

Comprehensive County Expressway Planning Study

Implementation Plan

San Tomas Expressway



Roads and Airports Department

August 19, 2003

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County of Santa Clara

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Introduction

On August 19, 2003, the County of Santa Clara Board of Supervisors adopted a long-range plan for the improvement and maintenance of the expressway system. This plan is called the Comprehensive County Expressway Planning Study Implementation Plan. The Plan was developed using a collaborative process involving the local cities and key transportation agencies as well as input from the community. The foundation for the collaborative process was a solid technical analysis process.

The county expressway system is designed to relieve local streets and supplement the freeway system. There are eight expressways in the system, including San Tomas Expressway. The *Implementation Plan* identifies a total capital program approaching \$2 billion as well as needs of \$18 million annually for maintenance and operations for the entire expressway system.

Implementation of the plan's recommendations is dependent on obtaining the necessary capital and maintenance/operations funding. The expressways' needs will compete with all other transportation improvement needs for Santa Clara County. Countywide transportation priority and funding decisions will be made by the Santa Clara Valley Transportation Authority (VTA) in the Valley Transportation Plan (VTP) 2030 scheduled to be completed in mid-2004.

The County will update the Expressway Study's *Implementation Plan* every three years in conjunction with the triennial updates of VTA's VTP to reflect changing traffic and financial conditions.

This document provides a summary of the capital improvement recommendations for San Tomas Expressway. The capital improvement elements include roadway capacity and operational, bicycle, pedestrian, sound wall, and landscaping.

The *Implementation Plan* also includes recommendations for systemwide expressway improvements in maintenance and operations (such as signal operations, sweeping, pavement maintenance, graffiti removal, replacing aging sidewalks and sound walls). These recommendations apply to all expressways and are not documented here. Please see the full *Implementation Plan* or the Summary Brochure for more information about the systemwide maintenance and operations recommendations.

Vision

High-end express arterial with freeway-like segments.

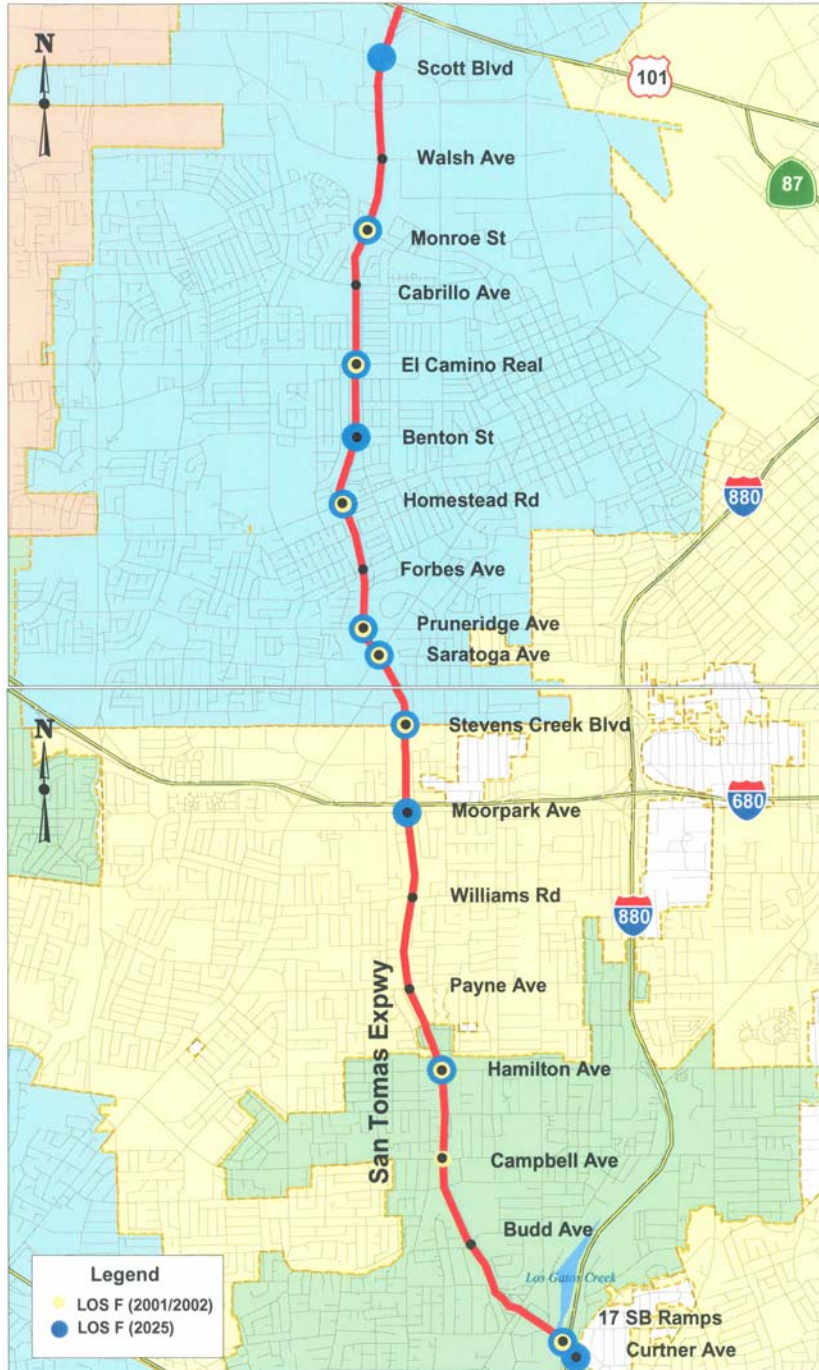


Exhibit A Intersection Level of Service

Why a Vision

Each expressway has its own unique character, function, and community relationship. The vision, developed through a collaborative process, shaped the expressway's improvement strategies.

Expressway Characteristics

- 8.5 miles long
- 6-8 lanes wide, including HOV lanes
- 19 signalized intersections
- 2 freeway connections (SR 17, US 101)
- 3 cities served (Campbell, San Jose, Santa Clara)
- 220,000 vehicles use San Tomas daily
- 9 LOS F intersections in 2001/2002
- 12 LOS F intersections projected in 2025

What is LOS?

Level of service (LOS) is a measure of traffic flow and congestion levels. LOS A is the best condition representing freely flowing traffic. LOS F is the worst condition representing excessive delays and jammed conditions.

Roadway Capacity and Operational Improvements

The roadway improvement projects recommended for San Tomas Expressway are listed below:

Roadway Project Tiers

Tier 1A –Improves LOS F intersections or other operational improvements

Tier 1B –Constructs interchange at LOS F intersection

Tier 1C –Improves 2025 projected LOS F intersections

Tier 2 – Other capacity improvements

Tier 3 – Major facility reconstruction/new facilities

Tier Priority	Project Description ⁽¹⁾	Cost (millions)	
Expressway Study	Updated signal timing plans from Budd to Hamilton and Moorpark to Scott.	N.A.	
Measure B	Provide 2nd EB and WB left-turn lanes and separate WB right-turn lane at Campbell	N.A.	
1A	At grade improvements at SR 17/San Tomas: <ul style="list-style-type: none"> Restriping the EB through lane on White Oaks to provide an optional left as 3rd left-turn lane Provide second right-turn lane on SB off-ramp Study potential operational & safety improvements in the interchange area 	\$2	
1A	Provide a 2nd left-turn lane from EB and WB Hamilton to San Tomas and a 2nd left-turn lane from NB San Tomas to WB Hamilton	\$2	
1A	Widen to 8 lanes between Williams and El Camino Real with additional left-turn lane from EB and WB El Camino Real to San Tomas	\$28	
1A	Provide additional right-turn lane from WB Monroe to NB San Tomas	\$1	
1C	Provide additional right-turn lane from WB Scott to NB San Tomas	\$1	
2	Interchange at Stevens Creek	\$50-70	
2	Interchange at El Camino Real	\$60	
2	Interchange at Monroe	\$55	
2	Interchange at Scott	\$65	
3	Initiate a study to reconfigure SR 17/San Tomas Interchange	\$0.25	
3	Reconstruct SR 17/San Tomas Interchange	\$100-200	
3	Freeway/expressway direct connector HOV ramps at US 101 and I-280	\$30-45	
(1) When funding is obtained, each project will undergo design, environmental review, and community outreach as appropriate. Project descriptions will be changed as needed based on the results of these activities.		Total Tier 1A	\$33
		Total Tier 1C	\$1
		Total Tier 2	\$230-250
		Total Tier 3	\$130.25-245.25
		TOTAL	\$394.25-529.25

Effectiveness of Roadway Improvements

- ◆ Expressway south of I-280 would improve from LOS E to LOS D and north of I-280 from LOS E to LOS C or better.
- ◆ All of the existing and projected LOS F intersections would be improved to LOS E or better.



Exhibit B Capacity and Operational Improvements

Bicycle Improvements

Bicycles are accommodated on all expressways. Bicycle improvement recommendations were identified based on bringing all expressways into full compliance with the Bicycle Accommodation Guidelines (BAG). The BAG includes guidelines on bicycle travel area widths, striping, signage, trail connections, maintenance, and several other design treatments. Specific capital projects identified include striping improvements and shoulder widening.

- ◆ All necessary re-striping to bring San Tomas Expressway into compliance with the Bicycle Accommodation Guidelines (BAG) will be completed as part of a systemwide re-striping project.
- ◆ Shoulder widening recommendations include:

Location	Project Description	Cost (millions)
Hamilton	Widen SB approach for approximately 275 feet to provide adequate shoulder per BAG	\$0.25
Cabrillo	Widen NB approach for approximately 375 feet to provide adequate shoulder per BAG	\$0.20
Total		\$0.45

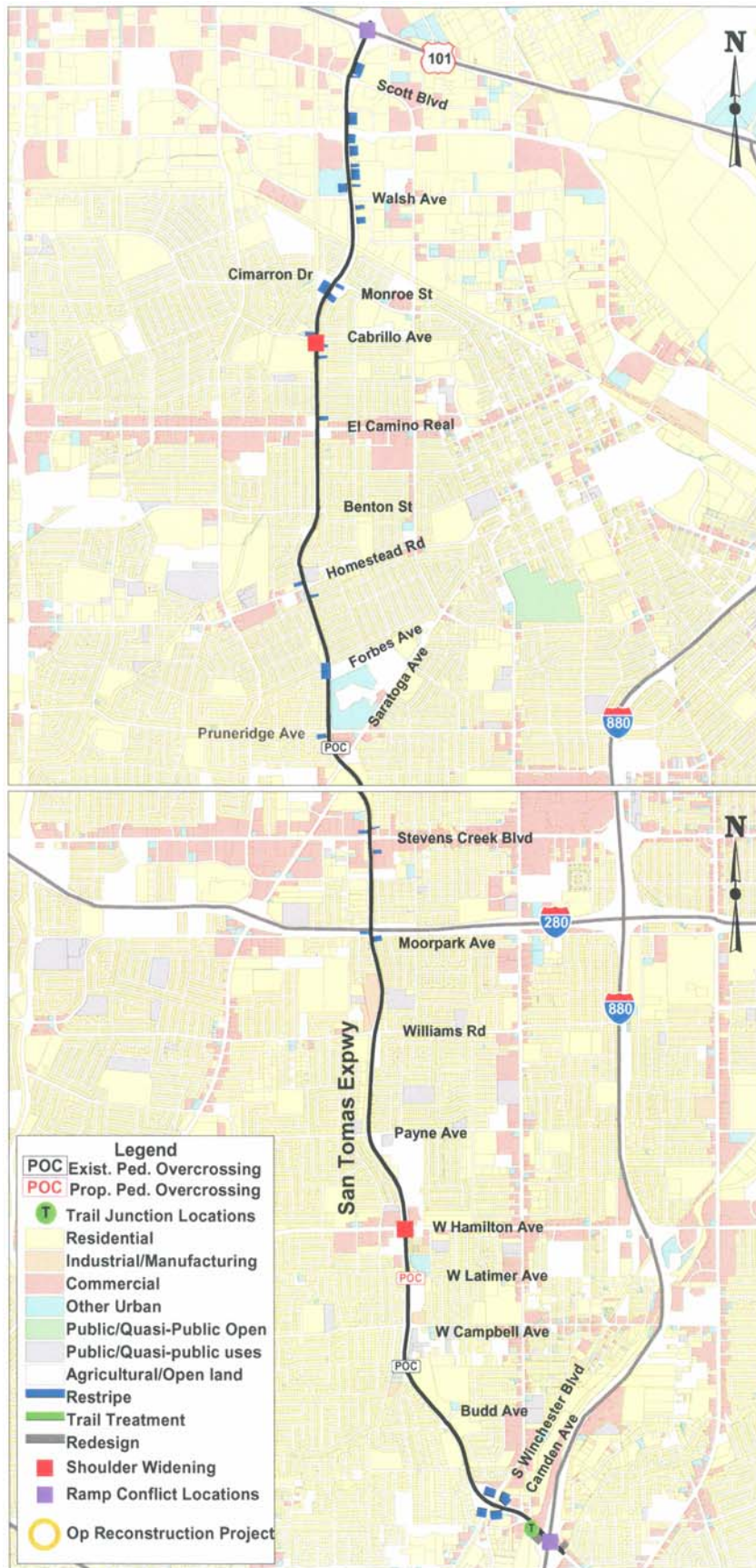


Exhibit C Bicycle Improvements

Pedestrian Improvements

A pedestrian facilities plan was developed covering the entire length of each expressway. Recommended pedestrian improvements for traveling along the expressways vary along sections of the expressways based on physical conditions, pedestrian needs, fronting land use, and community development plans. New sidewalks are recommended to close gaps in otherwise continuous sidewalks, to access transit stops, and to provide access to land uses fronting on the expressways. Recommendations also include improved connections and directional signage to parallel pedestrian facilities, such as trails and frontage roads.

For expressway crossing needs, high-demand crossing locations were identified for potential crossing enhancements ranging from reconfiguring intersections to make them more pedestrian-friendly to installing pedestrian countdown timers and pedestrian ramps.

Most of San Tomas has wide shoulders for emergency and occasional pedestrian use with sidewalks provided at bus stops and at the Los Gatos Creek Trail connection.

- ◆ Four pedestrian crossing enhancement locations were identified for school, bus stop, and commercial access: Williams, Homestead, El Camino Real, and Cabrillo. Total potential cost is \$0.8 million.
- ◆ A new pedestrian overcrossing (POC) is recommended near Latimer to connect various community facilities at a cost of \$4.0 million.
- ◆ The Plan supports efforts to cover the open creek culvert along the west side of the expressway from Hamilton to Moorpark to create a landscaped, parkstrip walkway.
- ◆ New sidewalks are recommended at the following locations:

New Sidewalk Location	Project Need	Cost (millions)
SW of Stevens Creek	Gap closure	\$0.38
NE quadrant at Pruneridge	Bus stop connection	\$0.03
NW quadrant at Walsh	Bus stop connection	\$0.08
Total		\$0.49

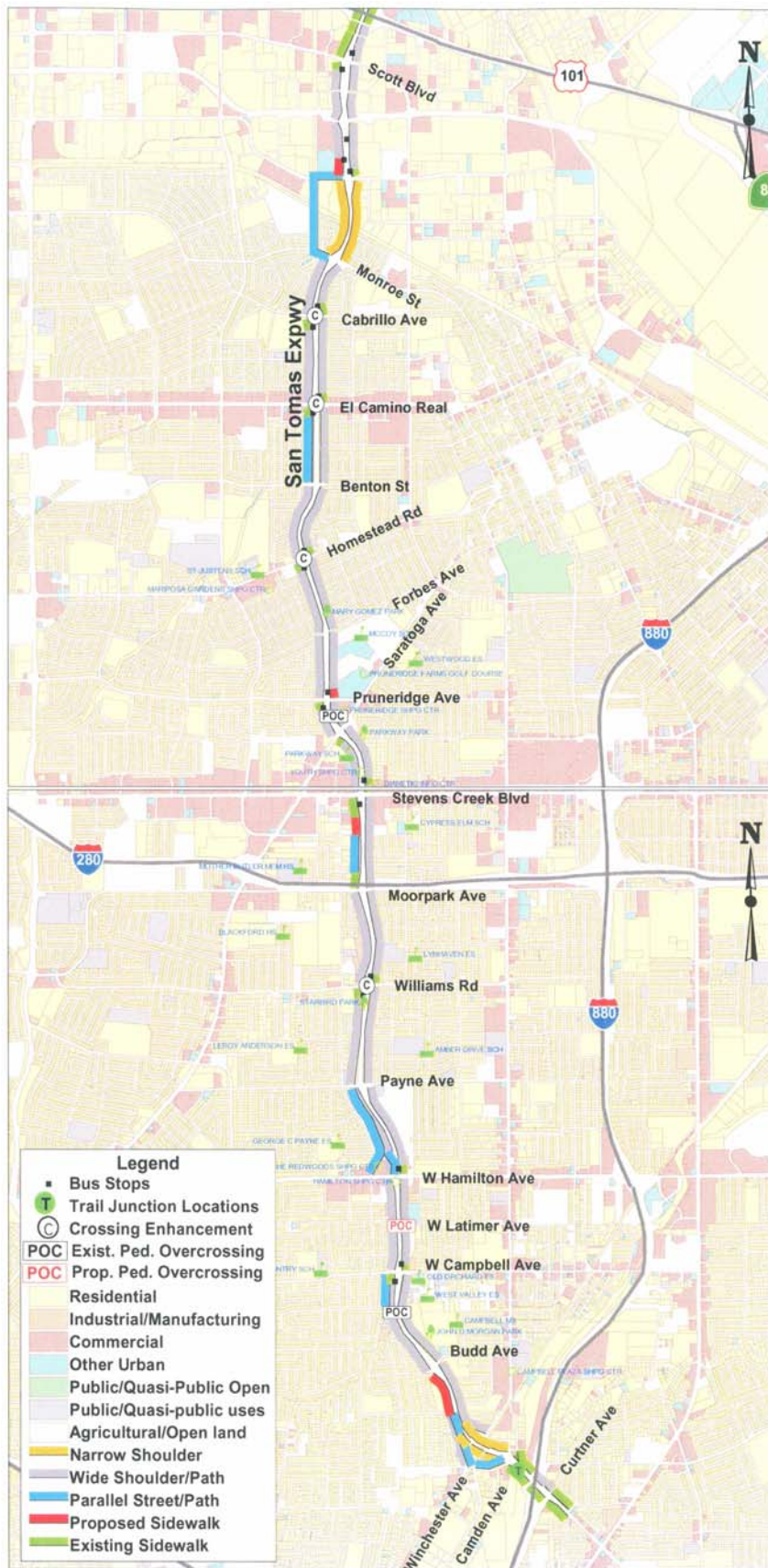


Exhibit D Pedestrian Improvements

Sound Wall Improvements

An assessment of sound wall needs was conducted according to the guidelines of Caltrans and the Federal Highway Administration (FHWA). The plan includes recommendations for both new sound walls where none now exists and replacing existing walls with higher walls if needed to meet noise standards. The noise standard used was a maximum of 65.5 decibels. Sound wall heights would range from 10 feet minimum to 16 feet maximum.

The plan also acknowledges that sound walls are not always the preferred method of noise abatement for the local community and recommends that the preferred level and type of noise abatement (including sound wall height) be based on noise analysis, community outreach, and city coordination when funding is available.

The table below lists the sound wall recommendations for San Tomas Expressway.

Sound Wall Project Description	Cost (millions)	
	New Wall	Higher Replacement Wall
Between SR 17 and Williams <ul style="list-style-type: none"> • New walls along west side and gap closure on east side between Williams and Payne, SE of Hamilton, west side near Bucknall, SW of Budd, and NW of Winchester ramp • Higher replacement walls along east side from south of Hamilton to north of Campbell and from Budd to Winchester 	\$2.25	\$3.31
Between Williams and El Camino Real <ul style="list-style-type: none"> • Higher replacement walls east side from El Camino Real to Forbes, SW of Benton, SW of Saratoga, west side adjacent to Greenlee residences north of I-280 and Larkmead residences south of I-280, and east side gap closure north of Williams 	--	\$5.39
Between El Camino Real and Central <ul style="list-style-type: none"> • Higher replacement walls along NW and NE of Cabrillo, and east side from Cabrillo to El Camino Real 	--	\$2.14
Totals	\$2.25	\$10.84

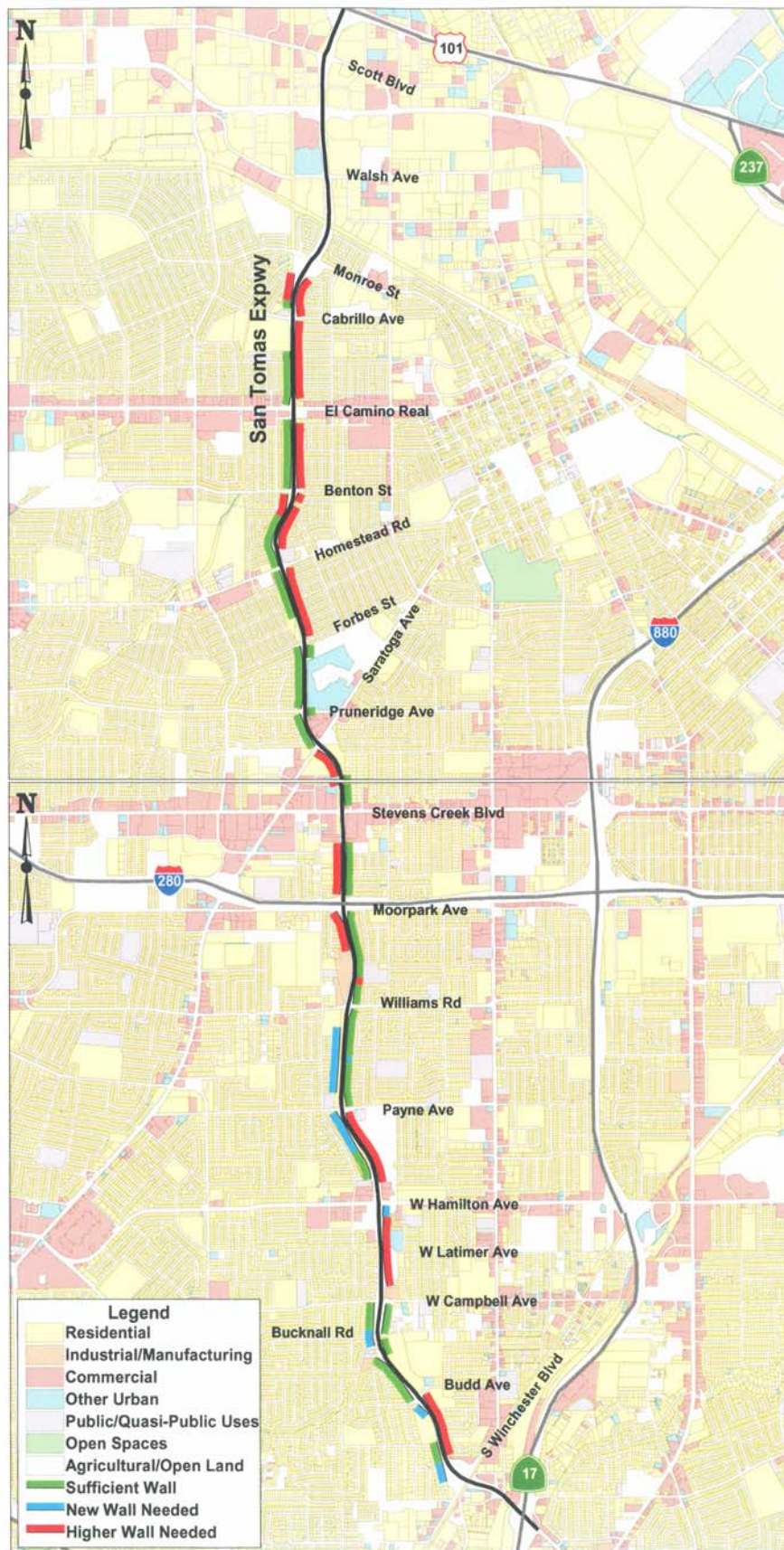


Exhibit E Sound Wall Improvements

Landscaping Improvements

The *Implementation Plan* did not break down landscaping needs for each individual expressway. It did, however, recommend that the following level of landscaping be provided for the entire expressway system:

- ◆ Trees and limited shrubs
- ◆ Median finishes, such as decomposed granite
- ◆ Sound walls covered with vines
- ◆ Automated irrigation system.

The systemwide cost to install this landscaping is estimated to be \$19-23 million. The estimated cost to maintain this level of landscaping for the entire expressway system is \$4 million annually, which is beyond the operating revenue currently available to the County. Therefore, the plan recommends continuing with the County's current landscaping policy to not install new landscaping unless funds are available for maintaining it.

Total Capital Improvement Program

The total costs of the recommendations for San Tomas Expressway are as follows:

Description	Cost (millions)
Roadway Capacity and Operational Improvements	\$394.25-529.25
Bicycle Improvements	\$0.45
Pedestrian Improvements	\$5.29
Sound Wall Improvements	\$13.09
Part of Roadway Projects ⁽¹⁾	(\$6.24)
TOTAL	\$406.84-541.84 ⁽²⁾

(1) Roadway capacity/operational projects include bicycle, pedestrian, and sound wall improvements within project limits.

(2) Plus a portion of the systemwide landscaping and maintenance/operations improvements.

N.A. = Not Applicable