safety and reduce congestion by providing protected left and right turn lanes, warranted traffic signals, two through lanes only at signalized intersections, bike lanes, pathways, bus stops, traffic signal interconnects, safety lighting, median and channelization improvements.	2019	19	10	9
17-06-0032	Route 1 San Pedro Creek Bridge Replacement and Creek Widening Project	Pacifica	Street/Highway Facility	Auto	Replace San Pedro Creek Bridge on CA 1 with a longer bridge and widen the creek channel for 100 year storm flow capacity. Provide for a class 1 multi-purpose trail on the eastern side.	2015	14	14	0
17-06-0017	Route 101/Holly St Interchange Access Improvements	San Carlos	Street/Highway Facility	Auto	The proposed project would convert the existing full cloverleaf configuration to a partial cloverleaf design by eliminating two of the existing loop off-ramps of the interchange, and realign the diagonal on- and off-ramps into signalized T-intersections with local streets. A new pedestrian and bicycle over crossing will be constructed in the south side of Holly Street Interchange.	2019	34	1	33

17-06-0037	Widen Millbrae Avenue between Rollins Road and U.S. 101 soutbound on-ramp and resurface intersection of Millbrae Avenue and Rollins Road	Millbrae	Street/Highway Facility	Auto	Widen Millbrae Avenue between Rollins Road and US101 Southbound On Ramp and resurface the intersection of Millbrae Avenue and Rollins Road.	2019	11	0	11
17-06-0033	Widen Route 92 between SR 1 and Pilarcitos Creek alignment, includes widening of travel lanes and shoulders	Half Moon Bay	Street/Highway Facility	Auto	Widens shoulders and travel lanes to standard widths. Straighten curves at few locations.	2025	8	0	8
17-06-0036	Widen Skyline Boulevard (Route 35) to 4-lane roadway from I-280 to Sneath Lane - Phased	San Bruno	Street/Highway Facility	Auto	Widens Skyline Blvd. (SR 35) between I-280 and Sneath Lane. It is currently the last portion of what is otherwise a four lane roadway along Skyline Blvd. The project widens approximately 1.3 miles of the roadway into four lanes.	2021	25	0	25
17-06-0038	Construct a 6-lane arterial from Geneva Avenue/Bayshore Boulevard intersection to U.S. 101/Candlestick Point interchange - Environmental phase	Brisbane	Street/Highway Facility	Auto	Planning and environmental analysis of a 6-lane arterial from the Geneva Avenue at Bayshore Boulevard to 101/Candlestick Interchange. Grade separation at the Caltrain and Tunnel Ave, Class II bike lanes, on-street parking (travel lanes during peak periods), and sidewalks. Sections will be reserved for an exclusive lane BRT facility that connects to the Bayshore Multimodal Station and provides through service to BART Balboa Station.	N/A	17	1	16
17-06-0002	County Safety, Security and Other		Other	Program	Projects in this category address safety and security needs of San Mateo County including county-wide implementation of Safe Routes to School Program	On-going through 2040	41	1	40
17-06-0006	County-wide Intelligent Transportation System (ITS) and Traffic Operation System Improvements	San Mateo City/County Association of Governments (CCAG)	Street/Highway Facility	Auto	Installation of transportation system management improvements such as Intelligent Transportation System (ITS) elements and TOS equipment throughout San Mateo County.	On-going through 2040	93	0	93
17-06-0030	Environmental Clearance and Design of the Redwood City Ferry Terminal and Service	Water Emergency Transportation Authority (WETA)	Public Transit Facility	Transit	Planning and environmental analysis of the construction of a new ferry terminal, purchase of 3 new high-speed ferry vessels, and operation of new ferry service between Redwood City and San Francisco.	N/A	8	0	8
17-06-0021	Environmental Studies for 101/Candlestick Interchange	Brisbane	Street/Highway Facility	Auto	Planning and environmental analysis of the reconstruction of 101/Candlestick Interchange to full all-directional interchange with a single point cross street connection. Project would provide all-direction ramp movements controlled by new signalized intersections at the cross street connections. Interchange would join an improved Harney Way to the east, and would join the Geneva Avenue Extension to the west. Accommodate E/W crossing of planned BRT facility.	N/A	25	5	20
17-06-0039	Grade Separations		Other	Program	This project includes grade separations of the Caltrain right of way at approximately 2 to 3 high priority locations in San Mateo County, including 25th Avenue. This project is based on San Mateo Countyâ€™s Measure A grade separation category.	On-going through 2040	265	5	260
17-06-0004	Minor Roadway Expansions		Street/Highway Facility	Auto	This category includes roadway capacity increasing projects (new roadways, widening or extensions of existing roadways) on minor roads such as Blomquist Street, California Drive, Railroad Avenue, Manor Drive, and Alameda de las Pulgas	On-going through 2040	58	1	57
17-06-0026	Implement incentive programs to support transit-oriented development	San Mateo City/County Association of Governments (CCAG)	Bicycle/Pedestrian Facility	BikePed	Implement an incentive programs to support transit-oriented developments in San Mateo County.	On-going through 2040	106	0	106
17-06-0031	Implement Redwood City Street Car - Planning Phase	Redwood City	Public Transit Facility	Transit	Planning and environmental analysis of Redwood City Street Car Construction and Implementation	N/A	1	0	1
17-06-0018	Improve local access at I-280/I-380 from Sneath Lane to San Bruno Avenue to I-380 - Environmental only	San Bruno	Street/Highway Facility	Auto	Environmental assessment of local access improvements at the existing I-280 / I-380 interchange located in the City of San Bruno. The project would provide access to I-380 from the two main east-west secondary roads of Sneath Lane and San Bruno Avenue.	N/A	32	0	32
17-06-0028	Make incremental increase in SamTrans paratransit service - Phase	San Mateo County Transit District (SamTrans)	Public Transit Facility	Transit	Expansion of curb-to-curb paratransit fleet and service for eligible users, compliant with ADA requirements, based on projected future demand.	On-going through 2040	377	0	377
17-06-0003	Multimodal Streetscape		Bicycle/Pedestrian Facility	BikePed	Projects in this category implement multimodal or complete streets elements, including but not limited to projects along facilities such as El Camino Real, Bay Road, Ralston Avenue, University Avenue, Middlefield Road, Palmetto Avenue, Mission Street, Geneva Avenue, and Carolan Avenue	On-going through 2040	289	14	275
17-06-0005	Roadway Operations		Street/Highway Facility	Auto	County-wide Implementation of non-capacity Increasing local road Intersection modifications and channelization countywide County-wide implementation of local circulation improvements and traffic management programs countywide	On-going through 2040	64	0	64
17-06-0022	Westbound slow vehicle lane on Route 92 between Route 35 and I-280 - Environmental Phase	San Mateo County	Street/Highway Facility	Auto	Planning and environmental analysis of a westbound slow vehicle lane on Route 92 between Route 35 and I-280	N/A	25	0	25
17-06-0029	Add new rolling stock and infrastructure to support SamTrans bus rapid transit along El Camino Real- Phase	San Mateo County Transit District (SamTrans)	Public Transit Facility	Transit	This project will institute new rolling stock and infrastructure necessary to accommodate BRT along El Camino Real	2040	228	0	228
17-06-0040	Extend Blomquist Street over Redwood Creek to East Bayshore and Bair Island Road		Street/Highway Facility	Auto	Redwood City Blomquist Street Extension and Blomquist Bridge over Redwood Creek	2020	28	19	9

APPENDIX K: CHECKLIST FOR MODELING CONSISTENCY

MTC Checklist for Modeling Consistency for CMPs

2011 Submittal

Prepared for City/County Association of Governments of San Mateo County

In cooperation with the Santa Clara Valley Transportation Authority

October 24, 2011

Introduction

The purpose of this document is to provide the checklist of deliverables requested by the Metropolitan Transportation Commission (MTC) to establish that the City/County Association of Governments of San Mateo County (C/CAG) travel demand models apply a regionally consistent model set for the development of travel demand forecasts. The specific checklist of product deliverables was defined by MTC in the *2011 County Congestion Management Plans: Updated MTC Guidance and Review Process Resolution No. 3000, Revised*, Attachment B. The required checklist products are provided in the following sections.

Product 1

Description of the C/CAG Model

The current C/CAG model had its origin in the corridor model developed for the Grand Boulevard Initiative (GBI) Multi-model Corridor Study by the Santa Clara VTA in 2009. The GBI study evaluated the impacts of enhanced transit service (bus rapid transit) and enhanced developed strategies in the El Camino Real corridor to transform an existing auto-oriented commercial transportation corridor into a more transit-oriented, mixed-use transportation corridor. The GBI model was essentially the VTA Countywide model with added zone and network detail to improve upon what was network and zone detail based on the MTC regional models for San Mateo County. The basis for the network and zone refinements applied within San Mateo County was the C/CAG Countywide models originally developed in the mid-1990s.

For the updated C/CAG model development, the GBI model was revised to produce an updated base year 2005 calibration and validation with selected model enhancements. These enhancements included calibration of the auto ownership models to American Community Survey (ACS) 2005 county-level data, addition of bicycle network infrastructure (bike lanes and paths) in the networks, travel time skims, mode choice and bicycle assignments and development of a toll modeling procedure to estimate

express lane vehicle volumes. The model was validated to year 2005 screenline volumes for the AM and PM peak periods and to year 2005 observed transit boardings.

Consistency with MTC Model

As noted previously, the C/CAG model was designed to be consistent with the previous MTC Travel Demand Model forecasting system BAYCAST-90 model. This section provides a general overview of the C/CAG models and also describes several basic modeling characteristics that are shared between the models.

Transportation Analysis Zones (TAZ's) — The current CMP model has a more refined zone system in San Mateo County and Santa Clara County than the MTC regional models. Additional zones were added to more accurately reflect and support the added roadway network and to provide more detail in transit rich corridors and dense central business districts. In all, an additional 156 zones were added in San Mateo County and an additional 1,122 zones were added in Santa Clara County. The new model maintains the use of MTC's zone system in the remaining seven Bay Area counties, but enlarges the full model region and zones to include Santa Cruz, San Benito, Monterey, and San Joaquin Counties.

Highway Network and Transit Network — The roadway network used by the C/CAG model includes additional detail in both San Mateo and Santa Clara Counties. The current CMP model also includes detailed stop, station and route detail in the transit network for San Mateo and Santa Clara Counties, and maintains the MTC roadway and transit networks in the remaining Bay Area counties. The Association of Monterey Bay Area Governments (AMBAG) provided the basis for roadway networks in Monterey, San Benito, and Santa Cruz counties and the San Joaquin County COG provided roadways for San Joaquin County, however, the detailed networks was simplified to match the coarser zone structure in each of those four added counties. Express lane facilities, representing the MTC 'Backbone' express lanes system for 2035, were also coded in the network with a toll facility indicator based on the highway corridor segment and the direction of travel. Differential toll facility codes were required in order to apply specific toll rates to optimize utilization of the express lanes to preserve level-of-service for free carpool users. The C/CAGmodel also includes a representation of the bicycle network infrastructure in the base year and 2035 forecast year for San Mateo, Santa Clara, San Francisco and southern Alameda Counties, explicitly representing existing and future bike lanes and bike paths in travel time development, mode choice and bicycle assignments.

Capacities and Speed — The current C/CAG model incorporates the area type and assignment group classification system published by MTC in BAYCAST-90. Input free-flow speeds for expressways are slightly lower in the C/CAG models to more accurately match the travel time for the expressway segments during model validation and improve the assignment match of estimated to observed expressway volumes.

Trip Purposes — The current C/CAG model uses the same trip purposes used in the BAYCAST-90 model and also uses additional trip purposes not modeled by MTC. C/CAG model trip purposes include the following:

- Home-based work trips
- Home-based shop and other trips
- Home-based social/recreation trips
- Non-home-based trips
- Home-based school: grade school, high school, and college trips
- Light, medium and heavy duty internal to internal zone truck trips

The C/CAG model uses MTC BAYCAST-90 trip generation equations for trip production and trip attraction functions for all trip purposes listed above. In order to address special markets not included in the MTC trip purposes, the C/CAG model includes several additional trip purposes beyond those modeled by MTC, including:

- Air-passenger trips to San Francisco Intenational (SFO) Airport and San Jose/Mineta International Airport (SJC) and
- Light, medium and heavy-duty external truck trips

Market Segments — The C/CAG model adopts the BAYCAST-90 disaggregate travel demand model four income group market segments for the home-based work trip purpose in trip generation, distribution and mode choice. In addition, the C/CAG model also maintains the three workers per household (0, 1 and 2+ workers) and three auto ownership markets (0, 1 and 2+ autos owned) used in the MTC worker/auto ownership models. Trips by peak and off-peak time period are also stratified in the trip distribution, mode choice and highway and transit assignment models.

External Trips — The C/CAG model uses a different approach for incorporating inter-regional commuting estimates than MTC. For external zones coincident with the MTC model, MTC interregional vehicle volumes were applied for base year 2000 and adjusted to the future by assuming a 1 percent growth rate per year. For external gateways from San Joaquin County and Santa Cruz, Monterey and San Benito Counties, the incorporation of those counties as internal modeled areas obviated the development of external vehicle volumes for those areas of the C/CAG models.

Pricing — The C/CAG model uses MTC pricing assumptions for transit fares, bridge tolls, parking charges, and auto operating costs as assumed in the current MTC Regional Transportation Plan (RTP) and Sustainable Community Strategies (SCS) update. All prices are expressed in year 1990 dollar values in the models. The C/CAG model also uses regional express lane toll charges for the AM and PM peak periods that are based on optimizing the level-of-service in the carpool lanes. Depending on the level of utilization, these toll charges would vary by direction, time of day and by specific corridor.

Auto Ownership — The current C/CAG model applies BAYCAST-90 for auto ownership models to estimate the number of households with 0, 1, and 2+ autos by four income groups in each traffic analysis zone. Walk to transit accessibility measures were incorporated in the auto ownership models consistent with MTC BAYCAST-90 to more logically associate low auto ownership households with transit services. The auto ownership models were recently calibrated to the 2005-2009 American Community Survey to match workers per household and auto ownership by county.

Mode Choice — The mode choice models for BAYCAST-90 include the use of nested structures for most trip purposes, however, explicit estimation of nested structures to consider transit submodes were not included in the model specification.[1] The C/CAG model adds a nesting structure for transit submodes of local bus, express bus, Bus Rapid Transit (BRT), light rail, heavy rail and commuter rail underneath the MTC BAYCAST-90 nested structures. Consistent with the BAYCAST-90, mode choice coefficients are preserved by constraining the model to the BAYCAST-90 parameters, except those in transit submode structure.[2] The C/CAG model includes a transit submode nest for Bus Rapid Transit (BRT), which is an emerging transit technology in the region. Submode constants for BRT were developed from a market analysis and state preference survey that compared the relative tradeoffs between bus, light rail and hypothetical BRT service. The resulting BRT constants were between the calibrated submode constants applied to local bus service and light rail service, implying that BRT service is perceived as more attractive than local bus service, but not as attractive as light rail service.

Peak Hour and Peak Periods for Highway Assignments —The highway assignments produce AM and PM peak hour volumes, AM and PM peak period volumes (5 AM to 9 AM and 3 PM to 7 PM, respectively – each coincident with the time periods of operation for carpool lanes), midday volumes (9 AM to 3 PM) and evening volumes (7 PM to 5 AM). The four time period volumes are then added together to develop daily vehicle volumes.

Vehicle and Transit Assignments — The current C/CAG model incorporates a methodology analogous to the MTC "layered," equilibrium assignment process, which distinguishes standard mixed-flow lanes from high-occupancy-vehicle (HOV) lanes. The equilibrium assignment process used in the current CMP model is functionally equivalent to the MTC methodology. The C/CAG model includes additional vehicle classes in the highway assignments for park-and-ride vehicles and drive-alone and carpool toll vehicles.

Drive-alone and carpool toll vehicles for AM and PM peak periods are estimated using a toll model post-processor that estimates toll volumes based on a comparison of the non-toll and toll travel times and costs. This procedure assumes that toll choice occurs after the decision to choose auto versus transit has already been considered, and therefore does not influence transit mode choice. A toll choice constant for drive-alone and carpool modes was developed based on a calibration of toll volumes estimated by application of the toll model to the I-680 Express Lane facility and comparison of estimated to observed express lane volumes. It should be noted that by 2035, in order to maintain the operational feasibility of implementing regional express toll lanes, it was assumed that only 3+ occupant carpools

[1] A nested structure partitions the alternatives into groups (nests) of similarity. The groups can be further generalized into subgroups (subnests) and so on, which has the form of an inversed tree.

would be allowed to travel in the carpool lanes for free. This was assumed for all carpool facilities in the C/CAG model region.

In the current CMP model, transit passengers are assigned with a methodology analogous to that used by MTC, with separate assignments for each transit submode and access mode. Assignments are also performed separately for peak and off-peak conditions. A total of eighteen separate transit assignments are run to cover the full combination of transit submode and access modes as well as to estimate transit ridership for air-passengers and external home-based work transit trips from the San Joaquin (ACE, BART and San Joaquin SMART bus) and AMBAG (Caltrain and Monterey Express) model regions.

Model Validation with 2005 Traffic and Transit Volumes — The current C/CAG model is validated to year 2005 traffic volumes for county-level screenlines and specific major transportation facilities. Two time periods are validated for county screenlines: AM peak period (5 AM to 9 AM) and PM peak period (3 PM to 7 PM). Peak hour validation was performed for US 101 and SR 82 (El Camino Real) using traffic counts provided by Caltrans. Daily transit boardings were validated for the year 2005 at the system level for major regional transit operators (Caltrain, BART, MUNI, VTA and AC Transit) and at the route level for SamTrans express and local routes.

Product 2

Description of Demographic Forecasts

The C/CAG model uses the Association of Bay Area Governments (ABAG) Projections 2009 data series for the base year 2005 and the ABAG Current Regional Plans scenario as the basis for the 2035 long-range forecasts for San Mateo County, as provided by MTC at the MTC 1454 zone level. The MTC zone level allocations were sub-allocated to the smaller C/CAG zones (including finer zones for both San Mateo and Santa Clara Counties) based on local development information and parcel level data. As such, the C/CAG socioeconomic data inputs are consistent at both the MTC zone level and the ABAG census tract level, however, slight differences do exist in San Mateo and Santa Clara Counties due to rounding errors resulting from the allocation process. Key ABAG land use variables used in the San Mateo C/CAG models do not differ by more than one percent at the county level for any of the 9 MTC region counties. No differences exist at the census tract level outside of San Mateo and Santa Clara Counties for any of the remaining MTC counties.

Product 3

ABAG County-Level Estimates for Population, Households, Jobs, and Employed Residents Year 2005, Current Regional Plans (v 0.1)

ABAG Projections 2009

County	Population	Households	Jobs	Employed Residents
San Francisco	795,792	338,923	553,073	388,097
San Mateo	721,890	260,066	337,344	318,599
Santa Clara	1,762,986	595,720	872,820	733,989
Alameda	1,505,308	543,776	730,264	705,906
Contra Costa	1,023,390	368,323	379,021	459,606
Solano	421,600	142,039	150,513	194,903
Napa	133,695	49,256	70,690	64,102
Sonoma	479,203	181,786	220,442	237,700
Marin	252,605	103,188	135,473	122,204
Bay Area	7,096,469	2,583,077	3,449,640	3,225,106

San Mateo C/CAG Trip-based Models

County	Population	Households	Jobs	Employed Residents
San Francisco	795,792	338,923	553,073	388,097
San Mateo	721,900	260,072	337,313	319,235
Santa Clara	1,762,957	595,716	872,248	733,965
Alameda	1,505,308	543,776	730,264	705,906
Contra Costa	1,023,390	368,323	379,021	459,606
Solano	421,600	142,039	150,514	194,903
Napa	133,695	49,256	70,690	64,102
Sonoma	479,203	181,786	220,442	237,700
Marin	252,605	103,188	135,473	122,204
Bay Area	7,096,450	2,583,079	3,449,038	3,225,718

Percent Difference

County	Population	Households	Jobs	Employed Residents
San Francisco	0.00%	0.00%	0.00%	0.00%
San Mateo	0.00%	0.00%	-0.01%	0.20%
Santa Clara	0.00%	0.00%	-0.07%	0.00%
Alameda	0.00%	0.00%	0.00%	0.00%
Contra Costa	0.00%	0.00%	0.00%	0.00%
Solano	0.00%	0.00%	0.00%	0.00%
Napa	0.00%	0.00%	0.00%	0.00%
Sonoma	0.00%	0.00%	0.00%	0.00%
Marin	0.00%	0.00%	0.00%	0.00%
Bay Area	0.00%	0.00%	-0.02%	0.02%

Product 3, continued

ABAG County-Level Estimates for Population, Households, Jobs, and Employed Residents Year 2035, Current Regional Plans (v 0.1)

MTC Tour-based Models

County	Population	Households	Jobs	Employed Residents
San Francisco	980,071	417,997	698,793	472,195
San Mateo	893,067	322,624	442,850	392,101
Santa Clara	2,433,531	827,254	1,212,948	1,054,001
Alameda	1,958,248	705,343	906,300	963,499
Contra Costa	1,323,390	480,474	469,462	603,803
Solano	504,331	171,284	173,057	220,100
Napa	148,517	54,642	86,961	71,000
Sonoma	572,443	212,784	262,078	258,396
Marin	269,179	110,673	147,872	102,999
Bay Area	9,082,777	3,303,075	4,400,321	4,138,094

San Mateo C/CAG Trip-based Models

County	Population	Households	Jobs	Employed Residents
San Francisco	980,071	417,997	698,793	472,195
San Mateo	893,066	322,620	442,858	392,097
Santa Clara	2,433,551	827,261	1,212,959	1,054,016
Alameda	1,958,248	705,343	906,300	963,499
Contra Costa	1,323,390	480,474	469,462	603,803
Solano	504,331	171,284	173,057	220,100
Napa	148,517	54,642	86,961	71,000
Sonoma	572,443	212,784	262,078	258,396
Marin	269,179	110,673	147,872	102,999
Bay Area	9,082,796	3,303,078	4,400,340	4,138,105

Percent Difference

County	Population	Households	Jobs	Employed Residents
San Francisco	0.00%	0.00%	0.00%	0.00%
San Mateo	0.00%	0.00%	0.00%	0.00%
Santa Clara	0.00%	0.00%	0.00%	0.00%
Alameda	0.00%	0.00%	0.00%	0.00%
Contra Costa	0.00%	0.00%	0.00%	0.00%
Solano	0.00%	0.00%	0.00%	0.00%
Napa	0.00%	0.00%	0.00%	0.00%
Sonoma	0.00%	0.00%	0.00%	0.00%
Marin	0.00%	0.00%	0.00%	0.00%
Bay Area	0.00%	0.00%	0.00%	0.00%

Product 4

Identification of Differences between CMA and ABAG Census Tract Level

C/CAG socioeconomic data inputs are consistent at both the MTC zone level and the ABAG census tract level for the Current Regional Plans scenario for the year 2035. The MTC zone level data was provided by MTC subsequent to a meeting of the Regional Model Working Group [3]. Data at the MTC zone level in San Mateo and Santa Clara Counties was allocated to the smaller San Mateo C/CAG model zones using local land use development patterns, however, MTC zone level, and by default ABAG census-tract level, control totals were preserved in the allocation process.

[3] Provided by email from MTC to the Regional Model Working Group members on March 25, 2011.

Product 5

Region-Level Auto Operating Cost, Key Transit Fares and Bridge Tolls Year 2035, Current Regional Plans (v 0.1)

MTC Tour-based Models

Pricing Assumption	2035 Value in 2000 dollars	2035 Value in 2010 dollars
Auto Operating Cost per Mile	$0.222	$0.280
Bridge Tolls	Toll schedule starting July 1, 2012	Toll schedule starting July 1, 2012
Transit Fares	---	---
Muni Local Bus	$1.606	$2.000
AC Transit Local Bus	$1.606	$2.000
VTA Local Bus	$1.606	$2.000
SamTrans Local Bus	$1.606	$2.000

San Mateo C/CAG Trip-based Models

Pricing Assumption	2035 Value in 2000 dollars[4]	2035 Value in 2010 dollars[5]
Auto Operating Cost per Mile [6]	$0.24	$0.30
Bridge Tolls	Toll schedule starting July 1, 2010	Toll schedule starting July 1, 2010
Transit Fares	---	---
Muni Local Bus	$1.55	$1.97
AC Transit Local Bus	$1.55	$1.97
VTA Local Bus	$1.55	$1.97
SamTrans Local Bus	$1.55	$1.97

[4] Source for Inflation Rates : http://www.bls.gov/data/inflation_calculator.htm

[5] Source for Inflation Rates : http://www.bls.gov/data/inflation_calculator.htm

[6] Source: *Plan/Bay Area: Technical Summary of Predicted Traveler Responses to First Round Scenarios, Technical Report*, Metropolitan Transportation Commission, March 22, 2011, p.14.

Product 6

Highway Network and Transit Network — The roadway network used by the San Mateo C/CAG model includes additional detail in both San Mateo and Santa Clara Counties. The current CMP model also includes detailed stop, station and route detail in the transit network for San Mateo and Santa Clara Counties, and maintains the MTC roadway and transit networks in the remaining Bay Area counties. The Association of Monterey Bay Area Governments (AMBAG) provided the basis for roadway networks in Monterey, San Benito, and Santa Cruz counties and the San Joaquin County COG provided roadways for San Joaquin County, however, the detailed networks was simplified to match the coarser zone structure in each of those four added counties. Express lane facilities, representing the MTC 'Backbone' express lanes system for 2035, were also coded in the network with a toll facility indicator based on the highway corridor segment and the direction of travel. Differential toll facility codes were required in order to apply specific toll rates to optimize utilization of the express lanes to preserve level-of-service for free carpool users.

For model consistency reporting purposes, the San Mateo C/CAG models assume committed project as defined in the MTC 2035 Regional Transportation Plan in San Mateo County and all other counties, with the exception that HOV lanes are assumed on US 101 from Whipple Road north the San Mateo/San Francisco County line by conversion of the auxiliary lanes. The 2035 forecasts produced by the San Mateo C/CAG models also assumes that only 3+ person carpools are allowed to travel in the carpool lanes without a charge for the entire model region. The C/CAG model includes a representation of the bicycle network infrastructure in the base year and 2035 forecast year for San Mateo, Santa Clara, San Francisco and southern Alameda Counties, explicitly representing existing and future bike lanes and bike paths in travel time development, mode choice and bicycle assignments.

Product 7
Households by Number of Automobiles, by County
Year 2035, Current Regional Plans (v 0.1)

MTC Tour-based Models

County	Zero	One	Two +	Total	Zero	One	Two +	Total
San Francisco	132,684	192,192	116,364	441,240	30.1%	43.6%	26.4%	100.0%
San Mateo	18,812	116,608	198,216	333,636	5.6%	35.0%	59.4%	100.0%
Santa Clara	62,264	268,396	528,788	859,448	7.2%	31.2%	61.5%	100.0%
Alameda	86,828	235,696	415,844	738,368	11.8%	31.9%	56.3%	100.0%
Contra Costa	19,860	153,448	317,904	491,212	4.0%	31.2%	64.7%	100.0%
Solano	10,868	50,216	121,300	182,384	6.0%	27.5%	66.5%	100.0%
Napa	4,044	19,240	37,200	60,484	6.7%	31.8%	61.5%	100.0%
Sonoma	14,996	68,860	146,316	230,172	6.5%	29.9%	63.6%	100.0%
Marin	6,992	43,332	72,116	122,440	5.7%	35.4%	58.9%	100.0%
ALL	357,348	1,147,988	1,954,048	3,459,384	10.3%	33.2%	56.5%	100.0%

San Mateo C/CAG Trip-based Models

County	Zero	One	Two +	Total	Zero	One	Two +	Total
San Francisco	130,076	170,563	117,323	417,962	31.1%	40.8%	28.1%	100.0%
San Mateo	25,297	113,422	183,777	322,496	7.8%	35.2%	57.0%	100.0%
Santa Clara	73,775	250,650	501,913	826,338	8.9%	30.3%	60.7%	100.0%
Alameda	116,722	257,910	330,664	705,296	16.5%	36.6%	46.9%	100.0%
Contra Costa	33,991	159,328	287,157	480,476	7.1%	33.2%	59.8%	100.0%
Solano	8,270	49,035	113,991	171,296	4.8%	28.6%	66.5%	100.0%
Napa	2,771	17,703	34,167	54,641	5.1%	32.4%	62.5%	100.0%
Sonoma	13,600	75,388	123,801	212,789	6.4%	35.4%	58.2%	100.0%
Marin	5,004	41,293	64,354	110,651	4.5%	37.3%	58.2%	100.0%
ALL	409,506	1,135,292	1,757,147	3,301,945	12.4%	34.4%	53.2%	100.0%

Product 8
Number of Trips by Tour Purpose
Year 2035, Current Regional Plans (v 0.1)

MTC Tour-based Models

Purpose	Tour-based	Share
Work	9,095,396	30.2%
University	674,228	2.2%
School	3,182,584	10.6%
At-Work	2,146,148	7.1%
Eat Out	1,269,852	4.2%
Escort	2,878,708	9.6%
Shopping	4,323,304	14.3%
Social	921,024	3.1%
Other	5,650,824	18.7%
ALL	30,142,068	100.0%

San Mateo C/CAG Trip-based Models

Purpose	Trip-based	Share
Home-based Work	6,257,144	23.3%
Home-based Shopping/Other	7,481,587	27.9%
Home-based Social-Recreational	3,211,923	12.0%
Non-home-based	7,417,766	27.7%
Home-based College	576,940	2.2%
Home-based High School	558,042	2.1%
Home-based Elementary School	1,316,026	4.9%
ALL	26,819,428	100.0%

Product 9
Average Trip Distance by Tour Purpose
Year 2035, Current Regional Plans (v 0.1)

MTC Tour-based Models

Tour Purpose	Average Trip Distance, Miles
Work	10.40
University	6.84
School	3.96
At-Work	3.35
Eat Out	5.42
Escort	4.34
Shopping	4.20
Social	4.87
Other	5.00
All	6.25

San Mateo C/CAG Trip-based Models

Trip Purpose	Average Trip Distance, Miles
Home-based Work	12.80
Home-based Shopping/Other	6.91
Home-based Social-Recreational	7.45
Non-home-based	6.75
Home-based College	10.52
Home-based High School	4.85
Home-based Elementary School	4.06
ALL	8.20

Product 10
Journey to Work, County-to-County Usual Workplace
Year 2035, Current Regional Plans (v 0.1)

MTC Tour-based Models

Origin County	San Francisco	San Mateo	Santa Clara	Alameda	Contra Costa	Solano	Napa	Sonoma	Marin	All
San Francisco	358,844	55,696	5,884	31,312	7,080	708	312	1,112	12,428	473,376
San Mateo	82,972	206,644	63,104	29,564	4,416	324	156	516	5,152	392,848
Santa Clara	12,508	57,712	915,460	71,272	4,960	196	80	72	780	1,063,040
Alameda	119,536	70,684	130,732	558,332	68,668	3,272	1,240	1,068	12,576	966,108
Contra Costa	64,288	16,448	17,164	139,560	315,164	18,848	5,512	2,596	19,012	598,592
Solano	11,408	2,212	1,108	15,512	31,900	126,024	17,728	5,572	8,060	219,524
Napa	2,020	484	176	2,556	4,408	7,428	44,116	7,844	3,104	72,136
Sonoma	4,948	1,204	212	1,844	1,988	2,196	8,172	215,416	20,828	256,808
Marin	20,756	3,992	512	6,240	4,676	1,052	872	6,544	58,796	103,440
Bay Area	677,280	415,076	1,134,352	856,192	443,260	160,048	78,188	240,740	140,736	4,145,872

San Mateo C/CAG Trip-based Models

Origin County	San Francisco	San Mateo	Santa Clara	Alameda	Contra Costa	Solano	Napa	Sonoma	Marin	All
San Francisco	352,045	48,851	17,360	22,807	6,088	716	578	2,434	11,508	462,387
San Mateo	86,314	229,097	52,114	21,146	2,910	721	194	1,824	2,254	396,574
Santa Clara	18,879	61,803	934,384	58,247	6,404	2,571	580	4,993	2,925	1,090,785
Alameda	124,842	60,321	93,259	605,272	60,016	6,869	1,618	6,525	14,239	972,960
Contra Costa	63,679	9,479	14,024	110,362	354,358	16,113	4,175	3,790	20,254	596,234
Solano	10,779	2,117	1,626	11,086	24,916	134,855	13,836	5,871	7,383	212,470
Napa	1,202	333	249	929	1,827	5,091	55,957	4,167	1,279	71,035
Sonoma	5,443	738	745	1,210	1,368	1,676	2,897	220,959	20,267	255,302
Marin	20,699	1,661	552	2,765	2,208	587	389	4,570	68,789	102,220
Bay Area	683,882	414,400	1,114,313	833,823	460,095	169,199	80,225	255,133	148,897	4,159,967

Product 11
Region-Level Mode Share by Tour Purpose
Year 2035, Current Regional Plans (v 0.1)

MTC Tour-based Models

Tour Purpose	Automobile	Walk	Bicycle	Transit	All Modes
Work	81.8%	5.3%	1.5%	11.3%	100.0%
University	63.7%	13.8%	1.3%	21.2%	100.0%
School	69.6%	20.7%	1.6%	8.1%	100.0%
At-Work	69.4%	29.3%	0.7%	0.6%	100.0%
Eat Out	81.1%	15.4%	1.3%	2.3%	100.0%
Escort	93.8%	5.7%	0.3%	0.2%	100.0%
Shopping	87.0%	10.0%	1.1%	2.0%	100.0%
Social	78.7%	15.8%	1.7%	3.8%	100.0%
Other	85.6%	10.2%	1.5%	2.7%	100.0%
All Purposes	81.7%	11.2%	1.3%	5.8%	100.0%

San Mateo C/CAG Trip-based Models

Trip Purpose	Automobile	Walk	Bicycle	Transit	All Modes
Home-based Work	83.5%	3.4%	1.3%	11.8%	100.0%
Home-based Shopping/Other	84.1%	9.9%	0.7%	5.3%	100.0%
Home-based Social-Recreational	81.2%	10.7%	3.6%	4.5%	100.0%
Non-home-based	82.5%	12.9%	0.9%	3.7%	100.0%
Home-based College	66.6%	9.3%	5.3%	18.8%	100.0%
Home-based High School	55.5%	21.4%	4.4%	18.7%	100.0%
Home-based Grade School	52.9%	31.2%	6.3%	9.6%	100.0%
All Purposes	80.7%	12.5%	1.7%	5.1%	100.0%

Product 12
Region-Level VMT and VHT by Facility Type and Time Period
Year 2035, Current Regional Plans (v 0.1)

MTC Tour-based Models

VMT

	Facility Type					
Time Period	Freeways	Expressways	Major Arterials	Collectors	Other	All Facilities
Early AM (3 a.m. - 6 a.m.)	5,504,092	544,464	1,158,156	381,730	354,247	7,942,689
AM Peak (6 a.m. - 10 a.m.)	26,675,579	2,918,973	9,919,154	3,048,868	3,437,135	45,999,709
Midday (10 a.m. - 3 p.m.)	26,067,097	3,063,934	10,925,935	3,047,571	4,407,032	47,511,570
PM Peak (3 p.m. - 7 p.m.)	28,630,722	3,380,237	12,261,677	3,558,105	4,461,626	52,292,367
Evening (7 p.m. - 3 a.m.)	17,572,988	1,820,157	5,900,622	1,744,592	2,237,126	29,275,485
Daily	104,450,478	11,727,765	40,165,545	11,780,866	14,897,167	183,021,820

VHT

	Facility Type					
Time Period	Freeways	Expressways	Major Arterials	Collectors	Other	All Facilities
Early AM (3 a.m. - 6 a.m.)	90,089	11,137	34,596	13,125	22,837	171,784
AM Peak (6 a.m. - 10 a.m.)	565,113	69,017	331,877	119,925	208,660	1,294,591
Midday (10 a.m. - 3 p.m.)	461,465	65,853	357,347	118,317	254,178	1,257,160
PM Peak (3 p.m. - 7 p.m.)	600,243	80,725	419,721	147,321	256,638	1,504,646
Evening (7 p.m. - 3 a.m.)	294,320	37,677	183,263	61,581	129,425	706,267
Daily	2,011,229	264,408	1,326,803	460,269	871,738	4,934,448

San Mateo C/CAG Trip-based Models

VMT

	Facility Type					
Time Period	Freeways	Expressways	Major Arterials	Collectors	Other	All Facilities
AM Peak (5 a.m. - 9 a.m.)	23,254,078	2,296,635	7,889,177	1,803,260	4,748,694	39,991,844
Midday (9 a.m. - 3 p.m.)	33,882,129	2,808,072	9,945,821	2,488,415	7,186,680	56,311,117
PM Peak (3 p.m. - 7 p.m.)	28,035,161	3,460,308	12,253,081	3,003,551	6,555,756	53,307,857
Evening (7 p.m. - 5 a.m.)	21,284,834	1,507,476	4,050,705	1,024,120	1,024,120	28,891,255
Daily	106,456,202	10,072,491	34,138,784	8,319,346	19,515,250	178,502,073

VHT

	Facility Type					
Time Period	Freeways	Expressways	Major Arterials	Collectors	Other	All Facilities
AM Peak (5 a.m. - 9 a.m.)	557,271	77,891	294,386	100,785	195,611	1,225,944
Midday (9 a.m. - 3 p.m.)	655,232	86,735	369,138	141,306	292,117	1,544,528
PM Peak (3 p.m. - 7 p.m.)	812,268	127,094	524,676	199,404	284,232	1,947,674
Evening (7 p.m. - 5 a.m.)	345,015	41,581	139,328	44,753	129,816	700,493
Daily	2,369,786	333,301	1,327,528	486,248	901,776	5,418,639

Product 13
Region-Level Average Speed (VMT/VHT) by Facility Type and Time Period
Year 2035, Current Regional Plans (v 0.1)

MTC Tour-based Models

	Facility Type		
Time Period	Freeways	All Other Facilities	All Facilities
Early AM (3 a.m. - 6 a.m.)	61.1	29.9	46.2
AM Peak (6 a.m. - 10 a.m.)	47.2	26.5	35.5
Midday (10 a.m. - 3 p.m.)	56.5	27.0	37.8
PM Peak (3 p.m. - 7 p.m.)	47.7	26.2	34.8
Evening (7 p.m. - 3 a.m.)	59.7	28.4	41.5
Daily	51.9	26.9	37.1

San Mateo C/CAG Trip-based Models

	Facility Type		
Time Period	Freeways	All Other Facilities	All Facilities
AM Peak (5 a.m. - 9 a.m.)	41.7	25.0	32.6
Midday (9 a.m. - 3 p.m.)	51.7	25.2	36.5
PM Peak (3 p.m. - 7 p.m.)	34.5	22.3	27.4
Evening (7 p.m. - 5 a.m.)	61.7	21.4	41.2
Daily	44.9	23.6	32.9

APPENDIX L: TRAFFIC IMPACT ANALYSIS POLICY

C/CAG

CITY/COUNTY ASSOCIATION OF GOVERNMENTS
OF SAN MATEO COUNTY

Atherton • Belmont • Brisbane • Burlingame • Colma • Daly City • East Palo Alto • Foster City • Half Moon Bay • Hillsborough • Menlo Park
Millbrae • Pacifica • Portola Valley • Redwood City • San Bruno • San Carlos • San Mateo • San Mateo County • South San Francisco • Woodside

Policy on Traffic Impact Analysis (TIA) To Determine Traffic Impacts on the Congestion Management Program (CMP) Roadway Network Resulting From Roadway Changes, General Plan Updates, and Land Use Development Projects

August 10, 2006

Section I
INTRODUCTION

As the Congestion Management Agency for San Mateo County, C/CAG is responsible for maintaining the performance and standards of the Congestion Management Program (CMP) roadway network. The CMP roadway network is of countywide significance, and their performance must be preserved.

Traffic Impact Analysis (TIA) is the term used in the study of the expected effects of projects and land use decisions on transportation facilities. The study's purpose is to determine whether the transportation system can accommodate the traffic generated by the projects or land use decisions. And to help decision makers to make improvements needed to the roadways, bike routes, sidewalks, and transit services affected by the project. This helps decision makers determine whether to approve the project and what conditions to impose on the project.

This document includes the following sections:

- Section I: Introduction
- Section II: Definition & Purpose
- Section III: Policy
    1. Roadway Modification Projects
    2. General Plan and Specific Plans
    3. Land Use Development Projects
- Section IV: Scope and Parameters of Traffic Impact Analysis
- Section V: Definition of CMP Impact

Section II
DEFINITION & PURPOSE

Definition

This document states policy and establishes procedures to determine cumulative capacity impacts on the CMP roadway network (impacts on the quality of traffic services) from the following three types of projects:

1. **Roadway modification projects**:
   a. Projects that change the traffic capacity of CMP roadway.
   b. Projects near the CMP roadway and impact the CMP roadway network.
2. **General Plan and Specific Plans**.
   a. New General Plan or General Plan updates which include land use changes that would cause an impact on the CMP roadway network.
   b. Specific Plans, Specific Area Plans, Precise Plans, which include land use changes that would cause an impact on the CMP roadway network.
3. **Land use development project**.

Purpose

The purpose of this policy is to ensure uniform procedures for performing Traffic Impact Analysis to evaluate impacts on the CMP roadway resulting from land use and project decisions in San Mateo County.

The intent of this policy is to preserve acceptable performance on the CMP roadway network, and to establish community standards for consistent system-wide transportation review. Preservation of CMP roadway and intersection performance will require an evaluation of the near and long term impacts of General Plan updates**,** land use development proposals, as well as proposed roadway modifications that will either reduce the capacity of the CMP network, or cause additional traffic on the CMP network.

It is not intended that the Traffic Impact Analysis guided by this document will provide all information required for California Environmental Quality Act (CEQA) purposes. Traffic impact analysis to determine traffic impacts on the CMP network may be conducted as part of the CEQA process.

This policy will be reviewed and integrated into the 2007 Congestion Management Program for San Mateo County. It will be reviewed subsequently in two years.

Section III
POLICY

This policy provides an avenue to assess the cumulative traffic impacts on the Congestion Management (CMP) roadway network, of General Plan decisions made by local jurisdictions. It provides direction to local jurisdictions on how to analyze CMP traffic impacts resulting from roadway changes or land use decisions, determine feasible and appropriate mitigations.

Land use development proposals and proposed roadway modifications must be consistent with the jurisdiction's adopted General Plan, unless the proposal is to be amended into the General Plan before final approval by the jurisdiction. Local jurisdictions must evaluate traffic impacts of proposed revisions to their jurisdiction-wide General Plans and Specific Area Plans on the CMP network.

1. Roadway Modification Projects

Project sponsor, in consultation with C/CAG staff, shall determine if a roadway modification project on or near a CMP roadway will have potential near-term and long-term traffic impacts on the CMP roadway network. Section 4, *Scope and Parameters of Traffic Impact Analysis*, and more specifically the definition of impacts in Section 5, *Definition of CMP Impacts* should be used in developing initial thresholds (e.g. change in intersection or lane volumes) to determine significant traffic impacts on a CMP roadway.

If initial assessment indicates that significant traffic impact on the CMP network may result from the proposed project, its sponsor must conduct traffic impact analysis consistent with this policy to determine traffic impacts on the CMP roadway system. Moreover, a travel demand forecasting model must be used to determine long-term traffic impacts if the project is to modify the CMP roadway. See "Travel Demand Forecasting" requirements below. For near term analysis, if the travel demand forecasting model does not provide the level of detail desired, then the use of manual assignment models, micro-simulation models or other tools to provide a more detailed and informative analysis of a roadway project is acceptable.

Mitigation:

Proposed roadway changes to the CMP roadway that are determined to have a CMP traffic impacts for current or future years cannot be considered in conformity with the Congestion Management Program unless mitigated to no CMP impact. This mandatory mitigation requirement applies only to roadway projects on the CMP network. More latitude is provided for mitigating impacts to the CMP network that result from local land use decisions as described in sections 2 and 3 of this policy.

CMP traffic impacts could be mitigated through modifications of the proposed project. The level of service analysis or simulation can often be used to identify elements of the project that, if modified, will reduce the project impacts.

Mitigation measures may also include roadway improvements, operational changes, or a provision for alternate routes. For example, adding a turn lane at the intersection, modifying or eliminating on street parking may improve travel times. All mitigation measures shall first be discussed with and reviewed by C/CAG staff.

This policy does not prohibit a local jurisdiction from mitigating impacts on local streets that result from congestion on a CMP roadway.

2. General Plan and Specific Plans

Project sponsor, in consultation with C/CAG staff, shall determine if a General Plan change or a Specific Plan will have potential traffic impacts on the Congestion Management Program (CMP) roadway network. Jurisdictions must conduct travel demand forecasting and traffic impact analysis to determine long term cumulative traffic impacts on the CMP roadway system. See "Travel Demand Forecasting" requirements below. For scope and parameters of traffic impact analysis, see Section 4. For definition of traffic impacts on the CMP system, see Section 5. If a jurisdiction makes small and incremental amendments to its General Plan to include land use changes, and that each individual land use change would not have CMP traffic impact, then flexibility is provided that the travel demand forecasting model needs to be run every two years to account for the cumulative list of projects and site specific General Plan changes.

Mitigation:
General Plan updates or Specific Plans that are determined to have CMP traffic impacts must consult C/CAG staff to identify feasible mitigations.

Cumulative development traffic impacts identified in the evaluation of a jurisdiction may be mitigated in a variety of ways. Clearly, revising the allowable land use intensities is the most direct way to mitigate traffic impacts to the CMP network. However, it is recognized that this may not be consistent with the jurisdiction's economic development plans. As alternatives, the jurisdiction may adopt a trip reduction policy that requires new development to make measurable reductions in their trip generation. These trip reduction requirements should be incorporated in the standard Conditions of Approval. The local jurisdiction should also implement a plan to monitor or sample actual trip generation to ensure that the trip reduction conditions are being met following project occupancy. Alternatively, jurisdictions may elect to provide capital improvements to reduce the traffic impact of cumulative development. To be viable, this type of mitigation must include a reliable funding mechanism such as a traffic mitigation fee program that includes, at a minimum, partial funding for the impacted CMP roadways. Where the impact is on the freeway system it will usually not be feasible to fully fund a needed improvement through a local fee. However, the fee program should provide a minimum of funding that would meet likely local share requirements, if approved by the jurisdiction.

All mitigation measures shall first be discussed with and reviewed by C/CAG staff before they are included in the report.

3. Land Use Development Projects

Project sponsor shall comply with the "Land Use Impact Analysis Program" guidelines in the latest Congestion Management Program (CMP) for San Mateo County. Project sponsors shall consult C/CAG staff regarding land use development projects that are determined to have traffic impacts on the CMP roadway network.

Mitigations:

Adopted General Plan trip reduction requirements should ultimately be implemented at the project level through Conditions of Approval. As with the General Plan mitigations, the trip reduction program should include a plan for monitoring trip generation and procedures to determine if established targets are met or exceeded. The option to reduce the intensity of a project to eliminate significant impacts to the CMP network should also be considered. If physical mitigation is desired, the jurisdiction should determine whether the project can and should be required to construct the mitigation project or whether funding the project's pro rata share is appropriate, and paid to the jurisdiction.

Travel Demand Forecasting Requirements

It is the intent of this policy that the cumulative traffic impacts to the CMP roadway system be evaluated consistently throughout the County. Toward this end, the C/CAG Countywide Travel Demand Forecasting Model must be used to forecast traffic demand for the analysis of the long-term cumulative traffic impacts of CMP roadway modification projects, General Plan updates, and Specific Area Plans.

Long Term Cumulative Analysis

The long-term cumulative analysis must be based on C/CAG or C/CAG derivative model forecasts. C/CAG will periodically update the model to provide travel demand forecasts under a 15 to 20 year planning horizon. This does not, necessarily require individual cumulative model runs for each land use development project. For example, a project that is consistent with the City's existing General Plan may not require a new model run. Previous General Plan consistent model results can be used. The alternative methods used for near term analysis or individual development projects as described in the next section may be used to modify the existing model results to illustrate conditions with and without the proposed project. If alternative methods are used to modify cumulative model forecasts, comparison must be made with long-range C/CAG model forecasts to ensure consistency. This type of minor adjustments to the C/CAG model results is permitted for individual land use development projects or minor changes to an existing General Plan. However new C/CAG model runs are required at least every two years[1], for

1 The biennial update of the C/CAG model runs can be postponed until they are needed for the analysis of a

Specific Plans and for major General Plan updates. Updating the C/CAG model runs is necessary to ensure that the cumulative impacts both within each jurisdiction as well as from neighboring jurisdictions are represented in the model results.

A C/CAG derivative model that is consistent with the C/CAG model may also be used; however, it must be reviewed and approved by C/CAG staff in advance. Derivative models must be updated periodically to maintain a 15 to 20 year planning horizon. Approval of a C/CAG derivative model includes the demonstration to C/CAG staff that the model yields similar output as the C/CAG model given the same input assumptions. In addition, the land use assumptions and transportation network assumptions incorporated in a C/CAG derivative model must be consistent with the most recent C/CAG model in order to be eligible for consideration. The C/CAG Countywide Travel Demand Forecasting Model runs must be reviewed by C/CAG. C/CAG may hire its travel demand model consultant to conduct the review, and costs incurred will be borne by the project sponsor.

Near Term Analysis

The use of C/CAG Countywide Travel Forecasting Model or a C/CAG derivative model is not mandatory for near term analysis of projects. The use of methodologies that are widely accepted by the traffic engineering profession such as applying established growth factors to existing traffic volumes, manual assignment models (e.g. TRAFFIX) are also allowable for these analysis scenarios. However, alternative methods for near term impact or individual development project analysis do not replace the requirement for a long-term cumulative impact analysis consistent with this Traffic Impact Analysis Policy.

C/CAG Review for Conformance

For roadway modification projects, C/CAG staff shall review for consistency with this Traffic Impact Analysis (TIA) policy and determine conformity with the Congestion Management Program (CMP).

For General Plan updates, Specific Plans, and land use development projects, C/CAG staff shall review TIA reports for consistency with this TIA policy. This review shall not constitute approval or disapproval of the project that is the subject of the report. C/CAG does not have the authority to approve or reject projects. That decision rests with the lead agency. However, the CMP establishes community standards and guidelines for consistent system-wide transportation review and provides comments to the lead agency on the TIA report based on staff review. Compliance with the Congestion Management Program may be enforced through the withholding of apportionments under Section 2105 of the Streets & Highways Code as well as declaring a local agency ineligible for future transportation funds.

development, planning or CMP roadway project. Therefore, in communities with limited development activity, the two-year-old model runs need only be updated when there is a land use or roadway project to be analyzed.

Section IV
SCOPE AND PARAMETERS FOR TRAFFIC IMPACT ANALYSIS (TIA)

Project sponsors must initiate consultation between the lead agency, C/CAG, Caltrans (if applicable), and those preparing the Traffic Impact Analysis (TIA) before commencing work on the study to establish the appropriate traffic impact analysis scope. At a minimum, the TIA should include the following:

A. Boundaries of the TIA

The boundaries of a TIA must not only include the immediate project area but also areas outside of the project area that may be impacted by the project. For example, the boundaries of an arterial segment, for analysis purposes, may be defined as at least one signalized intersection beyond the project limits on either end. If modification to a segment between intersections will affect the up-stream or down-stream intersection, then average travel time or average travel speed for a segment covering the up- and down-stream intersections must be analyzed.

Boundaries of a TIA must be agreed upon by the lead agency and C/CAG before commencing work on the analysis. Consultation with Caltrans is recommended, if applicable. However, if the project proposes to change a State owned facility, then the boundaries of analysis must be agreed upon by Caltrans as well.

B. Traffic Analysis Scenarios

Consultation between the lead agency, C/CAG, Caltrans (if applicable), and those preparing the TIA is recommended to determine the appropriate scenarios for the analysis. The following scenarios should be addressed as a minimum:

- Existing background condition (includes already approved developments and roadway network changes)
- Existing condition plus Project
- Future (15^2 to 20 year horizon) background without Project (no-build)
- Future (20 year horizon) background condition plus project

C. Analysis Period

Consultation between the lead agency, C/CAG, Caltrans (if applicable), and those preparing the TIA is recommended to determine the appropriate analysis periods. The TIA shall include, at a minimum, an analysis of transportation conditions in the AM and PM peak hours.

---

2 20-year Model forecasts are assumed to be updated every 5 years so forecast horizon may be as short as 15 years.

D. Facilities To Be Included In the Analysis

1. A CMP intersection shall be included in a TIA if it is expected to be impacted by the proposed project.
2. A non-CMP intersection that is along a CMP segment shall be included in a TIA if it is expected to be impacted by the proposed project.
3. A freeway segment shall be included in a TIA if it is expected to be impacted by the proposed project.
4. A CMP arterial segment shall be included in a TIA if it is expected to be impacted by the proposed project.

E. Report Format

Traffic Impact Analysis reports must present findings for the various analysis scenarios and analysis periods as described above in the following units of measurement:

Intersections:	LOS and delay time
Freeway segments:	LOS and volume-to-capacity ratio
Arterial segments:	LOS and average travel speed

Section V
DEFINITION OF CMP IMPACT

A project is considered to have a CMP impact if it causes one or more of the following:

1. **CMP Intersection currently in compliance with the adopted LOS standard**:

   A. A project will be considered to have a CMP impact if the project will cause the CMP intersection to operate at a level of service that violates the standard adopted in the current Congestion Management Program (CMP).

   B. A project will be considered to have a CMP impact if the cumulative analysis indicates that the combination of the proposed project and future cumulative traffic demand will result in the CMP intersection to operate at a level of service that violates the standard adopted in the current Congestion Management Program (CMP) and the proposed project increases average control delay at the intersection by four (4) seconds or more.

2. **CMP Intersection currently not in compliance with the adopted LOS standard**:

   A project is considered to have a CMP impact if the project will add any additional traffic to the CMP intersection that is currently not in compliance with its adopted level of service standard as established in the CMP.

3. Freeway segments [3] currently in compliance with the adopted LOS standard:

   A. A project is considered to have a CMP impact if the project will cause the freeway segment to operate at a level of service that violates the standard adopted in the current Congestion Management Program (CMP).

   B. A project will be considered to have a CMP impact if the cumulative analysis indicates that the combination of the proposed project and future cumulative traffic demand will result in the freeway segment to operate at a level of service that violates the standard adopted in the current Congestion Management Program (CMP) and the proposed project increases traffic demand on the freeway segment by an amount equal to one (1) percent or more of the segment capacity, or causes the freeway segment volume-to-capacity (v/c) ratio to increase by one (1) percent.

4 Freeway segments currently not in compliance with the adopted LOS standard:

   A project is considered to have a CMP impact if the project will add traffic demand equal to one (1) percent or more of the segment capacity or causes the freeway segment volume-to-capacity (v/c) ratio to increase by one (1) percent, if the freeway segment is

3 Freeway segments are as defined in the Congestion Management Program Monitoring Program and are directional.

currently not in compliance with the adopted LOS standard.

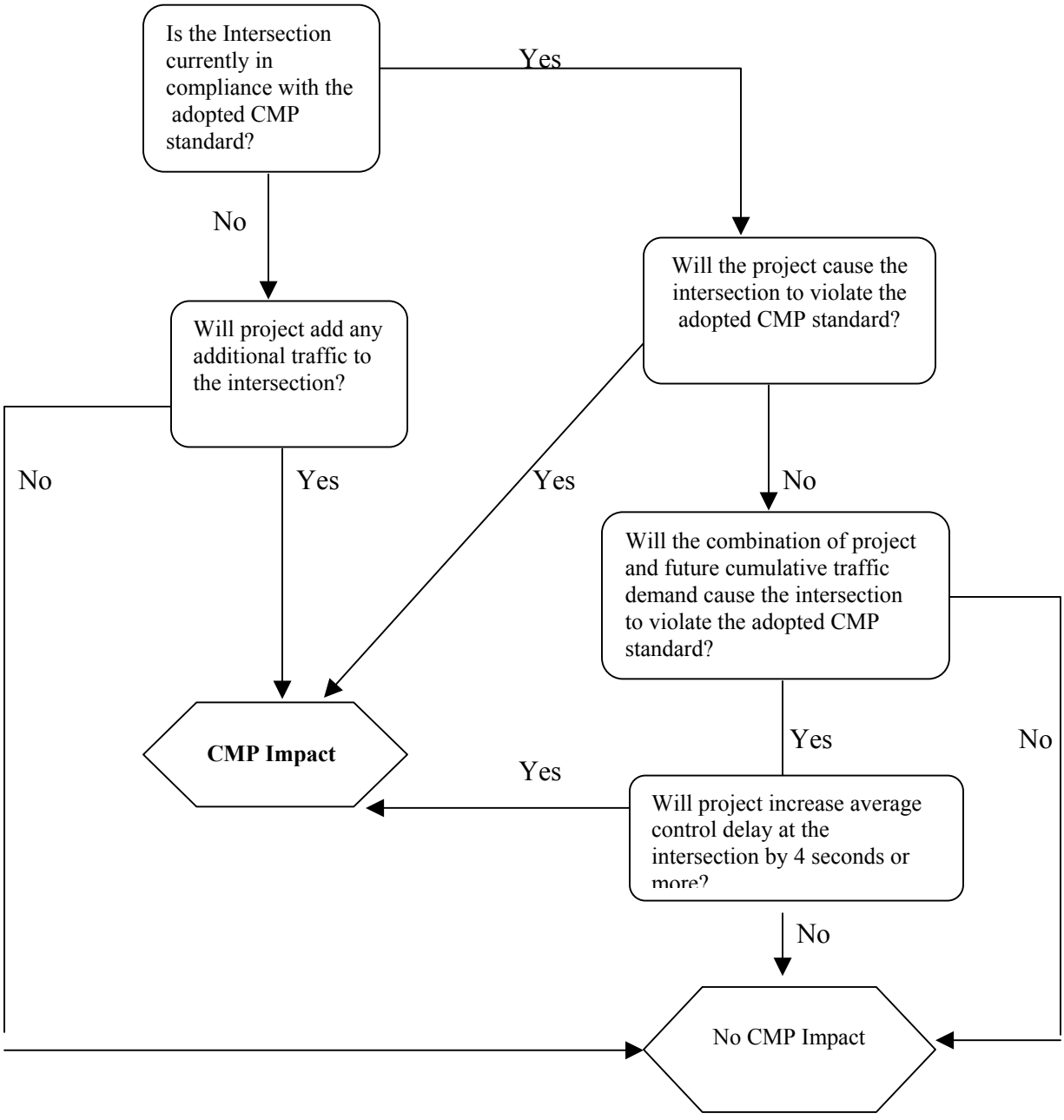
5 CMP Arterial Segments:

The analysis of arterial segments is only required when a jurisdiction proposes to reduce the capacity of a CMP designated arterial through reduction in the number of lanes, adding or modifying on-street parking, or other actions that will affect arterial segment performance.

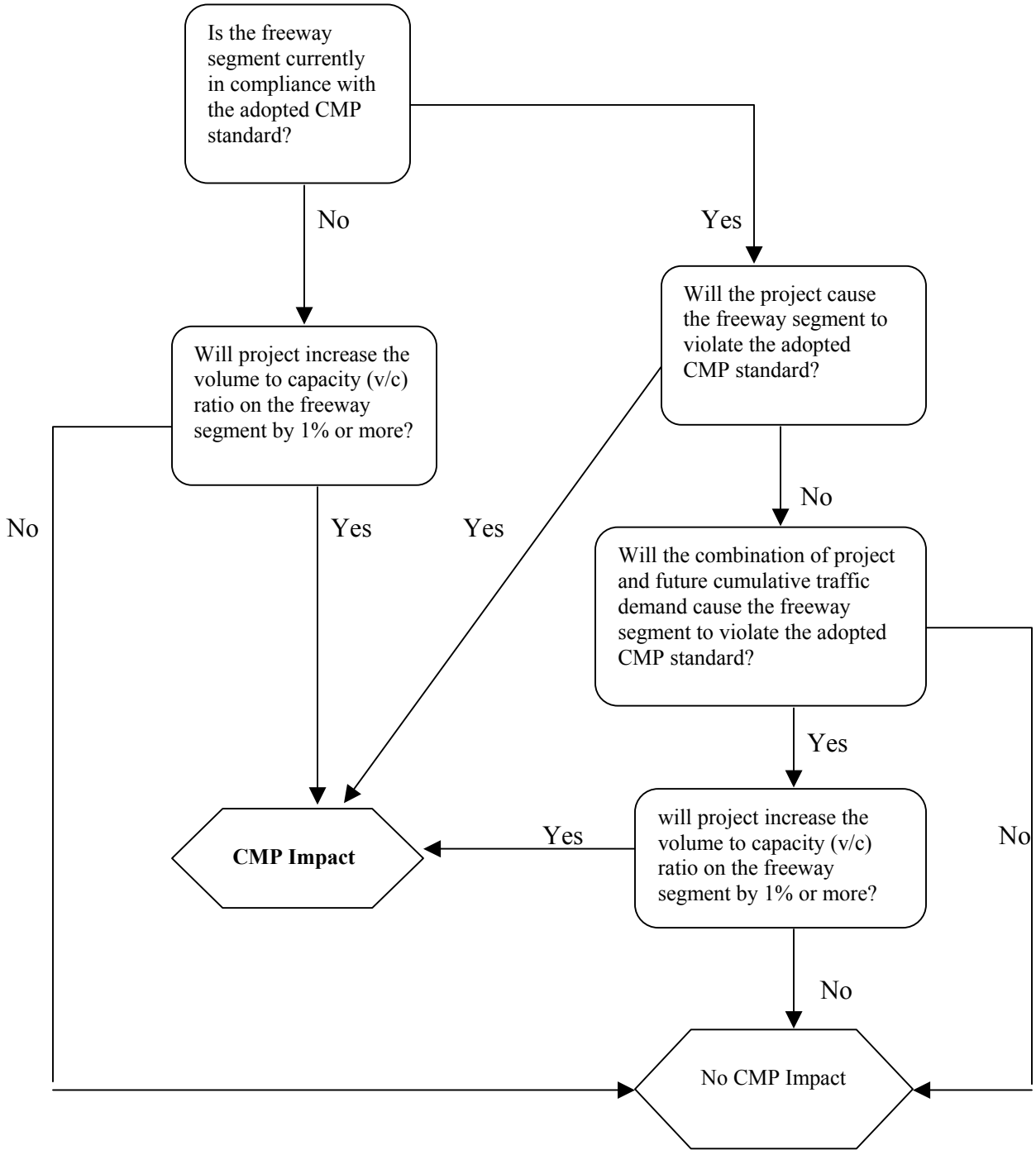
A project is considered to have a CMP impact if it causes mid-block queuing, parking maneuver resulting in delays or other impacts that result in any segment intersection to operate at a level of service that violates the adopted LOS standard set for the nearest CMP intersection.

Analysis of the segment using a calibrated micro-simulation model may be required by C/CAG staff to evaluate non-intersection impacts of the proposed project. CMP impact is determined if, based on the micro-simulation model, the average travel speed for the arterial segment is reduced by 4 miles per hour (mph) or more. Segments with average speeds that indicate LOS E or worse (based on Exhibit 15-2, HCM2000) cannot be modified by local jurisdictions if the proposed modifications would further reduce travel speeds on the segment.

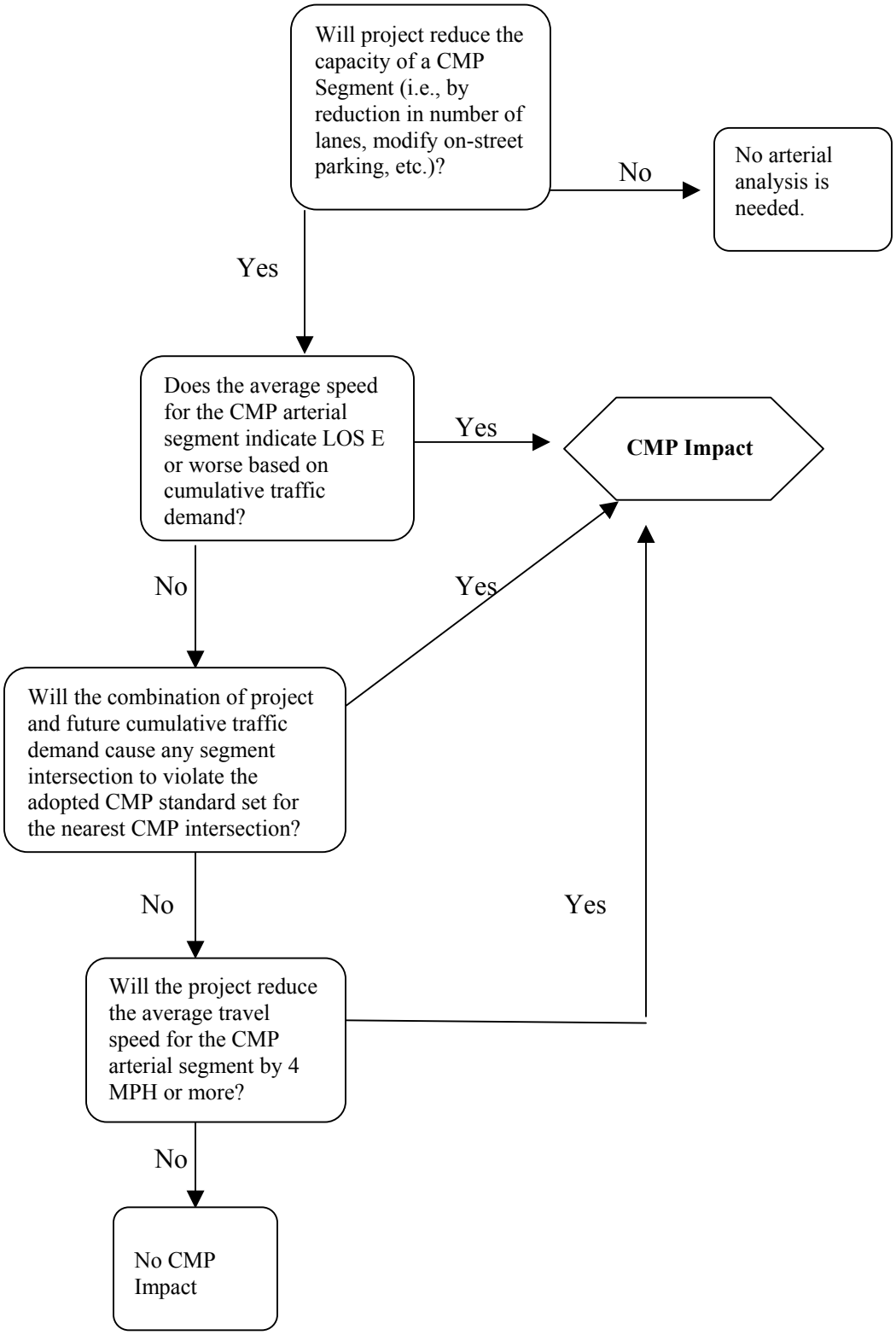
To determine CMP impact on a CMP Intersection



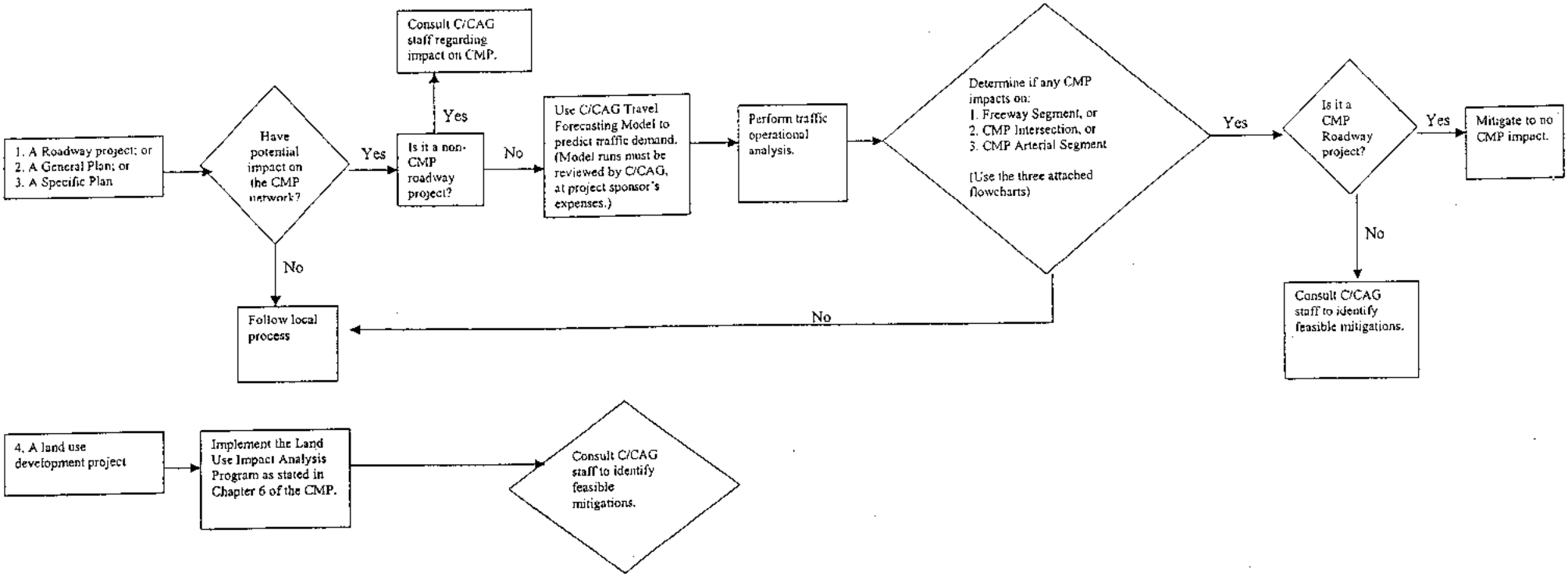
To determine CMP impact on a Freeway Segment



To determine CMP impact on Arterial Segment



Flow chart for traffic impacts on the congestion management program (CMP) roadway network



APPENDIX M: MEASURE M IMPLEMENTATION PLAN

Modernizing Measure M

Implementation Plan and Strategic Guidance

Fiscal Years 2021/22 to 2025/26

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

Modernizing Measure M

Implementation Plan and Strategic Guidance

Fiscal Years 2021/22 to 2025/26

Cover photo © County of San Mateo

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A. Measure M Performance Assessment

B. Best Practice Review

0

Executive Summary

Executive Summary

The Measure M program was approved by San Mateo County voters in 2010 to support local transportation projects and programs aimed at maintaining safe and clean roads, reducing congestion, and improving air quality.

The **Strategy** section of the Plan outlines goals, objectives, and formal recommendations to modernize the Measure M program through its next five years of operation. The Plan also includes an updated **Implementation Plan**, which lists the allocation percentages for funding recipients, and provides specific guidance on eligibility, and performance measures.

Methodology

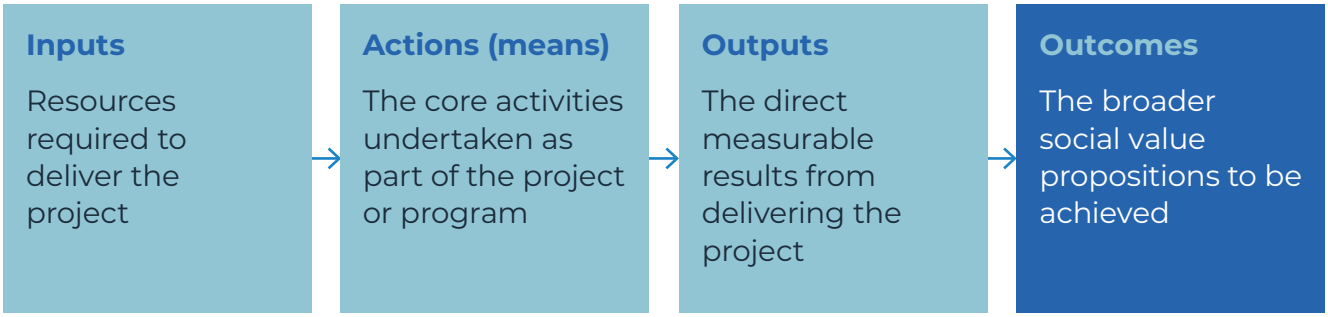
Development of the Measure M Strategic and Implementation Plan began with a comprehensive performance assessment of the current program; followed with forward planning, and goal setting with program partners and stakeholders; and finally concluded with a review of best practices nationwide. The Plan development process is described in more detail below:

Performance Assessment
The performance assessment included stakeholder input through interviews and a survey of each jurisdiction, as well as a detailed review of allocation and expenditure data for each Measure M funded program from inception to Fiscal Year 2019/20. The analysis found that flexibility for funding recipients and the ability to use Measure M to leverage additional funding are strengths of the program. The assessment also found that the program could benefit from standardized data collection practices to aid in future planning exercises and evaluation of program impacts.

Goal and Objective Setting
Stakeholder discussions and a representative group of funding recipients helped to set goals and objectives for the Measure M program. Each program established goals that are demonstrated through a Logic Framework, outlining the inputs, actions, outputs, and outcomes that should be achieved in the Fiscal Years 2021/22-2025/26 Implementation Plan period. The Logic Framework model is a useful tool to guide planning and support funding recipients in collecting data that can be used to clearly indicate success and identify challenges for consideration in future plans.

Best Practices
The Plan also benefited from lessons learned from local and national agencies whose programs were studied through a best practices review. The review provided guidance for innovation and efficient program delivery that can be adopted by C/CAG and Measure M funding recipients.

Figure 0-1. Logic Framework



Strategic Plan Outcome

Vision

The Plan provides recommendations for the Measure M program and its funding recipients to be implemented in the next five years. Recommendations aim to further the "Modernizing Measure M" Vision Statement, which was developed through program review and discussions with C/CAG staff, stakeholders, and partners:

To improve mobility and reduce water pollution in San Mateo County through flexible, innovative, efficient, insight-driven and accountable program delivery.

Recommendations

The Vision Statement is pillared by five Guiding Principles, which frame each of the recommendations. Recommendations have been set for Measure M, targeting program administration, programming, evaluation, and funding allocation.

Guiding principles:

Flexible Planning

- Continued flexibility in approved funding uses
- Expand fund usage guidance for Local Streets and Roads recipients

Accountable Monitoring and Evaluation

- Require annual reporting through streamlined template
- Publish online dashboard to communicate program information

Innovative Programming

- Repurpose unused admin funds for innovative Countywide Program pilots
- Encourage innovation among Countywide Program operators
- Support knowledge sharing across funding recipients

Insight-driven Decision Making

- Standardize evaluation framework for each funding recipient
- Review countywide program allocation based on updated need
- Develop longer term structure that considers impact in allocation decisions

Efficient Operation

- Transition to online reporting
- Streamline back-end budget systems

Allocation and Action Plans

The Modernizing Measure M Plan outlines a set of recommendations, actions and targets for each of the programs receiving Measure M funding. This set of actions is intended to guide planning, evaluation, and future decision making in support of an impactful and effective program.

The Local Streets and Roads allocation is recommended to stay the same at 50% of the net Measure M revenues. The allocation between local jurisdictions is recommended to continue utilizing a distribution formula consisting of 50% population and 50% road miles for each jurisdiction. The formula is modified to guarantee each jurisdiction a minimum amount of $75,000.

The Countywide Programs allocation is recommended to be revised using guidance from a needs-based allocation model, which considers a quantitative review of historic revenue to identify how valuable Measure M is within each program's overall funding situations, and a qualitative look at future risk and programmatic need. This is the first step towards building a comprehensive allocation framework. As C/CAG collects more programmatic data and performance metrics, the goal is to add an impact-based component to the next framework to enable successful and impactful funding distribution.

The recommended Countywide Program allocation distribution are outlined in **Table 0-1**.

Next Steps and Strategic Plan Use

C/CAG will use the recommended actions outlined in the Strategic and Implementation Plan to continue improving the Measure M program and its operation. Funding recipients will use the Implementation Plan to identify their programs' funding allocations, confirm allowable uses for their funding, and report on progress toward their stated goals and objectives.

Table 0-1. Countywide Program Funding Allocation Recommendations

Countywide Program	FY 2010/11-2020/21 Allocation	FY 2021/22-2025/26 Allocation
Transit Operations/ Senior Mobility	22%	18%
Technology/ Smart Corridor	10%	11%
Safe Routes to School	6%	6%
Stormwater(NPDES/MRP)	12%	15%

1

Introduction

Strategic and Implementation Plan Purpose

The Measure M program was approved by San Mateo County voters in 2010 to support local transportation projects and programs aimed at maintaining safe and clean roads, reducing congestion, and improving air quality. Measure M imposes an annual fee of $10 on motor vehicles registered in San Mateo County. It is estimated that over $6.7 million in revenues would be collected annually and $167 million total over the 25-year period between May 2011 and May 2036. Every five years, City/County Association of Governments of San Mateo County (hereafter referred to as 'C/CAG') develops a 5-Year Implementation Plan, to be approved by the C/CAG Board. The Implementation Plan designates approved projects and programs to receive Measure M funding throughout the next 5-year period. The most recent Implementation Plan was published in May 2016 for the Fiscal Years 2016/17-2020/21 period. C/CAG determined the need to develop a Strategic and Implementation Plan, covering Fiscal Years 2021/22-2025/26.

Steer has been commissioned by C/CAG to develop a current programs status report, identify program needs and priorities, make recommendations on resource needs and investment priorities, and outline performance measures that can indicate program progress, both on an annual basis and at the end of a five-year period. This Strategic and Implementation Plan is structured as follows:

Chapter 1

Introduction introduces Measure M and this Plan, in addition to describing the methodology and work completed to develop the Plan. This chapter further describes the concept of a Logic Framework and how it will be used to evaluate and support Measure M strategic planning moving forward.

Chapter 2

Strategy outlines strategies spanning five categories that are recommended for implementation over the next five years to improve the efficiency and impact of the Measure M Program. This chapter also discusses the process of reviewing the Countywide Transportation Program allocation distribution.

Chapter 3

Implementation Plan includes the Fiscal Years 2021/22-2025/26 five-Year Implementation Plan which outlines funding allocation and allowable uses for Measure M funds through the Local Streets and Roads program and Countywide Transportation Programs.

Chapter 4

Conclusion provides a high-level summary of key recommendations for the Measure M program over the next five years, through application of the Logic Framework.

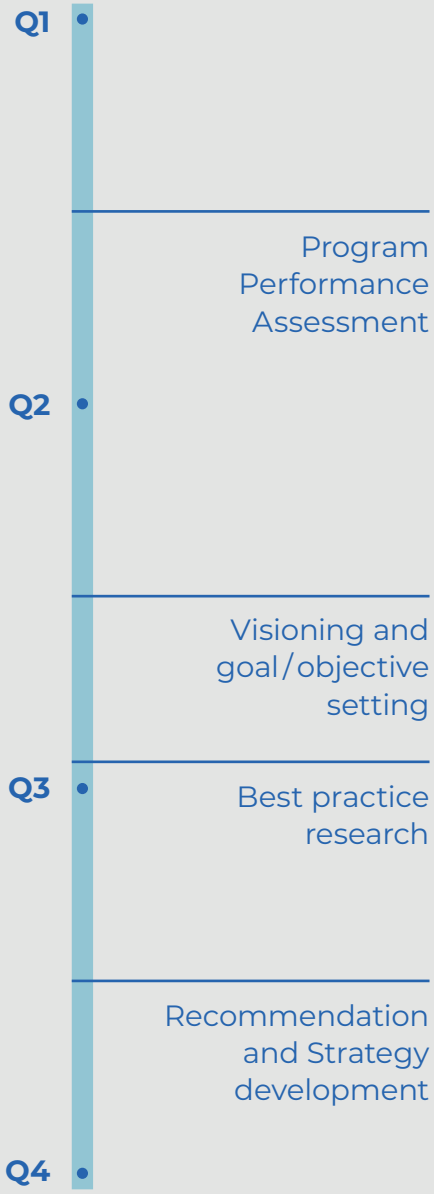
Plan Development

Overview

The project team, consisting of representatives from C/CAG and Steer, began work on the Plan in summer 2020.

The process began with a comprehensive review of the current Measure M program through a Performance Assessment (using data available up until October 2020). The findings are documented at Appendix A, **Performance Assessment Memorandum**. This process involved analyzing financial data and performance data from each funding recipient. Additionally, the team conducted extensive stakeholder outreach to understand from funding recipients which elements of the Measure M program worked well, and which might need to be reviewed. This was done through a survey completed by all Local Streets and Roads funding recipients, follow up interviews with some jurisdictions, individual interviews with Countywide Transportation Program managers, and presentations and receipt of feedback from C/CAG's Congestion Management Program Technical Advisory Committee (TAC), Congestion Management and Environmental Quality Committee (CMEQ) and Board of Directors. There are a total of six key findings, with the first three indicating program strengths and the second three indicating gaps or challenges.

Figure 1-1. Measure M Strategic Plan Project Timeline



Main themes:

1. **Funding flexibility** allows program managers to adapt to changing circumstances and needs. It allows program managers to put Measure M funds toward their most effective use on a year by year basis.

2. Measure M funding **supports the intended outcomes/goals of each program**, while there are opportunities to expand impact over the next five years.

3. Measure M funding **creates opportunities** that can unlock or be combined with other funding sources to enable larger projects and programs.

4. **Standardizing performance indicators** would more comprehensively demonstrate value of the Measure M program to the public.

5. **Data management practices** could improve to better trace the impact of Measure M funding.

6. **Reporting and invoicing processes** could be augmented to support timely data collection and demonstration of impact.

These themes were used as the basis for the development of the Strategic and Implementation Plan.

Following the initial Performance Assessment, the project team and Measure M stakeholders set goals, objectives and key performance indicators (KPIs) to support program planning and future post implementation evaluation. The Vision and Goals Memorandum identified vision, goals and objectives for Measure M. The results of that memo are outlined in the chapters below.

The project team then undertook a case study review of county-level funding programs across North America to gain knowledge on their implementation and allocation strategies. The team applied a 'lessons learned' approach to provide relevant recommendations for the Measure M program. The Best Practices Memorandum is attached in Appendix B.

Vision and Guiding Principles

The Vision Statement was developed to guide the development of the Strategic and Implementation Plan. This vision was used to develop goals (described in the following narrative), and to structure the recommendations contained within this Plan. This statement has been developed throughout the course of the project and agreed between the project team and Measure M stakeholders.

Modernizing Measure M vision:

To improve mobility and reduce water pollution in San Mateo County through flexible, innovative, efficient, insight-driven and accountable program delivery.

After multiple workshops with the project team and Measure M stakeholders, as well as presentations to C/CAG Board and Committees, the following emerged as guiding principles that have shaped the strategic recommendations. “Modernizing Measure M” means continued and expanded:

- Flexible planning
- Innovative programming
- Efficient operation
- Monitoring and evaluation, and
- Insight-driven decision making

Goals; Objectives; Performance Measures

In the context of Measure M, a goal is defined as the aspirational direction(s) for a project program or policy, which are set at the onset of a strategy to guide its development. The goals developed for the Measure M Strategic and Implementation Plan represent intangible and non-measurable intents of the Measure M program overall. Each goal is tied to one of its designated funds-receiving programs as outlined in **Table 1-1**.

Table 1-1. Goal for each Measure M Program

Measure M Program	Goal
Administration	Support vehicle registration fee program participants/payers through Measure M program operation.
Local Streets and Roads	Improve and maintain local streets and roads through activities related to congestion management and stormwater pollution prevention.
Transit Operations/ Senior Mobility	Increase access to mobility options, including for seniors and disabled populations.
Safe Routes to School	Diversify travel mode share and reduce private car travel among students and parents.
Regional Traffic Congestion Management (Technology/ Smart Corridor)	Reduce traffic congestion and improve network efficiency.
Stormwater (NPDES/MRP)	Reduce countywide stormwater pollution.

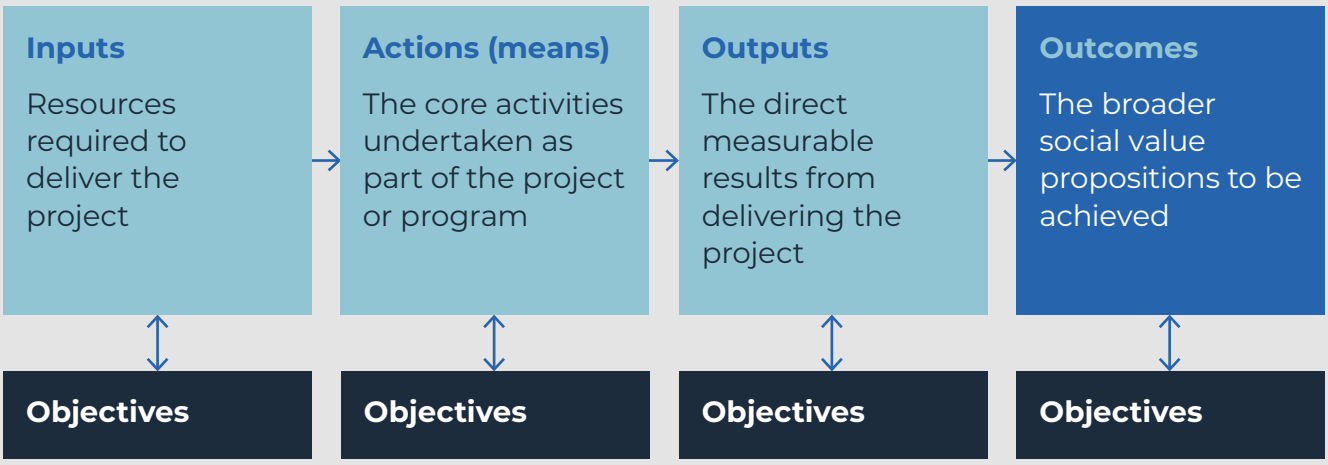
Logic Framework

The project team applied a **Logic Framework** to the Performance Assessment, by highlighting strengths and weaknesses in demonstrating the program's impact toward its intended goals and outcomes. The same tool was then applied to the development of the new **objectives** and **performance measures**, by helping to identify those that help best demonstrate that impact. The Logic Framework is utilized at this stage to articulate direction for the Strategy and Implementation Plan.

In applying the Logic Framework, we ask four questions of Measure M and the programs it funds:

- What **inputs** are required to implement those actions?
- What **actions** must be taken in order to be able to measure outputs/outcomes?
- What measurement **outputs** can be recorded in order to communicate overall success of the program?
- What are the project or program's desired goals and how can they be measured or estimated as program **outcomes**?

Figure 1-2. **Logic Framework**

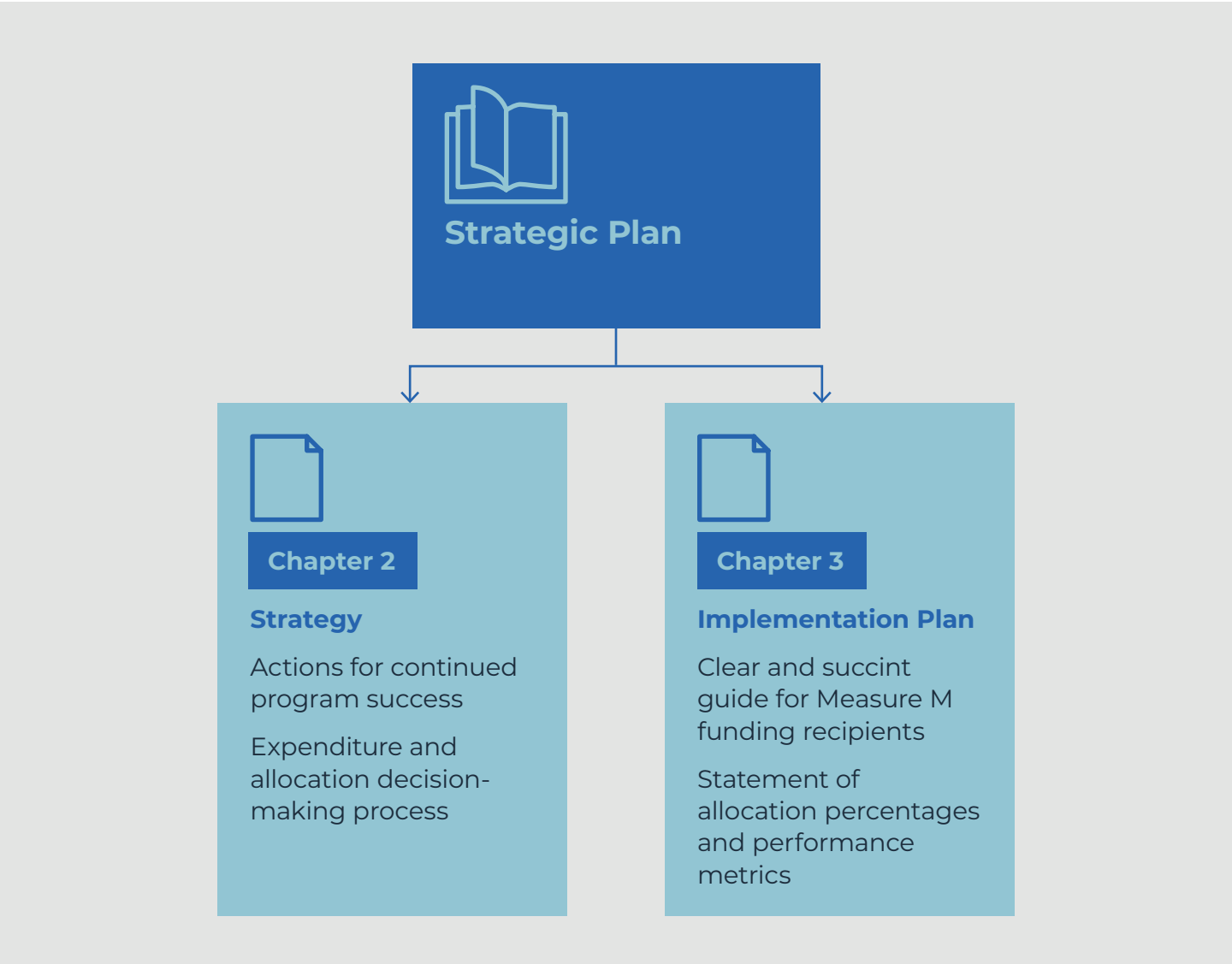


Objectives: *A* ***measurable*** *and* ***time bound*** *indicator used to set performance standards for each element of a strategy – these are set out for each element of the logic framework.*

Strategic Plan Elements

This document, the **Strategic and Implementation Plan**, consists of two major elements, as outlined in **Figure 1-3**. The Strategy identifies actions for C/CAG to take moving forward, and outlines the reasoning behind funding and allocation recommendations. The **Implementation Plan** guides funding recipients by outlining their allocation and defining their objectives for the next five years.

Figure 1-3. Strategic Plan Elements



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Strategy

Overview

This chapter defines the range of actions C/CAG will take to augment the Measure M program over the next five years. These strategic actions respond to lessons learned and future opportunities identified by the consultant team, C/CAG staff, and strategic partners. Combined, these actions are intended to:

- Advance the "Modernizing Measure M" vision over the next five years;
- Update procedures, practices, and operations to respond to a changing external context;
- Leverage new approaches to program delivery; and
- Support the continued positive impact of the Measure M program.

Guiding Principles

These actions are categorized based on the vision's Guiding Principles:

Flexible Planning All Measure M funding recipients are allowed to use funds for a wide range of uses; C/CAG wants to maintain that flexibility as they plan for the future of the program.

Innovative Programming Measure M funds can be spent on a variety of uses, therefore C/CAG wants to encourage and prioritize funding to be used toward innovative projects and programs (specifically focused on pilots and knowledge sharing opportunities).

Efficient Operation C/CAG wants to continue to maintain and administer the Measure M program efficiently, making the best use of administrative time and simplifying communication between C/CAG and partners.

Monitoring and Evaluation C/CAG wants to understand ongoing impact of the Measure M program.

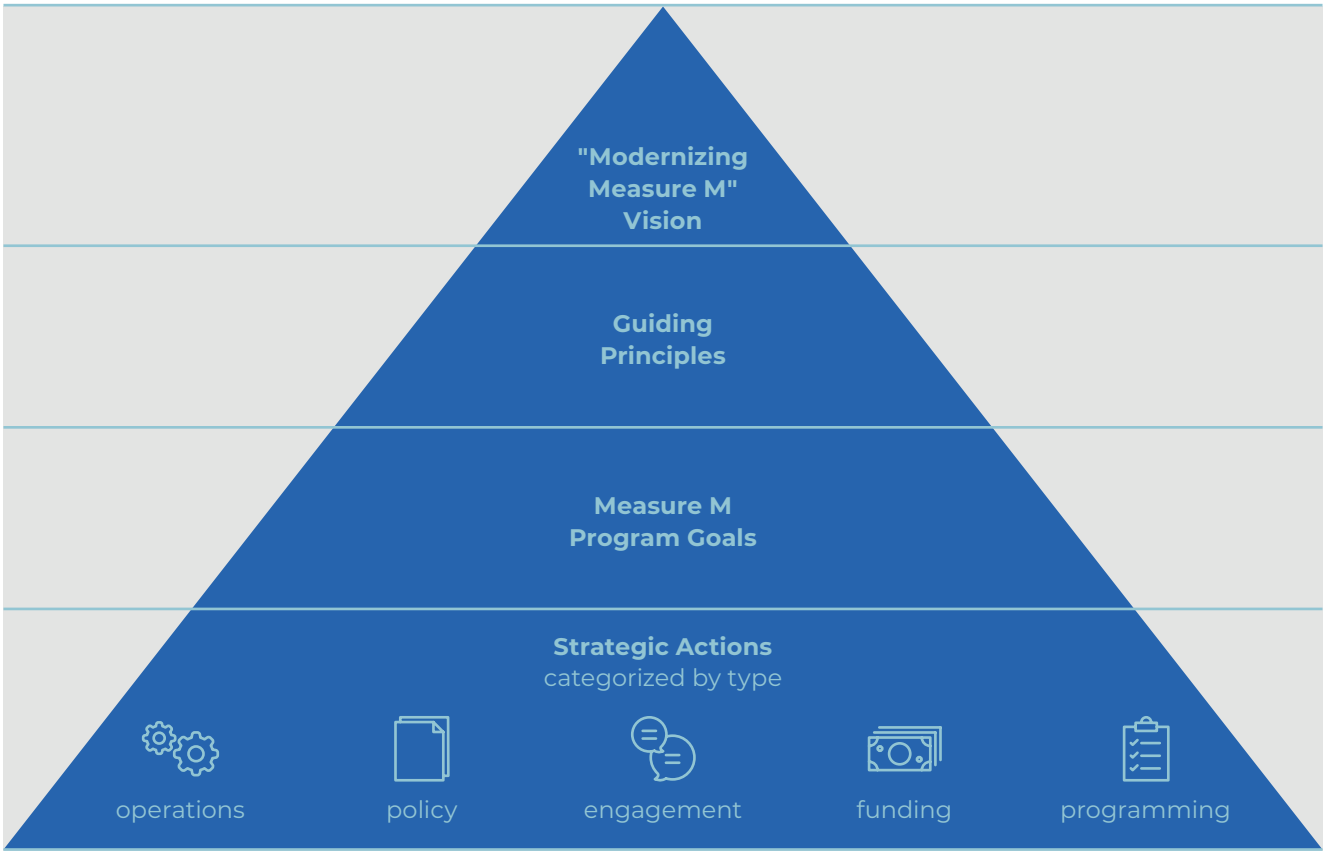
Insight Driven Decision Making C/CAG wants programming to respond to identified needs, opportunities, and expected impacts by rewarding programs that are most successful, and supporting growth and adjustment where needed.

Each Guiding Principle has been assigned key recommendations, or strategic actions. The strategic actions have also been categorized to demonstrate the type of strategy it entails, including:

- Operations: Implementing procedures across the Measure M program
- Policy: Enacting rules and directives for how programming is delivered
- Engagement: Sharing data, results, and progress
- Funding: Reallocating funding to align with emerging strategic needs
- Programming: Delivering types of programs to meet emergent needs

The relationship between the Vision, Guiding Principles, and Strategic Actions is outlined in **Figure 2-1**.

Figure 2-1. Strategy element relationship



Recommendations for C/CAG

Recommended actions for the Measure M program as a whole have been outlined below, with actions related to each guiding principle categorized in a unique subsection.

Flexible Planning

Measure M funds should continue to provide a level of flexibility within the existing wide variety of programs across San Mateo County. For example, funding both programs and capital projects, and basic services and more innovative interventions. At present, there are a few instances (e.g. use of SRTS funds to fund school site stormwater infrastructure projects) where the flexible nature of the Measure M funds established a unique project or program. However, this experience has been limited to date, and these unique projects/programs tend be funded through overflow or unexpected leftover sources.

Strategic Action 1 Continue Allowance of Flexible Use of Funds

Measure M should continue to allow jurisdictions and Countywide Programs to apply funds to a variety of uses.

Strategic Action type	Policy
Implementation timeline	Year 1
Estimated budget	No budget required
Priority	High

Strategic Action 2 Expand Designated Eligible Projects and Programs for Local Streets and Roads

The upcoming Implementation Plan should expand upon the list of eligible project categories under the approved legislation for Local Streets and Roads funding. While the current Local Streets and Roads program allows for jurisdictions to utilize their funding flexibly, a more comprehensive list of approved uses will encourage a broader range of programming from funding recipients.

Strategic Action type	Policy
Implementation timeline	Year 1
Estimated budget	No budget required
Priority	High

Innovative Programming

Measure M funds should be allocated to projects or programs that exhibit innovative practices, namely ideas developed through C/CAG and other key stakeholders that are transformed into a practical reality with tangible impacts to meet Measure M's overarching goals. These can include competitive pilot programs, developing key partnerships with forward-thinking agencies, guidance encouraging innovation for the Countywide Transportation Programs and 'best practice' sharing sessions.

Strategic Action 3 Create Competitive Pilot Program

Per the Measure M legislation, unused Administrative funding is distributed back to the jurisdictions and Countywide Programs (each receiving 50%). While the legal understanding of the measure indicates that the 50% received by the jurisdictions should be allocated through the same calculation as dictated by the Local Streets and Roads program, it does not specify the allocation process for the half that is returned to the Countywide Programs. Additionally, accrued interest does not have a specified allocation path.

This recommendation encourages innovation through the development of a competitive process for Countywide Programs. The purpose is to initiate pilot programs. C/CAG should allow the four Countywide Programs to compete for the leftover Administration and accrued interest funds that are set aside for them. . Based on historical expenditure data, it is expected that these two sources will generate between $95,000 to $200,000 annually.

It is recommended that C/CAG undertake this process every two years, when the combined interest and half of unused administrative funds have accrued to at least $150,000. If, after two years, less than $150,000 has accrued, C/CAG should postpone the process until that amount is available.

As C/CAG evaluates potential projects, they may want to consider a scoring mechanism that evaluates the following:

- **Innovation** How is it different from existing core programs and from programs undertaken elsewhere?
- **Planning** Does the project or program have a clear plan or proposal, including set objectives that articulate how it will contribute to Measure M goals?
- **Deliverability** Has this project been implemented in other jurisdictions – if so, have delivery lessons been carried forward?
- **Evaluation**: Does the applicant have sufficient resources to evaluate the success of the pilot and share lessons learned?
- **Opportunity for expansion** If the pilot is successful, can it be duplicated or implemented elsewhere within the county or Bay Area?
- **Countywide significance** Does the pilot support the full county, or does it disproportionately impact specific jurisdictions?
- **Equity** Does the pilot support historically marginalized communities in San Mateo County?
- **Program collaboration** Does the pilot involve more than one Countywide Program, providing multifaceted benefits to the San Mateo County community?

C/CAG staff will develop the final scoring criteria with input from Committees and the C/CAG Board.

Strategic Action type	Funding, Programming
Implementation timeline	Year 2
Estimated budget	165 hours of consultant time to support development, and 50 hours of C/CAG Admin staff time per year
Priority	High

Strategic Action 4 Encourage Program Innovation

Countywide Programs should work with C/CAG to focus on implementation of program-specific innovations. C/CAG should provide a list of "innovative focuses," or key projects for each Countywide Program. These "innovative focuses" as outlined further in the Implementation Plan (Chapter 3 of this document), were compiled through best practice research related to similar transportation programs across the country. The full Best Practices review is included in Appendix B. The Countywide Programs should consider redirecting funds toward those projects when they have sufficient funding available.

Strategic Action type	Programming
Implementation timeline	Year 2
Estimated budget	No separate budgeting action is required for C/CAG. Countywide Program Managers may direct budget as deemed appropriate.
Priority	Medium

Strategic Action 5 Facilitate Knowledge Sharing

C/CAG should provide the opportunity for funding recipients to learn from each other, and from other jurisdictions and programs undertaking similar efforts nationally. This strategic action involves the development of workshops and other knowledge sharing opportunities to capture best practices and lessons learned on programs and projects related to those funded by Measure M. These knowledge sharing sessions can take place during regularly scheduled gatherings, such as Committee and Board meetings, to minimize administrative time needed from C/CAG staff.

Strategic Action type	Operations
Implementation timeline	Year 2-5
Estimated budget	30-40 hours of C/CAG Admin staff time per year
Priority	Medium

Efficient Operation

The Measure M program should continue to be implemented, managed, and maintained efficiently, to help maximize administrative time. Operational strategies should be encouraged to increase work productivity whilst incurring minimal additional costs. An example is transitioning to a centralized electronic database for reporting purposes.

Case Study

Alameda County's Vehicle Registration requires fund recipients to submit reporting forms. The template is available online, as well as instructions for submitting the form.

Strategic Action 6 Create and Utilize Online Reporting Form

Currently jurisdictions receiving Local Streets and Roads funding send reports to C/CAG through a PDF form. Bringing reporting processes into an online form will both facilitate standard responses from all funding recipients, and eliminate coordination and time on C/CAG's Admin staff.

Strategic Action type	Operations
Implementation timeline	Year 1
Estimated budget	16-20 hours of C/CAG Admin staff time in Year 1, no additional budget needed over current baseline in subsequent years
Priority	High

Strategic Action 7 Shift Toward Streamlined Budget Tracking

The current spreadsheet used to track Measure M revenue and expenditure is overly complex, requiring extra reconciliation processes to be undertaken in order to provide a full overview of the Measure M budget. As this same tracking system was adopted from a previous group of Admin staff, C/CAG Admin staff should develop a new budget-tracking spreadsheet structure, simplifying the back-end processes and improving transparency.

Strategic Action type	Operations
Implementation timeline	Year 1-2
Estimated budget	20 hours of C/CAG Admin staff time in Year 1, no additional budget needed over current baseline, though regular maintenance at current level will be needed annually.
Priority	Medium

Monitoring and Evaluation

Although both of the previous Measure M 5-Year Implementation Plans have outlined Performance Measures associated with each funding recipient, monitoring and reporting of progress and success toward outcomes remains inconsistent. Within both the Local Streets and Roads and Countywide Program allocations, Measure M funds are currently typically lumped in with funds from other sources, and sometimes only account for a small percentage of the program or project's operating budget. While the Measure M funding may be contributing to an incredibly successful program, the program's overall successes may not speak directly to the impact of the Measure M funding itself.

A more transparent reporting process is required with a focused set of readily measurable metrics in order to provide enough data to demonstrate change and long-term impact from specific Measure M projects and programs.

Strategic Action 8 Provide Program Reporting Template

In line with Strategic Action 6 (Online Reporting Form) above, it is crucial that reporting for jurisdictions and Countywide Programs utilize standardize metrics for improved program-wide and year over year data collection. Any forms developed should outline the metrics and scales to be used in order to ensure data received is comparable across jurisdictions and able to be combined to demonstrate Measure M's impact.

Strategic Action type	Operations, Engagement
Implementation timeline	Year 1
Estimated budget	16 hours of C/CAG staff time to create database of program impacts, and ongoing effort to maintain the database.
Priority	High

Strategic Action 9 Require Annual Reporting

Currently, C/CAG only requires reports from jurisdictions through the Local Streets and Roads program if they are requesting a funding reimbursement. This makes it more difficult for C/CAG Admin staff to keep track of funds that have been allocated, but not spent. While C/CAG should not require jurisdictions to spend their allocated funding each year (allowing for funds to accrue may encourage spending on innovative projects), they should require an annual report from each funding recipient. This will enable the program administrators to assess progress throughout the five years during the implementation plan period, and identify lessons learned and areas for improvement.

The logic framework-based objectives identified for each of the funding recipients (outlined in the Implementation Plan, Chapter 3 of this document) outlines key metrics and performance indicators that C/CAG should collect from each program, allowing C/CAG administrators to more easily compile data across reports to detail impact based on each unique metric.

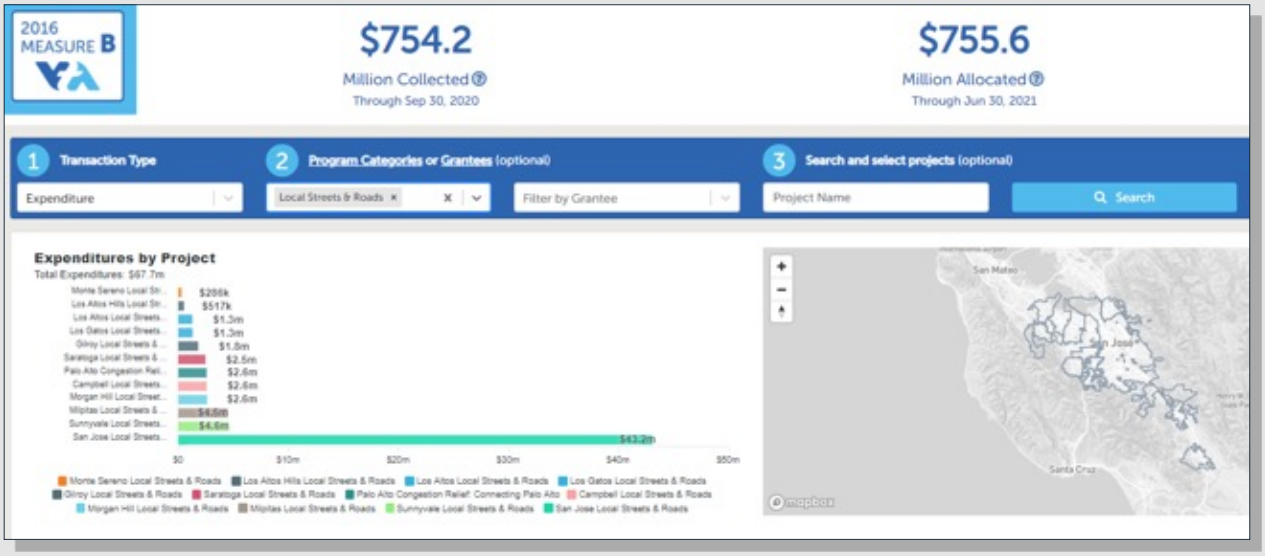
C/CAG will likely want to consider entering into a five-year funding agreement with each funding recipient that outlines reporting requirements necessary for fund reimbursement.

Strategic Action type	Policy
Implementation timeline	Year 1
Estimated budget	No budget required, time spent collecting Annual Reports will be offset by time saved in budget maintenance.
Priority	High

Strategic Action 10 Provide Transparent Reporting

The Measure M program was approved by voters until 2035, at which time it may be reconsidered through an additional ballot measure. Transparency and accountability focused reporting to the voting public are key elements of a successful program. This recommendation is focused on expanding program accountability and transparency with an emphasis on how funding is spent and what projects/programs have been accomplished. C/CAG should consider developing a forward-facing dashboard that demonstrates impact by Countywide Program and by jurisdiction, leveraging data from recommendations A-1 and A-2.

Strategic Action type	Engagement
Implementation timeline	Years 1-5 (timeline for development can be flexible, but dashboard should be launched by Year 5).
Estimated budget	$50,000
Priority	Medium



SCVTA Measure B Transparency Website

Case Study

Santa Clara County's Measure B has a public-facing website that tracks how much funding has been allocated to a certain project, the progress of the project. Users may also visualize funding in a chart or map and download project data as a PDF or CSV:

2016measureb.vta.org

Insight Driven Decision Making

This theme relates to ensuring allocation of funds matches programmatic needs, through collating and analyzing primary and secondary data. This is based on a review of historical data and reports, a series of interviews with C/CAG staff and Countywide Program managers, and the surveys with representatives from each of the jurisdictions eligible to receive funding.

It is important to continue reviewing and evaluating the current Measure M Program funding allocation structure every five years. This should include regular performance assessment of the program, using the latest data available for allocations and expenditures, to help evaluate the impact and success the Measure M program has had, all documented within a Strategic Plan.

Strategic Action 11 Standardize Evaluation Frameworks

As described in Chapter 1 (section 1.2.4) above, the Logic Framework model allows each program receiving Measure M funding to outline clear objectives and regularly evaluate success. Objectives for each program have been identified using the Logic Framework in the Implementation Plan. C/CAG should work with funding recipients to measure against those objectives and refine Logic Framework when necessary.

Strategic Action type	Operations
Implementation timeline	Years 1-5
Estimated budget	No budget required
Priority	High

Strategic Action 12 Implement Changes Based on Need-based Program Review

The initial Implementation Plan (March 2011) designated allocation of that net 50% based on anticipated need for each of the four programs[1]. The second Implementation Plan (May 2016) did not make any changes to those allocations. As C/CAG finalizes the Implementation Plan for the period covering Fiscal Year 2021/22-2025/26, it is sensible review of the percentage allocations to each Countywide Program, as is outlined in the Measure M text, based on changing needs, priorities, and opportunities in the county throughout the past ten years.

C/CAG has evaluated each of the four Countywide Programs through a needs-based estimation process (outlined in full detail in Section 2.3.), which examines historical revenue and expenditure data and places it in the context of additional qualitative factors.

The recommended Countywide Program allocation is as follows:

- Transit Operations/Senior Mobility: 18%
- Technology/Smart Corridor: 11%
- Safe Routes to School: 6%
- Stormwater (NPDES/MRP): 15%

Strategic Action type	Funding
Implementation timeline	Years 1
Estimated budget	No budget required
Priority	High

[1] Measure M Implementation Plan, 2011, Measure M Implementation Plan (ca.gov)

Strategic Action 13 Undertake Strategic Program Review

C/CAG should revisit Countywide Program funding allocation structure every five years based on programmatic needs, benefits, and progress. While there is currently insufficient data on programmatic impact to develop an allocation model based on programmatic impact or success (hence the inclusion of recommendation P-2 for a more immediate needs-based allocation for this implementation plan period), this may be something C/CAG wants to consider in the future in order to encourage effective programming. It is recommended that C/CAG reviews the data collected through years 1-4 of this current Plan period, and develop an impact-based funding model that rewards programs that can demonstrate the most progress toward the objectives set out in their Evaluation Frameworks.

Strategic Action type	Funding
Implementation timeline	Years 4-5
Estimated budget	Staff time or consultant support will vary depending on whether new processes are desired; no additional budget required to implement
Priority	High

Recommendations for Funding Recipients

While the actions outlined above demonstrate a recommended path to be taken by C/CAG in relation to their interaction with funding recipients, the project team has also identified specific recommendations for funding recipients themselves.

Recommend actions for the **Local Streets and Roads** program will result in changes in reporting structure for jurisdictions, but the actions themselves are largely to be covered by C/CAG. These actions have been described in more detail in Section 2.2 and include:

- **Strategic Action 2** Expand Designated Programming Options for Local Streets and Roads
- **Strategic Action 6** Create and Utilize Online Reporting Form
- **Strategic Action 8** Provide Program Reporting Template
- **Strategic Action 9** Require Annual Reporting
- **Strategic Action 11** Standardize Evaluation Frameworks

The project team acknowledges that the Countywide Programs rely on Measure M funding for at least some of the daily operation costs, and while C/CAG wants to encourage innovation within the programs, Measure M funding does not provide enough coverage to influence significant changes in regular programming. Thus, Countywide Program recommendations fall under two categories:

Operational Recommendations are focused around how Measure M funds should be operated or spent by Countywide Program managers, and how reporting processes, etc. should be adjusted.

Innovative Focuses are focused around suggestions / recommendations for innovations within program areas, based on best practice review nationally.

Transit Operations / Senior Mobility

Measure M funds are provided to SamTrans to support the Senior Mobility programs in the county as well as the Redi-Wheels program. The Redi-Wheels program provides 300,000 trips per year (pre-COVID-19 Pandemic) to seniors and mobility impaired individuals. Trips are scheduled by phone, with about 35% of calls as regularly scheduled 'subscription' calls. Redi-wheels provides transportation for those who qualify for any reason, not just 'essential' trips.

Additional "Senior Mobility" programs include initiatives like training, and events for seniors on how to ride transit. These have decreased recently due to the COVID-19 pandemic and staff turnover.

Case Study

Peninsula Volunteers in **San Mateo County** provides subsidized Lyft rides to preregistered seniors. Users may call ahead to the Little House Activity Center and volunteers will schedule rides between home, the Little House, and medical services. Users pay between $5 and $9 per ride, and the rest is covered through the program.

Operational Recommendations:

In addition to Measure M funding that is set aside specifically for the Redi-Wheels program annually, senior mobility funding must be spent on other programs for senior and disabled populations. Once additional allocation over that amount is identified for the year, C/CAG and SamTrans will work together to determine how funds will be spent.

Expand understanding of vehicle miles travelled (VMT) and trips reduced through Redi-Wheels service:

Understand what percentage of SamTrans (non-paratransit) riders are seniors through onboard surveys with the goal of understanding trends related to seniors who are able to take transit doing so rather than driving or using paratransit programs.

Identify the percentage of rides that are shared versus deadheading or moving a single customer to understand which trips might otherwise be taken in a taxi or single-occupancy vehicle.

Innovative Focuses:

Improve reservation system, allowing for online reservations.

Explore pilot program on with on-demand service using Transportation Network Companies (TNCs).

Focus on transit education for seniors who are able to ride transit to encourage shared rides that ultimately require less investment from SamTrans.

Technology/Smart Corridor

One large component of the Intelligent Transportation System (ITS) or Technology program is focusing on the delivery of the San Mateo County Smart Corridor project. This project maximizes efficiencies of the existing transportation network using technology devices, including cameras, detection systems, fiber communications and changeable messaging displays on roadsides. The project also minimizes the impact of freeway incident traffic on local streets through proactive traffic management.

C/CAG has been working with the cities in the southern part of the county, and has now moved on to work on two additional segments:

- City of South San Francisco – Completed 100% project design, and construction will begin in summer 2021.
- Cities of Daly City, Brisbane and Colma – Finished project approval and received environmental clearance. Will begin project design in the Summer 2021.

Case Study

The 33 Smart Mobility Corridor in **Columbus, OH** is a 35-mile highway corridor that connects multiple employment hubs, including Honda's North American campus, R&D firms, manufacturers and logistics companies. These institutions work together to test smart and AV technologies.

Operational Recommendations:

Develop standard reporting processes documenting time-savings from each deployment of the Smart Corridor system.

Measure M funding is a valuable source of local match for Smart Corridor grant-funded projects. In years where C/CAG does not anticipate the need for upcoming local match funding and all operational needs have been covered, funding should be dedicated to innovation and improved communication/engagement with drivers.

Innovative Focuses:

Improve public information-sharing about route detours through partnerships with private providers, such as Waze and Google, instead of/in addition to physical signage infrastructure.

Explore opportunities to pilot concepts such as Centralized Emergency Vehicle Preemption (CEVP), which offers a software-based solution to smoothly moving emergency vehicles through intersections and along corridors.

Develop supportive policy guidance for San Mateo County jurisdictions, particularly permit departments, to identify locations of Smart Corridor fiber infrastructure and protect against damage due to third-party activities. Work with jurisdictions to determine long-term maintenance solutions, including funding partnerships that support the program beyond what is accessible through Measure M. Explore public-private partnership opportunities to expand the Smart Corridor communications network and its uses (public buildings, libraries, etc.), in addition to generate revenues to support the system over the long-term.

Safe Routes to School (SRTS)

The SRTS Program is a grant-based program. C/CAG, as the Congestion Management Agency, is the designated agency for San Mateo County that receives federal Congestion Management and Air Quality (CMAQ) funds, including funds designated for the SRTS Program. C/CAG administers the program funds, serving as fiscal agent for the Program. The San Mateo County Superintendent of Schools, also referred to as San Mateo County Office of Education (SMCOE), serves as the lead agency managing the day-to-day operations and project implementation activities. Measure M funds go toward the 11.5% local match required by Caltrans to receive CMAQ funds.

The program currently supports 20 grantees across 15 school districts. Support is almost exclusively programmatic rather than infrastructure based (though when there was more funding previously there had been some infrastructure projects). In addition to typical programming, COE has undertaken other efforts, such as an equity analysis to determine schools with a great deal of needs, and engage with cities directly.

Operational Recommendations:

Beyond the funding utilized for CMAQ grants, COE and C/CAG will identify uses for any leftover funds in partnership with SRTS sponsors.

Improve upon modal travel survey by ensuring survey is conducted at the same time each year, utilizing the same modal categories, to better demonstrate year over year impact of SRTS on mode shift.

Innovative Focuses:

Continue to collaborate with C/CAG and outside partners (including other Countywide Program managers and local non-profit organizations) to implement SRTS infrastructure projects, such as those in partnership with C/CAG's stormwater team or those identified in the High Injury Network Plan currently being developed.

Continue to focus efforts on schools in low-income areas.

Work with jurisdictions to support formal Safe Routes to School policy development.

Case Study

Metro Oregon has released a **Safe Routes to School Back to School Toolkit** that suggests strategies in low-income neighborhoods, such as establishing a Memorandum of Understanding between the property owner of Park & Walk locations and the school/city to limit parking enforcement or towing that may disproportionately affect BIPOC (Black, Indigenous, and people of color) and low-income families.

Stormwater (NPDES/MRP)

C/CAG supports jurisdictions at multiple scales assist its member agencies comply with mandatory requirement under the Municipal Regional Stormwater Permit (MRP). The countywide stormwater program provides direct consultant support to the cities/towns and county, and undertakes efforts on their behalf, such as water quality monitoring, public outreach and education, on-land visual assessments for trash, staff training, and the development of green stormwater infrastructure planning documents and resources. The countywide program also leads countywide planning efforts in support of permit compliance objectives and collaborates on a regional level with other countywide programs (such as via the Bay Area Stormwater Management Agencies Association (BASMAA) and other regional partners).

Operational Recommendations:

Specify workstreams for Measure M funding to do more with available funds other than general stormwater program support (e.g., focus more on project design and implementation).

Support knowledge sharing amongst jurisdictions to create consistent definition of and progress towards advancing 'innovative practices' across the county.

Innovative Focuses:

Continue to partner with schools on green infrastructure in conjunction with SRTS or schoolyard greening/educational curricula.

Continue advancing sustainable street project planning and implementation.

Continue advancing planning, design and implementation of regional scale stormwater facilities.

Case Study

Prince George's County currently utilizes a Community Based Public Private Partnership (CBP3) model as a solution to improve stormwater infrastructure and make a commitment to impact the local economy through partnering with disadvantaged subcontractors. This includes planning, designing, and constructing green infrastructure retrofits across 4000 acres of impervious surfaces in Prince Georges County (including a diverse mix of sites and land uses).

Needs-based Allocation Overview

Overview and allocation requirements

The Measure M program collects revenue from a Countywide vehicle registration fee, which is then allocated to jurisdictions and Countywide Transportation Programs. As described in the Measure M legislation text, the projects and programs funded by Measure M must be consistent with the regional transportation plan, and must have a relationship or benefit those paying the vehicle registration fee.

After a 5% allocation to administration of the program, 50% of the Measure M net revenue is allocated to the four Countywide Transportation Programs identified in the original measure. The Measure indicates that the Implementation Plan (updated every five years) should specify the percentages of funds allocated to each program or project.

The initial Implementation Plan (March 2011) designated allocation of that net 50% based on anticipated need for each of the four programs :

- Transit Operations/Senior Mobility: 22%
- Technology/Smart Corridor: 10%
- Safe Routes to School: 6%
- Stormwater (NPDES/MRP): 12%

The second Implementation Plan (May 2016) did not make any changes to those allocations.

The next Implementation Plan for Measure M (covering fiscal years 2021/22-2025/26) includes a review of the percentage allocations to each Countywide Program, as is outlined in the Measure M legislation text, based on changing needs, priorities, and opportunities in the county.

This section presents an initial analysis to support the process of finalizing allocation percentages based on a combined quantitative and qualitative assessment. This framework and the resulting potential allocations helped guide C/CAG on the final funding decision.

Estimating programmatic need

The Fiscal Year 2021/22-2025/26 Implementation Plan includes consideration of programmatic need based on a consistent data driven approach applied to each program. The project team has recommended that future implementation plans make use of both a needs based and impact based assessment model identified in the proposed program evaluation framework of the Fiscal Year 2021/22-2025/26 Implementation Plan.

However, as this framework has not been implemented, the application framework applied within the Fiscal Year 2021/22-2025/26 Implementation Plan is primarily needs focused.

The needs-based focus contains two approaches to capture a data-driven perspective on how Measure M funding supports the overall finances of each program. It is based on historic funding and utilization, as well as a qualitative assessment to explore the future outlook of each program from a risk and potential funding perspective. Further details on these approaches are provided.

Quantitative funding score (weighted at 100% total) was developed based on historical funding data from the inception of the Measure M program through fiscal year 2019/20. The quantitative score includes four weighted factors as listed below:

- Amount of Measure M allocation spent: Does the program spend its funding allocation? (weighted at 67%)
- Share of program budget from Measure M: How critical is Measure M to the program's overall budget? (weighted at 11%)
- Ability to unlock additional budget: Based on historical local match data, what level of outside funding can we anticipate is conditional on Measure M funding? (weighted at 11%)
- Change in other available funding sources: Does the program have other funding sources that could be used instead of Measure M? (weighted at 11%)

Qualitative funding score (weighted at 100% total) was developed based on non-quantifiable factors:

- Risk of sizeable allocation decrease: Is the program at-risk of losing a significant portion of their funds if their Measure M allocation decreases? Are there other funding sources that we anticipate will be diminished or eliminated in future years? (weighted at 50%)
- Programmatic requirements outside of C/CAG's purview: Does the program need to provide specific services based on legal requirement? If the program were eliminated or underfunded, would costs be expected to fall on other agencies or jurisdictions within the county? (weighted at 50%)

Methodology and scoring

The following scoring methodology was developed by the project team, in coordination with Measure M stakeholders. The process was presented to stakeholders through C/CAG's TAC and CMEQ Committees, and Board of Directors at multiple stages throughout the development of the methodology and after the final recommended allocations had been determined. Both the TAC and CMEQ Committees recommended approval of the allocation.

Additionally, the project team met with each Countywide Transportation Program team to discuss the methodology, receive feedback, and provide information about expected changes to their program allocation.

Quantitative funding scores

Each Countywide Program is assigned an overall score based on its performance against the four quantitative factors described above. Scores are calculated by identifying the 'highest scoring' program and assigning it a score of 5.0. The other three programs are then assigned scores accordingly based on how well they compare with the highest scoring program. Scores are then rounded to the nearest 0.5 for ease of interpretation. Data from inception to Fiscal Year 2019/20 was used to determine quantitative scores, which was provided and reviewed by each Countywide Program manager.

Quantitative scores and the methodology behind them are described on the following pages.

Amount of Measure M allocation spent
This factor is determined by calculating the percentage of allocated funds that have been spent or reported as earmarked for specific projects since the inception of the Measure M program.

Since significant amounts of unspent funds may signify that additional funding may not be required, this factor is considered a crucial component of the analysis and has been assigned a higher weight (67%) than the other three quantitative factors.

Calculation and scores for this factor are outlined in **Table 2-1**. The highest score is awarded to the program that has spent or reported as earmarked for specific projects the largest percentage of its Measure M allocation.

Table 2-1. Allocation spent

	Transit Operations/ Senior Mobility	Technology/ Smart Corridor	Safe Routes to School	Stormwater (NPDES/MRP)
Unspent funds	153,030	–	1,330,076	350,579
% used	**99%**	**100%**	**64%**	**95%**
Score	**5.0**	**5.0**	**3.0**	**5.0**

Source: C/CAG Measure M budgets

Share of program budget from Measure M

This factor communicates the relative importance of Measure M within each program. As demonstrated in **Table 2-2**, it is calculated by comparing the percentage of a Countywide Program budget that comes from Measure M to the percentage of Measure M's allocation that program receives. The highest score is awarded to the program on which Measure M is having the highest proportionate impact.

Table 2-2. Share of Measure M budget

	Transit Operations/ Senior Mobility	Technology/ Smart Corridor	Safe Routes to School	Stormwater (NPDES/MRP)
% of Program from Measure M	11%	24%	66%	49%
% of Measure M Allocation	22%	10%	6%	12%
A/B	49%	244%	1,103%	410%
Score	**0.0**	**1.0**	**5.0**	**2.0**

Source: C/CAG Measure M budgets; Program budgets provided by each Countywide Program Manager

Ability to unlock additional budget
This factor demonstrates how much competitive grant funding can be unlocked as a result of Measure M, and how much funding may be at risk if Measure M funds decrease. It is calculated by comparing each program's allocated Measure M funds to the grant funding it has received, as shown in **Table 2-3**. Programs that receive a match funding that is equal to or greater than Measure M contributions receive a score of 5 (with funding received capped at the amount of total Measure M allocation to avoid unfair advantage for different match requirements). When Measure M funds unlock funds lower than the total value of Measure M funding provided, they receive a score from 0-5 (rounded to nearest 0.5) based on value of unlocked funds in proportion to Measure M funds provided.

Table 2-3. Ability to unlock additional budget

	Transit Operations/ Senior Mobility	Technology/ Smart Corridor	Safe Routes to School	Stormwater (NPDES/MRP)
Allocated	13,619,905	6,223,593	3,734,156	7,468,312
Grant Funding Received	13,569,438	6,223,593	3,734,156	1,162,143
Percent of allocation achieved in grant funding	99%	100%	100%	16%
Score	**5.0**	**5.0**	**5.0**	**1.0**

Source: C/CAG Measure M budgets; Program budgets provided by each Countywide Program Manager

Change in other available funding sources

This factor examines how dependent each program is on Measure M funding specifically. Funding sources for each of the Countywide Programs vary and it is difficult to make assumptions surrounding future availability of funding sources. Thus, the calculation for this factor assumes that the initial determination of 'need' at the inception of the Measure M program was appropriate for that Implementation Plan period (fiscal years 2010/11-2014/15). It compares revenue (excluding Measure M) for each program from that period with revenue from the most recent Implementation Plan period (fiscal years 2015/16-2020/21) to identify a percentage change. The highest score is awarded to the program that demonstrated the smallest positive or largest negative change in revenue.

Table 2-4. Change in other available funding sources

	Transit Operations/ Senior Mobility	Technology/ Smart Corridor	Safe Routes to School	Stormwater (NPDES/MRP)
Revenue FY 2011-2015	63,764,675	24,492,196	2,964,552	7,878,246
Revenue FY 2016-2021	80,611,792	7,685,322	3,128,984	9,256,229
% Change	126%	-31%	82%	117.5%
Score	**1.0**	**5.0**	**1.5**	**1.5**

Source: C/CAG Measure M budgets; Program budgets provided by each Countywide Program Manager

Overall quantitative scores
Quantitative scores for all four programs are collated below, and a final quantitative score has been compiled in **Table 2-5**. As described above, the "Use of previous budget" factor has been assigned a high weight to demonstrate the importance of spending or earmarking all funds coming from Measure M. The other three factors have all been assigned the same weight.

Table 2-5. Quantitative scores

	Weight	Transit Operations/ Senior Mobility	Technology/ Smart Corridor	Safe Routes to School	Stormwater (NPDES/ MRP)
Use of Previous Budget	0.67	5.0	5.0	3.0	5.0
Share of Program Budget vs. Measure M Budget	0.11	0.0	1.0	5.0	2.0
Ability to Unlock Additional Budget	0.11	5.0	5.0	5.0	1.0
Growth in Other Funding Sources	0.11	1.0	5.0	1.5	1.5
Quantitative Score		**4.0**	**4.6**	**3.3**	**3.8**

Qualitative funding scores

In addition to the quantitative evaluation, the qualitative analysis allows decision makers to consider additional context related to programmatic requirements and risk associated with large changes in funding.

The following qualitative scores have been informed through working meetings with Countywide Program Managers and feedback provided by members of C/CAG's TAC and CMEQ Committees and Board. Both qualitative factors have been assigned equal weight.

- **Risk of decrease to current allocation** estimates the risk to each project related to a percentage decrease in allocation, and includes consideration around program funding sources that are known or expected to be decreasing moving forward. Programs with higher Measure M allocations currently face more risk of a larger decrease in funding allocation.
- **Programmatic requirements outside of C/CAG's purview** accounts for outside program commitments and mandates. This is most clearly demonstrated in the Transit Operations/Senior Mobility program (which supports the federally mandated paratransit program) and the Stormwater program where the municipal permit requirements have expanded and are likely to continue to grow in cost. The Technology/Smart Corridor project has also been assigned a positive score because of its project commitment to jurisdictions within the county, such as device maintenance and replacement. This maintenance responsibility would fall onto the jurisdictions if C/CAG is unable to fund it.

The recommended allocation breakdown is presented in **Table 2-6**.

Combined quantitative and qualitative scores

Table 2-7 presents a combined quantitative and qualitative score for each program, leading to a recommended program allocation percentage. These allocation levels, recommended by C/CAG staff and consultant team, have been reviewed by the TAC and CMEQ. Both Committees recommended the percentages for C/CAG Board approval.

Table 2-6. Qualitative scores

	Weight	Transit Operations/ Senior Mobility	Technology/ Smart Corridor	Safe Routes to School	Stormwater (NPDES/ MRP)
Risk of decrease to current allocation	0.5	5.0	–	–	3.0
Future programming commitments	0.5	5.0	2.0	–	5.0
Qualitative Score		**5.0**	**1.0**	**–**	**4.0**

Table 2-7. **Final scores and allocation guidance**

	Weight	Transit Operations/ Senior Mobility	Technology/ Smart Corridor	Safe Routes to School	Stormwater (NPDES/ MRP)
Use of Previous Budget	0.67	5.0	5.0	3.0	5.0
Share of Program Budget vs. Measure M Budget	0.11	0.0	1.0	5.0	2.0
Ability to Unlock Additional Budget	0.11	5.0	5.0	5.0	1.0
Growth in Other Funding Sources	0.11	1.0	5.0	1.5	1.5
Quantitative Score		**4.0**	**4.6**	**3.3**	**3.8**
Risk of decrease to current allocation	0.5	5.0	–	–	3.0
Future programming commitments	0.5	5.0	2.0	–	5.0
Qualitative Score		**5.0**	**1.0**	**–**	**4.0**
Total Score		**9.0**	**5.6**	**3.3**	**7.6**
Overall Allocation		**18%**	**11%**	**6%**	**15%**

3

Implementation Plan

Overview

Implementation Plan Purpose

The Measure M Implementation Plan describes the various programs identified in the Expenditure Plan in more detail and established percentages of funds allocated to each of the Countywide Transportation Programs. The Implementation Plan also identifies specific projects and programs under each category that would be eligible to receive funds along with identifying the targeted performance measures for each activity. The Implementation Plan, which requires adoption by the C/CAG Board, is developed at the onset of the 25-Year Measure M Program and is updated every 5 years. This Implementation Plan covers the period from Fiscal Years (FY) 2021/22 to 2025/26.

Methodology

This Implementation Plan was developed based on research and stakeholder outreach undertaken through the Measure M Strategic Plan process. Researched involved the review of historic revenue allocation and spend, and funding recipient programmatic metrics. Funding recipients and other stakeholders were consulted through interviews, focus groups, an online survey, and presentations to C/CAG's Congestion Management Program Technical Advisory Committee (TAC), Congestion Management and Environmental Quality Committee (CMEQ) and Board of Directors.

The objectives and performance metrics outlined below have been developed as a result of the Strategic Plan, and in coordination with the funding recipients responsible for maintaining each program.

Collection of the Fee

The $10 Vehicle Registration Fee (VRF) will be collected for a period of 25 years, beginning on May 2, 2011 and ending on May 1, 2036. Beginning approximately July 2011 and every month thereafter for the duration of the fee, the Department of Motor Vehicles (DMV) will issue C/CAG a monthly check for revenues collected from the prior month. The estimated revenue is $6.7 million annually and $33.5 million over the 5-year implementation period. This amount takes into consideration the DMV's administrative fee charge of approximately $0.005 (one-half of a cent) per every $10 VRF collected.

Implementation Plan (FY 2021/22-2025/26)

As indicated in the approved Measure M Expenditure Plan up to 5% of the proceeds is allocated for program administration with 50% of the net revenue allocated to the Local Streets and Roads category and 50% of the net revenue allocated to the Countywide Transportation Programs. The Countywide programs includes the following: Transit Operations and/or Senior Mobility, Technology and Smart Corridors, Safe Routes to School (SRTS), and Stormwater (National Pollutant Discharge Elimination System (NPDES) and Municipal Regional Permit (MRP)).

The objectives listed in the Implementation Plan aim to help C/CAG and partners achieve the following goals through the Measure M program:

Program Goals

Measure M Program:
Administration

Goal:
Support vehicle registration fee program participants/payers through Measure M program operation.

Measure M Program:
Local Streets and Roads

Goal:
Improve and maintain local streets and roads through activities related to congestion management and stormwater pollution prevention.

Measure M Program:
Transit Operations / Senior Mobility

Goal:
Increase access to mobility options, including for seniors and disabled populations.

Measure M Program:
Safe Routes to School

Goal:
Diversify travel mode share and reduce private car travel among students.

Measure M Program:
Technology/Smart Corridor

Goal:
Reduce traffic congestion and improve network efficiency.

Measure M Program:
Stormwater (NPDES/MRP)

Goal:
Reduce countywide stormwater pollution.

Program Administration

Program Administration Overview

The Implementation Plan has allocated 5% of total revenues for Program Administration.

The Program Administration funding may be spent to cover routine program activities, as well as to implement actions to support the achievement of the program goals outlined above.

Any unused administration funds will be redistributed to the Local Streets and Roads according to the allocation calculation for that program's typical Measure M funding (identified the following Local Streets and Roads Section), and to the Countywide Programs through a competitive pilot process. C/CAG staff will develop the final scoring criteria for the Countywide Programs competitive pilot with input from Committees and the C/CAG Board.

Table 3-2. Program Administration Logic Framework

	Objectives	Performance Measures
Outcomes	• Achieve 80% or more of intended outcomes across all funding recipients	• Percentage of outcomes achieved by other programs (emphasizes the role of administration in programmatic success – this evaluation will review all other program areas based on a Yes or No (Y/N) for each objective being achieved or not)
Outputs	• Allocate full Measure M budget annually • Accurately track funding spent and/or rolled over annually	• Percentage of Measure M budget allocated • Accurate depiction of funding status for each recipient (Y/N)
Actions	• Receive VRF funds from DMV • Receive expenditure reports or confirmation of rollover from all funding recipients at least once a year • Receive performance measure reports from all funding recipients annually	• Receipt of DMV funds (Y/N) • Number of recipient reports received annually • Number of performance measure reports received annually
Inputs	• Spend, reallocate, or reserve all of allocated budget	• Percentage of Admin budget spent • Percentage of Admin budget re-allocated to other programs • Percentage of Admin budget reserved for future years

Local Streets and Roads

Local Streets and Roads Requirements

The Local Streets and Roads program will be allocated 50% of net revenue, which will be provided to local jurisdictions (20 cities and the county) for congestion mitigation and stormwater pollution mitigation programs.

Allocation will be on a cost reimbursement basis utilizing a distribution formula consisting of 50% population and 50% road miles for each jurisdiction modified for a minimum guaranteed amount of $75,000 for each jurisdiction. (Estimated allocations can be found in Exhibit A) Jurisdictions have the flexibility on use of the funds between the categories and projects; therefore, there are no requirements to split the funds evenly between the categories. **Table 3-3** lists approved uses for Measure M funds, but this list is non-exhaustive. Jurisdictions may use funding on additional programming or projects with C/CAG approval.

Allocations will be issued twice a year, once for the 1st half of the fiscal year (July – December) and once for the 2nd half (January – June). Jurisdictions have the option to wait until the 2nd half funds become available and submit one reimbursement request for the entire fiscal year.

Jurisdictions are required to report annually to C/CAG identifying total funds spent or reserved, actions taken, and outputs achieved as defined by the performance measures listed in **Table 3-4**. Measure M should not be used to supplant existing city general funds.

Table 3-3. Program Administration Logic Framework

Congestion Management	Approved local streets and roads funding uses
• Local shuttles/transportation • Road improvement/repaving • Installation/deployment of ITS components • Roadway operations, such as: restriping, signal timing/coordination, signage • Upgrade or replacement of traffic signals • Active transportation projects, such as: sidewalk maintenance/repair, bike lanes, bike lane maintenance/repair, crosswalks, Pedestrian Hybrid Beacons (PHB), Rectangular Rapid Flashing Beacons (RRFB), Safe Routes to School infrastructure	• Street sweeping • Storm inlet cleaning • Street side runoff treatment • Auto repair shop inspections • Small capital projects • Capital purchases for stormwater control measures (GSI/trash controls) • Oil dropoff locations • Fluid recycling programs • Pervious surface median strip installation • All other MRP compliance provisions/ activities, such as: trash pickup, operations and maintenance for green infrastructure facilities, other stormwater control measures in the ROW

Local Streets and Roads Objectives

All Local Streets and Roads objectives are annual unless otherwise noted.

Table 3-4. Local Streets and Roads Logic Framework

	Objectives	Performance Measures
Outcomes	• Reduce traffic congestion • Maintain roadways and roadway infrastructure, such as: green stormwater infrastructure, bike/ pedestrian infrastructure • Reduce amount of pollutants from stormwater runoff	• VMT reduced • Miles of roadway maintained • Pollutants avoided
Outputs	• Transport shuttle passengers • Improve miles/fractions of miles of road • Install/implement ITS components • Upgrade or replace traffic signal hardware or software units • Develop active transportation infrastructure, such as: Sidewalks, Bike lanes, PHBs, RRFBs • Sweep road miles • Clean storm inlets • Manage road runoff • Inspect auto repair shops • Implement small capital projects (related to traffic management and stormwater management) • Purchase pieces of equipment • Implement oil dropoff locations • Implement fluid recycling programs • Develop green stormwater infrastructure) • Perform MRP permit provisions/compliance activities	• Number of shuttle passengers • Miles of road improved • Number of ITS components installed • Number of traffic signal units installed/ replaced • Miles of sidewalks and bike lanes developed • PHBs or RRFBs installed • Miles of road swept • Number of storm inlets cleaned • Square-feet/acres of impervious areas managed for roadway runoff • Number of auto repair shops inspected • Number of capital projects completed • Number of capital purchases • Number of oil dropoff locations inspected • Number of fluid recycling programs provided • Volumes of stormwater managed • Number of green infrastructure projects developed • Other MRP permit actions undertaken
Actions	• Traffic Congestion Management activities undertaken • Stormwater Pollution Prevention activities undertaken • Reimbursement requests and annual report provided per C/CAG specifications	• Number of jurisdictions undertaking Traffic Congestion Management and Stormwater Pollution Prevention activities • % of jurisdictions that complete annual report
Inputs	• Spend, or confirm plan to save all of allocated Measure M budget	• % of allocated budget spent or confirmed to be saved

Countywide Programs

Countywide Programs Requirements

The Countywide Programs will be allocated 50% of net revenue, which will be provided to four designated programs as follows:

- Transit Operations/Senior Mobility - 18%
- Technology/Smart Corridor - 11%
- Safe Routes to School - 6%
- Stormwater (NPDES/MRP) - 15%

Allocation will be provided on a cost reimbursement basis.

Countywide Programs will be administered as outlined in **Table 3-5**.

Table 3-5. Countywide Program Administration Guidelines

	Program	Administration
	Transit Operations/Senior Mobility	Beyond the portion administered by SamTrans to support the Redi-Wheels program and other senior mobility efforts, proposed projects will be submitted to C/CAG annually for approval.
	Safe Routes to School	Administered by C/CAG. Funds will also be provided to County Office of Education (COE) as match for projects.
	Technology/Smart Corridor	Administered by C/CAG.
	Stormwater (NPDES/MRP)	Administered by C/CAG.

Countywide Programs Objectives

All Countywide Programs objectives represent the full 5-year period unless otherwise noted. The impacts of the COVID-19 pandemic have been considered in the development of these targets, but it is reasonable to expect annual targets may not be achieved in the first few years of this Implementation Plan.

Table 3-6. Transit Operations/Senior Mobility Logic Framework

	Objectives	Performance Measures
Outcomes	• Increase number of registered Redi-Wheels riders by 3% • Increase number of new riders by 3%	• Number of riders • Number of new riders
Outputs	• Provide base level of service at 10,000 revenue hours per year • Provide productive service, with at least 1.8 passengers served per hour on average* • Maintain at least 90% on time performance	• Number of revenue hours • Average number of passengers per hour • % on time performance
Actions	• Undertake at least 2 special projects that are not Redi-Wheels specific • Provide senior mobility activities: 12 events annually, 1 marketing material elements developed annually • Operate Redi-Wheels program and maintain compliance with ADA requirements • Provide annual report on time and per C/CAG specifications	• Number of special projects undertaken (not necessarily completed) in 5-year period • Number of senior mobility events held • Number of participants taking part in senior mobility events • Number of marketing material elements developed • ADA compliant (Y/N) • Annual report on time and per C/CAG's specifications (Y/N)
Inputs	• Spend or confirm reservation of all allocated budget	• % of program budget spent or confirmed as reserved for future years

*Numbers may lag in first few years of Implementation Plan as the Redi-Wheels program is recovering from COVID-19 related travel limitations.

Table 3-7. Technology/Smart Corridor Logic Framework

	Objectives	Performance Measures
Outcomes**	• Achieve at least 15% time savings in first hour after incident response signal timing is implemented • Achieve a 5% reduction in incident response time/system deployment • Achieve a 5% reduction in measured congestion caused by oversaturation of the arterial • Reduce average travel time and traveler delay along alternate routes by 5% • Reduce time to clear queues at oversaturated intersections along alternate route by 5% • Reduce amount of traffic filtering through local network by 5% • Increase percentage of time that Smart Corridor devices provide satisfactory flow by 5% • Increase volume throughput on the Alternate Route by 5%	• % time savings in first hour after incident response signal timing is implemented • % reduction in incident response time over baseline • % reduction in measured congestion over baseline* • % reduction in travel time by comparing time over baseline* • % reduction in time to clear queues over baseline* • % reduction in number of vehicles that use local roads as a pass-through rather than the intended route over baseline* • % increase in amount of time when system is active and Level of Service (LOS) is reported at level E or above* • % increase in vehicles traveling on a coordinated corridor using the designated route over baseline
Outputs	• Achieve 90% of planned Smart Corridor project coverage • Maintain 80% of Smart Corridor network connectivity • Ensure 90% of technology assets are in a state of good repair: At least 160 traffic signal controllers, At least 120 CCTV cameras, At least 50 electronic signs	• % of planned Smart Corridor project coverage achieved • % network downtime • Number of technology components maintained
Actions	• Install technology assets with new deployment: At least 20 traffic signal controllers, At least 15 CCTV cameras, At least 10 electronic signs • Undertake all necessary routine maintenance • Replace/Upgrade aging technology assets • Provide annual report on time and per C/CAG specifications	• Number technology components installed and replaced • Number of non-maintained ITS elements • Annual report on time and per C/CAG's specifications (Y/N)
Inputs	• Spend or confirm reservation of all allocated budget	• % of program budget spent or confirmed as reserved for future years

*Baseline to be determined through use of Streetlight Data as suggested in Norther Cities System Performance Evaluation Memo.

**Outcomes objectives only applicable if Smart Corridor is activated

Table 3-8. Safe Routes to School Logic Framework

	Objectives	Performance Measures
Outcomes	• Increase reported active mode share by 5% over 2019 baseline	• % active mode share reported through travel surveys
Outputs	• Support SRTS programs for at least 110 schools and 10 districts • Demonstrate 2 'high-need' school sites with SRTS programs	• Number of schools and districts with SRTS programs • Number of 'high-need' schools with SRTS programs
Actions	• Enroll 5 new schools into the SRTS Program annually • Host at least 40 encouragement events annually • Complete 40 bike and walk audits • Participate in 4 infrastructure projects • Conduct at least one survey per year with consistent methodology • Provide annual report on time and per C/CAG specifications	• Number of new schools enrolled • Number of encouragement events held • Number of bike and walk audits conducted • Number of infrastructure projects undertaken • Survey completed annually with consistent methodology from previous year (Y/N) • Annual report on time and per C/CAG's specifications (Y/N)
Inputs	• Spend or confirm reservation of all allocated budget • Secure Federal funding for 88.5% of SRTS program cost	• % of program budget spent or confirmed as reserved for future years • % program funding secured through Federal funds

Table 3-9. Stormwater (NPDES/MRP) Logic Framework

	Objectives	Performance Measures
Outcomes	• Demonstrate elimination of trash discharges from the storm drain systems into receiving waters by 90% by 2022 and 100% by 2025 • Demonstrate implementation of programs to reduce mercury and PCBs by managing at least 45 acres of impervious surface countywide via green stormwater infrastructure by 2027, and achieving compliance under PCBs and mercury load reduction requirements via all stormwater controls detailed in MRP for pollutant specific load reductions and stipulated loads reduced • Demonstrate improved operations and maintenance and achievement of asset management requirements for green stormwater infrastructure and other stormwater control measures in the public right-of-way as detailed in the MRP	• % of trash load reduction achieved by compliance benchmarks (90% reduction by June 30, 2022 and 100% reduction by June 30, 2025) • Acres greened per year (or associated water volume managed and PCBs/Mercury load reductions achieved)
Outputs	• Annual updates of pollutant load reduction (trash and other pollutants of concern) • Annual updates on creek conditions with respect to trash monitoring • Annual updates on GI implementation and maintenance • Updated trash generation and treatment maps • Educated and informed member agency staff and public	• Annual updates of load reduction (Y/N) • Annual updates on creek conditions with respect to trash monitoring (Y/N) • Annual updates on GI Implementation and maintenance (Y/N) • Updated trash generation and treatment maps (Y/N) • Representatives from all agency staff trained annually
Actions	• Host 4 Trash Subcommittee meetings per year • Host 3 meetings/workshops per year with the Litter Workshop • Complete 900 trash load assessments • Host 4 New and Redevelopment/Green Infrastructure subcommittee meetings per year • Host 1 GI training per year • Implement Green Streets Stewardship Pilot Program and host at least 2 stewardship events per year • Implement MRP requirements to develop asset management for green stormwater infrastructure and other stormwater control measures	• Number of Trash subcommittee meetings held annually • Number of Litter Workgroup meetings/ workshops held annually • Number of trash load assessments held • Number of New and Redevelopment/Green Infrastructure subcommittee meetings held annually • Number of GI trainings held annually • Number of GI facilities maintained through Green Streets Stewardship Pilot Program
Inputs	• Spend or confirm reservation of all allocated budget	• % of program budget spent or confirmed as reserved for future years

EXHIBIT A

The tables (right) provide an estimated distribution for the Local Streets and Roads allocation and the Countywide Programs allocation.

Jurisdiction	% of LS&R Allocation	Estimated Net Annual Revenue*	Estimated Net 5-Year Revenue*
Atherton	2.20%	$75,000	$375,000
Belmont	3.32%	$113,000	$565,000
Brisbane	2.20%	$75,000	$375,000
Burlingame	3.73%	$127,000	$635,000
Colma	2.20%	$75,000	$375,000
Daly City	9.54%	$325,000	$1,625,000
East Palo Alto	2.88%	$98,000	$490,000
Foster City	3.23%	$110,000	$550,000
Half Moon Bay	2.20%	$75,000	$375,000
Hillsborough	2.82%	$96,000	$480,000
Menlo Park	4.29%	$146,000	$730,000
Millbrae	2.85%	$97,000	$485,000
Pacifica	4.67%	$159,000	$795,000
Portola Valley	2.20%	$75,000	$375,000
Redwood City	9.33%	$318,000	$1,590,000
San Bruno	4.78%	$163,000	$815,000
San Carlos	4.08%	$139,000	$695,000
San Mateo	11.24%	$383,000	$1,915,000
South San Francsico	7.69%	$262,000	$1,310,000
Woodside	2.20%	$75,000	$375,000
San Mateo County	12.36%	$421,000	$2,105,000
Total	100.00%	$3,407,000	$17,035,000

Countywide Program	% of LS&R Allocation	Estimated Net Annual Revenue*	Estimated Net 5-Year Revenue*
Transit Operations/Senior Mobility	18%	$1,226,520	$6,132,600
Technology/Senior Mobility	11%	$749,540	$3,747,700
Safe Routes to School	6%	$408,840	$2,044,200
Stormwater (NPDES/MRP)	15%	$1,022,100	$5,110,500
Total	50%	$3,407,000	$17,035,000

*Estimation based on fiscal year 2019/20 revenue.

Notes:

1) The Local Streets and Roads program and Countyide Transportation Programs each receive 50% of net Measure M revenue. The top tabe to tthe right, indicates the percentage of Local Streets and Roads funding each jurisdiciton receives, rather than total percentage of all Measure M funding.

2) Local Streets and Roads program funding allocation is based on a formula consisting of 50% population and 50% road miles for each jurisdiction. Local jurisdictions are guaranteed a minimum amount of $75,000.

a. Road Miles Source: Caltrans Highway Performance Monitoring System 2019 Road Data released December 2020

b. Population Source: Population Estimates 2020 from California Department of Finance released May 2020

3) Figures may be slightly off due to rounding.

4) Assumes constant annual revenue over the 5-year Implementation period.

4

Conclusion

Conclusion

This strategic and implementation plan has been developed to capture lessons learned from the last ten years, and leverage opportunities to make improvements and enhancements as Measure M commences its second decade. Over the previous decade, Measure M has had a measurable impact on the county by funding a wide variety of programs directly linked to the legislative mandate, and supporting partners to deliver programs aligned with both local and countywide programming needs.Over the next five years C/CAG will build upon the strong foundation of the Measure M program, and modernize it toensure that it aligns with emerging needs and opportunities.

C/CAG and funding recipients will do this by implementing a set of strategic actions to advance the goals of the Measure M program, encourage innovation, and introduce streamlined data collection and evaluation that supports long-term demonstration of program impacts. In the coming months, the C/CAG team will take steps toward achieving the recommendations in this plan by:

- **Developing the program guidelines for the Countywide Transportation Program pilot program;**
- **Creating a set of reporting forms to collect standardized data from funding recipients;**
- **Beginning the process of outlining a future model for impact-based funding distribution among Countywide Programs; and**
- **Outlining the content and data needs for an online dashboard that will provide the public with information on the Measure M program's impact.**

The Modernizing Measure M Strategic and Implementation Plan will be evaluated in five years to inform the next five year implementation plan. In the meantime, C/CAG will work with their partners through regular engagement and collaboration to ensure the Vision of Modernizing Measure M is realized.

Appendices

Modernizing Measure M

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

Measure M Performance Assessment

A

Performance Assessment
June 2021

Measure M Performance Assessment

C/CAG
23892501

Performance Assessment
June 2021

Measure M Performance Assessment

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Appendices

A Measure M Local Streets and Roads Survey

Executive Summary

The Measure M program was approved by San Mateo County voters in 2010 to support local transportation projects and programs aimed at maintaining safe and clean roads, reducing congestion, and improving air quality. The program's current Implementation Plan, which guides funding allocation and outlines administrative processes, expires at the end of Fiscal Year 2021. In the process of developing the next Implementation Plan, C/CAG has undertaken a comprehensive review of the current program through a Performance Assessment.

The Performance Assessment introduces the concept of a Logic Framework, which is used to evaluate performance by highlighting strengths and weaknesses. Ultimately, the logic framework is used to demonstrate the program's impact toward its intended goals and outcomes. This tool will be valuable throughout the development of a new Implementation Plan for two reasons. First, it will help to identify performance measures that best demonstrates the program's impact. Second, it will lead to the discovery of actions that can be taken to improve upon those performance measures.

With the Logic Framework as a guide, the Performance Assessment reviews detailed allocation and expenditure data, and provides overviews of each of the programs receiving funding. Through the process of analyzing financial data and surveying and interviewing stakeholders receiving Measure M funding for their programs, the following key themes were identified:

1. Program flexibility supports successful investment of Measure M funds.
2. Measure M funding supports intended outcomes/goals with opportunities to expand impacts.
3. Measure M funding creates opportunities for larger projects and programs.
4. Standardizing performance indicators would more comprehensively demonstrate value of the Measure M program in future reviews.
5. Data and investment management practices could improve to better trace the impact of Measure M funding.
6. Reporting and invoicing processes could be augmented to support timely data collection and demonstration of impact.

As the process of developing the upcoming Implementation Plan continues, these themes will be explored in more detail. They will be used to support the development of formal goals, objectives and performance measures, to recommend strategic updates to the Measure M program, and to inform the Implementation Plan itself.

1 Introduction

1.1 Measure M Overview

Utilizing an annual $10 vehicle registration fee (VRF) on motor vehicles registered in San Mateo County, C/CAG's **Measure M program** delivers programs that maintain local roads, improve access to transportation options, decrease congestion and reduce water pollution from vehicle runoffs. Measure M was approved by voters in 2010 for a 25-year period, with the expectation that the program would generate roughly $6.7 million annually in program funding.

Every five years, C/CAG develops a Five-Year Implementation Plan, to be approved by the C/CAG Board. The Implementation Plan designates approved projects and programs to receive Measure M funding allocation throughout the next five-year period. The current Implementation Plan was published in May 2016 covering the Fiscal Years 2016/17-2020/21. C/CAG is in the process of developing the next Strategic Implementation Plan, covering Fiscal Years 2021/22-2025/26.

1.2 Performance Assessment

As part of the development of the upcoming Fiscal Years 2021/22-2025/26 Five-Year Implementation Plan, Steer has been commissioned to prepare an evaluation of the current Measure M Program. This document provides an overview and initial performance assessment of the Measure M program, with data available as of October of 2020. The assessment outlines allocations and expenditures across the various programs through Fiscal Year 2019/20, and evaluates the impact and successes these programs have had.

The information presented below was compiled through review of historical data and reports, a series of interviews with C/CAG staff and Countywide Program managers, and the distribution of a survey to representatives from each of the jurisdictions. The survey provided to jurisdictions has been included in Appendix A.

This document is structured as follows:

- **Chapter 1: Introduction** introduces Measure M and this document.
- **Chapter 2: Measure M Background** provides an overview of the Measure M program.
- **Chapter 3**: **Logic Framework** introduces the concept of a logic framework and outlines how it will be used to evaluate and support Measure M strategic planning moving forward.
- **Chapter 4: Revenues and Expenditures** provides an overview of allocation and actual spending across the Countywide Programs and by the 21 jurisdictions in San Mateo County
- **Chapter 5: Projects and Programs** describes in more detail each of the recipients of Measure M funding (including Administration, Local Streets and Roads, and the four Countywide Transportation Programs).

Chapter 6: Observations and Next Steps provides a summary of key themes and outlines the remainder of the expected process toward developing the FY 2022-2026 five-Year Implementation Plan

2 Measure M Background

2.1 Overview

This section provides a concise background review of the Measure M program, including a summary of the key programs and projects that are evaluated in later chapters of this report. It includes:

- **Measure M Funding Allocation –** an overview of how contributions are made overall across the program
- **Countywide Transportation Programs –** a summary of the 2017-2020 funding program for the Countywide Transportation Programs
- **Local Streets and Roads -** a summary of the 2017-2020 funding program for local streets and roads

2.2 Measure M Funding Allocation

Measure M's Expenditure Plan (included in an Attachment to the full Measure M legislation text) outlines the recipients of the money collected through the annual VRF. Of importance, the expenditures must align with the regional transportation plan, and must demonstrate benefit to the persons paying the VRF.

To that end, the Expenditure Plan dictates that 5% of the annual funding is allocated to support program administration. Of the remaining revenue, 50% should be distributed between four designated Countywide Transportation Programs, including:

- Transit Operations including Senior and Disabled Services (referred to as *Transit Operations and Senior Mobility* based on Measure M legislative description)
- Safe Routes to School
- Regional Traffic Congestion Management (referred to as *Technology and Smart Corridor* based on Measure M legislative description)
- Water Pollution Prevention Program (referred to as *Stormwater – National Pollutant Discharge Elimination System/Municipal Regional Permit* based on Measure M legislative description).

The other 50% should support local streets and roads maintenance for the twenty cities and San Mateo County.

Within those designations, an Implementation Plan may provide further guidance on approved or allowed expenditures. The current Fiscal Years 2016/17-2020/21

Implementation Plan allows funding to be spent in a variety of ways, allowing decisions to be made by the jurisdictions and Countywide Transportation Program managers.

2.3 Countywide Transportation Programs

The Expenditure Plan outlines that four Countywide Transportation Programs should receive Measure M Funds. The Fiscal Years 2016/17-2020/21 Implementation Plan outlines how funds are allowed to be spent (programs are not listed in order of significance):

- **Transit Operations and Senior Mobility**: Measure M may be used to fund SamTrans' senior mobility program, including senior mobility education, and other senior mobility management programs like van sharing. Additionally, funding may be directed to paratransit operations (currently realized through the Redi-Wheels program).
- **Safe Routes to School**: Safe Routes to School (SRTS) promotes safe walking, bicycling, carpooling and other non-single occupancy vehicle modes of travel for students and parents in San Mateo County. The program is administered by C/CAG and managed by the County Office of Education. Measure M funds may be used for both infrastructure and non-infrastructure SRTS projects, including use as a local match for projects funded through outside grants.
- **Technology and Smart Corridor**: The Intelligent Transportation System (ITS) and Smart Corridor program deploys projects with regional and countywide significance aimed at congestion reduction. Measure M funds may be spent on expansion of the Smart Corridor, and maintenance and operation of Smart Corridor specific equipment located within the San Mateo County jurisdictions' right of way.
- **Stormwater (NPDES/MRP)**: The Stormwater Program supports C/CAG member agencies in complying with requirements to reduce pollution in stormwater runoff contained in the Municipal Regional Permit (MRP), a National Pollutant Discharge Elimination System (NPDES) permit issued by the San Francisco Bay Regional Water Quality Control Board . Measure M may be used to support pollution reduction programs designed to support MRP compliance activities.

2.4 Local Streets and Roads

In addition to the four countywide programs noted above, jurisdictions directly receive funding for local streets and roads. This funding may be used to support programs and projects related to Traffic Congestion Management and Stormwater Pollution Prevention.

Within each of the programs, there is also a good deal of flexibility in how funding may be spent, with the only restriction being that funds should not be used to supplant city general funds. The current Fiscal Years 2016/17-2020/21 Implementation Plan provides a list of approved programs within each category, outlined below in Table 2-1.

Table 2-1: Local Streets and Roads Allocations

Traffic Congestion Management	Stormwater Pollution Prevention
• Local Shuttles/Transportation • Road resurfacing/reconstruction • Deployment of local ITS • Roadway operations • Replacement and/or upgrading of traffic signal hardware or software	• Street Sweeping • Roadway storm inlet cleaning • Street side runoff treatment • Auto repair shop inspections • Managing runoff from street/parking lot • Small capital projects such as vehicle related runoff management/controls • Capital purchases for motor related runoff management/controls • Additional used oil drop off locations • Motor vehicle fluid recycling programs • Installation of new previous surface median strips in roadways • Municipal Regional Permit compliance activities

3 Logic Framework

3.1 Overview

This chapter provides a summary of the logic framework developed for use in the five year strategy development process. This evaluation framework is 'aspirational' and reflects the range of data required for a robust evaluation of the program at the end of the next five year Implementation Plan. This framework has been applied to existing data to illustrate its use and identify gaps to fill during the strategic development process.

3.2 Logic Framework Introduction

As Measure M funding is distributed to a variety of programs and jurisdictions, it is useful to establish a framework by which to assess the Measure M program overall. The framework allows us to identify where programs can clearly demonstrate impact toward their goals and objectives, as well as where those ties may be less apparent. These instances may indicate a lack of data, or highlight areas where there are opportunities to evolve within the program. To this end, a logic framework has been established, which includes the following elements:

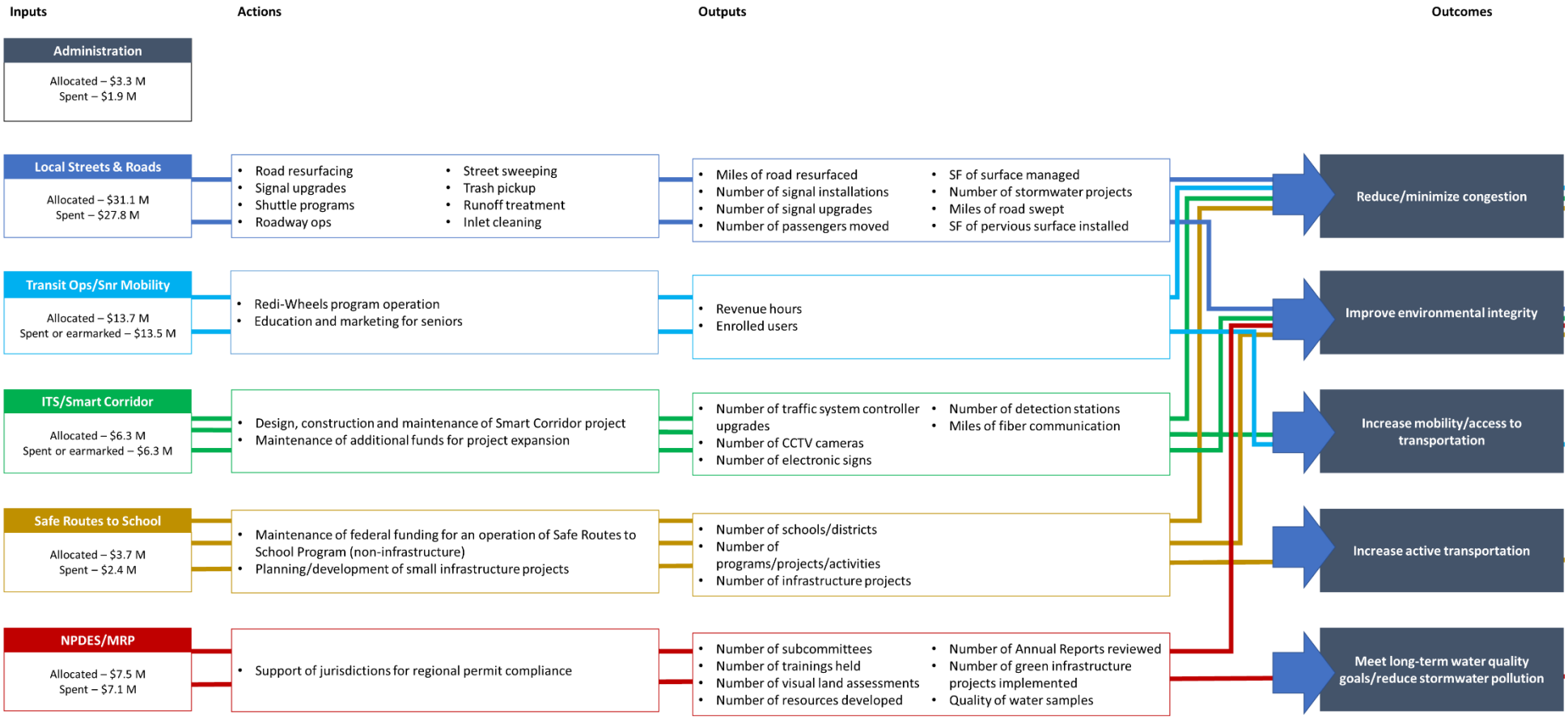
- **Inputs**: The resources required to operate the program. In this case, programmatic inputs highlight Measure M funding allocation and spending for each of the programs, as well as the percent of each program's budget that Measure M represents.
- **Actions**: The work program recipients are undertaking with the funding. For the purpose of clarity and ease of understanding, actions have been summarized rather than listed in full.
- **Outputs**: Measurable performance indicators from the program. These often relate to quantifying the actions identified
- **Outcomes**: Stated objectives or goals of the program. Outcomes generally demonstrate wider benefits realized.

By utilizing the logic framework, we seek to answer the following questions:

- What **inputs** are required to implement projects or programs?
- What **actions** are being taken by funding recipients? Have they aligned with the desired outcome or overall goals?
- What measurement **outputs** have been recorded? What do they communicate about the overall success of their projects or programs?
- What were the project or program's desired goals and **outcomes**? Were they achieved?

3.3 Proposed Logic Framework

The Measure M Logic Framework is presented in Figure 3.1 **Error! Reference source not found.**on the following page, providing a high-level view of how each of the programs could each be evaluated. As is demonstrated in more detail throughout the course of this document, clear information is collected on inputs, actions, and outcomes related to Measure M programming. However, the program would benefit from improved collection of outcome focused measurement in order to clearly demonstrate Measure M's impact toward its overall goals


Inputs
Actions
Outputs
Outcomes
Administration
Allocated – $3.3 M
Spent – $1.9 M
Local Streets & Roads
Allocated – $31.1 M
Spent – $27.8 M
Road resurfacing
Signal upgrades
Shuttle programs
Roadway ops
Street sweeping
Trash pickup
Runoff treatment
Inlet cleaning
Miles of road resurfaced
Number of signal installations
Number of signal upgrades
Number of passengers moved
SF of surface managed
Number of stormwater projects
Miles of road swept
SF of pervious surface installed
Transit Ops/Snr Mobility
Allocated – $13.7 M
Spent or earmarked – $13.5 M
Redi-Wheels program operation
Education and marketing for seniors
Revenue hours
Enrolled users
ITS/Smart Corridor
Allocated – $6.3 M
Spent or earmarked – $6.3 M
Design, construction and maintenance of Smart Corridor project
Maintenance of additional funds for project expansion
Number of traffic system controller upgrades
Number of CCTV cameras
Number of electronic signs
Number of detection stations
Miles of fiber communication
Safe Routes to School
Allocated – $3.7 M
Spent – $2.4 M
Maintenance of federal funding for an operation of Safe Routes to School Program (non-infrastructure)
Planning/development of small infrastructure projects
Number of schools/districts
Number of programs/projects/activities
Number of infrastructure projects
NPDES/MRP
Allocated – $7.5 M
Spent – $7.1 M
Support of jurisdictions for regional permit compliance
Number of subcommittees
Number of trainings held
Number of visual land assessments
Number of resources developed
Number of Annual Reports reviewed
Number of green infrastructure projects implemented
Quality of water samples
Reduce/minimize congestion
Improve environmental integrity
Increase mobility/access to transportation
Increase active transportation
Meet long-term water quality goals/reduce stormwater pollution

4 Revenues and Expenditures

4.1 Overview

This chapter provides a brief financial overview of the Measure M program from its inception through Fiscal Year (FY) 19-20. It outlines:

- The amount of **revenue** accrued from Vehicle Registration Fees
- The funding **allocation** across the jurisdictions and Countywide Programs
- The **expenditure** demonstrated across all recipients.

Note: Measure M revenues and expenditures are presented on a fiscal year (FY) basis. C/CAG's fiscal year runs from July 1st through June 30th each year.

4.2 Revenue

Through FY 19-20, over $66 million has been collected with Measure M, exceeding projected revenues of just over $60 million during this period based on an initial estimation of $6.7 million per year.

Revenue variations from plan are typically explained by changes in number of vehicles registered in San Mateo County. Notably, Measure M revenues grew 6% between FY 17-18 and FY 18-19 due to accumulated interest .

Annual revenue data is presented in

Table 4-1: Measure M Annual Revenue through FY 19-20

Revenue	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	Total to date
Total VRF Collected	7,981,296	6,849,938	6,981,050	7,155,362	7,252,769	7,474,865	7,517,638	7,774,301	7,189,349	66,176,567
DMV fees	(59,063)	(3,425)	(3,491)	(3,578)	(3,626)	(3,737)	(3,759)	(3,887)	(3,595)	(88,161)
Total to C/CAG	7,922,234	6,846,838	6,977,886	6,580,544	7,821,283	7,471,128	7,513,879	7,770,413	7,185,755	66,089,959
Interest	24,342	15,403	45,226	26,711	28,843	53,963	122,736	341,951	354,857	1,041,742
Total Revenue	**7,946,576**	**6,862,241**	**7,023,112**	**6,607,255**	**7,850,126**	**7,525,091**	**7,636,615**	**8,112,364**	**7,540,612**	**67,131,701**

4.3 Allocation

Of the $676 million collected with Measure M, over $66 million has been allocated to programs and projects in San Mateo County. On average, $3.5 million a year is allocated to jurisdictions for Traffic Congestion Management and Stormwater Pollution Prevention, and $3.5 million a year is allocated to the four Countywide Transportation Programs:

- Transit Operations and Senior Mobility
- Safe Routes to School
- Technology and Smart Corridor
- Stormwater (NPDES/MRP)

While the Expenditure Plan dictates that, after the 5% administration allocation, 50% of the funding must go to the jurisdictions for the Local Streets and Roads program and 50% must go to the four Countywide programs, the allocation within those categories can vary. Allocation to each category is determined every five years through the Five-Year Implementation Plan, however, the allocation process has remained the same since 2011 when Measure M was approved.

The Local Streets and Roads allocation is based on a formula consisting of 50% population and 50% local road miles, with a guaranteed minimum allocation of $75,000 for each jurisdiction.

The Countywide programs have each been allocated a set percentage of their total pot, outlined in Table 4-2, based on anticipated programmatic need at the time when the program was established.

Table 4-2: Current Countywide Transportation Program Funding Allocation

Program	% of Countywide Program Allocation
Transit Operations and Senior Mobility	22%
Safe Routes to School	6%
Technology and Smart Corridor	10%
Stormwater (NPDES/MRP)	12%

The full annual allocation of Measure M funds through FY 19-20 is demonstrated in Table 4-3.

Table 4-3. Allocation by Program

Allocation by Program	FY 11-12*	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	Total to date
Program Administration (5%)	396,112	342,342	348,894	329,027	391,064	373,556	375,694	388,521	359,288	3,304,498
One-time County Assessors Election Costs	549,527									549,527
Total Allocated to Programs after Program Administration Allocation	6,976,595	6,504,496	6,628,991	6,251,517	7,430,218	7,097,572	7,138,185	7,381,892	6,826,467	**62,235,934**
Local Streets and Roads (50%)	3,488,298	3,252,248	3,314,496	3,125,758	3,715,109	3,548,786	3,569,092	3,690,946	3,413,233	31,117,967
Countywide Transportation Programs (50%)										
Transit Operations/Senior Mobility Program (22%)	1,534,851	1,430,989	1,458,378	1,375,334	1,634,648	1,561,466	1,570,401	1,624,016	1,501,823	13,691,905
ITS/Smart Corridor (10%)	697,660	650,450	662,899	625,152	743,022	709,757	713,818	738,189	682,647	6,223,593
Safe Routes to School (6%)	418,596	390,270	397,739	375,091	445,813	425,854	428,291	442,914	409,588	3,734,156
Stormwater Program (12%)	837,191	780,539	795,479	750,182	891,626	851,709	856,582	885,827	819,176	7,468,312
Total Allocation (incl. Program Administration and One-time County Assessors Election Costs)	**7,922,234**	**6,846,838**	**6,977,886**	**6,580,544**	**7,821,283**	**7,471,128**	**7,513,879**	**7,770,413**	**7,185,755**	**66,089,959**

**FY 11-12 includes allocation from February to June 2011 (FY 10-11) revenues as well*

**Interest is not included in the allocation*

4.4 Expenditure

Since inception, 81% of the allocated money has been spent by jurisdictions and Countywide Transportation Programs. Currently, unspent money is carried over into future years and reserved for the jurisdiction or program to which it was initially allocated.

Some programs, like the ITS/Smart Corridor program, have program expenditures that may be larger than their annual allocation. Thus, the program may save their funding for a few years until they have enough to cover their needs. Similarly, some of the jurisdictions with smaller allocations prefer to save their allocation until they have enough to make larger purchases.

Numerical data on expenditure across the Measure M program is presented in Table 4-4 and further detail on the projects and programs supported by Measure M funding is outlined in Chapter 5. Of note, this table does not include funds that have been earmarked but not spent directly.

Table 4-4: Measure M Annual Expenditure through FY 19-20

Expenditures by Program	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	Total to date
Program Administration	559,272	59,282	214,600	167,407	253,479	232,969	125,205	112,759	189,637	1,914,610
County Assessors Election Costs	549,527									549,527
Local Streets and Roads	**1,424,534**	**3,130,611**	**2,942,828**	**2,986,210**	**3,297,477**	**3,698,698**	**3,431,914**	**3,357,538**	**3,555,401**	**27,825,211**
Traffic Congestion	844,773	1,925,539	1,776,742	1,485,436	1,942,307	1,954,318	1,451,442	1,958,210	1,498,711	14,837,478
Stormwater Pollution Prevention	579,761	1,205,072	1,166,086	1,500,774	1,355,170	1,744,380	1,980,472	1,399,328	2,056,690	12,987,733
Countywide Transportation Programs	**1,654,943**	**2,619,403**	**3,201,914**	**2,641,093**	**2,978,191**	**3,477,868**	**2,639,659**	**2,506,950**	**2,544,910**	**24,264,931**
Transit Ops/Senior Mobility	1,400,000	1,400,000	1,400,000	1,110,365	1,689,635	1,400,000	1,833,875	1,401,033	1,405,801	13,040,709
ITS/Smart Corridor	-	-	500,000	200,000	200,000	802,349	59	-	-	1,702,408
Safe Routes to School	254,943	311,792	329,831	329,863	219,471	310,138	136,092	138,847	373,103	2,404,080
Stormwater Program	-	907,611	972,083	1,000,865	869,085	965,381	669,633	967,070	766,006	7,117,734
Total Expenditure	**3,638,749**	**5,809,296**	**6,359,342**	**5,794,710**	**6,529,147**	**7,409,535**	**6,196,778**	**5,977,247**	**6,289,948**	**54,004,752**

5 Projects and Programs

5.1 Overview

This Chapter provides an in-depth description of each of the programs that receive Measure M funding, including:

- Administration
- Local Streets and Roads
- Transit Operations including Senior and Disabled Services
- Safe Routes to School
- Regional Traffic Congestion Management (ITS and Smart Corridor)
- Water Pollution Prevention Program.

For each program, the chapter includes a **program description** of the activities or projects realized, a **funding overview**, describing Measure M's role within the program, a description of **metrics** collected by each program, and a representation of each program within the **logic framework** introduced above.

5.2 Administration

5.2.1 Program Description

Administration funds are used for program management and administration activities, such as staff time for invoicing and reporting. Though not the case for all of the Countywide Programs, the Administration funds do support some of the administrative staff time for the Stormwater Pollution Prevention program team.

C/CAG receives funds from the DMV monthly based on the actual number of vehicle registrations in the county, which determine the allocation of Measure M across its funding recipients.

5.2.2 Funding Overview

Administration receives 5% of the total Measure M allocation. Of the $3.3 million allocated for Administration (including election-related costs from FY 10-11), 58% has been spent on admin activities. Per the 2017-2021 Implementation Plan, unexpended allocation of program administration funds will be reallocated to the jurisdictions and four Countywide Transportation Programs in future years. In April 2020, the C/CAG Board approved Resolution 20-09 authorizing the reallocation of the accumulated interest and

unspent administration fund from inception through FY 18-19 to the Local Streets and Roads and the four Countywide Transportation Programs using the allocation percentages in the current Implementation Plan. The additional fund will be available to the programs in FY 20-21. The reallocation is summarized in Table 5-1 below.

Table 5-1. Reallocated Interest from FY 2020

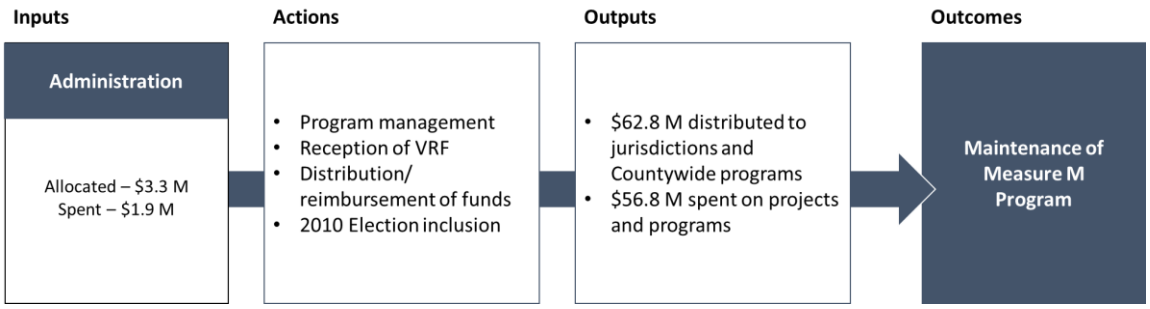
Interest Balance		$686,885.00
Administration Balance		$1,220,237.20
Total Available to Reallocate		**$1,907,122.20**
Reallocation to Programs		
Local Streets and Roads	50%	$953,561.10
Countywide Transportation Programs		
Transit Operations/Senior	22%	$419,566.88
ITS / Smart Corridor	10%	$190,712.22
Safe Routes to School	6%	$114,427.33
Stormwater	12%	$228,854.66
Total Reallocated to Programs		**$1,907,122.20**

5.2.3 Metrics

C/CAG tracks project and program expenditure through invoices from jurisdictions and Countywide Program administrators requesting reimbursement for approved services. Staff working with each of the Countywide Programs report varying levels of information on annual performance measures. Jurisdictions receiving funds through the Local Streets and Roads program report specific metrics listed in the reimbursement request form, however C/CAG has not used those metrics to make funding allocation decisions for the 50% local distribution since that was voter approved.

The evaluation framework for this section of the program is defined in Figure 5-1.

Figure 5-1. Administration Logic Framework



5.3 Local Streets and Roads

5.3.1 Program Description

Funds for the Local Streets and Roads program are allocated twice a year for projects related to traffic congestion management and stormwater pollution prevention. Once funds are expended, local jurisdictions are reimbursed for their expenses. Jurisdictions also have the option of getting the whole fiscal year allocation reimbursed once per year.

Jurisdictions are able to spend their Measure M allocation on a variety of projects and programs related to Traffic Congestion Management and Stormwater Pollution Prevention. The previous Implementation Plan required that funding be split evenly across the two, but the current Plan allows jurisdictions to spend their Measure M funds across both categories as they see fit.

In September 2020, a survey was distributed to each of the jurisdictions in San Mateo County. Responses were received from each of the twenty cities and towns (not including the County itself, though they have been interviewed subsequently to ensure their feedback is included in the process of developing the next Implementation Plan). Much of the information below is based on the survey responses received.

With the choice of using their funding on either (or both) of the Traffic Congestion Management or Stormwater Pollution Prevention categories, most jurisdictions reported that they do utilize both. Road Resurfacing and Street Sweeping were noted as the most popular expenditures from each of the two categories respectively. However, the Measure M program allows jurisdictions to spend their funding flexibly, and jurisdictions reported a variety of other uses demonstrated below in Figure 5-2 and Figure 5-3.

Figure 5-2. Local Streets and Roads Expenditures - Traffic Congestion Management (20 Responses)

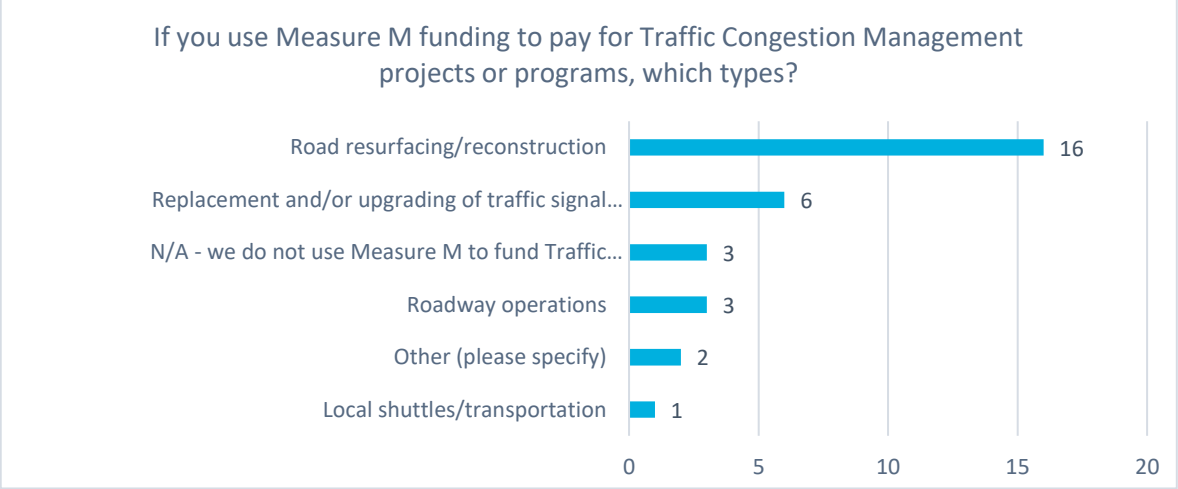
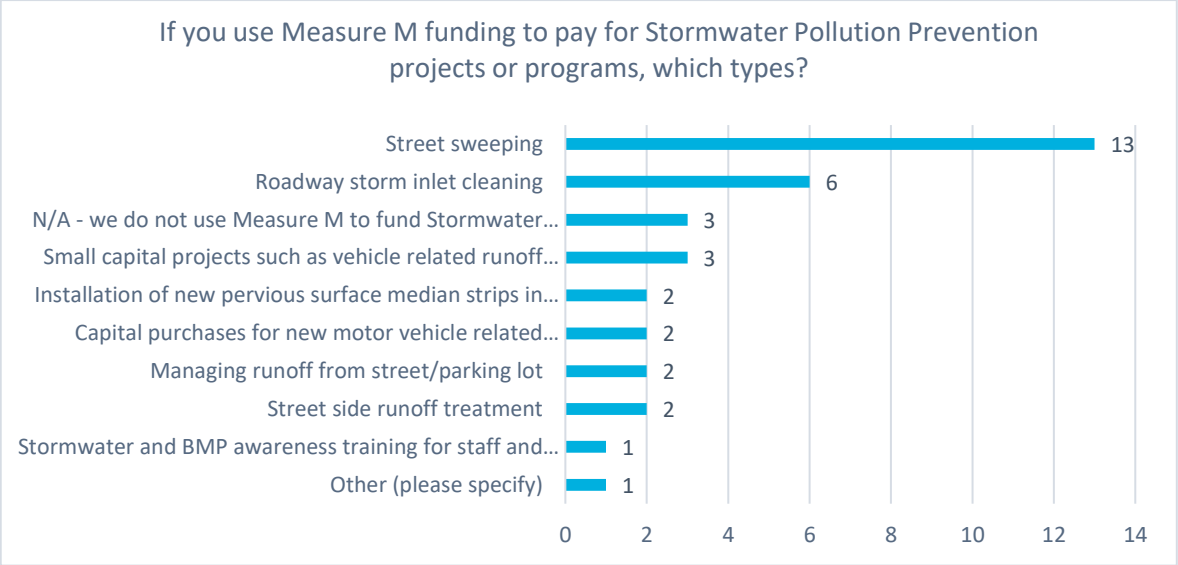


Figure 5-3. Local Streets and Roads Expenditures - Stormwater Pollution Prevention (20 Responses)



While most jurisdictions are reimbursed for projects or parts of projects they undertake with their own funds, Measure M funds are also allowed to be used as local matches to secure outside funding. Only four jurisdictions indicated that they had used their Measure M allocations in that capacity, but ten additional jurisdictions indicated that they might be interested in doing so in the future.

5.3.2 Funding Overview

Funding allocation and expenditure

The Local Streets and Roads program receives 50% of net Measure M funding, and it is allocated across all 21 jurisdictions based on their total population and miles of surface road, while reserving at least a $75,000 minimum for each jurisdiction. Jurisdictions cover their costs in advance, and submit invoices to C/CAG for reimbursement.

Through FY 18-19, Measure M has allocated $27.7 million in total to the 21 jurisdictions, of which $24.2 million has been spent[1]. Through FY 18-19, over $14 million, or just under 52% of the total amount reimbursed to jurisdictions has projects in the Traffic Congestion Management category, and just over $12 million, or 44%, has funded programs and projects within the Stormwater Pollution Prevention category.

Table 5-2: below shows the total allocation and expenditure by jurisdiction for local streets and roads through FY 18-19.

[1] *Full expenditure data for Local Streets and Roads program not yet available for FY 19-20, so data above and in Figure 5-2 reflects total through FY 18-19.*

Table 5-2: Local Streets and Roads Allocation and Expenditure by Jurisdiction through FY 18-19[2].

Jurisdiction	Allocation	Traffic	Stormwater	Total	% Spent
Atherton	631,728	538,242	93,485	631,728	100%
Belmont	916,664	517,275	399,388	916,663	100%
Brisbane	631,728	220,728	357,600	578,328	92%
Burlingame	1,102,051	502,384	599,666	1,102,050	100%
Colma	631,728	117,606	210,445	328,051	52%
Daly City	2,660,374	2,660,377	-	2,660,377	100%
East Palo Alto	842,521	64,709	208,582	273,291	32%
Foster City	869,451	827,159	42,291	869,451	100%
Half Moon Bay	631,728	465,951	83,570	549,521	87%
Hillsborough	784,758	720,663	67,567	788,230	100%
Menlo Park	1,262,236	467,821	794,416	1,262,236	100%
Millbrae	759,919	37,606	722,312	759,919	100%
Pacifica	1,332,161	420,070	911,714	1,331,785	100%
Portola Valley	631,728	340,629	51,110	391,739	62%
Redwood City	2,476,900	164,409	2,312,491	2,476,900	100%
San Bruno	1,320,478	688,128	588,127	1,276,255	97%
San Carlos	1,118,025	871,625	246,401	1,118,026	100%
San Mateo	3,080,530	1,908,726	1,171,804	3,080,530	100%
South San Francisco	1,990,783	1,664,527	326,256	1,990,783	100%
Woodside	631,728	590,541	41,187	631,728	100%
San Mateo County	3,396,775	496,422	2,900,353	3,396,776	100%
	27,703,992	**14,285,597**	**12,128,766**	**26,414,363**	

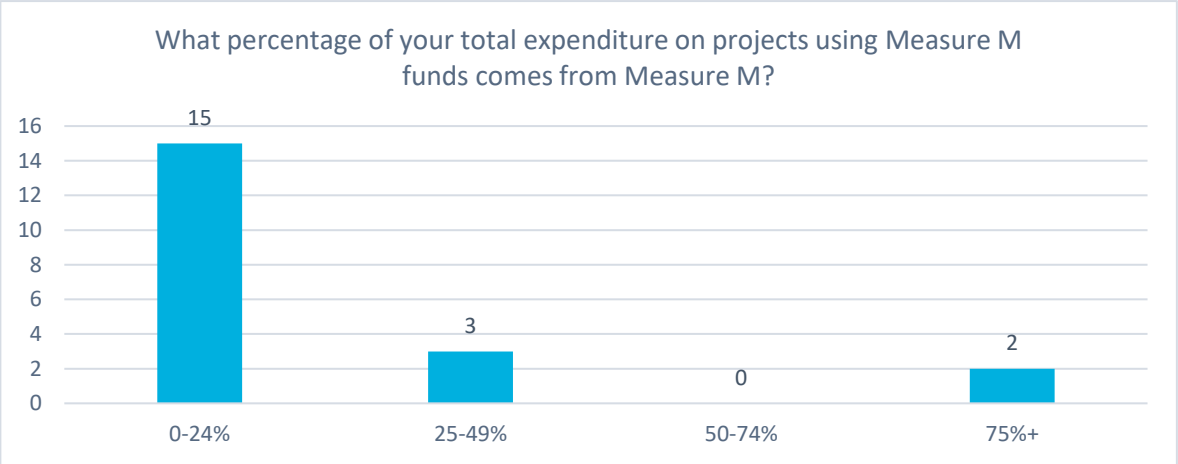
According to the Local Streets and Roads survey responses, most jurisdictions did not report any issues with spending allocated funding, although some pointed to challenges with timing of projects making it difficult to ask to reimbursements on time, or specific concerns related to the COVID-19 pandemic.

Some jurisdictions indicated that, rather than spend their allocated funding annually, they prefer to save the funding to be used on larger capital projects or purchases.

While Measure M funding is a valuable resource for jurisdictions' Traffic Congestion Management and Stormwater Pollution Prevention activities, it typically accounts for only a portion of the overall cost of the projects it supports. According to the Local Streets and Roads Survey responses, almost all jurisdictions reported that Measure M accounts for less than 50% of the total cost of the projects for which they use the funds, and most (15 jurisdictions) reported that Measure M accounts for less than 25%.

[2] Due to rounding, totals may be slightly off from totals listed elsewhere in this report.

Figure 5-4: Percentage of funding coming from Measure M (20 responses)



5.3.3 Metrics

On their reimbursement request forms, C/CAG requires jurisdictions to report performance measures related to their Measure M expenditures. Some of the requested data include:

- Performance Measure
- Total Project Cost
- Total Project Quantity
- Period of performance (as applicable)

C/CAG provides a list of measures to the jurisdictions to guide their responses, shown below in Figure 5-5.

Figure 5-5. Performance Measures Designated by C/CAG

Traffic Congestion Management	
Projects	***Performance Measure***
• Local shuttles/transportation	• Number of passengers transported.
• Road resurfacing/reconstruction	• Miles/fraction of miles of roads improved.
• Deployment of Local Intelligent Transportation Systems (ITS)	• Number of ITS components installed/ implemented.
• Roadway operations such as: Restriping, Signal timing/coordination, Signage	• Miles/fraction of miles of roads improved.
• Replacement and/or upgrading of traffic signal hardware and/or software	• Number of units replaced and/or upgraded.

Stormwater Pollution Prevention	
Projects	***Performance Measure***
• Street sweeping	• Miles of streets swept an average of once a month.
• Roadway storm inlet cleaning	• Number of storm inlets cleaned per year.
• Street side runoff treatment	• Square feet of surfaces managed annually.
• Auto repair shop inspections	• Number of auto repair shops inspected per year.
• Managing runoff from Street/Parking lot impervious surfaces	• Square feet of surfaces managed annually.
• Small capital projects such as vehicle wash racks for public agencies that include pollution runoff controls	• Number of projects implemented.
• Capital purchases for motor vehicle related runoff management and controls	• Number of pieces of equipment purchased and installed.
• Additional used oil drop-off locations	• Number of locations implemented and operated, and quantity of oil collected.
• Motor vehicle fluid recycling programs	• Number of programs implemented and operated, and quantity of fluids collected.
• Installation of new pervious surface medium strips in roadways	• Square footage of new pervious surface medium strips installed.
• Municipal Regional Permit Compliance Activities	• Identification of permit provision(s) and compliance activities performed

Performance measures reported to C/CAG are provided in a variety of formats, scales, and time periods, depending on the reporting jurisdiction. This can lead to challenges for C/CAG to compile an accurate account of performance measures met across the program as a whole.

While consistent cross-jurisdictional information is unavailable, totals of some of the most common performance measures received demonstrate the impact of the Local Streets and Roads Program are provided in Table 5.2.

Table 5-3: Performance Measures Reported by Jurisdictions

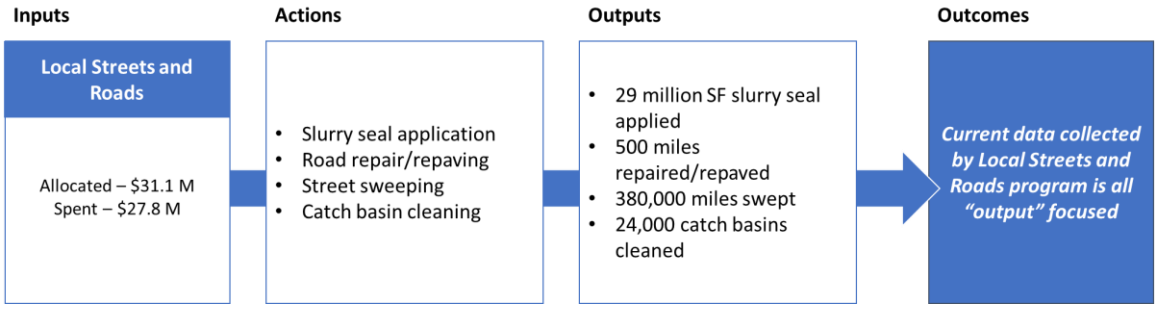
Performance Measure	Outcomes Reported by Jurisdictions
Slurry seal applied	29 million square feet
Roads repaired or repaved	500 miles
Roads swept	380,000 miles
Catch basins cleaned	24,000 catch basins

In response to the Local Streets and Roads survey, none of the jurisdictions indicated that they spend more than four hours per week on data collection and monitoring of Measure M-funded projects or programs. A majority of respondents (12) indicated that they spend between zero and two hours collecting data, and six respondents indicated that they dedicate no time at all for data collection.

Although this data is collected by the jurisdictions, C/CAG does not keep track of this data in their database consistently. The reimbursement forms are submitted in PDF format, and compiling data from previous years in order to review long-term impact would be time consuming and would likely require additional back and forth with jurisdictions to 'right size' metric labels and categories.

The sample evaluation framework for this section of the program is defined in Figure 5-6.

Figure 5-6. Local Streets and Roads Logic Framework



5.4 Transit Operations and Senior Mobility

5.4.1 Program Description

The Transit Operations program is managed by the San Mateo County Transit District (SamTrans). Funding is used for senior mobility programs, including paratransit service (which supports seniors and persons with disabilities).

The allocation has primarily supported the Redi-Wheels program, a fixed-route paratransit service for persons with disabilities who cannot independently use regular SamTrans bus service. The Redi-Wheels program allows riders to schedule rides by phone, either on a one-time basis or through a 'subscription' for regular service. All types of trips are eligible, including those deemed 'non-essential' such as shopping, visiting friends, or hair appointments.

Outside of Redi-Wheels, the Senior Mobility Program actively encourages and educates the use of traditional transit among seniors by providing information and assistance to older adults. In addition, the Senior Mobility Program advocates for pedestrian improvements that promote safe walking areas for seniors. The general goal of this program is to increase ridership for seniors, people with disabilities, and veterans, while providing quality service. C/CAG's latest funding agreement with the San Mateo County Transit District (SamTrans) from July 2020 lists recommended strategies for inclusion in the Senior Mobility Program:

- Subsidized ride sourcing pilot program with smartphone application booking
- Improve and increase awareness of mobility ambassador and veteran's mobility corps program
- Mobile accessible travel training bus
- Flexible-route Community Transit Service
- Other innovative services/programs

While the Expenditure Plan dictates that the Transit Operations program must include Senior and Disabled Services, it does not dictate that the full expenditure be used this way. Recently, Transit Operations funds were used to supplement the funding C/CAG received from Metropolitan Transportation Commission (MTC) to update two of the County's Community-Based Transportation Plans (CBTP).

5.4.2 Funding Overview

The Transit Operations program receives 22% of the net Measure M allocation. Measure M has allocated $13.8 million to the Redi-Wheels and Senior Mobility programs through FY 19-20. An amount of $13 million has been spent, equivalent to 94%.

For administrative purposes, C/CAG and SamTrans have agreed that SamTrans would receive 22% of the net Measure M allocation, which is estimated to be$1.4 million annually, although the actual allocation has been higher. SamTrans typically directs the estimated $1.4 million into their general Redi-Wheels program funding pot. Before 2018,

if the allocation was higher than $1.4 million, the funding agreements between SamTrans and C/CAG provided the excess funds to SamTrans for their general Redi-Wheels program. Beginning in2018, C/CAG has stipulated that anything else allocated above the $1.4 million would fund other Senior Mobility programs specified in the funding agreement. As described by the SamTrans team, the program has about $500,000 that falls into that category that the team has been saving for larger upcoming projects such as an online reservation system. Additionally, the Transit Operations program has allocated up to $100,000 to fund the local match to update CBTPs as described above .

The overall Redi-Wheels program costs approximately $19.1 million annually (of which Measure M contributes about 7%) to operate. Much of this comes from state and federal funding sources, which unlike Measure M, provide little flexibility in how funding can be spent.

5.4.3 Metrics

The Redi-Wheels program is evaluated by a number of performance measures, which are outlined in Table 5-4 below with the most recent year's (FY 18-19) reported performance data.

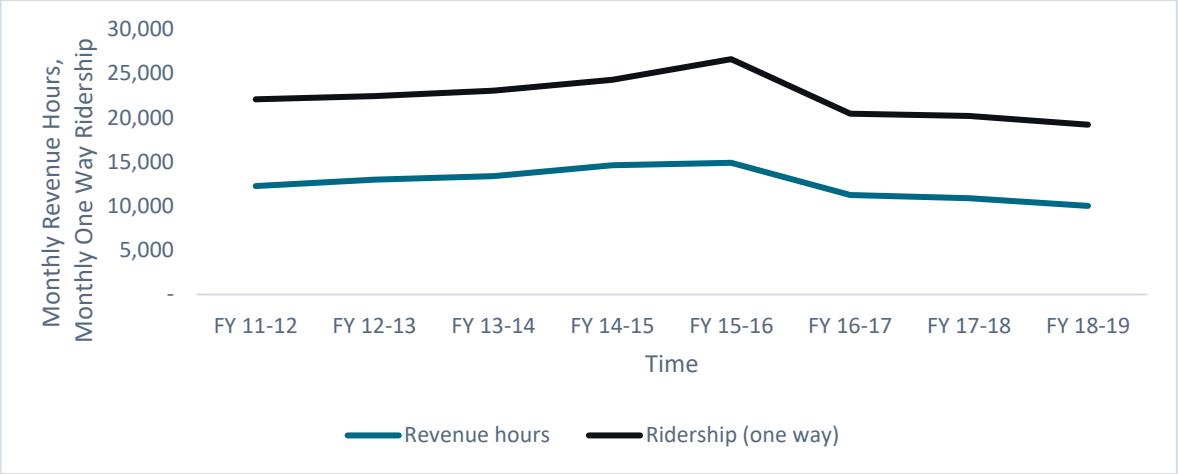
Table 5-4: Redi-Wheels Program FY 19-20 Performance Data

Performance Measure	FY 19-20 Data[3]
Number of revenue hours	126,524 hours
Total ridership	58,392 one-way riders
Individuals riding in a given month	1,660 individuals
Productivity (passengers per hour)	1.85 passengers
On-time performance	93%
Miles between preventable accidents	73,388 miles
Telephone hold time	0.68 minutes
Cost per rider	$82.19

The program serves around two thousand individuals annually, making on average 20,000 one-way trips a year. Ridership and revenue hours served by the Redi-Wheels Program are shown in Figure 5-7Figure 5-7 below.

[3] *Source: Measure M Annual Reports*

Figure 5-7. Redi-Wheels Program Performance Indicators[4]

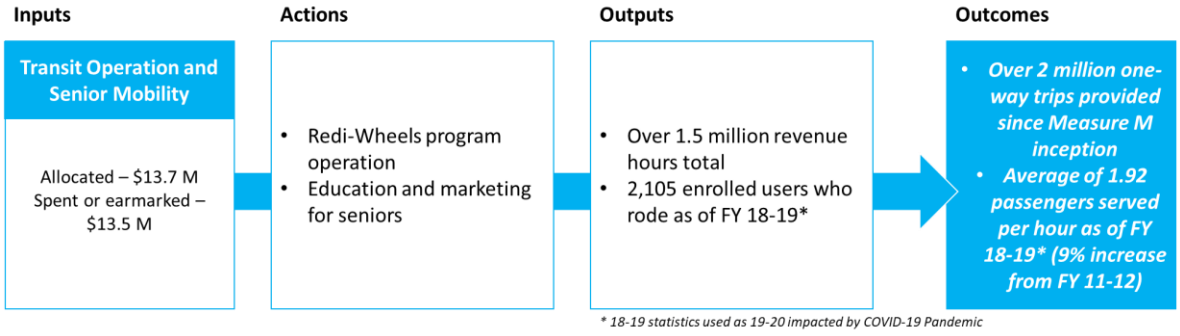


Metrics collected for other Senior Mobility programs are less consistent, as the projects and programs included have varied significantly over the years. In FY 19-20, the program used Measure M funds to:

- Update, print and distribute the Senior Mobility Guide in English, Spanish and Chinese
- Attend events such as Seniors on the Move, and Facebook festivals, and fairs directed at health and senior issues
- Present at senior housing sites and classes aimed at safe driving for seniors
- Purchase promotional items to distribute at events

The sample evaluation framework for this section of the program is defined in Figure 5-8.

Figure 5-8. Transit Ops/Senior Mobility Logic Framework



[4] *SamTrans reported average Ridership and Revenue Hours per month through FY 15-16, and began reporting those metrics through average by quarter in FY 16-17. This chart demonstrates both metrics by month. Table only includes data through FY 18-19 as FY 19-20 was impacted by the response to the COVID-19 pandemic.*

5.5 Safe Routes to School

5.5.1 Program Description

The initiation of the San Mateo County Safe Routes to Schools (SRTS) Program is a direct result of Measure M, which provides the local match needed to secure federal funding. The SRTS program is a countywide effort that aims to reduce traffic congestion around schools and improve air quality, with the co-benefit of promoting students' health and fitness. This is done by increasing the number of students biking, walking, carpooling, and/or taking transit to schools. The SRTS team has successfully engaged with districts, schools and students and parents to encourage non-driving modes.

C/CAG contracts with the San Mateo County Office of Education (COE) to deliver the program in order to better serve the needs of the K-12 schools. COE works directly with the schools and school districts that apply and receive funding.

The SRTS funding provided by Caltrans comes through the Congestion Mitigation and Air Quality (CMAQ) Program, and are distributed through MTC's OBAG fund. CMAQ requires that funding be focused on non-infrastructure projects. The San Mateo County SRTS program has focused on activities in the areas of education, encouragement, and evaluation. This includes on-site educational events, travel survey distribution and evaluation, and walk and bike audits.

Measure M funds, however, are more flexible than those issued through the CMAQ program, and thus they have also historically been used to support special projects outside of the local match contribution. These include small projects such as the provision of stipends to teachers who support SRTS, as well as larger undertakings, such as the joint SRTS/Green Infrastructure capital projects that were implemented in 2018. These pilot projects were implemented to demonstrate that green infrastructure can be cost-effectively integrated with traditional SRTS infrastructure projects to enhance safety and achieve stormwater pollutant reductions. C/CAG funded ten projects which included elements of both SRTS infrastructure and stormwater, such as curb extensions and crossing improvements with bioretention components.

5.5.2 Funding Overview

The SRTS program receives 6% of the net Measure M allocation. C/CAG uses Measure M funds along with the MTC allocated federal funds for this program. The Measure M fund satisfies the local match (11.52%) requirement for access to the federal funds. The remaining funding are used on SRTS-related special projects at C/CAG's discretion.

Through FY 19-20, $3.7 million has been allocated to the program, and $2.4 million has been spent.

Most recently, $1 million was directed to fund the joint Safe Routes to School and Green Infrastructure projects, to provide green infrastructure development at and near school sites. Therefore, there is a balance of $363k.

5.5.3 Metrics

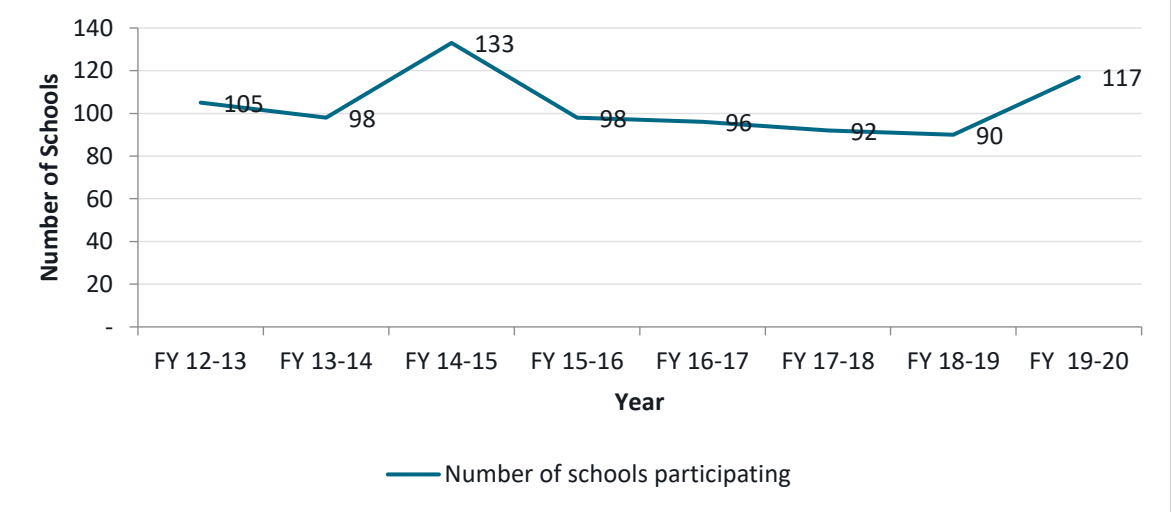
The COE collects performance measures for the SRTS program's Annual Report, and provides similar metrics to C/CAG. The Office of Education keeps track of participating schools and districts, as well as activities completed across the program. The most recent year reported has been outlined in Table 5-5.

Table 5-5. SRTS Performance Data

Performance Measure	FY 19-20 Data[5]
Participating school districts	13
Participating individual schools	117
Educational bicycle rodeos	8
Assemblies and classes	166
Encouragement events	130
Walk and bike audits	4
Walk and Bike to School Route Maps	6

Of note, the SRTS Annual Report for FY 14-15 listed the total number of supported schools as 133, but later in the report states that 133 "schools and/or organizations" participated in the program, so it may be that the apparent spike in participation for that year is due to a different method of data collection than is seen in the other years.

Figure 5-9. SRTS Participating Schools[6]



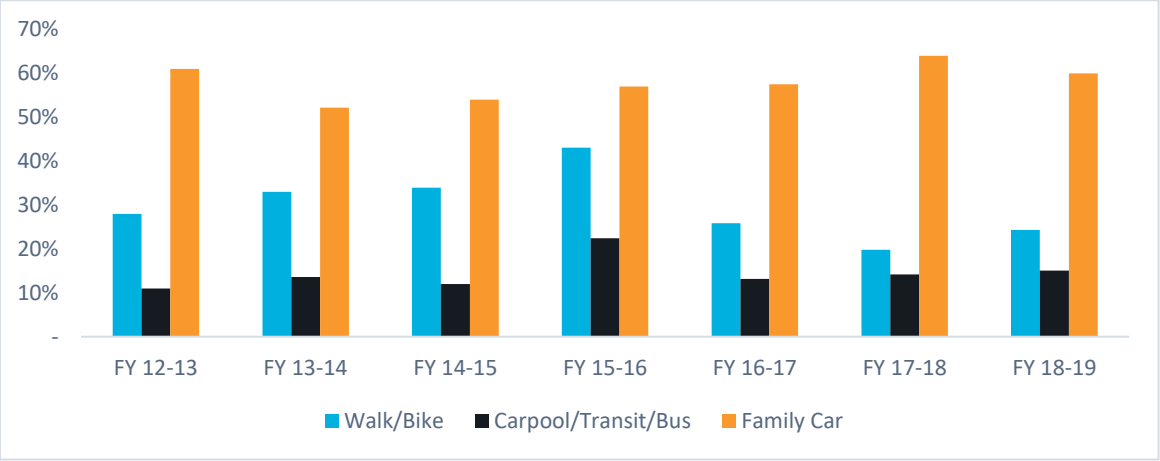
[5] *Source: Measure M Annual Report FY 19-20*

[6] *Source: SRTS Annual Reports through FY 17-18, supplemented with Measure M Annual Report for FY 18-19 and 19-20.*

Additionally, the SRTS program reports mode share results from 'Travel Talley' surveys, shown in Figure 5-10. Family car mode share averages at 58% across the available years, with a low of 52% in FY 13-14 and a high of 64% in FY 17-18.

Of note, while Travel Talleys have been conducted throughout the existence of the SRTS program, the available data lacks consistencies. The data depicted in Figure 5.10 is pulled from the SRTS Annual Reports, and, where possible, from surveys conducted in the Fall of each fiscal year. Of note, the FY 14-15 Annual Report does not display mode share data, so that year has been taken from the FY 14-15 Measure M Annual Report. Survey data from FY 17-18 and 18-19 is only available from surveys conducted in the Spring. The SRTS program reported a significant spike in bicycle travel in FY 15-16, at 18%, which is more than double the reported bicycle mode share of any other year.

Figure 5-10: SRTS Mode Share[7]



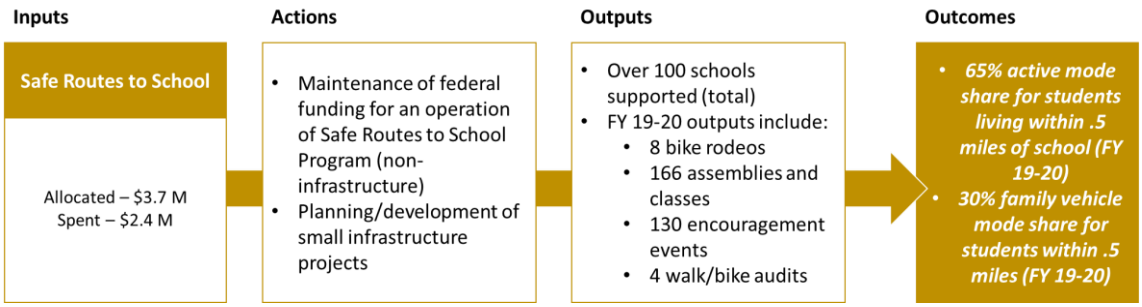
The data provided from FY 19-20 does not present total percentages by mode, but instead splits their report between students who live within ½ mile from school and those who live further away, therefore this data has not been included in Figure 5-10. Notably however, over 65% of students who live within ½ mile of their schools travel to school by walking or biking.

The SRTS program can also point to other anecdotal successes, such as their ability to expand the program through an equity analysis and engagement with cities' Planning and Public Works Departments to reflect the program's infrastructure needs.

[7] *Source: SRTS Annual Reports through FY 17-18, supplemented with Measure M Annual Reports for FY 14-15 and 18-19*

The sample evaluation framework for this section of the program is defined in Figure 5-11.

Figure 5-11: Safe Routes to School Logic Framework[8]



5.6 Regional Traffic Congestion Management (ITS and Smart Corridor)

5.6.1 Program Description

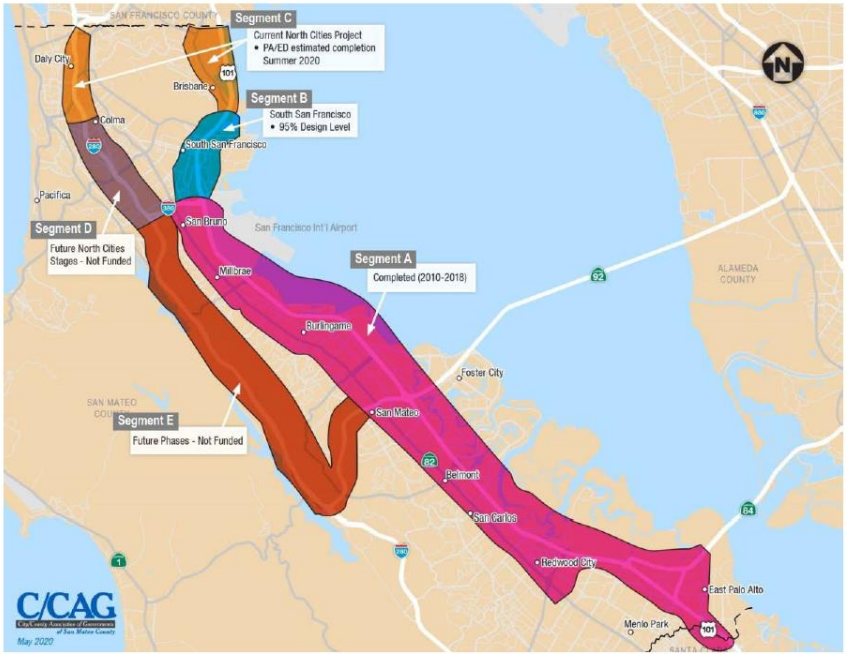
To date, the Intelligent Transportation System (ITS) program has primarily supported the San Mateo County Smart Corridor project. The project aims to reduce traffic congestion-related delays and improve safety and mobility for San Mateo County motorists through the deployment of integrated ITS elements, which manage traffic that naturally diverts to major arterials when there are incidents on the highway. The project uses a combination of cameras, detection systems, fiber and changeable messaging displays on roadsides to assist motorists. These tools also provide cities and Caltrans the ability to manage recurring and non-recurring traffic.

As is demonstrated in Figure 5.12, C/CAG has completed the delivery of projects along Highway 101 in the southern part of the county (Segment A), and has now moved on to work on two new segments:

- Segment B: City of South San Francisco – completed 100% project design
- Segment C: Cities of Daly City, Brisbane and Colma – completed the Project Approval and Environmental Document (PAED) phase, and start design in 2021
- Future Segments D and E along Interstate 280 are not yet funded.

[8] *Inconsistencies in data reporting make it difficult to confidently identify long-term trends.*

Figure 5-12: Smart Corridor Project Segment Status



When construction activities complete, the city owned traffic signal controllers, cabinets, signal interconnect equipment, and traffic signals operating software systems, become part of the city's property. Per the Ownership, Operation, and Maintenance Agreement executed between C/CAG and the cities, C/CAG would seek and secure funding to maintain new equipment installed as part of the Smart Corridor project. The new equipment refers to trailblazer signs, closed-circuit television cameras, communications, vehicle detection systems, and center to center communication between the San Mateo County hub and the Caltrans Traffic Management Center.

Although the local jurisdictions are expected to maintain and protect the ITS infrastructure, including fiber communications, due to resource constraints, local jurisdictions have not been taking on that responsibility. As a result, C/CAG may be required to continue active management and maintenance of the corridor and its assets in the long-term.

5.6.2 Funding Overview

The ITS program receives 10% of Measure M allocation, which is approximately $680,000 annually. To date, $6.3 million has been allocated and $1.7 million of Measure M funds have been spent.

The Smart Corridor project itself is capital intensive. Together, the two in-progress segments are anticipated to cost $18.9 million[9]. C/CAG funds the ITS program through a

[9] *Source: Final Smart Corridor Project Update Presentation, June, 2020*

variety of sources including State Transportation Improvement Program grants and Traffic Congestion grants, such as the Traffic Light Synchronization Program.

Given the size and nature of these capital improvements, Measure M funds aren't spent in even amounts annually as some of the previously mentioned Countywide Transportation Programs. Instead, Measure M has been used as the seed money for the Smart Corridor project, which then leveraged over $60 million of State and Federal grants, and will continue to be used to augment and/or secure outside funding sources as future segments are completed. Close to $1.3 million of the Measure M revenues has been earmarked to fund the South San Francisco (Segment B) expansion.

5.6.3 Metrics

The ITS team collects two types of metrics:

- Data on constructed components
- Data on incidents

Table 5-6 demonstrates the progress that has been made to date through the list of Segment A installed devices, as well as the upcoming components expected to be installed in Segments B and C, which will be funded with a combination of Measure M and other sources.

Table 5-6: Smart Corridor Project Existing and Proposed Components

Smart Corridor Project Components/Devices	Segment A[10] *Existing*	Segment B[11] *In progress*	Segment C *In progress*	Total
Traffic signal controller upgrades	118	20	24	**162**
CCTV cameras	45	61	16	**122**
Electronic signs	26	10	16	**52**
Detection stations	9	7	11	**27**
Miles of fiber communications	50+	6	10	**66+**

Though the system has only been implemented twice, initial metrics collected demonstrated its success in reducing travel times and increasing corridor speeds during its deployment. Using Inrix data, Figure 5-13 and Figure 5-14 compare travel times before and during each incident with travel time on similar days when there is not an incident. Incident 1 involved an RV fire on a Thursday at 4:30pm, and Incident 2 related to police action at 5:30pm on a Friday.

Both incidents show a slow or stabilization during the first hour after the Smart Corridor system was deployed, followed by a significant decrease in the second hour.

[10] *Source: Kimley Horn SMART Corridor Maintenance Plan (Draft)*

[11] *Source: Final Smart Corridor Project Update Presentation*

Figure 5-13. Incident 1 Response

RV Fire Near Holly Street – NB Alternate Route Travel Time Data

(Whipple Ave to El Camino Real to Holly St)

Time of Day	Thursday Annual (2016)		Day of Incident (10/20/16)	
	Travel Time (Minutes)	% Change from Previous Hour	Travel Time (Minutes)	% Change from Previous Hour
13	9.4	-	9.0	-
14	9.3	-2%	9.6	7%
15	9.8	6%	10.3	8%
16	10.3	5%	10.5	2%
17	11.3	10%	15.8	50%
18*	10.4	-8%	20.7	31%
19*	8.9	-14%	16.1	-22%
20	8.3	-7%	11.7	-28%
21	8.0	-4%	7.7	-34%
22	7.6	-5%	7.1	-7%
23	7.2	-5%	7.1	-1%

- Incident began at 4:30 pm (16:30), incident ended at 8 pm (20:00)

* Incident Response Signal Timing Implemented

Figure 5-14. Incident 2 Response

Police Action Near Route 92 – NB Alternate Route Travel Time Data

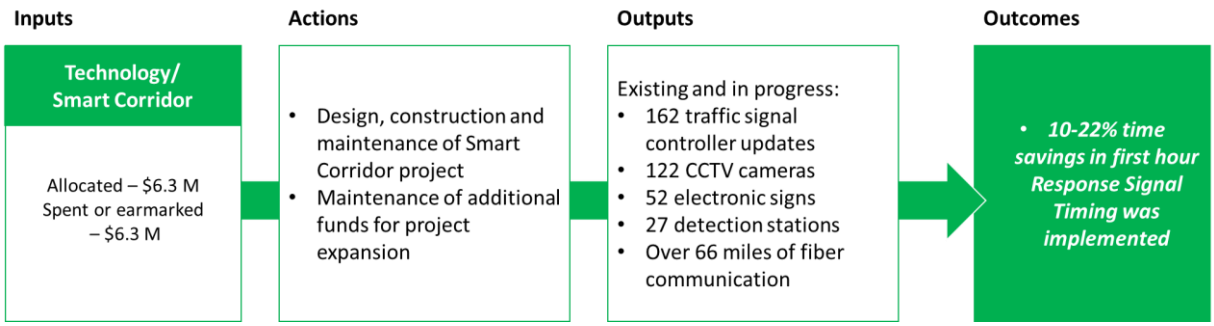
Time of Day	Friday Annual (2017) Average		Day of Incident (4/28/17)	
	Travel Time (Minutes)	% Change from Previous Hour	Travel Time (Minutes)	% Change from Previous Hour
13	10	-	9.6	-
14	10.2	2%	10.3	7%
15	11.1	9%	11.3	10%
16	10.9	-2%	11.5	2%
17	11.8	8%	11.8	3%
18	10.8	-8%	15.1	28%
19	9.8	-9%	18	19%
20*	9.2	-6%	18.5	3%
21*	8.8	-4%	16.6	-10%
22*	8.5	-3%	16.2	-2%
23*	8.3	-2%	12.4	-23%
0	8	-4%	9.7	-22%
1	7.9	-1%	7.7	-21%
2	7.8	-1%	7.3	-5%
3	8.2	5%	7.5	3%

- Incident began at 5:30 pm (17:30), incident ended at 12:45 am (0:45).

* Incident Response Signal Timing Implemented

The sample evaluation framework for this section of the program is defined in Figure 5-15.

Figure 5-15: ITS/Smart Corridor Logic Framework



5.7 Stormwater Program

5.7.1 Program Description

The Stormwater Program (NPDES/MRP) receives Measure M funding designated for pollution mitigation programs and projects. The stormwater team uses this funding for technical support activities, stormwater-related public education and outreach, member agency training, water quality monitoring, green infrastructure planning, watershed modeling, and efforts to reduce mercury and polychlorinated biphenyl (PCB) levels, trash, and urban pesticides.

The program supports seven technical subcommittees and permit compliance for San Mateo County jurisdictions, the requirements of which may change on a five-year basis when new permits are reissued.

In recent years, the Stormwater Program has achieved the following:

- Developed a Countywide Stormwater Resource Plan
- Developed and submitted Countywide Water Pollution Prevention Program's annual compliance reports
- Developed and reviewed Annual Reports for 21 member agencies
- Supported Green Infrastructure Design Guide and local tools and guidance for developing municipal Green Infrastructure Plans
- Developed initial countywide hydrology and sediment transport model
- Established local programs to manage PCBs in building materials during demolition
- Developed Control Measure Implementation Plan for achieving PCBs and mercury Total Maximum Daily Loads waste load allocations for San Mateo County.

Most of the support is provided through outside consultants.

5.7.2 Funding Overview

The Stormwater Program is allocated 12% of net Measure M funds. This has amounted to $7.5 million through FY 19-20 to this program, and the program has spent $7.1 million (95%) of its allocation.

Measure M funds cover about 35% of the program's budget, and the remainder is primarily made up of fees placed on the property tax bills for parcels throughout the county.

5.7.3 Metrics

The Stormwater Program's goals, listed in full in their 5-year Municipal Regional Stormwater Permits issued by the Regional Board, include meeting long-term water quality goals and ensuring compliance with the San Mateo County co-permittees' MRP requirements.

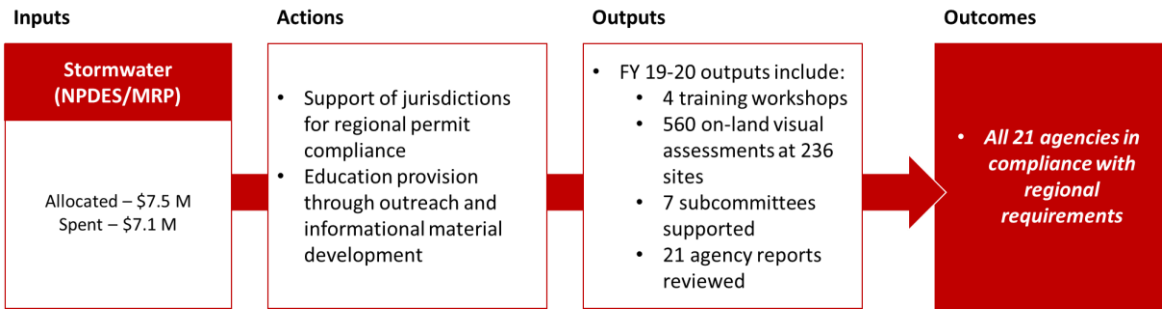
Through the process of helping each of the jurisdictions in San Mateo County remain compliant with MRP requirements, the Stormwater Program collects metrics related to:

- Training sessions and other education provided
- Development of resources and documents
- Visual assessments of success of agency trash load reduction actions
- Planning and implementing Green infrastructure
- Water quality samples
- Public education and outreach impact and effectiveness

These metrics are collected and reported for the MRP, and some have historically been documented in Measure M's annual report. The programming varies year to year, however, so it may be difficult to consistently evaluate success or impact over time given the evolving nature of some permit requirements.

The sample evaluation framework for this section of the program is defined in Figure 5-16.

Figure 5-16: Stormwater Program Logic Framework



6 Observations and Next Steps

6.1 Performance Assessment Observations

After completing a review of the Measure M program, six key themes become apparent:

1. Program flexibility supports successful investment of Measure M funds

At a basic level, Measure M supports a wide variety of programs across San Mateo County. Within those programs, Measure M funds also provide a level of flexibility not typically permitted through other sources, allowing it to fund both programs and capital projects, basic services and more innovative interventions. This flexibility is appreciated across the County by jurisdictions and Countywide Transportation Program managers alike.

2. Measure M funding supports intended outcomes/goals with opportunities to expand impact

The programs that Measure M supports all relate directly to the intended outcomes of the Measure M program. It is evident that Measure M funding contributes successfully to several outcomes, including:

- Increased use of transit by seniors.
- Travel time savings accrued from ITS deployment following traffic incidents; and
- Increased active transportation mode share amongst students.
- Reduced stormwater pollution related to motor vehicles

There is also opportunity to improve upon metrics collection in order to help Measure M demonstrate its full impact. It is possible that additional stated objectives (*outcomes*) have been achieved by the programs receiving Measure M funding, but because of a lack of evidence (*outputs*), that may not be clear to voters and other decision makers who ultimately determine the long-term status of Measure M. Clearer and performance measure collection processes will likely improve upon the demonstrated progress toward Measure M goals.

3. Measure M funding creates opportunities for larger projects and programs

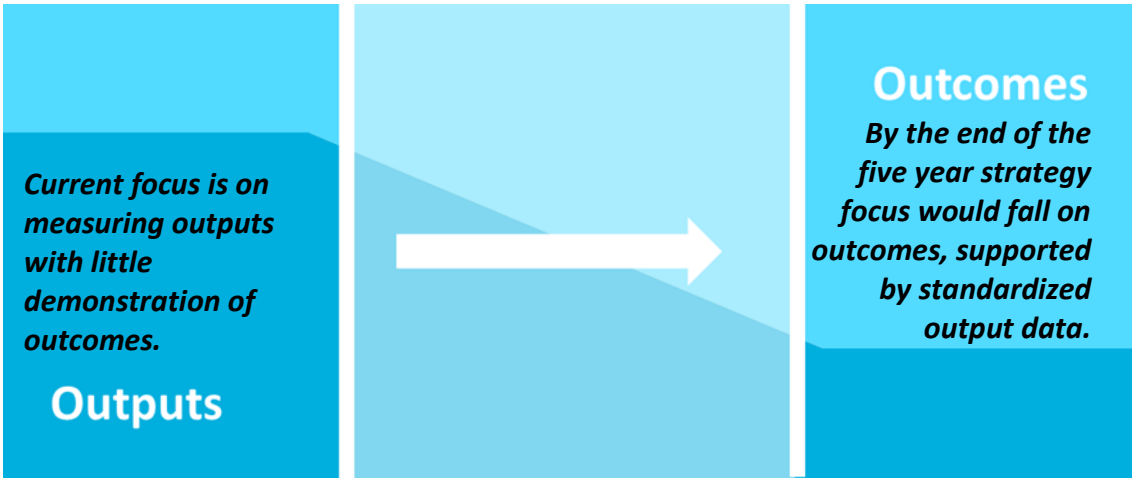
As is demonstrated by the SRTS and ITS Countywide Programs, as well as by some of the jurisdictions receiving Local Streets and Roads funding, Measure M's ability to be used as a local match has created opportunities. It has allowed for the implementation of projects and programs that might otherwise have not been possible, and has secured state and federal investment into San Mateo County.

4. Standardizing performance indicators would more comprehensively demonstrate value of the Measure M program in future reviews.

Although both of the previous Measure M 5-Year Implementation Plans have outlined Performance Measures associated with each funding recipient, monitoring and reporting of progress and success toward outcomes remains inconsistent.

- *Some recipients don't report all of their relevant metrics, and others report none at all.* While most of the Measure M funding recipients (including both jurisdictions and Countywide Programs) collect some information about their programs' outputs, not all of it is being reported to C/CAG.
- *Some recipients do collect and report on performance indicators, but they are not directly tied to outcomes*. There is an opportunity for C/CAG to guide funding recipients toward collecting indicators that either directly measure outcomes, or outputs that can be readily 'converted' to outcomes by making simple and standardized assumptions. An evolution toward collecting more tangible outcome indicators (as shown in Figure 6-1 over the course of the five year strategy) will help communicate the impacts of the program and also identify opportunities to augment performance.

Figure 6-1: Output vs Outcome Data Collection Over the Five Year Strategy



- *There have been inconsistencies demonstrated in reported metrics throughout the years*. The flexibility of Measure M funding is one of the programs strengths. It is not unexpected that programs may evolve and that through that, process indicators may change. However, this can make it difficult to measure continued success, or even success over a previously measured baseline. The program may benefit from more clearly defined monitoring and reporting process, in addition toa focused set of readily measurable metrics in order to provide enough data to demonstrate change and long-term impact.

5. Improved trackability for Measure M Investments when they are applied to projects with multiple funding streams

Within both the Local Streets and Roads and Countywide Program allocations, Measure M funds are typically lumped in with funds from other sources. Measure M funds sometimes only account for a small percentage of the program or project's operating budget. While the Measure M funding may be contributing to an incredibly successful program, the program's overall successes may not speak directly to the impact of the Measure M funding itself.

Conversely, there are a few instances (such as the use of SRTS funds to fund school site stormwater infrastructure projects) where the flexible nature of the Measure M funds established a unique project or program, but these tend to be special instances. C/CAG should establish a mechanism to use overflow from interest or unexpected residual funding. Where possible, C/CAG should encourage the use of Measure M funds for projects it can fund in full, or for dedicated aspects of larger projects or programs to best draw ties between Measure M funds and the impacts of the programs they support.

6. Reporting and invoicing processes could be augmented to support timely data collection and demonstration of impact.

Though the programs are provided with deadlines to submit reimbursement requests and documentation, administrative time is required by C/CAG staff to answer questions about allowable reimbursements, enter information from unorganized invoices, or follow up with jurisdictions for their requests.

It is recommended that C/CAG consider standardizing the reimbursement request process. A simple online form that accompanies invoice submissions is likely to support improved data management and save agency staff time . It would also allow C/CAG to clearly request a small amount of easily collectable but standardized information on program outputs, which will result in better data from funding recipients.

6.2 Next Steps

This Program Assessment will be used to inform the remainder of the Measure M Strategic Planning process, which will take place between November 2020 and June 2021. This process will include:

- Developing goals, objectives and performance measures
- Researching best practices nationally
- Identifying a list of strategies to move the Measure M program forward

Developing and finalizing the 2022-2027 Implementation Plan.

A Local Streets and Roads Survey

General + Finance

* 1. What jurisdiction do you represent?

* 2. Please provide your contact information

Name

Title

Department

Email Address

Phone Number

* 3. Are you responsible for administering the Measure M program for your jurisdiction?

- Yes
- No

4. If you are not the program administrator, please tell us the title and department of the person who is in charge of administering the Measure M program for your jurisdiction.

Name

Title

Department

* 5. What percentage of your total expenditure on projects using Measure M funds comes from Measure M?

- 0-24%
- 25-49%
- 50-74%
- 75%+

* 6. Have you used Measure M funding as a local match to secure additional State or Federal funds?

- Yes
- No
- No, but would like to in the future

Project Information

* 7. What kinds of projects or programs are your Measure M funds typically used towards? (Please choose all that apply.)

- [ ] Traffic Congestion Management
- [ ] Stormwater Pollution Prevention

* 8. If you use Measure M funding to pay for ***Traffic Congestion Management*** projects or programs, which types?

- [ ] Local shuttles/transportation
- [ ] Road resurfacing/reconstruction
- [ ] Deployment of local ITS
- [ ] Roadway operations
- [ ] Replacement and/or upgrading of traffic signal hardware and/or software
- [ ] N/A - we do not use Measure M to fund Traffic Congestion Management
- [ ] Other (please specify)

* 9. If you use Measure M funding to pay for ***Stormwater Pollution Prevention*** projects or programs, which types?

- [ ] Street sweeping
- [ ] Roadway storm inlet cleaning
- [ ] Street side runoff treatment
- [ ] Auto repair shop inspections
- [ ] Managing runoff from street/parking lot
- [ ] Small capital projects such as vehicle related runoff management/controls
- [ ] Capital purchases for new motor vehicle related runoff management/controls
- [ ] Additional used oil drop off locations
- [ ] Motor vehicle fluid recycling programs
- [ ] Installation of new pervious surface median strips in roadways
- [ ] Stormwater and BMP awareness training for staff and subcontractors
- [ ] N/A - we do not use Measure M to fund Stormwater Pollution Prevention
- [ ] Other (please specify)

* 10. What metrics do you use to evaluate and monitor the success of your ***Traffic Congestion Management*** projects and programs?

- [ ] Number of passengers transported
- [ ] Miles/fraction of miles of roads improved
- [ ] Number of ITS components installed/implemented
- [ ] Number of units replaced and/or upgraded
- [ ] Tonne of GHG emissions reduced
- [ ] Number of Vehicle Miles Traveled reduced
- [ ] Incident clearance time
- [ ] We do not collect specific metrics for our Traffic Congestion Management projects and programs
- [ ] N/A - we do not use Measure M to fund Traffic Congestion Management projects and programs
- [ ] Other (please specify)

* 11. What metrics do you use to evaluate and monitor the success of your ***Stormwater Pollution Prevention*** projects and programs?

- [ ] Number of auto repair shops inspected
- [ ] Square feet of surfaces managed annually
- [ ] Number of projects implemented
- [ ] Number of pieces of equipment purchases and installed
- [ ] Number of locations implemented/operated;oil quantity collected
- [ ] Number of programs implemented/operated; fluid quantity collected
- [ ] Square footage of new pervious surface median strips installed
- [ ] We do not collect specific metrics for our Stormwater Pollution Prevention projects and programs.
- [ ] N/A - we do not use Measure M to fund Stormwater Pollution Prevention projects and programs.
- [ ] Other (please specify)

* 12. What techniques do you use to evaluate and report on Measure M funded projects and programs?

- [ ] Internal spreadsheets
- [ ] Published reports
- [ ] Passenger logs
- [ ] We do not monitor or report on Measure M funded programs
- [ ] Other (please specify)

* 13. How much time do you and your team currently dedicate to performing data collection, monitoring and reporting on Measure M-funded projects and programs?

- ( ) Less than 2 hours per week
- ( ) 2-4 hours per week
- ( ) 5-9 hours per week
- ( ) 10-19 hours per week
- ( ) 20 hours + per week
- ( ) We do not have time dedicated to monitoring or reporting on Measure M funded projects or programs.

* 14. C/CAG is interested in learning more about how Measure M funded projects are working in each jurisdiction. How much additional time would be required by your agency to collect and report program and project related data:

	Less than 2 hours per week	2-4 hours per week	5-9 hours per week	10-20 hours per week	20 hours + per week	N/A - this metric would not apply to the projects or programs we fund with Measure M
Vehicle miles traveled reduced	○	○	○	○	○	○
ITS components installed	○	○	○	○	○	○
Average peak hour speed	○	○	○	○	○	○
Level of Service improvement	○	○	○	○	○	○
Incident clearance time	○	○	○	○	○	○
Stormwater volume managed	○	○	○	○	○	○
Acres of impervious area treated	○	○	○	○	○	○
Volume of pollutant removed	○	○	○	○	○	○
Square feet of bioretention constructed	○	○	○	○	○	○

Other (please specify)

* 15. Would you be willing to provide C/CAG with annual data related to the spend of your Measure M funds?

- ○ Yes
- ○ No
- ○ Maybe
- ○ Other (please specify)

16. If you have information on hand to upload now, please do. Otherwise, we will follow up with you if you indicated that you'd be willing to share data.

Please note that Survey Monkey does not allow for the upload of Excel files, so we are happy to collect those through email.

Choose File Choose File No file chosen

Future Preferences

* 17. Measure M funding is currently allocated based on population count and roadway miles. A minimum of $75,000 is allocated to each jurisdiction. Do you think there should be changes to how funding is allocated?

- Yes
- No

18. If you selected "yes," please describe what you think should be changed, and why.

* 19. Do you face challenges in using your allocated Measure M funds in a timely manner?

- Yes
- No

20. If you selected "yes," please describe these challenges.

* 21. Do you face challenges in submitting invoices for Measure M funding in a timely manner?

- Yes
- No

22. If you selected "yes," please describe these challenges.

* 23. Does the current list of eligible project types within the ***Traffic Congestion Management*** category (shown in Question 8) allow you to apply for funding for all Traffic Congestion Management projects or programs you deliver?

- ◯ Yes
- ◯ No

24. If you selected "no," please list the other project or program types that should be included.

* 25. Does the current list of eligible project types within the ***Stormwater Pollution Prevention*** category (shown in Question 9) allow you to apply for funding for all Stormwater Pollution Prevention projects or programs you deliver?

- ◯ Yes
- ◯ No

26. If you selected "no," please list the other project or program types that should be included.

* 27. In addition to the Local Streets and Roads funding that is allocated to the jurisdictions, Measure M provides funding to four Countywide programs. Please rank the importance of each program to you, with 5 being the *most* important.

	1	2	3	4	5
ITS/Smart Corridor	◯	◯	◯	◯	◯
Safe Routes to School	◯	◯	◯	◯	◯
Transportation Programs/Senior Mobility	◯	◯	◯	◯	◯
Stormwater Pollution Prevention	◯	◯	◯	◯	◯

28. If there is anything else you'd like to mention about the Measure M program, please let us know:

steer

steergroup.com

B

Best Practice Review

Memo
January 2021

Best Practice Review for Measure M Program

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Introduction

Steer has been commissioned by City/County Association of Governments of San Mateo County (hereafter referred to as 'C/CAG') to undertake a case study review of county-level funding programs, specifically in relation to their allocation and implementation strategies. This exercise forms part of Steer's scope *Task 4: Development of Strategies,* to gain knowledge gleaned from similar programs to C/CAG's Measure M across North America and apply as a 'lessons learned' approach to improve Measure M's own program performance in the near to medium term.

This Technical Summary provides the case study overview to meet the above objectives, and the subsequent sections cover the following topic areas:

Section 1: Fee Structure Case Studies presents case studies of fee or tax programs overall. Their focus is on program operation and administration, funding allocation, and data collection. It includes:

- Introduction to the case studies examined, listed in order by those programs located geographically closest to San Mateo County.
- Comparison Table to highlight key details regarding the individual programs to facilitate comparison between the various initiatives.

Section 2: Programmatic Case Studies presents case studies on programs similar to the four Countywide Transportation Programs Measure M supports:

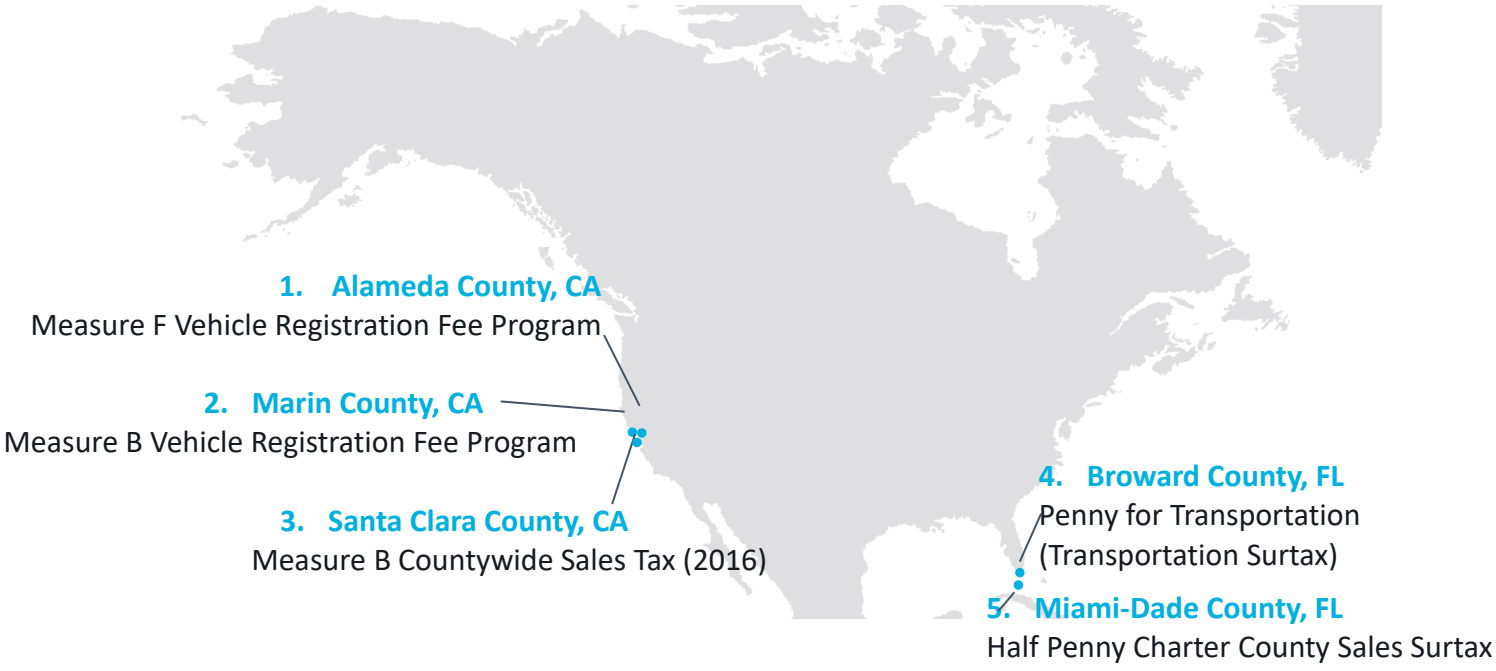
- Transit Operations/Senior Mobility;
- Intelligent Transportation System (ITS)/Smart Corridor;
- Safe Routes to School (SRTS); and
- Stormwater Pollution Prevention.

1 Fee Structure Case Studies

Within this section, Steer has prioritized identifying countywide programs comparable to Measure M that are located within the San Francisco Bay Area, followed more widely within California. We have further included programs with direct relevance to Measure M more broadly across the United States to provide a greater perspective.

Error! Reference source not found. illustrates the geographical reach of the case studies under examination.

Figure 1. Fee Structure Case Studies - Geographical Location



1.1 Alameda County, CA – Measure F Vehicle Registration Fee

Alameda forms one of the central-east counties of the Bay Area, and covers major metropolitan centers like Berkeley, Oakland, Alameda City, Pleasanton and Fremont. The **Measure F Vehicle Registration Fee** (VRF) Program began operation in May 2011 and is managed by Alameda County Transportation Commission (CTC). The program collects a $10 per year vehicle registration fee and generates approximately $11 million per year. The overall program goal is to sustain Alameda County's transportation network and reduce traffic congestion and vehicle-related pollution. Key details of Measure F are presented in **Error! Reference source not found.**.

Figure 2: Alameda CTC Bicycle Safety Education Program

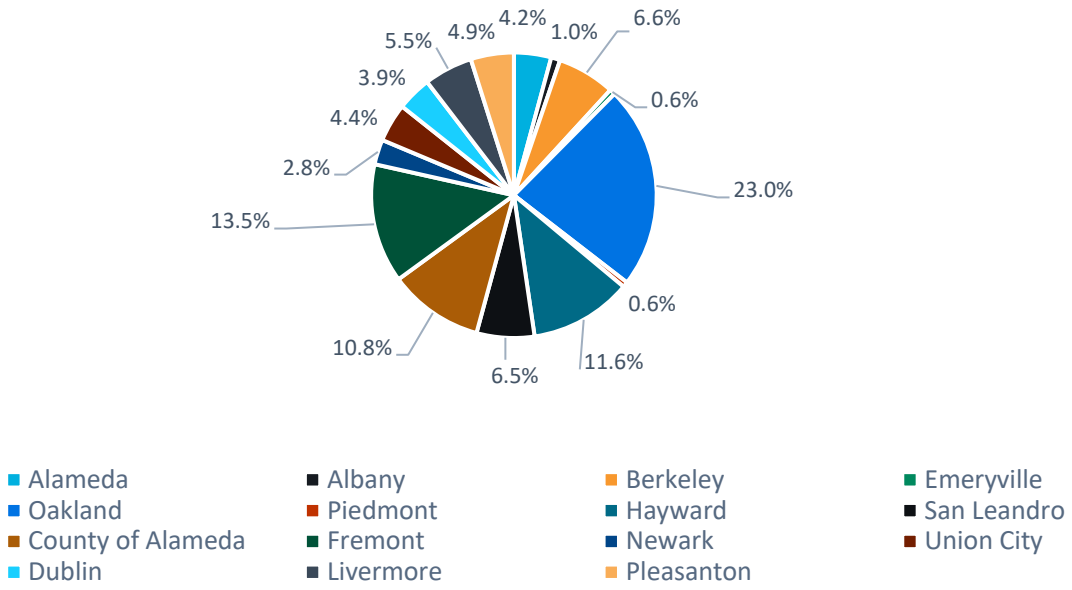
Alameda CTC developed the Countywide Investment Program (CIP) Programming Principles and Guidelines (11/2020) to provide a framework for programming and allocation decisions made by the Alameda CTC to accomplish countywide transportation goals and objectives. The principles are intended to create a uniform consolidation of historically separate programming goals and practices, where applicable, to more effectively coordinate funding towards highly beneficial transportation projects that address congestion, state of good repair, economic development, access, safety, and connectivity of a multimodal transportation system.

Jurisdictions and municipalities apply for funding through the CIP call for project nominations that is issued every two years, and are selected based on the following evaluation ratio; readiness delivery (45%), needs and benefits (45%) and matching funds (10%.) Projects programmed within first two years of a given CIP receive allocation.

Local Road Improvement and Repair Program

Monthly VRF local distribution payments are assigned to the 14 cities across the county. The distribution is decided by population and vehicles registered in each city, and the funding allocation for FY19/20 is shown overleaf at Figure 3.

Figure 3: Alameda County Local Road Improvement and Repair Program – FY19/20 Funding Distribution



Those that receive VRF funds for this particular program must enter into a Master Program Funding Agreement with Alameda CTC, which outlines specific programmatic and reporting requirements tied to the funds. VRF recipients are required to provide documentation of the following:

- VRF funds received from Alameda CTC;
- annual expenditures in sufficient detail to determine performance and use of funds;
- published articles that highlights funded improvements, program information on agency's website;
- public identification of program improvements as a benefit of VRF funds;
- the agency's Pavement Condition Index (PCI) Scale as reference for the condition of local streets, and roads, and;
- agency's adherence to the DLD Timely Use of Funds policy. The Timely Use of Funds policy stipulates that the DLD recipient cannot carry a fiscal year ending fund balance greater than 40% of the DLD revenue received for that same fiscal year for four consecutive fiscal years.[1]

Projects funded by discretionary funds have their own performance measures and standards. If projects do not meet the standards, fund recipients are required to outline concrete steps to correct deficiencies.

[1] Fund recipients can submit a Request for Exemption from this policy with justification and implementation plan; if denied, the CTC rescinds one year of fund distribution. The instructions to record and submit VRF program compliance documentation can be found on the Alameda CTC website.

Table 1: Alameda County Overview

Funding Recipient	Program Type	Proportion of funds received	Project Selection Criteria	Monitoring/Reporting
Local Road Improvement and Repair Program	Street repaving and rehabilitation; traffic signal maintenance and upgrades; signing and striping on roadways; Sidewalk repair and installation; bus stop improvements; improvements to roadways at rail crossings; improvements to roadways with truck or transit routing	60%	Standard evaluation matrix: • Readiness delivery (45%) • Needs and benefits (45%) • Matching funds (10%)	Recipients of the funding must adhere to performance metrics and standards set by the county. If they fall below the standards, they must outline corrective actions and potential improvements to correct the deficiency.
Transit for Congestion Relief	Transit service expansion/preservation; transit priority; transit incentive schemes; park and ride facilities; fleet decisions; rail station access/ capacity improvements	25%, split as follows: • 70%: capital infrastructure investments • 30%: non-infrastructure (e.g. program operations, plans and studies)	Standard evaluation matrix, plus priority is given to projects that increase transit access and ridership; listed in Alameda CTC's Plans; address reliability of service operations, and Express Bus Services	
Local Transportation Technology	Aimed at local and arterial streets. New technologies; alternative fuel infrastructure; advanced signaling for active modes	10%, split as follows: • 70%: capital infrastructure investments • 30%: non-infrastructure (e.g. program operations, plans and studies)	Standard evaluation matrix, plus priority given to projects that are new and innovative; regional projects in Alameda CTC's plans; increase transit access and ridership; asset innovation and management; enhance efficiency of moving people and goods; increase safety	
Pedestrian and Bicyclist Access and Safety Program	SRTS; access and safety in activity centers/downtown/transit hubs.	5%, split as follows: • 70%: capital infrastructure investments • 30%: non-infrastructure (e.g. program operations, plans and studies)	Guidelines are updated before each funding cycle. Complete Streets policy; comply with California Complete Streets Act; have an adopted Local Pedestrian and Bike Master Plan/or be in the process of developing one that will be updated once every 5 years minimum.	

1.2 Marin County, CA – Measure B Vehicle Registration Fee

Marin County is located directly north of the City of San Francisco, served by two key transit agencies; Marin Transit and Golden Gate Transit. The county's **Measure B Vehicle Registration Fee** (VRF) program was approved by 63% of voters in 2010. Managed by the Transportation Authority of Marin (TAM), it collects $10 per vehicle and generates roughly $2 million per year. This revenue goes towards the three key program areas identified in **Error! Reference source not found.**.

TAM's Strategic Vision Plan (Draft, 2017) establishes the timing of allocations and addresses funding priorities, and any applications are evaluated against this. The TAM Board approves funding allocations and are executed by the TAM Executive Director.

- **Local streets and pathways:** applicants must submit an allocation request form that specifies projects anticipated for implementation with the proposed funding.
  - The 'Streets' portion of the above program is distributed to cities, towns and the County of Marin based on a formula that combines population (50%) and lane miles (50%), and the funding priorities are determined by local public works directors in concertation with local agencies, residents, and councils (i.e. a high level of flexibility where funding is allocated towards).
  - Funding for the 'pathways' portion is based on publicly availability inventory of pathways and is distributed to the agencies and jurisdictions that own, operate and maintain them.
  - For Class I Bike/Pedestrian Pathway projects, sponsors need to submit an allocation request form that specifies projects anticipated for implementation.
- **Improve transit for seniors and persons with disabilities:** funds are directly distributed to Marin Transit, which submits a list of projects and programs that are eligible for funding. Funds for congestion and pollution reduction are usually distributed every two years to TAM, Marin Transit, and/or Golden Gate Transit based on grant opportunities and funding needs.

Figure 4: TAM Crossing Guard Program in Novato City

Table 2: Marin County Overview

Funding Recipient	Program Type	Proportion of funds received	Project Selection Criteria	Monitoring/Reporting
Local Streets and Pathways	Road maintenance; congestion relief; safety improvements; emergency pothole repair; crosswalk and accessibility enhancements; intersection control; streetscape improvements to manage stormwater runoff; maintenance of Class I bike/pedestrian pathways	40%, split as follows: • 35%: local streets • 5%: Class I bike/pedestrian pathways	Though projects are approved by the County, funds are distributed to jurisdictions based on a forumla that combines population (50%) and lane miles (50%),	• Recipients are required to submit Annual/Closeout reports per the provisions of the funding agreement • Data is available in the Citizens' Oversight Committee Annual Report (public domain); Independent Financial Reports; Quarterly Financial Reports
Improve Transit for Seniors and Persons with Disabilities	Implementing a Mobility Management Program; supporting and enhancing paratransit; creating a "Paratransit Plus" program to serve older seniors who do not qualify for service under ADA; implement other programs to provide mobility to seniors as an alternative to driving	35%	Priorities are: "Paratransit Plus"; volunteer driver programs support; low income rider scholarships; gap-grant program; mobility management staffing	
Reduce Congestion and Pollution	• School safety and congestion reduction • **TAM:** local Marin County Commute Alternatives • **Marin Transit/Golden Gate Transit:** alternative fuel infrastructure and promotion	25%	Targeting matching grant opportunities, pilot programs and other timely revenue opportunities	

1.3 Santa Clara County, CA – Measure B Program

Santa Clara County is located immediately south of the Bay Area and is one of California's most populated regions, with high densities across the San Jose metropolitan area. Countywide sales tax programs have been deployed for the last 30 years to enhance transit, highways, expressways and active transportation, with the latest program **Measure B** launched in 2016. An overview of the nine program focus areas is detailed in **Error! Reference source not found.**, with additional comments on certain categories listed below.

Bike and Pedestrian Program

- If the planning studies grants category is not fully awarded, the remaining funds will roll into the capital category.
- If a cycle's funds are not fully awarded, the balance will roll into the next cycle's budget.

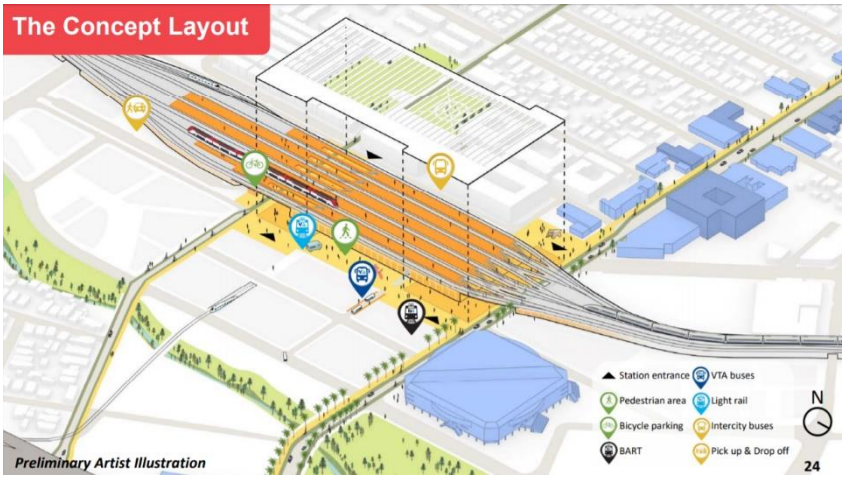
Local Streets & Roads Program

- If a city or the County has a PCI score of at least 70, it may use the funds for other congestion relief projects.
- For agencies with a PCI of 69 or lower, the program of projects is limited to street system maintenance and repair projects only.

Citizens' Oversight Committee (COC) oversees the budgeting and the expenses for all programs within the categories.

Transportation projects, especially larger projects (e.g. VTA's Bart Silicon Valley Phase 2), are typically built in Santa Clara County using a variety of funding sources. 2016 Measure B provides a local revenue source that can be leveraged to help obtain additional funds through regional, state and federal fund sources. A comprehensive website is available for 2016 Measure B which provides public-facing details on funding and expenditure per various search parameters (e.g. location/specific project name/grantees).

Figure 5: San Jose Diridon Integrated Station Concept Plan, funded through Caltrain Corridor Capacity Improvements Program



Source: Caltrain Integrated Concept Plan Board Meeting (December 2019)

Table 3: Santa Clara County Overview (from 2016 Program)

Funding Recipient	Program Type	Proportion of funds received	Project Selection Criteria	Monitoring/Reporting
VTA BART Silicon Valley Phase II	4 stations; new regional rail corridor; links to major transit	• 24% (of total funds) • Maximum of 25% of Program Tax Revenues	The VTA Board of Directors adopted specific guidelines specific to program (Oct/Nov 2017 meetings).	• 2016 Measure B website. • Must comply with VTA's Complete Streets Reporting Requirement
Bicycle and Pedestrian Program	Program funds split as follows: • Education and encouragement programs (15%) – – Base allocated to county for unincorporated areas, the rest split between jurisdictions by population with minimum • Capital projects – Environmental Clearance – Design – Right of Way – Construction (30-35% design elements) • Planning studies (max. 5%)	4% (of total funds)	• Priority given to programs which eliminate bike/pedestrian network gaps; improve connections and mobility; convenience; SRTS. • The VTA Board of Directors adopted specific guidelines specific to program (Oct/Nov 2017 meetings).	• 2016 Measure B website. • For education and encouragement programs - VTA will conduct an assessment regarding the effectiveness of the program. • VTA Complete Streets reporting requirements will be required for Planning and Capital projects.
Caltrain Corridor Capacity Improvements	Expand ridership capacity; level boarding; countywide service improvements; increased service to Morgan Hill and Gilroy	5% (of total funds)	The VTA Board of Directors adopted specific guidelines specific to program (Oct/Nov 2017 meetings).	• 2016 Measure B website. • VTA Complete Streets reporting requirements will be required for capital projects.

Funding Recipient	Program Type	Proportion of funds received	Project Selection Criteria	Monitoring/Reporting
Caltrain Grade Separations	Separate tracks from roadways; safer for pedestrians/bicyclists; reduce traffic congestion. Focused on Sunnyvale, Mountain View and Palo Alto cities. • Planning • Capital projects	11% (of total funds)	• The VTA Board of Directors adopted specific guidelines specific to program (Oct/Nov 2017 meetings). • Funds will be allocated to most cost-effective projects	• 2016 Measure B website. • Specific reporting requirements for each project (agreed with VTA) • VTA Complete Streets reporting requirements
County Expressways	Intersections/interchanges; widening; grade separations; reduce congestion; improve connections. 1. Conventional – Up to $10M 2. Major – $10-$50M 3. Lawrence Grade Separations	12% (of total funds)	• The VTA Board of Directors adopted specific guidelines specific to program (Oct/Nov 2017 meetings). • Project readiness; complexity; geographic balance; timings; safety; public support; gap closures	• 2016 Measure B website. • VTA Complete Streets reporting requirements
Highway Interchanges	Connectors; on/off ramps; widening; improve connectivity; safety; reduce congestion	12% (of total funds)	• The VTA Board of Directors adopted specific guidelines specific to program (Oct/Nov 2017 meetings). • Project readiness; local contribution; geographic balance • 2011 VTA Soundwall Study projects will receive higher consideration	• 2016 Measure B website. • Specific reporting requirements for each project (agreed with VTA)
Local Streets and Roads	Road repairs/improvements	19% (of total funds) All cities/towns receive funds, with allocated amount dependent on formula-based distribution.	• Complete Streets requirement • PCI rating	• 2016 Measure B website. • Complete Streets Checklist reporting requirements

Funding Recipient	Program Type	Proportion of funds received	Project Selection Criteria	Monitoring/Reporting
State Route 85 Corridor	Corridor transit study; transit and congestion relief projects; new transit lane from SB87 to U.S. 101; noise abatement; study transportation alternatives (BRT, LRT, future technologies)	6% (of total funds)	• The VTA Board of Directors adopted specific guidelines specific to program (Oct/Nov 2017 meetings) • Projects identified in VTA's SR 85 Transit Guideway Study (TG Study)	• 2016 Measure B website • VTA Complete Streets reporting requirements will be required for capital projects
Transit Operations	Program funds split as follows: • Frequent Core Bus Network (73%): first/last mile connections; extended hours; innovative strategies; amenity improvements; increase bus frequency • Innovative Mobility Models & Programs (8%) • Fare Programs (15%): seniors, disabled, low-income, students. • Bus Stop Amenities (4%)	8% (of total funds)	• The VTA Board of Directors adopted specific guidelines specific to program (Oct/Nov 2017 meetings) • The bus stop improvements will be prioritized based on VTA's Transit Passenger Environment Plan and ongoing maintenance needs.	• 2016 Measure B website. • VTA Complete Streets reporting requirements will be required for all capital improvements projects

1.4 Broward County, FL – Transportation Surtax

Broward County is in southeastern Florida. With a population of almost 2 million, it is the second most populous county in the state. In November 2018, voters approved a 30-year 1% **transportation surtax, Penny for Transportation,** that took effect on January 1, 2019 (30% of the tax is provided by visitors). Funds are distributed to over 1,100 countywide and municipal projects that create connectivity, improve traffic system management, improve transit service, enhance multimodal options, and provide economic development and benefits to local businesses, workers, and residents in the program. The program is expected to generate $15.6b in revenue.

The County has created a regulatory framework to decide which entity reviews, approves and operationalizes the projects in this program:

- The surtax program is project-based and not allocation-based. Among other factors, conditions of existing facilities are given consideration. In order to be able to prioritize and compare the needs of the participating municipalities, a quantitative process is deployed.
- The County's Metropolitan Planning Organization (MPO) is mandated to review, rank, and recommend municipal projects related to enhancing connectivity and alleviating traffic congestion using the Metropolitan Transportation Plan or Complete Streets and Localized Initiatives Program methodology.
- The County is tasked with reviewing and ranking municipal capital and Rehabilitation and Maintenance (R&M) projects, ranked under separate criteria which is shared with municipalities and made available on the PennyForTransportation.com website. An independent oversight board approves and oversees the program's expenditures.

The Mobility Advancement Program administration operationalizes the oversight board's responsibilities. It reports to internal and external stakeholders about surtax processes, measures progress and performance reporting, secures financial and program audits, prepares the surtax budget for oversight board approval, and provides legal support to the oversight board for project eligibility determinations.

It is also charged with consistently and transparently presenting surtax program-related program information to the public, by participating in meetings, conferences, and events to promote and answer questions about the surtax. The PennyForTransportation.com website is updated frequently to serve as an educational and outreach tool for residents, businesses, and stakeholders. The website includes a map of all surtax-funded projects in the County that can be filtered by category and shows the project's cost and expected completion date. This tool (see Figure 6) is will be replaced with a public dashboard offering interactive up-to-date map tools with narrative and visual project details. This year, meetings and events will be accessible on Facebook Live and Instagram TV, and MAP will also increase its online presence through Twitter.

Figure 6: Funded projects from PennyForTransportation.com

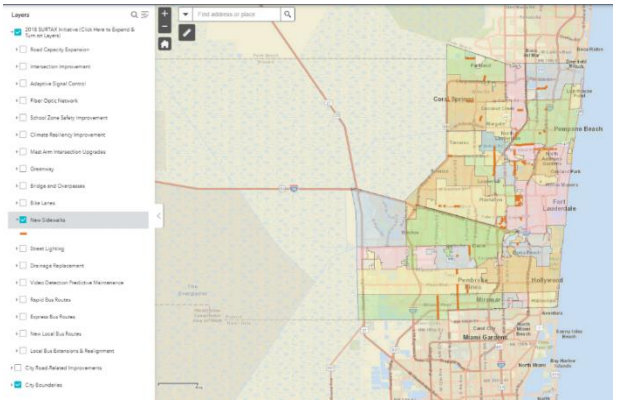


Table 4: Broward County Overview

Funding Recipient	Program Type	Proportion of funds received (FY21 budget)	Project Selection Criteria	Monitoring/Reporting
MAP Administration	• General Fund • MAP Admin and other operating costs • Greenways Master Plan	~0.8%	Scoring methodology for municipal projects is based on: • Ability to alleviate congestion • Ability to enhance connectivity • Project readiness • Emphasis on community • Interlocal agreement City applicants are asked to provide details related to: • Type of work • Phase of work (i.e. planning, design, construction) • Project status • Design state	The Pennyfortransportation.com website provides a Surtax Funded Projects Dashboard, which allows the public to view: • Projects by location • An overview of all projects • Projects by municipality; and • Projects by district. Users can filter by project type, such as bike/pedestrian, intersection, greenway, etc. For each project, they can see the type, phase, year of award, description, funding amount, and geographic coverage.
Capital Projects	• GC East Transit Intermodal • Transit • Transitways • Transit infrastructure • Public works highways • Regional transportation	~36%		
Transit operations	• Transit Operating Fund • Community shuttle buses	~10.8%		
City projects	• Municipal capital projects • Community shuttle expansion	~5.5%		
Reserves	• Transitways • Transit Infrastructure • Port to Port and East West Connectors	~46.6%		

1.5 Miami-Dade County, FL – Half Cent Sales Surtax

Miami-Dade County is just directly south of Broward County and encompasses the Miami metropolitan area. In 2004, voters passed a half-cent sales surtax that would fund the People's Transportation Plan. Just prior, municipalities, Community Planning Council members and Miami-Dade County residents weighed in on their transportation priorities for the People's Transportation Plan, a $17 billion business plan for adding more buses and routes, improving service, expanding rapid transit, and creating transportation and construction-related jobs over the next 25 years in Miami-Dade County.

20% of the surtax goes directly to municipalities on a pro rata basis, based on the city's population, for use on local transportation and transit projects. Cities are eligible to receive this money if they adhere to the following, based on the Code of Miami-Dade County:

- continue to provide the same level of general fund support for transportation that is in their FY01/02 budget in subsequent fiscal years;
- use the funds for circulator buses, bus shelters, bus pullout bays, and on-demand transportation services; and
- do not expend more than 5% on administrative costs, exclusive of project management and oversight for projects funded by the surtax.

The Citizens' Independent Transportation Trust (CITT), comprised of 15 members appointed by the Board of County Commissioners, County Mayor, and Miami-Dade League of Cities, is charged with overseeing these funds. The municipality does not need prior approval of the CITT to select transportation and transit projects, but must agree that the CITT can monitor, oversee, review and investigate the City's implementation of any project funded by the surtax. Cities are required to report on their activities to the CITT on a quarterly and annual basis, and this documentation is available on the Miami-Dade County website. The CITT has implemented a reporting schedule policy whereby municipalities that fail to submit a report to the CITT on time will receive a notice of non-compliance 30 days after the due date of the report. If the municipality fails to provide reporting after three notices of non-compliance, the CITT withholds surtax funding.

Figure 7: City of Miami Gardens Trolley, subsidized by the half penny surtax

Table 5: Miami-Dade County Overview

Funding Recipient	Program Type	Proportion of funds received (2019)	Project Selection Criteria	Monitoring/Reporting
Capital Expansion Reserve Fund	• SMART Plan (TOD, BERT Network, PD&E Studies • Golden Glades Multimodal Transportation Facility Improvements • Transportation Planning Organization Project Implementation Plan • Park-and-Ride	4.28%	Board of County Commissioners adopted Resolution R-1202-10: required that the funds from Capital Reserve Fund be used for debt service on MIC-Earlington Heights projects as well as other improvements, including North and East-West Corridor expansion projects	
Office of the CITT	• Staff time	0.9%		
Public Works Pay As You Go Projects	• Right of Way Acquisitions • Traffic Operational Improvements • Lane widening • Neighborhood Improvements Program • Major Highway and Road Improvements	1.1%		
Transit Operations and Maintenance	• Bus service improvements (Golden and Patriot Passport programs, minibuses, bus fleet increase/replacement) • Metromover • Expand bus stop signage, IT at stops/stations • Misc. Capital Improvements (track and guideway rehabilitation, fare collection system replacement, rail vehicle replacement, bus maintenance, central control modernization)	33%		• Passport program issuance numbers • Metrobus Fleet Inventory • Trust member site visits • On-time performance • Mean distance between failures • Complaints per 100k boardings

Municipal transportation projects	• Circulator buses • Bus shelters • Bus pullout bays On-demand transportation services	20%, split as follows per municipality: • Minimum 20% on transit • Max. of 80% on other transportation- related projects	City does not need prior approval of the CITT to select transportation and transit projects, but must agree that the CITT can monitor, oversee, review, and investigate the City's implementation of any project funded by the Municipal Share	• Municipalities are required to report to CITT on annual and quarterly basis • CITT withholds funding if municipalities fail to comply with reporting policy and are given three warnings
Debt Service Expenses	•	32.3%		•

2 Programmatic Case Studies

Steer has collated research into four specific focus areas which represent the Countywide Transportation Programs which combined, receive 50% of total funds. The findings detailed in the following narrative provide information on best practices for similar programs across the country. These include:

1. Transit Operations/Senior Mobility Programs
2. Intelligent Transportation System (ITS) / Smart Corridor
3. Safe Routes to School (SRTS)
4. Stormwater Pollution Prevention

2.1 Transit Operations/Senior Mobility Programs

The Measure M FY18/19 Annual Performance Report (February 2020) highlights that 22% was allocated to projects within the above program (equivalent to approx. $1.624m).

SamTrans is a public transport agency serving San Mateo and the Bay Area, providing bus service throughout San Mateo County and into portions of San Francisco and Palo Alto. The San Mateo County Transit District (SMCTD) provides a pre-arranged paratransit service (Redi-Wheels on the bayside of the county, and RediCoast on the coastside). In addition to Measure M funding, SamTrans receives funding for this program (alongside several others) through Measure W Congestion Relief Plan (established in July 2019), with 50% of the agency's amount allocated towards County Public Transportation System Investments to 'maintain and enhance bus, paratransit, rail and countywide mobility services. This is equivalent to approximately $40m per fiscal year, which demonstrates other high sources of funding are available for senior mobility transit in San Mateo County besides Measure M.

SamTrans' Mobility Plan for Older Adults and People with Disabilities (2018) alludes to key opportunities and challenges with regards to these Countywide Transportation Programs. Note that the aforementioned Measure M funding mechanism has since been established and now supports some of the future programs identified. Opportunities and potential future programs include the following:

- RediWheels passengers increasingly have access to a cell phone/ internet – enhanced communications system (on-demand transportation services).

- Increase provision of wheelchair accessible taxis (or source alternative modes), and discount taxi program[2].
- Door-to-door and door-through-door service.
- Expanded Get Up & Go (a local community-based transportation service).
- Short-distance service to connect with SamTrans and Caltrain.
- Bespoke senior mobility trip planning and improved outreach/ communication program[3].
- Safe routes to transit.

The following case studies explore interesting and innovative Senior Mobility programs.

2.1.1 Freedom in Motion, Gainesville, FL – Discounted Uber Rides for Seniors

The Freedom in Motion program was originally launched as a six-month pilot program in 2015, initially only available to seniors living in Turkey Creek Forest and a downtown residential complex in Gainesville. The program is still running today however following its success, and is now available to more Gainesville residents.

The program is a collaboration of Uber, City of Gainesville, Eldercare of Alachua County and the Gainesville Area Chamber of Commerce, and provides subsidized Uber rides to registered Eldercare residents of over 60 years. The program, which was initially funded with a $15,000 city grant, whereby participants pay only $1-5 per ride, based on their income level. The remaining cost of the Uber ride is covered by the program's funds provided by the municipality.

If needed, eligible seniors can also request to receive a limited capacity smartphone to enable them to hail rides through the service.

The program budget for 2017 was reported at $36,000.

2.1.2 SilverRide, Bay Area, CA – Private Door-through-Door Rides

SilverRide is a vendor that offers door-through-door assisted ride assistance, through a pre-booking system. Trips are typically undertaken in private vehicle and can be round-trip or multi-stop assisted rides for variety of trip purposes (including medical pick-ups).

Operates across San Francisco Bay Area and Kansas City areas.

There could be a possible partnering opportunity between SilverRide and SamTrans to enhance this service in San Mateo County.

[2] Programs already under development by SamTrans (October 2018), for example SamTrans' Ride Now subsidized taxi service.

[3] See above

2.1.3 HealthTran, MO – Effective Marketing for Non-Urban Trips

Missouri Rural Health Association (MRHA) was developed to support rural communities' health care through a set of programming, including HealthTran. HealthTran provides its members with services to increase transportation options for health and wellness appointments in designated regions throughout rural Missouri.

The program has developed innovative mobility strategies, including a flexible system to coordinate and schedule rides within minutes or up to one month in advance through a one-stop technology platform. Trained mobility managers (employees of a member organization located in each region) are able to access multiple transportation options including local public and private transportation vendors, ambulance services and volunteer drivers through this single platform. Additional attention is given to individuals identified with transportation barriers.

An effective marketing strategy at the outset facilitated program success, as eight transit providers in Missouri learned about the strategy and collaborated to provide more transportation options. Organizations or communities interested in offering HealthTran services sign up to become members, which is typically followed by a community launch event to initiate the program. Healthcare providers refer patients to a HealthTran coordinator who links the patient to the most appropriate transportation option available. Program success is measured in terms of reduced missed appointments, passenger satisfaction, annual increase in trips and reduced healthcare costs.

The program budget for 2018 was approximately $260,000, with funding provided from Section 5310 grants, health plans and private foundations.

2.1.4 Way2Go, Ithaca, NY – Community Mobility Education

Intensive stakeholder engagement was deployed to understand current challenges and deficiencies in the local mobility system across Tompkins County. It was found that the community and mobility operators did not have a strong understanding of available countywide services. As a result of this, Way2Go was developed to become a consumer-centric, community mobility program, with several partners including Human Services Coalition, the Ithaca City School District, Ithaca Carshare, AARP, and Department of Social Services.

Public engagement with rural and urban communities is an intrinsic part of the program to understand service gaps and help develop new community mobility solutions.

The education program was selected in 2020 to receive support from the Shared-Use Mobility Center Mobility-on-Demand (MOD) On-Ramp program. It is anticipated a Mobility as a Service (MaaS) pilot will be launched for Way2Go.

The TConnect on-demand weekend service 2-year pilot was further launched in August 2020 to help rural residents access TCAT's existing bus routes. Riders can transfer for free to other TCAT routes.

The program funding in 2019 was $221,300.

2.1.5 COVID-19 Response, multiple agencies

2020 brought many challenges to the transportation industry, and senior mobility was no different. Below are listed examples of creative responses to COVID-19-related challenges:

- The **Dallas Area Rapid Transit (DART)** launched its grocery pickup and delivery services in April 2020 with the help of its paratransit drivers for paratransit customers. Paratransit drivers can collect grocery orders for riders direct from store and deliver for free. DART was also involved in distributing care packages to seniors who participate in the Dallas Park and Recreation Active Senior Adult Program.
- **Metro Mobility, Minneapolis** is using Trapeze's paratransit software, PASS, to deliver groceries and household essentials to its paratransit clients (who can order online).
- **DARTS, Ontario** supports bus passengers with mobility aids requiring lowering platforms (for wheelchairs) which may not be available from rear-door loading. When a "stranded" passenger is at a bus stop, Trapeze PASS software can detect this and DARTS sends a paratransit vehicle to pick them up at the bus stop and take to end destination (intended end bus stop, home, etc). DARTS is also using paratransit vehicles to transport both non-DARTS users and DARTS customers to COVID testing sites, based on information received from the Public Health Department.

2.2 Intelligent Transportation System (ITS) / Smart Corridor

The San Mateo County SMART Corridor is a $35 million ITS designed to improve mobility along the Highway 101 corridor in San Mateo County. Elements include communications, directional signs, closed-circuit television cameras, power supply lines and equipment, and vehicle detection systems. As of this year, all underground work for fiber optic installation is complete and is undergoing testing, while aboveground work is ongoing.

Other SMART corridors in the Bay Area include I-80 and I-880, the most heavily utilized routes for commuters and goods movement. The I-80 corridor is a $80 million project funded by State Proposition 1B, the Contra Costa Transportation Authority's Measure J, and Alameda County's Measure B. The I-880 freeway, which connects Alameda County to Silicon Valley, is a $19 million project funded by Federal Congestion Mitigation and Air Quality Improvement (CMAQ) funds. Both SMART corridors are using ITS on arterial streets to redirect motorists safely and efficiently back onto the highway in case of an accident. Project components include signal coordination, communications equipment, wayfinding signs, traffic sensors, ramp meters, etc.

2.2.1 Hamberg, Germany and Durham, UK – Thermal Imaging

In Europe, case studies show thermal imaging being used to collect real-time information and communicate with motorists.

- **Hamburg**, one of the most congested cities in Germany, has installed thermal imaging technology to traffic and streetlights that allow authorities to "see" data-points. Cameras are interconnected via a cloud-based system that allows for high-resolution and real-time information to be collected.
- **Durham** (UK), has also installed thermal imaging sensors onto pre-existing road signs to build a collision avoidance system that has reduced the number of collisions. These include electronic road signs that detect a passing object and eventually can provide early warnings to drivers to prevent heavy breaking.

2.2.2 33 Smart Mobility Corridor, Columbus, OH – Smart Corridor Technology for Pilot Testing

The 33 Smart Mobility corridor, Ohio calls itself a "living lab." It is a 35-mile highway corridor northwest of Columbus that crosses three counties and connects multiple employment hubs, including Honda's North American campus, R&D firms, manufacturers and logistics companies.

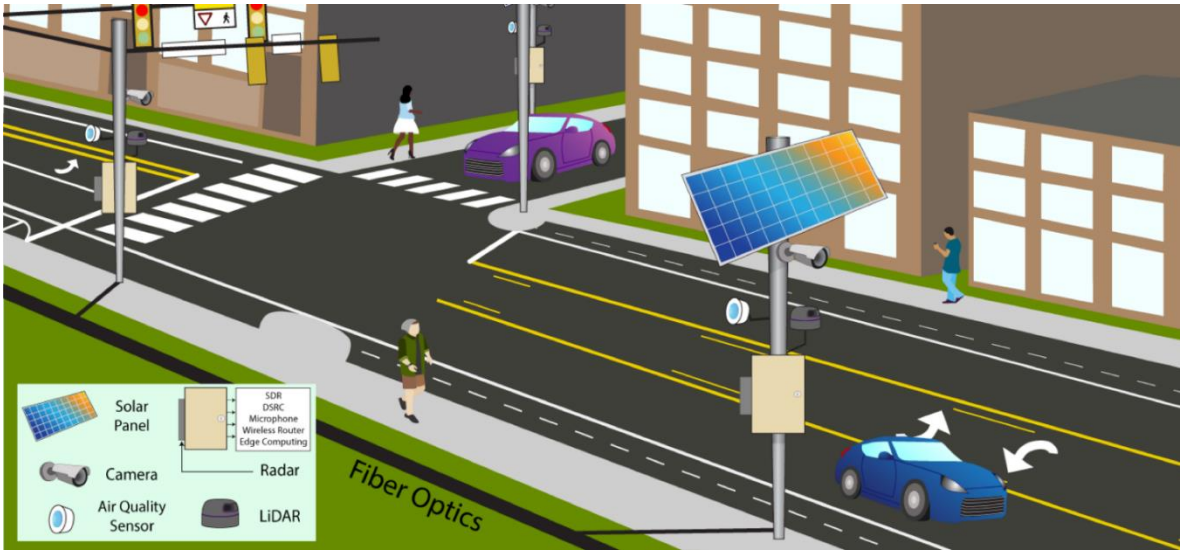
The fiber network allows automotive testing, R&D and manufacturing firms to test smart and AV technologies. The network connects with data generated from embedded wireless sensors along the highway that provide accurate traffic counts, weather and surface condition monitoring, and incident management improvements.

The Corridor is also studying the use of drones to monitor traffic and roadway conditions from the air along the corridor in conjunction with the state's traffic camera system. The drone will interact with the sensors and communication equipment to feed data into the state's traffic management system.

2.2.3 Smart Corridors in Tennessee, CAV Testing

- **The Interstate 24 Smart Corridor** is experimenting with technology in anticipation of automated vehicles (AVs). It is testing adaptive traffic signals with connected and AV priority/pre-emption capabilities.
- **The MLK Smart Corridor** in downtown Chattanooga has become a test bed for research in smart city developments and connected vehicles in a real-world environment, used as a platform to deploy, test and validate various technologies. The corridor's community-owned fiber-optic infrastructure is leveraged to provide insights into traffic patterns, with information shared to Chattanooga Department of Transportation (CDOT) to optimize investments and strategies around future transportation, improving safety and environmental benefits.

Figure 8: Illustrative Rendering of the Chattanooga MLK Smart Corridor



2.2.4 Traffic Management Centres (TMCs), British Columbia, Canada

TMCs are used for collecting real-time transportation information and communicating this to the public, 24 hours a day, seven days a week, via several media platforms.

- **City of Surrey** has implemented, expanded, and enhanced their own TMC as part of the Smart Surrey Strategy. Beyond its regular operations, the TMC has become a living lab for ITS, with rich data being gathered in real time from over 400 traffic cameras across the municipality's network, permanent traffic counters, an adaptive traffic signal control system, and the first operating pedestrian thermal sensors in Canada. The development and ongoing operation of the multi-million-dollar TMC requires collaboration between many city departments and is fully connected with fiber to the provincial TMC.
- **The BC TMC** is based in Coquitlam (Metro Vancouver) and is equipped with multiple data sources to enable staff to respond quickly to incidents by alerting travelers and coordinating with emergency response agencies and maintenance contractors to manage traffic using detour routes, counter-flow lanes and overhead Dynamic Message Signs. Sharing information with municipalities and other agencies is a big reason for the facility's success; 27 partnerships, including data and fiber-sharing agreements, allowing TMC staff to share video images, traffic data and fiber optic cable for the benefit of travelers.

2.3 Safe Routes to School (SRTS)

The Measure M FY18/19 Annual Performance Report (February 2020) highlights that 6% was allocated to SRTS projects (equivalent to approx. $443k).

2.3.1 COVID-19 Response, multiple agencies

The shift to remote learning due to COVID-19 has prompted SRTS programs nationwide adapt their programming.

- **Marin County**'s SRTS team has developed and made available online grade-specific remote learning lessons for students on pedestrian and bike safety.
- The **Alameda County** SRTS program has made available online its presentations and resources for everyone as well as for each grade level. Some of these include information on self-guided walking and biking tours, a "Safe Routes Movie List," a "Safe Routes Reading List," bicycle coloring sheets, videos on transportation, pedestrian and bike safety; among many others.
- The **Champaign-Urbana** SRTS program in Illinois started a "Superheroes Cycle" campaign in lieu of Bike to School, in which registered students shared photos of their routes on social media and received a free Superheroes T-shirt. It also encouraged students to try the "Strava App Challenge," in which users would use the Strava app to draw pictures on their tracked routes.
- Oregon Metro in the **Portland** region has released a SRTS Toolkit that outlines strategies for adapting the program to COVID-19. In addition to the remote learning strategies listed above, it also presents school commute strategies and the infrastructure needed to implement them, such as school streets, sidewalk extensions, one-way streets, traffic playgrounds, and bus loading zone markings and sites.

2.4 Stormwater Pollution Prevention

The San Mateo Countywide Water Pollution Prevention Program (SMCWPPP; with 'Flows To Bay' comprising the public outreach arm), was established in 1990 to reduce the pollution carried by stormwater into local creeks, the San Francisco Bay, and the Pacific Ocean. The program is a partnership of the C/CAG, each incorporated city and town in the county, and the County of San Mateo, which share a common National Pollutant Discharge Elimination System (NPDES) permit. All other Bay Area counties also hold a NPDES permit.

The Municipal Regional Permit (MRP) outlines the State's requirements for municipal agencies in San Mateo County to address the water quality and flow-related impacts of stormwater runoff. Some of these requirements are implemented directly by municipalities themselves while others are addressed by the San Mateo countywide program on behalf of all the municipalities.

The Measure M FY18/19 Annual Performance Report (February 2020) highlights that 12% was allocated to NPDES and MRP admin and projects (equivalent to approx. $885k).

2.4.1 Various Counties – Community Based Public Private Partnership for Green Stormwater Infrastructure

- **Prince George's County**, Maryland, was the first municipality to utilize the CBP3 model as a solution to the challenges that are facing many jurisdictions across the US in meeting federal regulatory stormwater compliance requirements. Through its **Clean Water Partnership (CWP),** Corvias Group LLC and Prince George's County have entered into a 30 year partnership to improve the stormwater infrastructure and make a commitment to impact the local economy through "local" targeted disadvantaged subcontractor development and utilization. The CWP is tracking to plan, design, and construct green infrastructure retrofits across 4000 acres of impervious surfaces in Prince Georges County (including a diverse mix of sites and land uses).
- Ann Arundel County's (also Maryland) **P3 Waterway Improvement Project** was established in 2017 and maximizes technology and creativity through private sector partners (e.g. RES, AECOM and Opti) to support water quality projects. The contract worth $3.8m is uniquely structured to help the County better satisfy its Municipal Separate Storm Sewer System (MS4) and Chesapeake Bay Total Maximum Daily Load (TMDL) permits and goals by partnering with the private sector.
- Milwaukee Metropolitan Sewerage District's **Green Infrastructure Partnership Program (GIPP)** offers incentive funding to public, private, and not-for-profit organizations within eligible municipalities on a per-gallon-captured, reimbursement basis for green infrastructure strategies designed to capture and clean water. Projects are selected based on an established set of criteria focused on the applicant's ability and commitment to implement, maintain, and promote their project.
- City of Chester's, Pennsylvania, **CBP3** aims to build and maintain up to $50 million in green stormwater infrastructure over the next 20-30 years. The partnership consists of the U.S EPA, PENNVEST (Pennsylvania's infrastructure investment authority), Stormwater Authority of the City of Chester, private partner Corvias and Chester Water Authority.

The CBP3 approach has not been implemented in California to date, however the City of Los Angeles has initiated this direction using their Measure W funding. The City of Salinas has also previously released a tender (November 2019) for establishing such a partnership.

Considerations

The case studies explored in this document provide examples from which the Measure M Strategic Plan may draw inspiration. In particular, the strategy will likely call on three key areas of focus from this review:

1. **Allocation and administration**: Many of the case studies explored in Section 1 are more selective with their allocation of funds. This provides the agencies with more control over outputs elicited from the funding itself, but it requires additional administration. The strategy will aim to strike a balance between reasonable levels of administration and the ability to influence use of funds for new or targeted purposes.
2. **Reporting**: All of the case studies outlined in Section 1 require funding recipients to report success. The strategy will build off of those best practices to develop recommendations for refining and restructuring Measure M's required reporting guidelines.
3. **Innovation**: Measure M funding's flexibility provides opportunity for the funding to be spent advancing countywide programs and testing new products, policies and technology. The case studies in Section 2 of this document provide best practices for innovative approaches to all four Countywide Transportation Programs, and may be used to help guide Measure M funding toward new applications.

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

APPENDIX N: MTC GUIDANCE FOR CONSISTENCY OF CMPS WITH THE RTP

Metropolitan Transportation Commission
Planning Committee

December 11, 2020 **Agenda Item 4b**

MTC Resolution No. 3000, Revised – Congestion Management Program Policy

Subject: Approval of MTC's Congestion Management Program Policy to inform the Bay Area's County Transportation Agencies (CTAs) (also known as "Congestion Management Agencies" or "CMAs") on how MTC intends to make a finding of consistency between each prepared 2021 Congestion Management Program (CMP) and *Plan Bay Area 2040*, the Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS).

Background: CMPs were established by State law in 1990 with the intention of creating a cooperative context for transportation planning by cities and their respective CTAs. A primary intent of CMPs is to monitor county multi-modal transportation networks and identify improvements to the performance of these multi-modal systems. The CMPs primary performance measure is vehicle delay presented as Level of Service (LOS) A through F.

The CMPs are prepared biennially (odd years). However, CMPs are not required in a county if a majority of local governments representing a majority of the population adopt resolutions electing to be exempt from this requirement (AB 2419 (Bowler) Chapter 293, Statutes of 1996). Jurisdictions throughout the state have chosen to opt out of the CMP process as provided for in the law, including Los Angeles, San Diego, Sacramento, Fresno, Santa Cruz, and San Luis Obispo counties. Two Bay Area counties—Napa and Sonoma counties—have opted out of the CMP process. MTC has encouraged local consideration of the opt out process, noting that the CMP legislation is outdated and the CMP's primary measure –"LOS" – has largely been superseded by other statewide priorities to reduce vehicle miles travelled ("VMT") and reduce greenhouse gas emissions, such as SB 743 (Steinberg). Instead, MTC has encouraged CTAs to focus limited planning resources on Countywide Transportation Plans (CTP) as a more flexible, comprehensive, and inclusive planning process to identify and reflect local funding priorities, and to focus on coordination with MTC staff on the Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS).

MTC's Responsibility

For each prepared CMP, MTC's responsibilities include making a finding of consistency between the CMP and the RTP/SCS (currently *Plan Bay Area 2040*), evaluating the consistency and compatibility of the CMPs in the Bay Area, and including CMP projects into the Regional Transportation Improvement Program (RTIP). For counties that do not prepare a CMP, MTC will work directly with the respective CTA to reflect project priorities from an adopted Capital Improvement Program (CIP) and ensure they are consistent with the adopted RTP/SCS for RTIP funding.

Guidance for 2021 CMPs
MTC staff does not propose changes to Attachments A and B of MTC Resolution No. 3000, Revised, last updated in June 2019. Instead, staff encourages CMA's to prepare "limited and focused" updates of their prepared 2019 CMPs in the manner of an addendum highlighting changes since the preparation of the 2019 CMPs. Staff proposes this approach due to situational challenges related to the implementation of SB 743 (Steinberg), impacts of COVID-19, and because Plan Bay Area 2050 (the next RTP/SCS) is yet to be adopted.

Next Steps
In fall 2021, CTAs will submit their 2021 CMP and their respective project priorities for consideration into the 2020 RTIP. MTC will then begin its consistency review before submitting the final 2020 RTIP priorities to the California Transportation Commission by December 15, 2021. See Table 1 for a summary of the 2021 CMP review process.

Issues: 1) The CMP legislation and ensuing process is outdated and its primary measure – "LOS" – is out of step with current statewide climate goals and the recently amended CEQA guidelines switch to VMT as the primary metric for traffic impacts based on SB 743 (Steinberg). Following the 2021 CMP and the adoption of Plan Bay Area 2050, staff will review the Guidelines for Consistency contained in Resolution 3000 and propose updates, as appropriate, for subsequent CMPs.

2) There are two primary ways in which CTAs develop short and long-range transportation project priorities to support regional planning and programming efforts, the CMP and multi-modal long-range countywide transportation plans (CTP), which are both established under state statute. Currently, six of the nine Bay Area counties prepare both a CMP and CTP. Two counties, Napa and Sonoma, prepare CTPs, but have opted out of preparing CMPs, whereas Marin County does not prepare a CTP. Given this redundancy, MTC staff encourages local consideration of the opt out process in favor of a single comprehensive planning process.

Recommendation: MTC Resolution No. 3000, Revised, delegates to this Committee the responsibility for approving revisions to the CMP Guidance (MTC Resolution No. 3000, Revised). Staff recommends that the Committee re-approve Attachments A and B of MTC Resolution No. 3000, Revised, for the purpose of providing guidance for the development of the 2021 CMPs consistent with *Plan Bay Area 2040*, the Bay Area's currently adopted RTP/SCS.

Attachments: Attachment A: Table 1. 2021 CMP Review Process and Schedule
Attachment B: MTC Resolution No. 3000, Revised

Therese W. McMillan

Table 1. 2021 CMP Review Process and Schedule

Date	Activity	Responsible Party
December 11, 2020	Approval of updates to CMP Policy – no changes proposed	MTC's Planning Committee
October 2021	CMAs submit 2021 CMP, RTIP projects summary listings, and identification of projects requiring project-level performance measure analysis to MTC. Deadline to submit Complete Streets Checklist for new projects.	CTAs
October 2021	• Submittal of CMPs for counties that prepare CMPs • Review of consistency of CMPs with Plan Bay Area 2040 (RTP/SCS)	MTC staff
November 2021	Final Project Programming Request (PPR) forms due to MTC. Final RTIP project listing and performance measure analysis due to MTC. Final Project Study Report (or PSR equivalent), Resolution of Local Support, and Certification of Assurances due to MTC (final complete applications due)	CTAs
December 8, 2021	Programming & Allocations scheduled review of RTIP and referral to Commission for approval	MTC's Programming & Allocations Committee
December 15, 2021	2020 RTIP due to the California Transportation Commission (CTC) (PAC approved project list will be submitted)	MTC staff
December 15, 2021	MTC's scheduled Consistency Findings on 2021 CMPs and scheduled approval of the 2020 RTIP	MTC Commission

Date: June 25, 1997
W.I.: 30.5.10
Referred By: WPC
Revised: 06/11/99-W 05/11/01-POC
06/13/03-POC 06/10/05-POC
05/11/07-PC 05/08/09-PC
06/10/11-PC 07/12/13-PC
10/09/15-PC 06/14/19-PC
12/11/20-PC

ABSTRACT

Resolution No. 3000, Revised

This resolution revises MTC's Guidance for Consistency of Congestion Management Programs with the Regional Transportation Plan (RTP).

This resolution supersedes Resolution No. 2537

Attachments A and B of this resolution were revised on June 11, 1999, to reflect federal and state legislative changes established through the passage of the Transportation Equity Act of the 21st Century and SB 45, respectively. In addition, the Modeling Checklist has been updated.

Attachments A and B of this resolution were revised on May 11, 2001, to reflect state legislative changes and to reference updated demographic and forecast data.

Attachments A and B of this resolution were revised on June 13, 2003, to reflect state legislative changes, 2001 RTP goals and policies, and to reference updated demographic and forecast data.

Attachments A and B of this resolution were revised on June 10, 2005, to reflect the updated RTP goals, as per Transportation 2030, and to reference updated demographic and forecast data.

Attachments A and B of this resolution were revised on May 11, 2007, to reflect federal legislative changes established through the passage of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA), and to reference new State Transportation Control Measures and updated demographic and forecast data.

Attachments A and B of this resolution were revised on May 8, 2009, to reflect MTC's new RTP (Transportation 2035 Plan), an updated Travel Demand Modeling Checklist, and revised Resolution 3434 and TOD policy.

Attachments A and B of this resolution were revised on June 10, 2011, to reflect the new regional coordinated land use and transportation planning process as directed through SB 375, an updated Travel Demand Modeling Checklist, the newly released Highway Capacity Manual 2010, the Bay Area 2010 Ozone Strategy, and updates to the table noting achievement of the Transit Oriented Development requirements by Resolution No. 3434 transit extension project.

Attachments A and B of this resolution were revised on July 12, 2013, to reflect the new RTP (Plan Bay Area) and the statutory requirements in MAP-21 for RTP and air quality conformity requirements.

Attachments A and B of this resolution were revised on October 9, 2015, to reflect the final Plan Bay Area document, revisions to the Modeling Consistency Requirements and Transportation Control Measures, and to include minor updates to descriptive language.

Attachments A and B of this resolution were revised on June 14, 2019, to reflect updated federal and state regulatory settings and the Bay Area's new RTP/SCS (Plan Bay Area 2040), clarifications to the manner in which MTC will make a finding of consistency with PBA 2040, revisions to the Travel Demand Modeling Checklist, the newly released Highway Capacity Manual 2016, and to include minor updates to descriptive language.

Attachments A and B of this resolution were reapproved on December 11, 2020, to provide guidance for the development of the 2021 Congestion Management Programs (CMPs) consistent with Plan Bay Area 2040, the Bay Area's currently adopted Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS).

Date: June 25, 1997
W.I.: 30.5.10
Referred By: WPC

Re: Congestion Management Program Policy.

METROPOLITAN TRANSPORTATION COMMISSION
RESOLUTION NO. 3000

WHEREAS, the Metropolitan Transportation Commission (MTC) is the regional transportation planning agency for the San Francisco Bay Area pursuant to Government Code Sections 66500 et seq; and

WHEREAS, Government Code § 65080 requires each transportation planning agency to prepare a regional transportation plan and a regional transportation improvement program directed at the achievement of a coordinated and balanced regional transportation system; and

WHEREAS, Government Code § 65089 requires a designated local agency in each urbanized county to develop, adopt, and periodically update a congestion management program for the county and its included cities unless a majority of local governments in a county and the county board of supervisors elect to be exempt; and requires that this congestion management program be developed in consultation, among others, with the regional transportation planning agency; and

WHEREAS, Government Code § 65089.2 requires that, for each congestion management program prepared, the regional transportation planning agency must make a finding that each congestion management program is consistent with the regional transportation plan, and upon making that finding shall incorporate the congestion management program into the regional transportation improvement program; and

WHEREAS, Government Code § 65082 requires that adopted congestion management programs be incorporated into the regional transportation improvement program approved by MTC; and

WHEREAS, MTC has adopted a Congestion Management Program Policy (MTC Resolution 2537, Revised) to provide guidance for all the counties and cities within the region in preparing their congestion management programs; and,

WHEREAS, MTC's Congestion Management Program Policy needs to be updated from time to time to provide further guidance, now, therefore, be it

RESOLVED, that MTC adopts the Congestion Management Program Policy, as set forth in Attachments A and B to this resolution, which are incorporated herein by reference; and, be it further

RESOLVED, that the MTC Work Program Committee is delegated the responsibility for approving amendments to Attachments A and B; and, be it further

RESOLVED, that this resolution shall be transmitted to the nine Bay Area Congestion Management Agencies for use in preparing their congestion management programs; and, be it further

RESOLVED, that MTC Resolution No. 2537, Revised is hereby superseded.

METROPOLITAN TRANSPORTATION COMMISSION

_____

Jane Baker, Chairwoman

The above resolution was entered into
by the Metropolitan Transportation
Commission at a regular meeting of the
Commission held in Oakland,
California, on June 25, 1997.

Date: June 25, 1997
W.I.: 30.5.10
Referred By: WPC
Revised: 06/11/99-W 05/11/01-POC
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05/11/07-PC 05/08/09-PC
06/10/11-PC 07/12/13-PC
10/09/15-PC 06/14/19-PC
12/11/20-PC

GUIDANCE FOR CONSISTENCY OF

CONGESTION MANAGEMENT PROGRAMS

WITH THE REGIONAL TRANSPORTATION PLAN

Metropolitan Transportation Commission

June 2019

GUIDANCE FOR CONSISTENCY OF CONGESTION MANAGEMENT PROGRAMS WITH THE REGIONAL TRANSPORTATION PLAN

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Abbreviations

AB ..... Assembly Bill
ABAG ..... Association of Bay Area Governments
BAAQMD ..... Bay Area Air Quality Management District
BCDC ..... Bay Conservation and Development Commission
CFR ..... Code of Federal Regulations
CIP ..... Capital Improvement Program
CMA ..... Congestion Management Agency
CMP ..... Congestion Management Program
CTC ..... California Transportation Commission
FAST ..... Fixing America's Surface Transportation Act
GHG ..... Greenhouse Gas (CO_2)
HCM ..... Highway Capacity Manual
ITIP ..... Interregional Transportation Improvement Program
LOS ..... Level of Service
MPO ..... Metropolitan Planning Organization
MTC ..... Metropolitan Transportation Commission
MTP ..... Metropolitan Transportation Plan
PCA ..... Priority Conservation Area
PDA ..... Priority Development Area
RMWG ..... Regional Model Working Group
RTIP ..... Regional Transportation Improvement Program
RTP/SCS ..... Regional Transportation Plan/Sustainable Communities Strategy
RTPA ..... Regional Transportation Planning Agency
SB ..... Senate Bill
TCM ..... Transportation Control Measures
TOD ..... Transit Oriented Development
TPA ..... Transit Priority Area
UGB ..... Urban Growth Boundary

I. INTRODUCTION

A. Purpose of This Guidance

The Congestion Management Program (CMP) statutes establish specific requirements for the content and development process for CMPs; the relationship between CMPs and the regional transportation planning process; Congestion Management Agency (CMA) monitoring and other responsibilities; and, the responsibilities of MTC as the Bay Area's Regional Transportation Planning Agency (RTPA) and Metropolitan Planning Organization (MPO). CMPs are not required to be prepared in counties where a majority of local governments representing a majority of the county's population and the Board of Supervisors adopt resolutions requesting to be exempt from this requirement (AB 2419 (Bowler) Chapter 293, Statutes of 1996). The following Guidance is for those counties that prepare a CMP following state statutes. For counties that opt out of preparing a CMP, MTC will work directly with the appropriate county transportation agencies to establish project priorities for funding.

CMP statutes specify responsibilities for MTC as the Bay Area's RTPA/MPO. These responsibilities include: reviewing the consistency between each CMP and the Regional Transportation Plan (RTP) – which encompasses the Bay Area's Sustainable Communities Strategy (SCS) demonstrating how the region could achieve state greenhouse gas (GHG) emission reduction targets; evaluating the consistency and compatibility of the CMPs in the Bay Area; and, including CMP projects into the Regional Transportation Improvement Program (RTIP).

The purpose of this Guidance is to focus on MTC's role in determining consistency between the CMPs and the region's RTP/SCS (herein also referred to as "Plan Bay Area 2040").

B. Legislative Requirement for Congestion Management Programs

CMPs were established as part of a bi-partisan legislative package in 1989 and approved by the voters in 1990. This legislation also increased transportation revenues and changed state transportation planning and programming processes. The specific CMP provisions were originally chartered by the Katz-Kopp-Baker-Campbell Transportation Blueprint for the Twenty-First Century by AB 471 (Katz); (Chapter 106, Statutes 1989). They were revised by AB 1791 (Katz) (Chapter 16, Statutes of 1990), AB 3093 (Katz) (Chapter 2.6, Statutes of 1992), AB 1963 (Katz) (Chapter 1146, Statutes of 1994), AB 2419 (Bowler) (Chapter 293, Statutes of 1996), AB 1706 (Chapter 597, Statutes of 2001), and SB 1636 (Figueroa) (Chapter 505, Section 4, Statutes of 2002), which defines and incorporates "infill opportunity zones." The provisions regarding establishing new "infill opportunity zones" have now expired, but established infill opportunities zones are still subject to the statutes.

CMP statutes establish requirements for local jurisdictions to receive certain gas tax subvention funds. Additionally, CMPs play a role in the development of specific project proposals for the RTIP.

C. The Role of CMPs in the Regional Transportation Planning Process

CMPs can play a role in the countywide and regional transportation planning processes (although these functions can be achieved without an official CMP as well):

- CMPs can be used to identify near-term projects to implement the long-range vision established in a countywide transportation plan.
- Through CMPs, the transportation investment priorities of the multiple jurisdictions in each county can be addressed in a countywide context.
- CMPs can be used to establish a link between local land use decision making and the transportation planning process.
- CMPs can be used as a building block for the federally required Congestion Management Process[1].

11. MTC's ROLE & RESPONSIBILITIES

A. MTC's Responsibilities Regarding CMPs

MTC's direct responsibilities under CMP statutes are concentrated in the following provisions:

> ***"The regional agency shall evaluate the consistency between the program (i.e., the CMP) and the regional transportation plans required pursuant to Section 65080. In the case of a multicounty regional transportation planning agency, that agency shall evaluate the consistency and compatibility of the programs within the region.*** (Section 65089.2 (a))
>
> ***The regional agency, upon finding that the program is consistent, shall incorporate the program into the regional transportation improvement program as provided for in Section 65082. If the regional agency finds the program is inconsistent, it may exclude any project in the congestion management program from inclusion in the regional transportation improvement program.*** (Section 65089.2(b))
>
> ***It is the intent of the Legislature that the regional agency, when its boundaries include areas in more than one county, should resolve inconsistencies and mediate disputes which arise between agencies related to congestion management programs adopted for those areas."*** Section 65089.2.(d)(1))

B. The RTP Regulatory Setting

Federal Requirements

The primary federal requirements regarding RTPs are addressed in the metropolitan transportation planning rules in Title 23 of the Code of Federal Regulations (CFR) Part 450 and 500 and Title 49 CFR Part 613. These federal regulations have been updated to reflect the metropolitan transportation planning regulations called out in 2015's federal transportation bill, Fixing America's Surface Transportation Act (FAST). Under FAST, the U.S. Department of

[1]See the following link for more information on the federal Congestion Management Process, https://ops.fhwa.dot.gov/plan4ops/focus_areas/cmp.htm

Transportation requires that MPOs, such as MTC, prepare long-range Metropolitan Transportation Plans (MTPs) and update them every four years if they are in designated "nonattainment" or "maintenance" areas for federal air quality standards.

State Requirements

California Government Code Section 65080 sets forth the state's requirements for RTPs. Section 65080 requires MPOs located in air quality nonattainment regions update their RTPs at least every four years.

The regional agencies, the Association of Bay Area Governments (ABAG), the Bay Area Air Quality Management District (BAAQMD), and the Bay Conservation and Development Commission (BCDC), assist MTC in addressing the requirements flowing from California's Sustainable Communities and Climate Protection Act (Sustainable Communities Act, SB 375, Chapter 728, Statutes of 2008), which requires each of the state's 18 metropolitan areas, including the Bay Area, to reduce GHG emissions from cars and light-duty trucks. The mechanism for achieving these reductions is the preparation of an SCS.

State RTP Guidelines

The California Transportation Commission (CTC)'s RTP Guidelines, last updated in 2017, tie together federal and state regulations and CTC policy direction to guide the development of RTPs. CTC programming policy prohibits the allocation of funds to projects that are not consistent with an adopted RTP.

Section 65080 of the Government Code, as amended by SB 375, states that the RTP shall contain four distinct elements:

- A Policy Element that reflects the mobility goals, policies and objectives of the region;
- A Sustainable Communities Strategy (SCS), as established through SB 375;
- An Action Element that identifies programs and actions to implement the RTP; and
- A Financial Element that summarizes the cost of implementing the projects in the RTP in a financially constrained environment.

C. Consistency Findings with the RTP/SCS

MTC's findings for the consistency between CMPs and the RTP/SCS focus on four areas:

- Consistency with the RTP/SCS goals, growth pattern, and supporting transportation investment strategy;
- Consistency with the MTC travel demand modeling database and methodologies; and,
- Consistency with federal and state air quality plans.

1) The RTP/SCS ("Plan Bay Area 2040")

Plan Bay Area 2040, adopted in 2017, along with its predecessor – Plan Bay Area – grew out of SB 375 and serves as the Bay Area's MTP and RTP/SCS. Plan Bay Area 2040 integrates the region's SCS into the RTP. Plan Bay Area 2040 was prepared by MTC in partnership with

ABAG, BAAQMD, and BCDC and in collaboration with Caltrans, the nine county-level CMAs or substitute agencies, over two dozen Bay Area transit operators, and numerous transportation stakeholders and the public. Plan Bay Area 2040 achieves and exceeds the Bay Area's regional GHG reduction targets set forth by CARB and was prepared in compliance with the CTC's RTP Guidelines.

Goals and Targets

Plan Bay Area 2040 incorporates a set of seven goals and thirteen performance targets – one of those being CARB's GHG emissions reduction target – as quantifiable measures against which progress may be evaluated in addressing the major challenges facing the region, as shown in Table 1. CMAs should consider these goals and targets when preparing their CMPs.

To determine whether a CMP is consistent with Plan Bay Area 2040, MTC *will* first qualitatively evaluate whether the CMP is supportive or in conflict with the Plan Bay Area 2040's goals and targets shown in Table 1, below. MTC *will not* evaluate whether each CMP achieves Plan Bay Area 2040's adopted targets.

Table1. Plan Bay Area 2040 Performance Targets

Goal	#	Target
Climate Protection	**1**	Reduce per-capita GHG (CO_2) emissions from cars and light duty trucks by 15% *Statutory - Source: California Air Resources Board, as required by SB 375*
Adequate Housing	**2**	House 100% of the region's projected growth by income level without displacing current low-income residents and with no increase in in-commuters over the Plan baseline year
Healthy & Safe Communities	**3**	Reduce adverse health impacts associated with air quality, road safety, and physical inactivity by 10%
Open Space & Agricultural Preservation	**4**	Direct all non-agricultural development within the urban footprint (existing urban development and urban growth boundaries (UGBs))
Equitable Access	**5**	Decrease the share of lower-income residents' household income consumed by transportation and housing by 10%
	6	Increase the share of affordable housing in PDAs, transit priority areas (TPAs), or high-opportunity areas by 15%
	7	Do not increase the share of low- and moderate-income renter households in PDAs, TPAs, or high-opportunity areas that are at risk of displacement

Economic Vitality	**8**	Increase by 20% the share of jobs accessible within 30 minutes by auto or within 45 minutes by transit in congested conditions
	9	Increase by 38% the number of jobs in predominantly middle-wage industries
	10	Reduce per-capita delay on the Regional Freight Network by 20%
Transportation System Effectiveness	**11**	Increase non-auto mode share by 10%
	12	Reduce vehicle operating and maintenance costs due to pavement conditions by 100%
	13	Reduce per-rider transit delay due to aged infrastructure by 100%

Unless noted, the Performance Target increases or reductions are for 2040 compared to a year 2005 baseline.

Growth Pattern

In addition to reducing GHG emissions, SB 375 requires that the SCS promote compact, mixed-use commercial and residential development, and identify how the region could house its current and projected population. To meet the goals of SB 375, and the GHG reduction targets, Plan Bay Area 2040 largely reflects the foundation and regional growth pattern established in the original Plan Bay Area. Plan Bay Area 2040's core strategy is "focused growth" in existing communities along the existing transportation network. This strategy builds upon existing community characteristics and leverages existing infrastructure. Key to implementing the focused growth strategy are Priority Development Areas (PDAs) and Priority Conservation Areas (PCAs) identified, recommended, and approved by local governments.

- **Priority Development Areas (PDAs) -**
  These existing neighborhoods are nominated locally, served by public transit, and include areas that are or will be walkable and bikeable and close to public transit, jobs, schools, shopping, parks, recreation and other amenities.
- **Priority Conservation Areas (PCAs) -**
  These regionally significant open spaces which have a broad consensus for long-term protection but which face nearer-term development pressures.

In addition, MTC has adopted a Transportation and Land Use Platform that calls for supportive land use plans and policies to support transit extensions in Res. 3434. Further, MTC has adopted a Transit Oriented Development (TOD) Policy, as part of Res. 3434, that establishes specific housing thresholds for these extensions, requires station area plans and establishes corridor working groups. These regional policies and specific projects within the county should be recognized in the CMP (attached as Attachment B, Appendix C).

As a second check to determine whether a CMP is consistent with Plan Bay Area 2040, MTC will qualitatively evaluate whether the CMP is supportive versus in conflict with the Plan Bay Area 2040's growth strategy.

Investment Strategy

Plan Bay Area 2040's focused growth strategy is supported by a robust, multi-modal transportation investment strategy that enables the Bay Area to exceed its regional GHG reduction targets. The Plan develops a blueprint for short- term and long-term transportation investments to support the plan's focused growth strategy. Investment priorities reflect a primary commitment to "Fix It First," a key emphasis area in the original Plan Bay Area as well.

Approximately 90 percent of Plan Bay Area 2040's investments focus on operating, maintaining and modernizing the existing transportation system. Plan Bay Area 2040 also directs almost two-thirds of future funding to investments in public transit, mostly to ensure that transit operators can sustain existing service levels through 2040.

- **Operate + Maintain**: This strategy includes projects that replace transit assets, pave local streets and state highways, and operate the transit system.
- **Modernize**: This strategy includes projects that improve the existing system without significantly increasing the geographical extent of the infrastructure. Electrifying Caltrain and portions of the express lane network are two major investments in this category.
- **Expand**: This strategy includes projects that extend fixed-guideway rail service or add lanes to roadways. Extending Caltrain to downtown San Francisco and BART into Silicon Valley, as well as implementing express lanes on U.S.101 in San Mateo and Santa Clara counties, are major investments in this category.

Regional Transit Expansion Program

The Regional Transit Expansion Program –adopted by the Commission as Resolution 3434– calls for a nearly $18 billion investment in new rail and bus projects that will improve mobility and enhance connectivity for residents throughout the Bay Area. Further, Plan Bay Area 2040 identifies modernization and expansion projects to increase transit capacity in core locations of the Bay Area, including the transbay corridor, peninsula corridor, within San Francisco, and within Santa Clara County. This includes projects such as extending BART to San Jose and Santa Clara, extending Caltrain to downtown San Francisco, extending VTA's light rail on the Capitol Expressway and Vasona lines, and extending SMART to Larkspur and Windsor.

RTP Financial Requirements and Projections

Under the federal transportation authorization (FAST), the actions, programs and projects in the RTP must be fiscally constrained, meaning their costs cannot exceed the forecast of public and private revenues that are reasonably expected to be available. While CMPs are not required by legislation to be fiscally constrained, recognition of financial constraints, including the costs for maintaining, rehabilitating, and operating the existing multi-modal system and the status of specific major projects, will strengthen the consistency and linkage between the regional planning process and the CMP. The CMA may submit project proposals for consideration by MTC in developing future fiscally constrained RTPs.

As a final check to determine whether a CMP is consistent with Plan Bay Area 2040, MTC will verify whether the CMP's CIP is consistent with the Plan Bay Area 2040's adopted investment strategy. The scope, schedule, and cost estimates of regionally-significant projects must be consistent with Plan Bay Area 2040's adopted project list, and non-regionally significant projects must align with a programmatic category in Plan Bay Area 2040's adopted project list.

2) Consistency with the MTC Travel Demand Modeling Databases and Methodologies

MTC's statutory requirements regarding consistent databases are as follows:

> ***The agency, (i.e., the CMA) in consultation with the regional agency, cities, and the county, shall develop a uniform data base on traffic impacts for use in a countywide transportation computer model . . . The computer models shall be consistent with the modeling methodology adopted by the regional planning agency. The data bases used in the models shall be consistent with the data bases used by the regional planning agency. Where the regional agency has jurisdiction over two or more counties, the data bases used by the agency shall be consistent with the data bases used by the regional agency***. (Section 65089 (c))

MTC desires the development and implementation of consistent travel demand models, with shared input databases, to provide a common foundation for transportation policy and investment analysis.

The Bay Area Partnership's Regional Model Working Group (RMWG) serves as a forum for sharing data and expertise and providing peer review for issues involving the models developed by or for the CMAs, MTC, and other parties. The MTC Checklist for Modeling will be used to guide the consistency assessment of CMA models with the MTC model.

The Checklist is included in Attachment B, and addresses:

- Demographic/econometric forecasts;
- Pricing assumptions;
- Network assumptions;
- Travel demand methodologies; and,
- Traffic assignment methodologies.

<u>Level of Service Methodology</u>

CMP statutory requirements regarding level of service are as follows

> ***"Level of service (LOS) shall be measured by Circular 212, by the most recent version of the Highway Capacity Manual, or by a uniform methodology adopted by the agency that is consistent with the Highway Capacity Manual."*** (Section 65089 (b)

The most recently adopted highway capacity manual is Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis, or HCM 2016, or HCM6, was released in 2016. This edition incorporates the latest research on highway capacity, qualify of service, *Active Traffic and Demand Management*, and travel time reliability.

Over the last several years, the State of California Office of Planning and Research (OPR) has been in the process of developing an alternative to the LOS approach as it relates to the California Environmental Quality Act (CEQA) in response to SB 743 (Steinberg, 2013). OPR's proposed alternative is an assessment of vehicle miles traveled (VMT). In December 2018, the California Natural Resources Agency certified and adopted the CEQA Guidelines update package, including the Guidelines section implementing SB 743 (§ 15064.3).

3) Consistency with pertinent Air Quality Plans

Transportation Control Measures (TCMs) are identified in the federal and state air quality plans to achieve and maintain the respective standards for ozone and carbon monoxide. The statutes require that the Capital Improvement Program (CIP) of the CMP conform to transportation related vehicle emission air quality mitigation measures. CMPs should promote the region's adopted TCMs for federal and state air quality plans. In addition, CMPs are encouraged to consider the benefits of GHG reductions in developing the CIP, although GHG emission reductions are not currently required in federal and state air quality plans.

A reference to the lists of federal and state TCMs is provided in Attachment B. The lists may be updated from time to time to reflect changes in the federal and state air quality plans.

In particular, TCMs that require local implementation should be identified in the CMP, specifically in the CIP.

CMPs are also required to contain provisions pertaining to parking cash-out.

> ***The city or county in which a commercial development will implement a parking cash-out program that is included in a congestion management program pursuant to subdivision (b), or in a deficiency plan pursuant to Section 65089.4, shall grant to that development an appropriate reduction in the parking requirements otherwise in effect for new commercial development. (2) At the request of an existing commercial development that has implemented a parking cashout program, the city of county shall grant an appropriate reduction in the parking requirements otherwise applicable based on the demonstrated reduced need for parking, and the space no longer needed for parking purposes may be used for other appropriate purposes.*** (Section 65089 (d)

As of January 1, 2010, cities, counties and air districts were given the option to enforce the State Parking Cash-Out statutes (Section 43845 of the Health and Safety Code), as per SB 728 (Lowenthal). This provided local jurisdictions with another tool to craft their own approaches to support multi-modal transportation systems, address congestion and greenhouse gases.

D. Consistency and Compatibility of the Programs within the Region

The CMP statutes require that, in the case of a multi-county regional transportation agency, that agency shall evaluate the consistency and compatibility of the CMPs within the region. Further, it is the Legislature's stated intention that the regional agency (i.e., MTC in the San Francisco Bay Area) resolve inconsistencies and mediate disputes between or among CMPs within a region.

To the extent useful and necessary, MTC will identify differences in methodologies and approaches between the CMPs on such issues as performance measures and land use impacts.

The CMP statutes also require that the CMA designate a system of highways and roadways which shall be subject to the CMP requirements. Consistency requires the regional continuity of the CMP designated system for facilities that cross county borders.

To determine whether a CMP is consistent with the system definition of adjoining counties, MTC will review the draft CMPs to determine whether adjacent counties have the same designations of cross border facilities.

E. Incorporation of the CMP Projects into the RTIP

State transportation statutes require that the MTC, in partnership with the state and local agencies, develop the RTIP on a biennial cycle. The RTIP is the regional program for state and federal funding, adopted by MTC and provided to CTC for the development of the State Transportation Improvement Program (STIP). In 1997, SB 45 (Statutes 1997, Chapter 622) significantly revised State transportation funding policies, delegating project selection and delivery responsibilities for a major portion of funding to regions and counties. Subsequent changes to state law (AB 2928 – Statutes 2000, Chapter 91) made the RTIP a five-year proposal of specific projects, developed for specific fund sources and programs. The RTIP is required to be consistent with the most recently adopted RTP (Plan Bay Area 2040).

The CMP statutes establish a direct linkage between CMPs that have been found to be consistent with the RTP, and the RTIP. MTC will review the projects in the CIP of the CMP for consistency with the RTP. MTC's consistency findings for projects in the CMPs will be limited to those projects that are included in the RTP, and do not extend to other projects that may be included in the CMP. Some projects may be found consistent with a program or programmatic category in the RTP. MTC, upon finding that the CMP is consistent with the RTP, shall incorporate the CMP's program of projects into the RTIP, subject to specific programming and funding requirements. If MTC finds the CMP inconsistent, it may exclude any project in the program from inclusion in the RTIP. Since the RTIP must be consistent with the RTP, projects that are not consistent with the RTP will not be included in the RTIP. MTC may include certain projects or programs in the RTIP which are not in a CIP, but which are in the RTP. In addition, SB 45 requires projects included in the Interregional Transportation Improvement Program (ITIP) to be consistent with the RTP.

MTC will establish funding bid targets for specific funds, based upon the fund estimate as adopted by the CTC. Project proposals can only be included in the RTIP within these funding bid targets. MTC will also provide information on other relevant RTIP processes and requirements, including coordination between city, county, and transit districts for project applications, schedule, evaluations and recommendations of project submittals, as appropriate for the RTIP.

As per CTC's Guidelines, MTC will evaluate the projects in the RTIP based on specific performance indicators and measures as established in the RTP and provide this evaluation to the CTC along with the RTIP. CMAs are encouraged to consider the performance measures in Plan

Bay Area when developing specific project proposals for the RTIP; more details will be provided in the RTIP Policies and Procedures document, adopted by MTC for the development of the RTIP.

II. CMP PREPARATION & SUBMITTAL TO MTC

A. CMP Preparation

If prepared, the CMP shall be developed by the CMA in consultation with, and with the cooperation of, MTC, transportation providers, local governments, Caltrans, and the BAAQMD, and adopted at a noticed public hearing of the CMA. As established in SB 45, the RTIP is scheduled to be adopted by December 15 of each odd numbered year. If circumstances arise that change this schedule, MTC will work with the CMAs and substitute agencies in determining an appropriate schedule and mechanism to provide input to the RTIP.

B. Regional Coordination

In addition to program development and coordination at the county level, and consistency with the RTP, the compatibility of the CMPs with other Bay Area CMPs would be enhanced through identification of cross county issues in an appropriate forum, such as Partnership and other appropriate policy and technical committees. Discussions would be most beneficial if done prior to final CMA actions on the CMP

C. Submittal to MTC

To provide adequate review time, draft CMPs should be submitted to MTC in accordance to a schedule MTC will develop to allow sufficient time for incorporation into the RTIP for submittal to the California Transportation Commission. Final CMPs must be adopted prior to final MTC consistency findings.

D. MTC Consistency Findings for CMPs

MTC will evaluate consistency of the CMP every two years with the RTP that is in effect when the CMP is submitted; for the 2019 CMP the RTP in effect will be Plan Bay Area 2040. MTC will evaluate the consistency of draft CMPs when received, based upon the areas specified in this guidance, and will provide staff comments of any significant concerns. MTC can only make final consistency findings on CMPs that have been officially adopted.

Date: June 25, 1997
W.I.: 30.5.10
Referred By: WPC
Revised: 06/11/99-W 05/11/01-POC
06/13/03-POC 06/10/05-POC
05/11/07-PC 05/08/09-PC
06/10/11-PC 07/12/13-PC
10/09/15-PC 06/14/19-PC
12/11/20-PC

Attachment B
Resolution No. 3000
Page 1 of 16

Attachment B to MTC Resolution No. 3000 consists of:

Appendix A	Federal and State Transportation Control Measures
Appendix B	Checklist for Modeling Consistency for CMPs
Appendix C	MTC's Regional Transit Expansion Program of Projects (MTC Resolution No. 3434, revised 09/24/08)
Appendix D	MTC's Resolution No. 3434 Transit Oriented Development (TOD) Policy, revised 10/24/07

Appendix A: Federal and State Transportation Control Measures (TCMs)

Federal TCMs:
For a list and description of current Federal TCMs, see the "Federal Ozone Attainment Plan for the 1-Hour National Ozone Standard" adopted Oct. 24, 2001, and "2004 Revision to the California State Implementation Plan for Carbon Monoxide, Updated Maintenance Plan for Ten Federal Planning Areas," approved January 30, 2006.
The current Federal TCMs have been fully implemented. Refer to the "Final Transportation Air Quality Conformity Analysis for the Plan and the Proposed Final 2015 Transportation Improvement Program" at http://files.mtc.ca.gov/pdf/final_pba_and_2015_tip_air_quality_conformity_analysis.pdf (page 19) for the specific implementation steps in the advancement of these Federal TCMs.

State TCMs:
For a list and description of current State TCMs, see "Bay Area 2010 Ozone Strategy," or subsequent revisions as adopted by the Bay Area Air Quality Management.

CMAQ Evaluation and Assessment Report:
MTC participated in a federal evaluation and assessment of the direct and indirect impacts of a representative sample of Congestion Mitigation and Air Quality (CMAQ) – funded projects on air quality and congestion levels. The study estimated the impact of these projects on emissions of transportation related pollutants, including carbon monoxide (CO), ozone precursors – oxides of nitrogen (NOx), volatile organic compounds (VOCs), particulate matter (PM_{10} and $PM_{2.5}$), and carbon dioxide (CO_2) for information purposes, as well as on traffic congestion and mobility. There is also additional analysis of the selected set of CMAQ-funded projects to estimate of the cost effectiveness at reducing emissions of each pollutant. This report may be of interest to CMAs; it is available on line at:
http://www.fhwa.dot.gov/environment/cmaqpgs/safetealu1808/index.htm
or from the MTC/ABAG Library.

Appendix B: MTC Checklist for Modeling Consistency for CMPs

Overall approach
MTC's goal is to establish regionally consistent model "sets" for application by MTC and the CMAs. In the winter of 2010/2011, MTC implemented *Travel Model One* – an "activity-based" model – to replace the previous trip-based modeling tool – *BAYCAST-90* – that had been in place for the past two decades. *Travel Model One* has seen incremental updates since its implementation. Additionally, MTC has been developing the next generation of its activity-based model, called *Travel Model Two,* although it is not yet ready for application. Because the CMAs use a variety of modeling tools, these guidelines must accommodate a framework in which trip-based and activity-based models can be aligned. The approach therefore consists of a checklist to adjudge consistency across model components.

Checklist
This checklist guides the CMAs through their model development and consistency review process by providing an inventory of specific products to be developed and submitted to MTC, and by describing standard practices and assumptions.
Because of the complexity of the topic, the checklist may need additional detailed information to explain differences in methodologies or data. Significant differences will be resolved between MTC and the CMAs, taking advantage of the Regional Model Working Group (RMWG). Standard formats for model comparisons will be developed by MTC for use in future guidelines.

Incremental updates
The CMA forecasts must be updated every two years to be consistent with MTC's forecasts. Alternative approaches to fully re-running the entire model are available, including incremental approaches through the application of factors to demographic inputs and/or trip tables. Similarly, the horizon year must be the same as the TIP horizon year. However, interpolation and extrapolation approaches are acceptable, with appropriate attention to network changes. These alternatives to re-running the entire model should be discussed with MTC before the CMP is adopted by the CMA.

Defining the MTC model sets
The MTC model sets referred to below are defined as those in use on December 31st of the year preceding the CMP update.

Key Assumptions
Please report the following information.

A. General approach:
Discuss the general approach to travel demand modeling by the CMA and the CMA model's relationship to *BAYCAST-90, Travel Model One* or *Travel Model Two*.

Product: 1) Description of the above.

B. Demographic/economic/land use forecasts:
Both base and forecast year demographic/economic/land use ("land use") inputs must be consistent – though not identical – to *Plan Bay Area 2040's* traffic analysis zone (TAZ)

level land use data provided by MTC/ABAG. Specifically, if CMAs wish to reallocate land use within their own county (or counties), they must consult with the affected city (or cities) as well as with MTC/ABAG. Further, the resulting deviation in the subject county (or counties) should within the ranges specified by MTC/ABAG for the following variables: population, households, jobs, and employed residents. Outside the subject county (or counties), the land use variables in the travel analysis zones used by the county must match either MTC/ABAG's estimates exactly when aggregated/disaggregated to census tracts or the county-in-question's estimates per the revision process noted above (e.g. Santa Clara county could use the revised estimates San Mateo developed through consultation with local cities and MTC/ABAG). Forecast year demand estimates should use the *Plan Bay Area 2040* land use data. CMAs may also analyze additional, alternative land use scenarios that will not be subject to consistency review.

Products: 2) A statement establishing that the differences between key ABAG land use variables (i.e., population, households, jobs, and employed residents), and those of the CMA do not differ by more than one percent at the county level for the subject county. A statement establishing that no differences exist at the TAZ-level outside the county between the MTC/ABAG forecast or the MTC/ABAG/CMA revised forecast.

3) A table comparing the MTC/ABAG land use estimates with the CMA land use estimates by county for population, households, jobs, and employed residents for both the base year and the horizon year.

4) If land use estimates within the CMA's county are modified from MTC/ABAG's projections, agendas, discussion summaries, and action items from each meeting held with cities, MTC, and/or ABAG at which the redistribution was discussed, as well as before/after census-tract-level data summaries and maps.

C. Pricing assumptions:

Use MTC's automobile operating costs, transit fares, and bridge tolls or provide an explanation for the reason such values are not used.

Product: 5) Table comparing the assumed automobile operating cost, key transit fares, and bridge tolls to MTC's values for the horizon year.

D. Network assumptions:

Use MTC's regional highway and transit network assumptions for the other Bay Area counties. CMAs should include more detailed network definition relevant to their own county in addition to the regional highway and transit networks. For the CMP horizon year, to be compared with the TIP interim year, regionally significant network changes in the base case scenario shall be limited to the current Transportation Improvement Program (TIP) for projects subject to inclusion in the TIP.

Product: 6) Statement establishing satisfaction of the above.

E. Automobile ownership:

Use *Travel Model One* automobile ownership models or forecasts or submit alternative models to MTC for review and comment.

Product: 7) County-level table comparing estimates of households by automobile ownership level (zero, one, two or more automobiles) to MTC's estimates for the horizon year.

F. Tour/trip generation:

Use *Travel Model One* tour generation models or forecasts or submit alternative models to MTC for review and comment.

Product: 8) Region-level tables comparing estimates of trip and/or tour frequency by purpose to MTC's estimates for the horizon year.

G. Activity/trip location:

Use *Travel Model One* activity location models or forecasts or submit alternative models to MTC for review and comment.

Products: 9) Region-level tables comparing estimates of average trip distance by tour/trip purpose to MTC's estimates for the horizon year.

10) County-to-county comparison of journey-to-work or home-based work flow estimates to MTC's estimates for the horizon year.

H. Travel mode choice:

Use *Travel Model One* models or forecasts or submit alternative models to MTC for review and comment.

Product: 11) Region-level tables comparing travel mode share estimates by tour/trip purpose to MTC's estimates for the horizon year.

I. Traffic assignment:

Use *Travel Model One* models or submit alternative models to MTC for review and comment.

Products: 12) Region-level, time-period-specific comparison of vehicle miles traveled and vehicle hours traveled estimates by facility type to MTC's estimates for the horizon year.

13) Region-level, time-period-specific comparison of estimated average speed on freeways and all other facilities, separately, to MTC's estimates for the horizon year.

Alternatively, CMAs may elect to utilize MTC zone-to-zone vehicle trip tables, adding network and zonal details within the county as appropriate, and then re-run the assignment. In this case, only Products 12 and 13 are applicable.

Appendix C: MTC's Regional Transit Expansion Program of Projects

Note that Resolution No. 3434, Revised, is reproduced below with the TOD Policy attached as Appendix D to Resolution No. 3000; other associated appendices are not attached here – the other appendices are available upon request from the MTC library.

Date: December 19, 2001
W.I.: 12110
Referred by: POC
Revised: 01/30/02-C 07/27/05-C
04/26/06-C 10/24/07-C
09/24/08-C

ABSTRACT

Resolution No. 3434, Revised

This resolution sets forth MTC's Regional Transit Expansion Program of Projects.

This resolution was amended on January 30, 2002 to include the San Francisco Geary Corridor Major Investment Study to Attachment B, as requested by the Planning and Operations Committee on December 14, 2001.

This resolution was amended on July 27, 2005 to include a Transit-Oriented Development (TOD) Policy to condition transit expansion projects funded under Resolution 3434 on supportive land use policies, as detailed in Attachment D-2.

This resolution was amended on April 26, 2006 to reflect changes in project cost, funding, and scope since the 2001 adoption.

This resolution was amended on October 24, 2007 to reflect changes in the Transit-Oriented Development (TOD) Policy in Attachment D-2.

This resolution was amended on September 24, 2008 to reflect changes associated with the 2008 Strategic Plan effort (Attachments B, C and D).

Further discussion of these actions are contained in the MTC Executive Director's Memorandum dated December 14, 2001, July 8, 2005, April 14, 2006, October 12, 2007 and September 10, 2008.

Date: December 19, 2001
W.I.: 12110
Referred by: POC

RE: Regional Transit Expansion Program of Projects

METROPOLITAN TRANSPORTATION COMMISSION
RESOLUTION NO. 3434, Revised

WHEREAS, the Metropolitan Transportation Commission (MTC) is the regional transportation planning agency for the San Francisco Bay Area pursuant to Government Code Section 66500 et seq.; and

WHEREAS, MTC adopted Resolution No. 1876 in 1988 which set forth a new rail transit starts and extension program for the region; and

WHEREAS, significant progress has been made in implementing Resolution No. 1876, with new light rail service in operation in San Francisco and Silicon Valley, new BART service extended to Bay Point and Dublin/Pleasanton in the East Bay, and the BART extension to San Francisco International Airport scheduled to open in 2002; and

WHEREAS, MTC's long range planning process, including the Regional Transportation Plan and its *Transportation Blueprint for the 21st Century,* provides a framework for comprehensively evaluating the next generation of major regional transit expansion projects to meet the challenge of congestion in major corridors throughout the nine-county Bay Area; and

WHEREAS, the Commission adopted Resolution No. 3357 as the basis for assisting in the evaluations of rail and express/rapid bus projects to serve as the companion follow-up program to Resolution No. 1876; and

WHEREAS, local, regional, state and federal discretionary funds will continue to be required to finance an integrated program of new rail transit starts and extensions including those funds which are reasonably expected to be available under current conditions, and new funds which need to be secured in the future through advocacy with state and federal legislatures and the electorate; and

WHEREAS, the Regional Transit Expansion program of projects will enhance the Bay Area's transit network with an additional 140 miles of rail, 600 miles of new express bus routes,

and a 58% increase in service levels in several existing corridors, primarily funded with regional and local sources of funds; and

WHEREAS, MTC recognizes that coordinated regional priorities for transit investment will best position the Bay Area to compete for limited discretionary funding sources now and in the future; now, therefore, be it

RESOLVED, that MTC adopts a Regional Transit Expansion Program of Projects, consistent with the Policy and Criteria established in Resolution No. 3357, as outlined in Attachment A, attached hereto and incorporated herein as though set forth at length; and be it further

RESOLVED, that this program of projects, as set forth in Attachment B is accompanied by a comprehensive funding strategy of local, regional, state and federal funding sources as outlined in Attachment C, attached hereto and incorporated herein as though set forth at length; and, be it further

RESOLVED, that the regional discretionary funding commitments included in this financial strategy are subject to the terms and conditions outlined in Attachment D, attached hereto and incorporated herein as though set forth at length; and, be it further

METROPOLITAN TRANSPORTATION COMMISSION

_____

Sharon J. Brown, Chair

The above resolution was entered into
by the Metropolitan Transportation
Commission at a regular meeting of the
Commission held in Oakland,
California, on December 19, 2001.

Appendix D: MTC's Regional Transit Expansion Program of Projects - TOD Policy

Res. No. 3434, TOD Policy (Attachment D-2), revised October 24, 2007, is shown below; other associated Res. 3434 appendices are available upon request from the MTC library.

Date: July 27, 2005
W.I.: 12110
Referred by: POC
Revised: 10/24/07-C

Attachment D-2
Resolution No. 3434
Page 1 of 7

MTC RESOLUTION 3434 TOD POLICY FOR REGIONAL TRANSIT EXPANSION PROJECTS

1. Purpose

The San Francisco Bay Area—widely recognized for its beauty and innovation—is projected to grow by almost two million people and one and a half million jobs by 2030. This presents a daunting challenge to the sustainability and the quality of life in the region. Where and how we accommodate this future growth, in particular where people live and work, will help determine how effectively the transportation system can handle this growth.

The more people who live, work and study in close proximity to public transit stations and corridors, the more likely they are to use the transit systems, and more transit riders means fewer vehicles competing for valuable road space. The policy also provides support for a growing market demand for more vibrant, walkable and transit convenient lifestyles by stimulating the construction of at least 42,000 new housing units along the region's major new transit corridors and will help to contribute to a forecasted 59% increase in transit ridership by the year 2030.

This TOD policy addresses multiple goals: improving the cost-effectiveness of regional investments in new transit expansions, easing the Bay Area's chronic housing shortage, creating vibrant new communities, and helping preserve regional open space. The policy ensures that transportation agencies, local jurisdictions, members of the public and the private sector work together to create development patterns that are more supportive of transit.

There are three key elements of the regional TOD policy:

(a) Corridor-level thresholds to quantify appropriate minimum levels of development around transit stations along new corridors;

(b) Local station area plans that address future land use changes, station access needs, circulation improvements, pedestrian-friendly design, and other key features in a transit-oriented development; and

(c) Corridor working groups that bring together CMAs, city and county planning staff, transit agencies, and other key stakeholders to define expectations, timelines, roles and responsibilities for key stages of the transit project development process.

2. TOD Policy Application

The TOD policy only applies to physical transit extensions funded in Resolution 3434 (see Table 1). The policy applies to any physical transit extension project with regional discretionary funds, regardless of level of funding. Resolution 3434 investments that only entail level of service improvements or other enhancements without physically extending the system are not subject to the TOD policy requirements. Single station extensions to international airports are not subject to the TOD policy due to the infeasibility of housing development.

TABLE 1:
RESOLUTION 3434 TRANSIT EXTENSION PROJECTS SUBJECT TO CORRIDOR THRESHOLDS

Project	Sponsor	Type	Threshold met with current development?	Meets TOD Policy (with current + new development as planned)?
BART East Contra Costa Rail Extension (eBART)				
(a) Phase 1 Pittsburg to Antioch	BART/ CCTA	Commuter Rail	No	Yes
(b) Future phases			No	No
BART – Downtown Fremont to San Jose/ Santa Clara				
(a) Fremont to Berryessa	(a) BART	BART Extension	No	Not yet determined; planning is underway
(b) Berryessa to San Jose/ Santa Clara	(b) VTA		No	Not yet determined
AC Transit Berkeley/Oakland/San Leandro Bus Rapid Transit: Phase 1	AC Transit	Bus Rapid Transit	Yes	Yes
Caltrain Downtown Extension/Rebuilt Transbay Terminal	TJPA	Commuter Rail	Yes	Yes
MUNI Third Street LRT Project Phase 2 – New Central Subway	MUNI	Light Rail	Yes	Yes
Sonoma-Marin Rail				
(a) Phase 1 downtown San Rafael to downtown Santa Rosa	SMART	Commuter Rail	No	Not yet determined; planning is underway
(b) Futures phases tbd				Not yet being planned
Dumbarton Rail	SMTA, ACCMA, VTA, ACTIA, Capitol Corridor	Commuter Rail	No	Not yet determined; planning is underway
Expanded Ferry Service to Berkeley, Alameda/Oakland/Harbor Bay, Hercules, Richmond, and South San Francisco; and other improvements*	WTA	Ferry	No	Line specific

** Ferry terminals where development is feasible shall meet a housing threshold of 2500 units. MTC staff will make the determination of development feasibility on a case by case basis.*

3. Definitions and Conditions of Funding

For purposes of this policy "regional discretionary funding" consists of the following sources identified in the Resolution 3434 funding plan:

- FTA Section 5309- New Starts
- FTA Section 5309- Bus and Bus Facilities Discretionary
- FTA Section 5309- Rail Modernization
- Regional Measure 1- Rail (bridge tolls)
- Regional Measure 2 (bridge tolls)
- Interregional Transportation Improvement Program
- Interregional Transportation Improvement Program-Intercity rail
- Federal Ferryboat Discretionary
- AB 1171 (bridge tolls)
- CARB-Carl Moyer/AB434 (Bay Area Air Quality Management District) [2]

These regional funds may be programmed and allocated for environmental and design related work, in preparation for addressing the requirements of the TOD policy. Regional funds may be programmed and allocated for right-of-way acquisition in advance of meeting all requirements in the policy, if land preservation for TOD or project delivery purposes is essential. No regional funds will be programmed and allocated for construction until the requirements of this policy have been satisfied. See Table 2 for a more detailed overview of the planning process.

4. Corridor-Level Thresholds

Each transit extension project funded in Resolution 3434 must plan for a minimum number of housing units along the corridor. These corridor-level thresholds vary by mode of transit, with more capital-intensive modes requiring higher numbers of housing units (see Table 3). The corridor thresholds have been developed based on potential for increased transit ridership, exemplary existing station sites in the Bay Area, local general plan data, predicted market demand for TOD-oriented housing in each county, and an independent analysis of feasible development potential in each transit corridor.

[2] The Carl Moyer funds and AB 434 funds are controlled directly by the California Air Resources Board and Bay Area Air Management District. Res. 3434 identifies these funds for the Caltrain electrification project, which is not subject to the TOD policy.

TABLE 2:
REGIONAL TOD POLICY IMPLEMENTATION PROCESS FOR TRANSIT EXTENSION PROJECTS

Transit Agency Action	City Action	MTC/CMA/ABAG Action
All parties in corridors that do not currently meet thresholds (see Table 1) establish Corridor Working Group to address corridor threshold. Conduct initial corridor performance evaluation, initiate station area planning.		
Environmental Review/ Preliminary Engineering/ Right-of-Way	Conduct Station Area Plans	Coordination of corridor working group, funding of station area plans
Step 1 Threshold Check: the combination of new Station Area Plans and existing development patterns exceeds corridor		
Final Design	Adopt Station Area Plans. Revise general plan policies and zoning, environmental reviews	Regional and county agencies assist local jurisdictions in implementing station area plans
Step 2 Threshold Check: (a) local policies adopted for station areas; (b) implementation mechanisms in place per adopted Station Area Plan by the time Final Design is completed.		
Construction	Implementation (financing, MOUs) Solicit development	TLC planning and capital funding, HIP funding

TABLE 3: CORRIDOR THRESHOLDS
HOUSING UNITS – AVERAGE PER STATION AREA

Project Type	BART	Light Rail	Bus Rapid Transit	Commuter Rail	Ferry
Housing Threshold	3,850	3,300	2,750	2,200	2,500

Each corridor is evaluated for the Housing Threshold. For example, a four station commuter rail extension (including the existing end-of-the—line station) would be required to meet a corridor-level threshold of 8,800 housing units.

Threshold figures above are an average per station area for all modes except ferries based on both existing land uses and planned development within a half mile of all stations. New below market rate housing is provided a 50% bonus towards meeting housing unit threshold.

** Ferry terminals where development is feasible shall meet a housing threshold of 2500 units.*

MTC staff will make the determination of development feasibility on a case by case basis.

- Meeting the corridor level thresholds requires that within a half mile of all stations, a combination of existing land uses and planned land uses meets or exceeds the overall corridor threshold for housing (listed in Table 3);
- Physical transit extension projects that do not currently meet the corridor thresholds with development that is already built will receive the highest priority for the award of MTC's Station Area Planning Grants.
- To be counted toward the threshold, planned land uses must be adopted through general plans, and the appropriate implementation processes must be put in place, such as zoning codes. General plan language alone without supportive implementation policies, such as zoning, is not sufficient for the purposes of this policy. Ideally, planned land uses will be formally adopted through a specific plan (or equivalent), zoning codes and general plan amendments along with an accompanying programmatic Environmental Impact Report (EIR) as part of the overall station area planning process. Minimum densities will be used in the calculations to assess achievement of the thresholds.
- An existing end station is included as part of the transit corridor for the purposes of calculating the corridor thresholds; optional stations will not be included in calculating the corridor thresholds.
- New below-market housing units will receive a 50 percent bonus toward meeting the corridor threshold (i.e. one planned below-market housing unit counts for 1.5 housing units for the purposes of meeting the corridor threshold. Below market for the purposes of the Resolution 3434 TOD policy is affordable to 60% of area median income for rental units and 100% of area median income for owner-occupied units);
- The local jurisdictions in each corridor will determine job and housing placement, type, density, and design.
- The Corridor Working Groups are encouraged to plan for a level of housing that will significantly exceed the housing unit thresholds stated here during the planning process. This will ensure that the Housing Unit Threshold is exceeded corridor-wide and that the ridership potential from TOD is maximized.

5. Station Area Plans

Each proposed physical transit extension project seeking funding through Resolution 3434 must demonstrate that the thresholds for the corridor are met through existing development and adopted station area plans that commit local jurisdictions to a level of housing that meets the threshold. This requirement may be met by existing station area plans accompanied by appropriate zoning and implementation mechanisms. If new station area plans are needed to meet the corridor threshold, MTC will assist in funding the plans. The Station Area Plans shall be conducted by local governments in coordination with transit agencies, Association of Bay Area Governments (ABAG), MTC and the Congestion Management Agencies (CMAs).

Station Area Plans are opportunities to define vibrant mixed use, accessible transit villages and quality transit-oriented development – places where people will want to live, work, shop and spend time. These plans should incorporate mixed-use developments, including new housing, neighborhood serving retail, employment, schools, day care centers, parks and other amenities to serve the local community.

At a minimum, Station Area Plans will define both the land use plan for the area as well as the policies—zoning, design standards, parking policies, etc.—for implementation. The plans shall at a minimum include the following elements:

- Current and proposed land use by type of use and density within the ½ mile radius, with a clear identification of the number of existing and planned housing units and jobs;
- Station access and circulation plans for motorized, non-motorized and transit access. The station area plan should clearly identify any barriers for pedestrian, bicycle and wheelchair access to the station from surrounding neighborhoods (e.g., freeways, railroad tracks, arterials with inadequate pedestrian crossings), and should propose strategies that will remove these barriers and maximize the number of residents and employees that can access the station by these means. The station area and transit village public spaces shall be made accessible to persons with disabilities.
- Estimates of transit riders walking from the half mile station area to the transit station to use transit;
- Transit village design policies and standards, including mixed use developments and pedestrian-scaled block size, to promote the livability and walkability of the station area;
- TOD-oriented parking demand and parking requirements for station area land uses, including consideration of pricing and provisions for shared parking;
- Implementation plan for the station area plan, including local policies required for development per the plan, market demand for the proposed development, potential phasing of development and demand analysis for proposed development.

The Station Area Plans shall be conducted according to the guidelines established in MTC's Station Area Planning Manual.

6. Corridor Working Groups

The goal of the Corridor Working Groups is to create a more coordinated approach to planning for transit-oriented development along Resolution 3434 transit corridors. Each of the transit extensions subject to the corridor threshold process, as identified in Table 1, will need a Corridor Working Group, unless the current level of development already meets the corridor threshold. Many of the corridors already have a transit project working group that may be adjusted to take on this role. The Corridor Working Group shall be coordinated by the relevant CMAs, and will include the sponsoring transit agency, the local jurisdictions in the corridor, and representatives from ABAG, MTC, and other parties as appropriate.

The Corridor Working Group will assess whether the planned level of development satisfies the corridor threshold as defined for the mode, and assist in addressing any deficit in meeting the threshold by working to identify opportunities and strategies at the local level. This will include the key task of distributing the required housing units to each of the affected station sites within the defined corridor. The Corridor Working Group will continue with corridor evaluation, station area planning, and any necessary refinements to station locations until the corridor threshold is met and supporting Station Area Plans are adopted by the local jurisdictions.

MTC will confirm that each corridor meets the housing threshold prior to the release of regional discretionary funds for construction of the transit project.

7. Review of the TOD Policy

MTC staff will conduct a review of the TOD policy and its application to each of the affected Resolution 3434 corridors, and present findings to the Commission, within 12 months of the adoption of the TOD policy.