CHAPTER 2.0: INTRODUCTION

2.1 INTRODUCTION

The Federal Transit Administration (FTA) and the Santa Clara Valley Transportation Authority (VTA) have prepared this Environmental Impact Statement/Environmental Impact Report (EIS/EIR) in accordance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). The EIS/EIR has been developed for the proposed San Francisco Bay Area Rapid Transit (BART) Extension to Milpitas, San Jose, and Santa Clara in the Silicon Valley Rapid Transit Corridor (SVRTC). The VTA Board of Directors selected the BART Extension as the Preferred Investment Strategy (also known as Locally Preferred Alternative) for the SVRTC following completion of a Major Investment Study/Alternatives Analysis (MIS/AA) in November 2001. During that same month, the VTA and BART boards approved a cooperative agreement regarding the institutional, project implementation, and financial issues related to the BART Extension. This agreement identified VTA as the local lead agency in preparing the environmental document in partnership with FTA.

With the approval of the MIS/AA, the VTA Board of Directors instructed that a "New Starts" Baseline Alternative also be evaluated in the environmental compliance phase as required under the FTA's New Starts Program. A No-Action Alternative also has been formulated as a basis for comparison to the other alternatives. A detailed description of the No-Action, "New Starts" Baseline, and BART Extension alternatives is provided in Chapter 3, *Alternatives*.

2.2 **PROJECT OVERVIEW**

The SVRTC project aims to improve transit services and increase intermodal connectivity among transit routes and stations serving origins and destinations in Alameda County, Contra Costa County, Santa Clara County, and portions of the Central Valley (San Joaquin and Sacramento valleys). Meeting this overall project purpose would address a variety of related needs in the corridor, such as reducing traffic congestion, accommodating future travel demand, conserving energy, improving regional air quality, and meeting local land use goals. The project purpose and need is detailed with supporting documentation in Section 2.4 below.

2.3 OVERVIEW OF THE STUDY AREA

The SVRTC extends from the City of Fremont in southwestern Alameda County through the cities of Milpitas, San Jose, and Santa Clara in Santa Clara County, as shown in Figure 2.3-1. The corridor is traversed by two freight railroad mainlines and commuter rail, interstate and state routes, expressways, and major arterials. VTA, Caltrain commuter rail, Altamont Commuter Express (ACE), Capitol Corridor Intercity Rail (Capitols), Amtrak, and a variety of bus operators provide transit services to major activity and employment centers located throughout the corridor. Technical analyses on these transportation facilities and an assessment of environmental resources within the SVRTC have been conducted to describe existing resources and evaluate the impacts of the project alternatives. The findings of these evaluations are reported in this document to enable decision makers, interested parties, and the public to identify preferred alternatives and options within those alternatives.

2.3.1 LAND USE

Land uses in this large area are diverse, comprising older industrial and light industrial uses, newer high technology company campuses, traditional smaller-scale and downtown commercial and retail uses and large-scale mall retail uses, and single-family and multi-family residential areas. The corridor is rich in

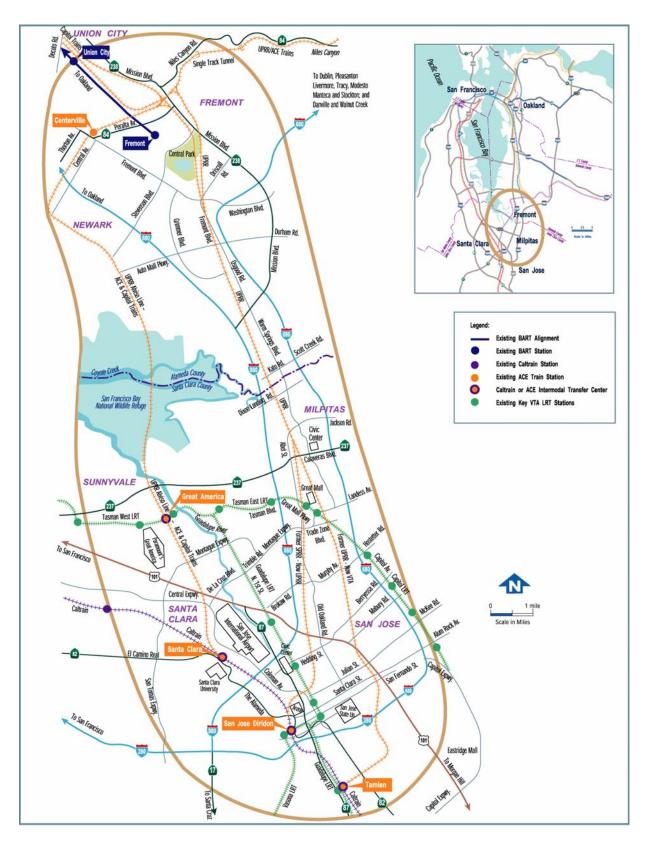


Figure 2.3-1: Silicon Valley Rapid Transit Corridor

archaeological and historical cultural resources and contains two major educational complexes: San Jose State University (SJSU) in downtown San Jose and Santa Clara University in Santa Clara. Detailed information on existing corridor land uses and the impacts of the SVRTC alternatives is presented in this document in Sections 4.12, *Land Use*, and 4.15, *Socioeconomics*.

2.3.2 EXISTING TRANSPORTATION AND TRANSIT SERVICES

Major roadway transportation features in the SVRTC include Interstate 880 (I-880), I-680, US 101 and State Route 237 (SR 237) and SR 87. Transit systems include Caltrain commuter rail, VTA light rail transit (LRT) and buses, ACE, Capitols, and Amtrak. The Norman Y. Mineta San Jose International Airport (SJIA) is also located within the SVRTC. In addition, the Union Pacific Railroad (UPRR) San Jose and Alviso Branch Railroad lines traverse the corridor. Detailed information on existing transportation system facilities and the impacts of the SVRTC alternatives is presented in Section 4.2, *Transportation and Transit*.

2.4 PURPOSE AND NEED FOR TRANSPORTATION IMPROVEMENTS

2.4.1 PURPOSE

The purposes of transportation improvements in the SVRTC are to:

- Improve public transit service in this severely congested corridor by providing increased transit capacity and faster, convenient access throughout the San Francisco Bay Area region, including southern Alameda County, central Contra Costa County, Tri-Valley, Central Valley, and Silicon Valley.
- Enhance regional connectivity through expanded, interconnected rapid transit services between BART in Fremont and light rail and Caltrain in Silicon Valley.
- Accommodate future travel demand in the corridor by expanding modal options.
- Alleviate severe and ever-increasing traffic congestion on I-880 and I-680 between Alameda County and Silicon Valley.
- Improve regional air quality by reducing auto emissions.
- Improve mobility options to employment, education, medical, and retail centers for corridor residents, in particular low-income, youth, elderly, disabled, and ethnic minority populations.
- Maximize transit usage and ridership.
- Support local economic and land use plans and goals.

Improved transit service (rail and bus) in the corridor would provide needed additional capacity to address an anticipated 30 percent growth in work travel and 26 percent growth in non-work travel between the years 2000 and 2025. The transit service improvements would better connect corridor workers and residents with such rail transit systems as BART, VTA light rail and buses, Caltrain, ACE, Capitols, and Amtrak and would enhance direct public transit access to other regional activity centers.

Transportation improvements in this corridor would also complement and expand existing travel modes in the I-880 and I-680 corridors. As a competitive alternative to the private auto (in terms of both the cost and time for travel), improved transit is expected to divert auto trips from heavily traveled roadways and ease traffic congestion, in particular on I-880 and I-680. More trips on transit would improve access to and from the Silicon Valley commercial and office core and reduce traffic circulation impacts. A secondary effect of reduced traffic and roadway congestion would be a decrease in auto emissions and improved air quality in the corridor.

Improved transit in this corridor is consistent with the goals identified in Section 2.4.3 of this chapter and responsive to the long-range Valley Transportation Plan 2020 (VTP 2020), adopted by VTA in December 2000. The primary goal of the long-range plan is to provide transportation facilities and services that support and enhance Santa Clara County's high quality of life and economic vitality. Transportation improvements in the corridor would address issues identified in the Metropolitan Transportation Commission's (MTC) 1998 Regional Transportation Plan for the Fremont to South Bay Corridor and the Santa Clara Valley Subarea, including the need to improve access to preserve economic vitality and to link transportation to community development around transit nodes. Improved transit also is consistent with the policy directions of VTA's Short-Range Transit Plan, Fiscal Year (FY) 2000-2009. In addition, the purpose and need support the intent of Measure A, approved by 70.6 percent of the Santa Clara County voters on November 7, 2000, which will raise over \$2 billion in funding for this corridor. The State of California's Traffic Congestion Relief Program (TCRP) has also identified more than \$600 million for the SVRTC.

2.4.2 ASSOCIATED NEEDS

Existing Transportation System and Deficiencies. The SVRTC, shown in Figure 2.3-1, extends southward from Fremont in southern Alameda County to northeastern and central Santa Clara County, which includes Milpitas, northern San Jose, northern Santa Clara, downtown San Jose, and the SJIA areas. The corridor is characterized by low-density suburban housing and large campus-like employment centers. Residential development to meet the demand of new residents entering the expanding job market in the corridor has occurred well beyond Santa Clara County, with development in surrounding counties and the Central Valley.

This corridor connects southern Alameda County with downtown San Jose and Silicon Valley. Major highway transportation facilities are the I-880, I-680, US 101, SR 87, and SR 237 freeways, as well as Tasman Drive and Montague Expressway. Roadway congestion on I-880 currently constrains trips entering and leaving the corridor, as does congestion on I-680 over the Sunol Grade between Livermore, Pleasanton, and Fremont.

Transit facilities in the corridor include the VTA light rail lines connecting Mountain View with downtown San Jose; Capitols to Sacramento; ACE to Stockton; Caltrain to San Francisco; Amtrak to Los Angeles and Seattle, Washington; and VTA express bus service between the Fremont BART Station, downtown San Jose, and Silicon Valley. The Fremont BART Station is the major intermodal transit facility for BART and VTA and Alameda-Contra Costa Transit District (AC Transit) buses.

The SVRTC is one of the most congested corridors in Northern California. Over the last 10 years, it has experienced very high and increasing levels of traffic congestion due to the growth of jobs throughout the Silicon Valley area, including downtown San Jose, and the cities of Fremont, Milpitas, and Santa Clara. Congestion is also spreading from the peak period into the off peak.

To estimate the future growth in demand, forecasts of daily home-based work trips in 2000 and 2025 were developed. Table 2.4-1 and Figures 2.4-1, 2.4-2, 2.4-3, and 2.4-4 provide these results between Alameda County and the following superdistricts in Santa Clara County:

- Superdistrict 9—Sunnyvale, Santa Clara, and Alviso
- Superdistrict 11—Central San Jose, including the downtown
- Superdistrict 12—Milpitas and northeast San Jose

Table 2.4-1 shows an increase of over 26,000 daily work trips from Alameda County to Silicon Valley, which would result in a 25 percent increase in travel demand between 2000 and 2025. Similarly, travel demand from superdistricts within Santa Clara County to Alameda County would increase by almost

Table 2.4-1: Estimated Daily Home Based Work Trips, 2000 to 2025										
Santa Clara County Super- district		Work Tri	ps From/T	Total Work Trips						
	Year	2000	Year 2025		% Change		Year		%	
	From	То	From	То	From	То	2000	2025	Change	
9	70,840	7,204	82,270	11,698	16%	62%	78,044	93,968	20%	
11	15,490	9,552	21,046	14,156	36%	48%	25,042	35,202	41%	
12	18,741	21,237	27,775	29,319	48%	38%	39,978	57,094	43%	
Total:	105,071	37,993	131,091	55,173	25%	45%	143,064	186,264	30%	
Source: Travel	Demand For	ecasts Report	t, Hexagon Tra	ansportation C	Consultants,	Inc., 2003.				

17,200 daily work trips or 45 percent during this same time frame. From 2000 to 2025, total work trips within the SVRTC are projected to grow by 30 percent. Given the current level of congestion in the corridor, this projected growth emphasizes the need for more transportation capacity in the future.

An analysis of year 2000 travel indicates that approximately 105,000 total daily work trips were being made between Alameda County residences and employment opportunities in the three Santa Clara County superdistricts. Approximately 70,800 (67 percent) were destined to Superdistrict 9 (the greater north Santa Clara County area), 18,700 (18 percent) to Superdistrict 12 (Milpitas and northeast San Jose), and the remaining 15,500 (15 percent) to Superdistrict 11 (central San Jose). Figure 2.4-1 provides a schematic diagram of these travel patterns.

The total daily volume of work-related travel in the reverse direction (i.e., from Santa Clara County Superdistricts 9, 11, and 12 to Alameda County) was much smaller. There were about 38,000 total daily work trips from residences within the three selected superdistricts to Alameda County in the year 2000. More than half of the trips (21,200) came from Superdistrict 12; about 9,600 (25 percent) came from Superdistrict 11. The remaining 7,200 (19 percent) came from Superdistrict 9. These travel patterns are depicted in Figure 2.4-2.

Travel projections indicate that between 2000 and 2025, total daily work trips from Alameda County residences to the employment opportunities within the three superdistricts in Santa Clara County will increase by over 26,000. This suggests a 2025 demand of about 131,100 work trips from Alameda County to the three superdistricts in Santa Clara County. Approximately 82,300 (63 percent) will be destined to Superdistrict 9 (the greater north Santa Clara County), 21,000 (16 percent) to Superdistrict 12 (Milpitas and northeast San Jose), and the remaining 27,800 (21 percent) to Superdistrict 11 (central San Jose). This distribution is shown in Figure 2.4-3.

For the northbound work trips from Superdistricts 9, 11, and 12 to Alameda County, the travel volume is projected to reach about 55,200. This represents a gain of over 17,100 trips over the 25-year period. Trips from Superdistrict 12 to Alameda County will exceed 29,500 in 2025. The other two origin-destination pairs will also experience growth in work related travel. There will be over 14,100 trips from Superdistrict 11 and about 11,700 trips from Superdistrict 9 to Alameda County. This distribution is depicted in Figure 2.4-4.

Table 2.4-2 shows daily non-work trips in 2000 and 2025. Table 2.4-2 shows approximately 11,900 additional non-work trips from Alameda County to Silicon Valley between 2000 and 2025, an increase of 18 percent. Similarly, travel demand from superdistricts within Santa Clara County to Alameda County

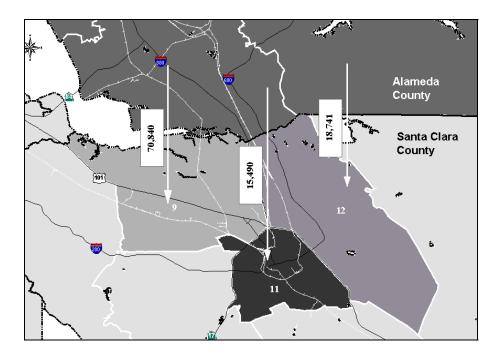


Figure 2.4-1: Year 2000 Work Trips from Alameda County to Superdistricts 9, 11, and 12

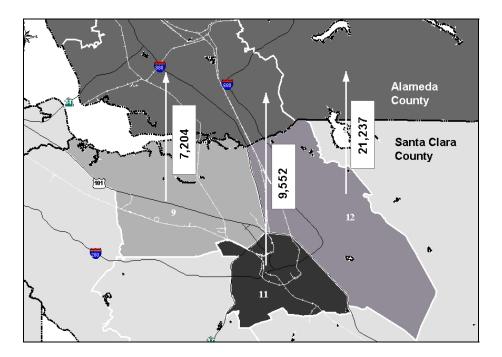


Figure 2.4-2: Year 2000 Work Trips from Superdistricts 9, 11, and 12 to Alameda County

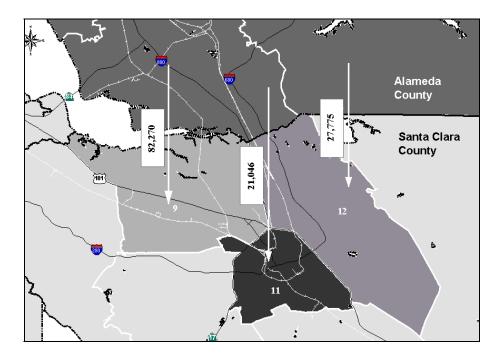


Figure 2.4-3: Year 2025 Projected Work Trips from Alameda County to Superdistricts 9, 11, and 12

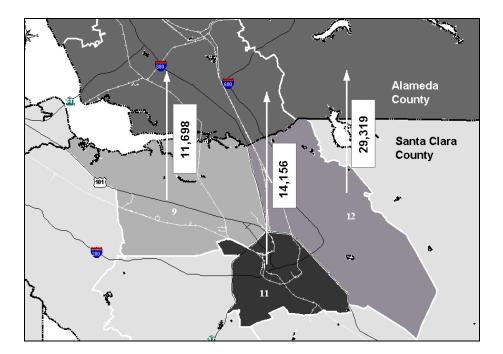


Figure 2.4-4: Year 2025 Projected Work Trips from Superdistricts 9, 11, and 12 to Alameda County

Santa Clara County Super- district		Non-Work	Trips From	Total Non-Work Trips					
	Year 2000		Year 2025		% Change		Year		%
	From	То	From	То	From	То	2000	2025	Change
9	31,067	15,916	35,502	22,330	14%	40%	46,983	57832	23
11	15,269	10,389	18,376	14,292	20%	38%	25,658	32,668	27
12	20,507	29,456	24,847	38,936	21%	32%	49,963	63,783	28
Total	66,843	55,761	78,725	75,558	18	36	122,604	154,283	26

would increase by almost 19,800 or 36 percent during the same timeframe. From 2000 to 2025, total non-work trips within the SVRTC are projected to grow by 26 percent. This future growth in non-work trips further supports the need for additional transportation capacity in this corridor.

Table 2.4-3 represents AM and PM peak period data for the increases in both home-based work trips and non-work trips between 2000 and 2025 in the SVRTC. In the AM peak period, work trips from Alameda County to Silicon Valley are estimated to increase by approximately 7,000, or 25 percent between 2000 and 2025. AM peak period work trips from superdistricts in Santa Clara County to Alameda County are estimated to increase by 6,200, or 56 percent in the same timeframe. AM peak period non-work trips from Alameda County to Silicon Valley are estimated to increase by 750 trips, or 18 percent between 2000 and 2025. AM peak period non-work trips from Santa Clara County to Alameda County are estimated to increase by 750 trips, or 18 percent between 2000 and 2025. AM peak period non-work trips from Santa Clara County to Alameda County are estimated to increase by 750 trips, or 18 percent between 2000 and 2025. AM peak period non-work trips from Santa Clara County to Alameda County are estimated to increase by 1,100, or 31 percent in the same timeframe.

In the PM peak period, work trips from Alameda County to Silicon Valley are estimated to increase by approximately 5,100, or 54 percent between 2000 and 2025. PM peak period work trips from superdistricts in Santa Clara County to Alameda County are estimated to increase by 5,600, or 25 percent in the same timeframe. PM peak period non-work trips from Alameda County to Silicon Valley are estimated to increase by 2,000 trips, or 26 percent between 2000 and 2025. PM peak period non-work trips from Santa Clara County to Alameda County are estimated to increase by 2,000 trips, or 26 percent between 2000 and 2025. PM peak period non-work trips from Santa Clara County to Alameda County are estimated to increase by 1,300, or 16 percent in the same timeframe.

In the face of this projected growth in travel demand, preserving access is extremely important, given that Silicon Valley is the economic engine of the Bay Area and beyond. The northeastern part of Santa Clara County contains a majority of Silicon Valley's current employment. Office and research/development land uses have expanded rapidly in this area over the past few years. Travel in this area is expected to grow dramatically as northern San Jose, Santa Clara, and Milpitas continue to develop vacant land and intensify development on currently developed sites.

In addition, Santa Clara County has historically been job-rich and housing-poor, relying on workers who live outside of the county to fill jobs within the county. Milpitas and Santa Clara have two of the highest jobs-housing imbalances in Santa Clara County, with Milpitas at 2.93 and Santa Clara at 3.53¹ in 2000. Overall, Santa Clara County had 1.93 jobs per household. From 2000 to 2025, Milpitas is expected to experience a large growth in both jobs (38 percent) and housing (39 percent), as shown in Table 2.4-4.

¹ Expressed as the number of jobs in a geographic area divided by number of households in the same area.

		Table 2.	4-3: Estim	ated AM ar	nd PM Peal	Period Tri	ps			
AM Peak Peri	od Trips: F	lome-base	d Work							
Carata Olarra		Fr	Total Work Trips							
Santa Clara County	Year 2000		Year 2025		Percent Change		Year		Percent	
Superdistrict	From	То	From	То	From	То	2000	2025	Change	
9	19,160	2,440	23,480	3,960	23%	62%	21,600	27,440	27%	
11	4,250	2,690	5,570	4,290	31%	59%	6,940	9,860	42%	
12	5,210	5,860	6,650	8,930	28%	52%	11,070	15,580	41%	
Total	28,620	10,990	35,700	17,180	25%	56%	39,610	52,880	34%	
AM Peak Peri	od Trips: N	lon-Work	·		·	•		•	•	
	From/To Alameda County							Total Non-Work Trips		
Santa Clara County	Year	2000	Year 2025 Perce		Percen	t Change	Year		Percent	
Superdistrict	From	То	From	То	From	То	2000	2025	Change	
9	1,750	1,130	1,950	1,420	11%	26%	2,880	3,370	17%	
11	750	660	930	880	24%	33%	1,410	1,810	28%	
12	1,630	1,780	2,000	2,370	23%	33%	3,410	4,370	28%	
Total	4,130	3,570	4,880	4,670	18%	31%	7,700	9,550	24%	
PM Peak Perio	od Trips: H	lome-base	d Work	•	·	•		•		
		Fr	Total Work Trips							
Santa Clara County	Year 2000		Year 2025		Percent Change		Year		Percent	
Superdistrict	From	То	From	То	From	То	2000	2025	Change	
-						220/				
9	2,620	14,850	4,010	18,200	53%	23%	1/,4/0	22,210	27%	
9 11	2,620 2,230	14,850 3,370	4,010 3,540	18,200 4,440	53% 59%	32%	17,470 5,600	22,210 7,980	27% 43%	
-										
11	2,230	3,370	3,540	4,440	59%	32%	5,600	7,980	43%	
11 12 Total	2,230 4,710 9,560	3,370 4,230 22,450	3,540 7,140	4,440 5,460	59% 52%	32% 29%	5,600 8,940	7,980 12,600	43% 41%	
11 12 Total PM Peak Perio	2,230 4,710 9,560	3,370 4,230 22,450 Jon-Work	3,540 7,140	4,440 5,460 28,100	59% 52% 54%	32% 29%	5,600 8,940 32,010	7,980 12,600	43% 41% 34%	
11 12 Total PM Peak Perio Santa Clara	2,230 4,710 9,560 od Trips: N	3,370 4,230 22,450 Jon-Work	3,540 7,140 14,690	4,440 5,460 28,100 meda Cour	59% 52% 54%	32% 29% 25%	5,600 8,940 32,010 Total	7,980 12,600 42,790	43% 41% 34% k Trips	
11 12 Total PM Peak Perio Santa Clara County	2,230 4,710 9,560 od Trips: N Year	3,370 4,230 22,450 Jon-Work	3,540 7,140 14,690	4,440 5,460 28,100 meda Cour	59% 52% 54%	32% 29%	5,600 8,940 32,010 Total	7,980 12,600 42,790 Non-Wor	43% 41% 34% k Trips Percent	
11 12 Total PM Peak Perio Santa Clara	2,230 4,710 9,560 od Trips: N Year	3,370 4,230 22,450 Jon-Work Fr 2000	3,540 7,140 14,690 rom/To Ala Year 2	4,440 5,460 28,100 meda Cour 2025	59% 52% 54%	32% 29% 25% Change	5,600 8,940 32,010 Total	7,980 12,600 42,790 Non-Wor	43% 41% 34%	
11 12 Total PM Peak Perio Santa Clara County Superdistrict	2,230 4,710 9,560 od Trips: N Year From	3,370 4,230 22,450 Jon-Work Ft 2000 To	3,540 7,140 14,690 rom/To Ala Year 2 From	4,440 5,460 28,100 meda Cour 2025 To	59% 52% 54% hty Percent From	32% 29% 25% Change To	5,600 8,940 32,010 Total Ye 2000	7,980 12,600 42,790 Non-Wor ear 2025	43% 41% 34% k Trips Percent Change	
11 12 Total PM Peak Perio Santa Clara County Superdistrict 9	2,230 4,710 9,560 od Trips: N Year From 2,670	3,370 4,230 22,450 Jon-Work Fr 2000 To 3,310	3,540 7,140 14,690 om/To Ala Year 2 From 3,300	4,440 5,460 28,100 meda Cour 2025 To 3,350	59% 52% 54% hty Percent From 24%	32% 29% 25% Change To 1%	5,600 8,940 32,010 Total Ye 2000 5,980	7,980 12,600 42,790 Non-Wor ear 2025 6,650	43% 41% 34% k Trips Percent Change 11%	

Table 2.4-4: Households and Employment Growth, 2000 to 2025										
Jurisdiction	H	ouseholds	(Housing L	Jnits)	Employment (jobs)					
	2000	2025	Growth	% Change	2000	2025	Growth	% Change		
Alameda County	523,366	611,680	88,314	17%	751,680	1,014,190	262,510	35%		
City of Fremont	68,237	76,980	8,743	13%	108,410	146,520	38,110	35%		
Santa Clara County	565,863	695,170	129,307	23%	1,092,330	1,395,830	303,500	28%		
City of Milpitas	17,132	23,830	6,698	39%	50,280	69,540	19,260	38%		
City of San Jose	276,598	344,110	67,512	24%	427,670	554,440	126,770	30%		
City of Santa Clara	38,526	50,800	12,274	32%	135,960	170,260	34,300	25%		
Source: Association	of Bay Area	Governments	s, 2000.							

Table 2.4-4 also shows that housing in San Jose is forecast to increase 24 percent by 2025, while jobs are expected to grow 30 percent. An aggressive City of San Jose redevelopment in downtown could increase housing units by more than 67,500 and employment by 126,800. Improved transit is fully consistent with San Jose's redevelopment strategy for downtown. Improved transit to downtown San Jose would increase ridership for trips originating outside the area and the county to reach these new jobs. Planned downtown redevelopment is supportive of increased transit use, with higher densities of housing, office/research and development, and retail. Improved transit would also allow further increases in land use density, enhancing both transit ridership and land use efficiency.

Table 2.4-5 illustrates population and employment growth within the entire SVRTC from 2000 to 2025, as forecast by Association of Bay Area Governments (ABAG). The increase is dramatic in the southern part of the corridor, Superdistricts 9, 11, and 12, which make up Sunnyvale-Santa Clara-Alviso, central San Jose, and Milpitas-northeast San Jose. In this area, over 168,400 jobs will be added, while housing will grow by approximately 68,600. Since employment is growing more than housing, these growth rates help explain the projected increase in commuting to jobs in Silicon Valley. Southern and eastern Alameda County (Superdistricts 16 and 15) are projected to add even more jobs, roughly 172,100 for a 78 percent increase. This supports the growth in Santa Clara County residents traveling to work in Alameda County.

Table 2.4-5: Households and Employment Growth by Superdistrict, 2000 to 2025										
		Households	(Housing U	nits)	Employment (jobs)					
Super- district	2000	2025	Growth	% Change	2000	2025	Growth	% Change		
9	87,830	112,797	24,967	28%	395,550	483,342	87,792	22%		
11	97,644	120,291	22,647	23%	152,304	202,091	49,787	33%		
12	97,187	118,159	20,972	22%	98,417	129,272	30,855	31%		
15	61,746	98,005	36,259	59%	98,295	204,520	106,225	108%		
16	99,051	113,476	14,425	15%	122,770	188,682	65,912	54%		
Total	443,458	562,728	119,270	27%	867,336	1,207,907	340,571	39%		
Source: Asso	ciation of Ba	ay Area Govern	ments, 2000.							

The SJIA, a major regional trip generator in the corridor, is expected to increase its number of daily flights by 22 percent between the present and 2010. The annual volume of passengers is projected to grow from 12 million to 17.6 million in 2010, reaching 25 million in 2025.

Current and Future Corridor Travel Demand. Traffic increases on the major freeways in the corridor, I-680 and I-880, reflect the increases in person trips between superdistricts discussed previously. In 2000, morning peak-hour traffic at the Alameda-Santa Clara County screenline (trips crossing county line) was over 15,000 vehicles per hour (vph) in the southbound direction and about 11,000 vph in the northbound direction. By 2025, these morning peak-hour volumes are expected to increase by 28 percent to about 19,500 vph in the southbound direction and by 45 percent to almost 15,900 vph in the northbound direction.

Existing and Anticipated Transportation System Deficiencies and Congestion. In spite of the planned construction of high occupancy vehicle (HOV) lanes on both I-680 and I-880, projections indicate that traffic congestion in the already very congested corridor will worsen because of growth discussed previously. Current levels of service are "F" (LOS F) in the peak hour, with future level of service anticipated to continue to be LOS F. LOS F describes failure conditions, with unacceptable delays to most vehicles, long queues, and stop-and-go flow.

A variety of improvements to transit service in the corridor is expected by 2025, including a BART Extension to Warm Springs, an increase in the number of ACE trains from 3 to 8 each way, increased express transit service, and an increase to 11 Capitol train round trips per day from the current five round trips. These improvements are not expected to keep up with the demand for quality transit service, given the increased highway congestion expected.

Air Quality Considerations. Increasing congestion and slowing travel times for both auto and transit will potentially lead to worsening air quality in the region because there is a direct relationship between vehicle miles traveled (VMT), travel speed, and air pollution. Mobile emissions are the primary source of air pollution in the SVRTC. A major increase in transit service to attract new riders is needed to decrease regional VMT and improve air quality within the transportation corridor. Detailed information on air quality considerations is presented in this document in Section 4.3, *Air Quality*.

Other Needs. Other needs include the following:

- Intermodal Connectivity. Even when BART is extended to the planned Warm Springs Station, the SVRTC will still have a missing regional rail link in Santa Clara County. If BART were extended into Santa Clara County, numerous opportunities would be available for transfers to destinations throughout the San Francisco Bay Area region and beyond. Intermodal connections would be available to existing and future services such as VTA's light rail and buses throughout Santa Clara County, Caltrain to San Francisco, ACE to Central Valley, Capitols to Sacramento, Amtrak to San Diego and Seattle, Washington, and a planned Automated People Mover (APM) to SJIA.
- Mobility Needs of Special User Groups/Environmental Justice. Based on 2000 Census data, the SVRTC study area has 11 percent of its households without private transport compared with 6 percent for Santa Clara County, 11 percent for Alameda County, and 6 percent for the City of Fremont. Likewise, the study area has 10 percent of its households below the poverty level, compared with 6 percent for Santa Clara County, 10 percent for Alameda County, and 4 percent for the City of Fremont. The study area is only 28 percent Caucasian compared with 44 percent for Santa Clara County and 41 percent for both Alameda County and the City of Fremont, indicating high percentages of minority groups within the study area. Improved transit in the SVRTC would increase availability and enhance service for these study area populations.
- Support for Corridor Land Use Planning and Economic Development. The cities of Milpitas, San Jose, and Santa Clara have established plans and policies that support transit-oriented

development in the SVRTC, particularly around transit stations. Improved transit in the corridor would be consistent with these plans and policies.

2.4.3 CORRIDOR GOALS

Improved transit is consistent with the following goals that were used in the MIS/AA for the SVRTC:

- Goal 1: Congestion Relief. To reduce the level and extent of travel delay that is occurring on the corridor and regional highway system.
- Goal 2: Mobility Improvements and Regional Connectivity. To improve transit service to, from, and within the corridor by enhancing service quality (comfort, safety, and reliability) and quantity (improved service frequencies, travel times, operating speeds, and capacity); to improve regional connections that ease transferring between systems, by developing multi-modal centers, and by using multiple-agency tickets and fares.
- **Goal 3: Environmental Benefits.** To provide transit improvements that enhance and preserve the social and physical environment and minimize potential negative impacts resulting from implementation of the transit alternatives.
- Goal 4: Transit Supportive Land Use. To ensure the compatibility of transportation improvements with local jurisdiction land use plans and policies so that transit ridership can be maximized and the number of auto trips reduced.
- **Goal 5: Operating Efficiencies.** To produce future resource savings for VTA relative to existing and planned transit service improvements.
- Goal 6: Cost Effectiveness. To provide benefits from transportation improvements in relation to the costs.
- Goal 7: Local Financial Commitment. To maintain VTA's contribution to the cost of constructing, operating, and maintaining the Preferred Investment Strategy/Locally Preferred Alternative and the stability and reliability of its capital and operating funding sources for implementing the strategy.
- Goal 8: Community and Stakeholder Acceptance. To provide a transportation system that reflects the needs and desires of the residents and businesses in the corridor, is compatible with local planning initiatives, and generates widespread political support.
- **Goal 9: Environmental Justice.** To provide an equitable amount of transit service and mobility benefits to transit dependent residents, who are generally from low-income or minority communities or households not having access to a private automobile.
- Goal 10: Safety and Security. To implement transit improvements without creating undue safety and security risks that cannot be mitigated.
- **Goal 11: Construction Impacts.** To minimize the extent and the duration of construction impacts on the surrounding community resulting from implementing transportation improvements.

2.5 INTENDED USES OF THIS DOCUMENT

This document is a Final EIS/EIR prepared pursuant to the requirements of the NEPA, the Council on Environmental Quality regulations implementing NEPA, CEQA, and the CEQA Guidelines. It presents alternatives for improving transit services in the SVRTC, discloses the environmental impacts of those alternatives, and provides mitigation measures to minimize unavoidable impacts. The information reported in this document will enable decision makers, interested parties, and the public to evaluate and identify preferred alternatives and options for achieving the project purpose and need.

This document will be used by federal, state, regional, and local agencies to assess the environmental impacts of the SVRTC project on resources under their jurisdiction or to make discretionary decisions regarding the project. FTA, the State of California, and MTC will use this document and the Final EIS/EIR in deciding whether and how to fund the project.

- Once the Preferred Investment Strategy/Locally Preferred Alternative is identified and approved, the agencies listed in Chapter 9, *Agency and Community Participation*, Table 9.3-4, can use the Final EIS/EIR as the basis for their decisions to issue permits and other approvals necessary to construct the project. The FTA will use this document when preparing the Record of Decision. The Record of Decision formalizes the final selection of the preferred alternative. It is a written public record explaining why an agency has taken a particular course of action and it must include the following:
 - a statement explaining the decision;
 - an explanation of alternatives that were considered and those that are environmentally preferable;
 - the factors considered by the agency in making the decision;
 - an explanation of which mitigation measures, if any, were adopted, and if mitigation measures were not adopted, an explanation of why not; and
 - the monitoring and enforcement program for any adopted mitigation measures.

2.6 CONTENTS OF THIS DOCUMENT

From this point forward, the contents of this document include the following, with supporting maps and graphics found in the appendices:

- **Chapter 3: Alternatives.** This chapter describes the physical and operating characteristics of the SVRTC alternatives. It also provides a discussion of the alternatives that were considered and withdrawn from further evaluation.
- Chapter 4: Environmental Analysis. This chapter covers the environmental impacts of the SVRTC alternatives and discusses actions to reduce or eliminate such impacts. Environmental issues that are examined include: transportation and traffic, air quality, biological resources and wetlands, community facilities, cultural and historic resources, electromagnetic fields, energy, environmental justice, geology, soils, and seismicity, hazardous materials, land use, noise and vibration, safety and security, socioeconomics, utilities, visual quality and aesthetics, water resources, and construction impacts.
- Chapter 5: BART Core System Parking Analysis. This chapter addresses the additional parking demand at BART core system stations necessary to support the BART Alternative.
- Chapter 6: Other CEQA and NEPA Considerations. This chapter describes the environmental effects identified in Chapter 4 that would be considered significant under CEQA, identifies proposed mitigation measures, and assesses the significance level of impacts after mitigation is applied.
- Chapter 7: Final Section 4(f) Evaluation. This chapter complies with Section 4(f) of the Department of Transportation Act to ensure that special efforts are made to protect public park and recreations lands, wildlife and waterfowl refuges, and historic sites.
- Chapter 8: Financial Considerations. This chapter presents cost information and an evaluation of alternatives, as well as a proposed financial plan for the BART Extension Alternative.
- Chapter 9: Agency and Community Participation. This chapter identifies the process for consultation and coordination with federal, state, regional, and local agencies, as well as with elected officials, community leaders, organizations, and other individuals within the SVRTC.

- Chapter 10: Agencies and Organizations. This chapter identifies the process for making the Draft EIS/EIR available for public circulation, including a list of the various agencies, organizations, and individuals who were notified of its release.
- Chapter 11: List of Preparers. This chapter identifies the FTA, VTA, and consultant team staff involved in the preparation of the EIS/EIR.
- Chapter 12: Definitions, Abbreviations, and Acronyms. This chapter provides a list and description of the various definitions, abbreviations, and acronyms that are used throughout the environmental document.
- **Chapter 13: Bibliography.** This chapter provides a list of the working papers, technical reports, and other documents used in preparing the EIS/EIR.