



ANNUAL FY 2024 TRANSPORTATION SYSTEMS MONITORING PROGRAM (TSMP) REPORT

APRIL 2025



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EXECUTIVE SUMMARY

Santa Clara County residents and businesses have made significant investments in its transportation infrastructure. The Transportation Systems Monitoring Program (TSMP) was initiated by VTA's Technical Advisory Committee and approved by the Board of Directors in 2008 as a means of monitoring the conditions and performance of selected transportation system networks and assets. The TSMP and annual reports were developed in response to concerns raised by local jurisdictions on the ability and resources needed to maintain the County's transportation infrastructure to acceptable standards.

Other benefits include:

- Enable the County and external stakeholders to better understand the performance of the County's transportation system and effectiveness of the investments.
- Communicate progress towards stated transportation system goals and objectives.
- Provide additional context for future funding and policy decisions.

The TSMP follows the asset management principles of Fixing America's Surface Transportation Act (2015) and the Infrastructure Investment and Jobs Act (2021), the federal reauthorization transportation funding programs that emphasizes performance-based management of transportation infrastructure assets at the state and local levels, as well as California's Transportation Asset Management Plan and California Senate Bill 1 (SB1) that establishes performance targets for California Transportation Commission SHOPP Guidelines.

The 2024 TSMP report builds on the data research presented in previous reports with a focus on the following areas:

- Local Street Pavement Conditions
- Freeway Litter and Graffiti Maintenance
- Roadway Safety (Collisions) Conditions
- Bicycle and Pedestrian Infatructure (New)
- Clean Energy Station Inventory

The primary purpose of this report is to serve as a means to monitoring the conditions and performance of selected key transportation systems and assets on an annual basis in a single report.

Transportation Asset Management Process



Sources:

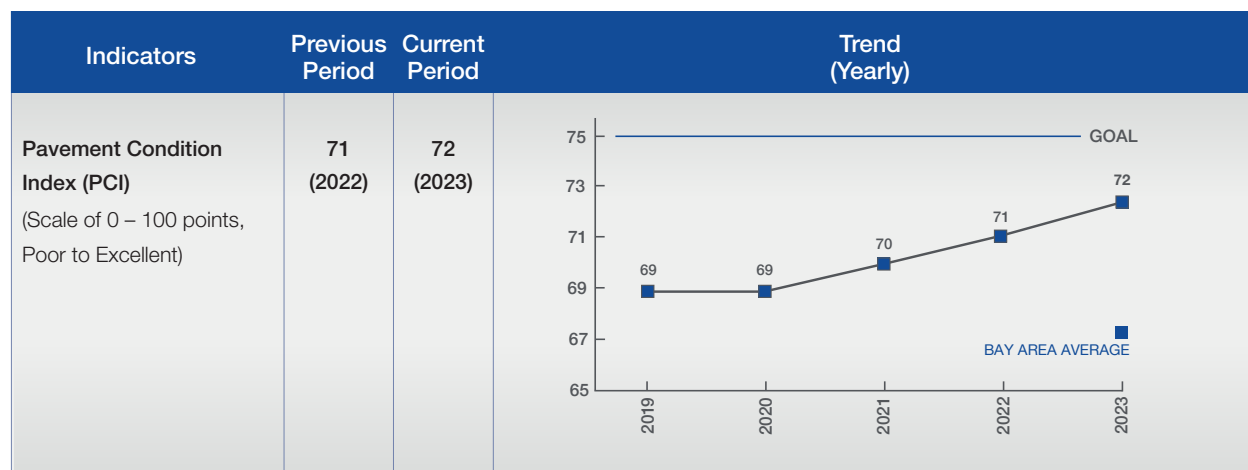
Fixing America's Surface Transportation Act (2015), <https://www.transportation.gov/fastact>, (2-06-2025)

Infrastructure Investment and Jobs Act (2021), <https://www.phmsa.dot.gov/legislative-mandates/fixing-americas-surface-transportation-fast-act>, (2-06-2025).

California Transportation Asset Management Plan, <https://dot.ca.gov/programs/asset-management/california-transportation-asset-management-plan>, (2-06-2025).

California Transportation Commission State Highway Operation & Management Program, <https://dot.ca.gov/programs/financial-programming/state-highway-operation-protection-program-shopp-minor-program-shopp>, (2-06-2025).

Local Street Pavement Conditions



Source: Metropolitan Transportation Commission Vital Sign

- Santa Clara County local jurisdictions maintain nearly **10,000 lane-miles of roadway pavement**. This is the most number of pavement miles of the nine counties in the Bay Area.
- **The average Pavement Condition Index (PCI) improved by one point to a score of 72** since the previous reporting period. This represents an incremental positive trend since 2020. The areas of the county showing the most needs were in the east, west, and south sections of San Jose, and central section of Gilroy.
- **The overall Pavement Condition Index for the Bay Area was 67, compared with the region-wide goal of 75.** Roadways not maintained PCI score of 70 or higher will cost more to repair in the future if rehabilitation maintenance is deferred over time.

Based on general comments from the local agency self-assessment surveys, the positive trend can be attributed to the increased number of roadway lane miles repaired or rehabilitated (approximately 9% increase from 2022 to 2023).

Solutions

- 💡 \$10 Vehicle Registration Fee (VRF) and 2016 Measure B Local Streets & Roads Program Funding – Approximately \$67 million was collected from both these funding programs in FY 2023 and distributed to VTA's Member Agency jurisdictions from the Local Road and Repair Program for maintenance like repairing potholes, repaving, upgrading traffic signal controllers, and making safety improvements.

Highway Litter, Illegal Encampments, & Graffiti Maintenance



Indicators	Previous Period	Current Period	Trend (Yearly)												
Highway Litter Removal (Cubic yards)	18,642 (FY 2023)	22,658 (FY 2024)	<table><thead><tr><th>Fiscal Year</th><th>Highway Litter Removal (Cubic yards)</th></tr></thead><tbody><tr><td>FY 2020</td><td>23,906</td></tr><tr><td>FY 2021</td><td>16,572</td></tr><tr><td>FY 2022</td><td>21,550</td></tr><tr><td>FY 2023</td><td>18,642</td></tr><tr><td>FY 2024</td><td>22,658</td></tr></tbody></table>	Fiscal Year	Highway Litter Removal (Cubic yards)	FY 2020	23,906	FY 2021	16,572	FY 2022	21,550	FY 2023	18,642	FY 2024	22,658
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FY 2024	22,658														
Illegal Encampment Site Litter Removal (Cubic yards)	438 (FY 2023)	16,226 (FY 2024)	<table><thead><tr><th>Fiscal Year</th><th>Illegal Encampment Site Litter Removal (Cubic yards)</th></tr></thead><tbody><tr><td>FY 2020</td><td>1,571</td></tr><tr><td>FY 2021</td><td>2,219</td></tr><tr><td>FY 2022</td><td>436</td></tr><tr><td>FY 2023</td><td>438</td></tr><tr><td>FY 2024</td><td>16,226</td></tr></tbody></table>	Fiscal Year	Illegal Encampment Site Litter Removal (Cubic yards)	FY 2020	1,571	FY 2021	2,219	FY 2022	436	FY 2023	438	FY 2024	16,226
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Graffiti Removal (Square footage)	637,620 (FY 2023)	1,246,375 (FY 2024)	<table><thead><tr><th>Fiscal Year</th><th>Graffiti Removal (Square footage)</th></tr></thead><tbody><tr><td>FY 2020</td><td>426,968</td></tr><tr><td>FY 2021</td><td>830,885</td></tr><tr><td>FY 2022</td><td>361,309</td></tr><tr><td>FY 2023</td><td>637,620</td></tr><tr><td>FY 2024</td><td>1,246,375</td></tr></tbody></table>	Fiscal Year	Graffiti Removal (Square footage)	FY 2020	426,968	FY 2021	830,885	FY 2022	361,309	FY 2023	637,620	FY 2024	1,246,375
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Source: Caltrans District 4 Division of Maintenance



Photo of Caltrans performing tree trimming and beautification along US 101 in Santa Clara County.

- **Highway Litter** - Caltrans maintenance crews picked up an estimated **22,658 cubic yards of trash or 158,606 30-gallon sized trash bags last year** along the 307 highway shoulder miles in Santa Clara County. This represents an improvement of approximately 22% or 4,016 cubic yards of trash collected compared to the previous year in FY 2023. The frequently littered “hot spot” locations were along the southern end of I-280 and I-680, and the most littered corridor was along US 101 (Palo Alto to Gilroy).
- **Illegal Encampments** - The amount of litter collected at illegal encampment sites, typically near the interchanges and on/off ramp locations, **increased noticeably to 16,226 cubic yards or 113,582 30-gallon sized trash bags compared to the previous year**. This can be credited to multi-jurisdictional, coordination efforts with Caltrans Clean CA funding program and local agencies in providing additional resources to address the illegal encampments.
- **Graffiti** - Graffiti along the freeways continues to be a challenge as it is a moving target. In FY 2024, the square footage of graffiti removed **increased from 637,620 square feet in FY 2023 to 1,246,375 square feet**. The highway segments with the most graffiti removal were along I-280, SR 85, and US 101.

Solutions



Keep Santa Clara Valley Beautiful Highway Litter Abatement Program (KSCVB)

KSCVB is countywide, multi-agency initiative to clean and prevent littering on the highways in Santa Clara County. The project includes the following:

- Organizing popup cleanup events in cities and towns throughout Santa Clara County. (Education)
- Placing enforcement signs at frequently littered locations. (Enforcement)
- Forming local volunteer groups to help clean the highways through Caltrans Adopt-A-Highway Program. (Empowerment)

In 2024, VTA, in partnership with Caltrans, Valley Water, California Highway Patrol, and local jurisdictions, organized **7 volunteer cleanup events throughout the county, collected 145 30-gallon bags of trash, and rallied nearly 80 volunteers.**



Roadway Safety (Collisions)



Indicators	Previous Period	Current Period	Trend (Yearly)												
Total Collisions	14,373 (2022)	15,103 (2023)	<table><thead><tr><th>Year</th><th>Total Collisions</th></tr></thead><tbody><tr><td>2019</td><td>13,866</td></tr><tr><td>2020</td><td>8,437</td></tr><tr><td>2021</td><td>13,049</td></tr><tr><td>2022</td><td>14,373</td></tr><tr><td>2023</td><td>15,103</td></tr></tbody></table>	Year	Total Collisions	2019	13,866	2020	8,437	2021	13,049	2022	14,373	2023	15,103
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Fatal Collisions	81 (2022)	93 (2023)	<table><thead><tr><th>Year</th><th>Fatal Collisions</th></tr></thead><tbody><tr><td>2019</td><td>105</td></tr><tr><td>2020</td><td>59</td></tr><tr><td>2021</td><td>85</td></tr><tr><td>2022</td><td>81</td></tr><tr><td>2023</td><td>93</td></tr></tbody></table>	Year	Fatal Collisions	2019	105	2020	59	2021	85	2022	81	2023	93
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2019	105														
2020	59														
2021	85														
2022	81														
2023	93														
Injury Collisions	6,470 (2022)	5,914 (2023)	<table><thead><tr><th>Year</th><th>Injury Collisions</th></tr></thead><tbody><tr><td>2019</td><td>6,757</td></tr><tr><td>2020</td><td>4,212</td></tr><tr><td>2021</td><td>5,883</td></tr><tr><td>2022</td><td>6,470</td></tr><tr><td>2023</td><td>5,914</td></tr></tbody></table>	Year	Injury Collisions	2019	6,757	2020	4,212	2021	5,883	2022	6,470	2023	5,914
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Sources: Santa Clara County's Crossroads Collision Database and City of San Jose's Vision Zero Crash Data

- **Total Collisions** - There were **15,103 reported total collisions** in Santa Clara County including fatalities and serious injuries, **a 5% or 730 increase in the number of collisions** compared to the previous year.
- **Fatal Collisions** - Of the total number of collisions, there were **93 fatalities**, a 15% increase compared to the previous year.
- **Injury collisions** - In 2023, there were **5,914 injury involved collisions**, 9% or 556 injury-involved collisions decrease compared to 2022.

The increase in the number of county-wide collisions could be correlated to the increased traffic volumes.

- **Common Collision Types** - Rear-End (37.1%) and Sideswipe (21.4%).
- **Primary Collision Factors (PCF)** - Unsafe Speed (38.5%), Improper Turning (19.3%), and Driving Under the Influence (DUI) (6.9%).
- **Collision Involving Bicyclists and Pedestrians:** Of the 1,027 collisions, 43% were vehicle-pedestrian, and 49% involved bicyclists. The main causes were Pedestrian Right of Way Violation (vehicle driver at fault) 16.3%, Improper Turning (12.3%), and Auto Right of Way Violation (12%).


The overall number of collisions involving pedestrian and bicyclist represents approximately 7% of the total number of collisions in the County, but accounts for 34% of all fatalities.


Table 1. 2023 Top Vehicle, Bicycle, and Pedestrian Collisions Interchange and Intersection Locations

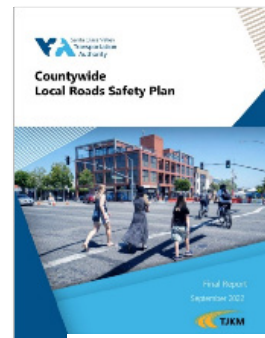
Vehicle/Vehicle (Segment)	US 101 from Embarcadero Rd to San Antonio Rd, State	81 collisions
Vehicle/Vehicle (Interchange)	US 101 and I-880, San Jose	21 collisions
Vehicle/Pedestrian (Segment)	<ul style="list-style-type: none"> - Leavesley Rd from Murray Ave to Forest St, State - 1st St from Wren Ave to Wayland Ln, State - Kern Ave from Welburn Ave to Buttercup Ln, Gilroy - Landess Ave from Highland Ct to Treewood Ln, Milpitas - Hamilton Ave West of Bascom Ave, Campbell - 1st St from Kern Ave to Wren Ave, Gilroy 	2 collisions
Vehicle/Pedestrian (Intersection)	Kiely Blvd at El Camino Real, Santa Clara	5 collisions
Vehicle/Bicyclist (Intersection)	<ul style="list-style-type: none"> - 10th St at Taylor St, San Jose - Story Rd at King Rd, San Jose - Tully Rd at Lanai Ave, San Jose 	3 Collisions

All jurisdictions in Santa Clara County have been taking incremental steps, like developing roadway safety plans, adopting Vision Zero Initiative policies, incorporating Complete Streets designs, and applying for safety grants from Caltrans Local Highway Safety Improvement Program and Department of Transportation Safe Streets and Roads for All (SS4A) Grant Program, to make the roadway network safer for all modes.

Solutions

 **Countywide Local Roads Safety Plan (CLRSP)** - VTA, in a collaborative effort through the Systems Operations and Management Working Group, comprised of local agency transportation engineers and planners, and input from local communities, developed a plan for identifying, analyzing, and prioritizing roadway safety improvements on local roads with the goal of reducing fatal and serious traffic injuries. This plan was completed and adopted by the VTA Board of Directors in October 2022, and anticipated to be updated about every 3 to 5 years to monitor the effects of the safety improvements over time.

 **Community Engagement** - Efforts included encouraging public participation to identify dangerous, high risk collision locations on the project website using an interactive mapping tool through local agencies and VTA's social media platforms.



Bicycle & Pedestrian Infrastructure



As part of the Regional Active Transportation Network to support Complete Streets principles, the Bicycle and Pedestrian Infrastructure of the TSMP focuses on advancing Vision Zero goals through safer street designs and improved mobility options. Enhancing bicycle and pedestrian networks involves creating infrastructure that is accessible, safe, and comfortable for users of all ages and abilities. This section has been included to monitor current conditions and assess future needs to ensure the continued effectiveness and sustainability of these facilities.

Below is a table that shows estimates of bikeway miles by classification for each jurisdiction.

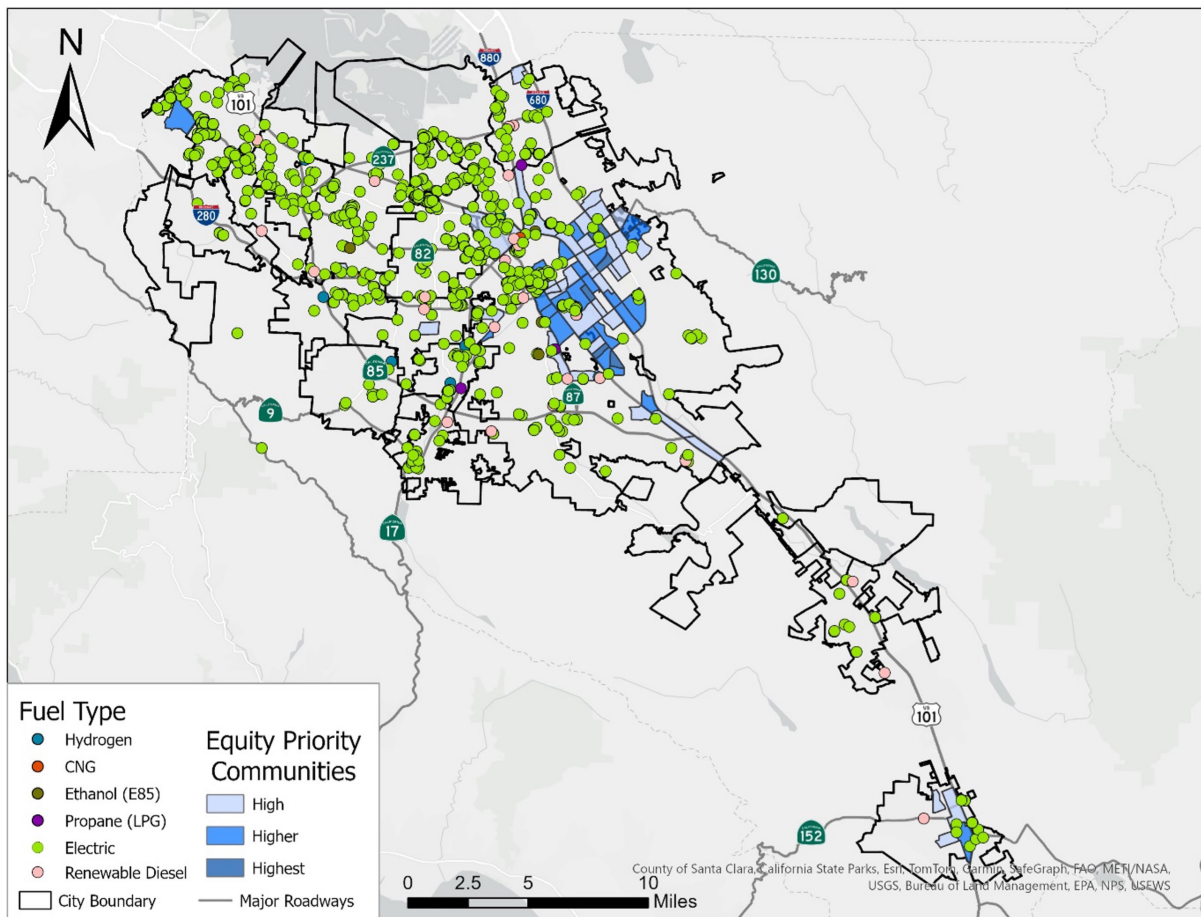
Table 2. 2023 Bikeway Mileage by Jurisdiction

Jurisdiction	Class I	Class II	Class III	Class IV
Campbell	10.48	13.74	12.53	0.00
Cupertino	8.63	24.16	12.26	1.34
Gilroy	7.96	35.82	7.01	0.00
Los Altos	2.03	13.47	12.69	0.10
Los Altos Hills	0.44	1.18	6.17	0.00
Los Gatos	14.06	7.24	4.06	0.29
Milpitas	6.76	29.16	9.61	0.00
Monte Sereno	0.00	2.82	0.79	0.00
Morgan Hill	1.37	23.45	0.00	5.15
Mountain View	18.65	28.33	16.06	1.54
Palo Alto	18.03	36.34	16.97	0.39
San Jose	104.15	326.52	59.79	12.55
Santa Clara	9.79	36.47	11.81	0.00
Saratoga	2.29	14.13	8.53	0.00
Sunnyvale	12.41	59.35	19.89	0.97
Unincorporated SCC	71.43	22.93	7.52	2.17
Total	288.5	675.1	205.7	24.5

Clean Energy



The following map shows the locations and geographic distribution of clean fuel stations by fuel type, which can be used as a monitor and guide for future clean fuel station investments.



The following table presents the number of alternative fuel charging stations by city and fuel type. There are currently 1,664 alternative fuel/charging public-use stations in operation, approximately 2% increase compared to the previous reporting cycle in 2023. 1,619 or nearly 97% of these stations are electric charging stations and the remaining 45 or 3% of these stations support Compressed Natural Gas (2 locations), Ethanol (7 locations), Hydrogen (8 locations), Propane (4 locations), and Renewable Diesel (24 locations) fueled vehicles.

Table 3. Status of Alternative Fuels Charging Stations in Santa Clara County by Jurisdiction, 2024

City/Town	Total No. of Alternative Fuels Charging Stations	Fuel Type					
		CNG	E85	ELEC	HY	LPG	RD
Campbell	55	0	0	52	2	1	0
Cupertino	102	1	0	99	1	0	1
Gilroy	31	0	0	30	0	0	1
Los Altos	12	0	0	11	0	0	1
Los Altos Hills	9	0	0	9	0	0	0
Los Gatos	21	0	0	19	0	0	2
Milpitas	74	0	0	72	0	0	2
Monte Sereno	4	0	0	4	0	0	0
Morgan Hill	17	0	0	15	0	0	2
Mountain View	55	0	0	54	1	0	0
Palo Alto	188	0	0	187	0	0	1
San Jose	607	1	6	583	2	3	12
Santa Clara	364	0	0	363	0	0	1
Saratoga	12	0	0	11	1	0	0
Sunnyvale	113	0	1	110	1	0	1
	1664	2	7	1619	8	4	24

Legend:

CNG – Compressed Natural Gas, **E85** – Ethanol, **ELEC** – Electric, **HY** – Hydrogen, **LPG** – Propane, **RD** – Renewable Diesel

Below are photos of three clean fuel station types:

Electric Station
West Park Plaza, San Jose



Hydrogen Station
N. First Street, San Jose



Compressed Natural Gas Station
Junction Ave, San Jose





Solutions that move you