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INTRODUCTION

PURPOSE OF THIS REPORT

In response to public support for extending Bay Area Rapid Transit (BART) service in southern Alameda County, BART is proposing a 5.4 mile extension of the BART system south from the existing Fremont BART station to a proposed new station in Warm Springs. An optional station at Irvington is also being considered. Alignment of this BART extension would be parallel to the Union Pacific Railroad tracks. To make optimal use of the access to be provided by a future BART station, the City designated the area of the Warm Spring BART Specific Plan for consideration of alternative, transit-oriented, mixed-use land use patterns in lieu of the existing primarily industrial and undeveloped lands.

This Existing Conditions/Analysis Report is the first stage in preparation of the Specific Plan for the Warm Springs BART Area in Fremont, California, and provides a summary of background information and mapping that describes existing conditions and trends in the study area.

More specifically, this report provides information regarding three critical elements that will guide discussions about the future configuration of the area: the real estate market, land use and urban design characteristics, and the transportation system of the area. The analysis of each of these components suggests opportunities and limitations of the site for future development.

In addition, information is provided regarding the goals of the City for the Warm Springs BART station area, and the regulatory framework (General Plan and Zoning) in which planning for the future of the site must occur. BARTs criteria for Transit-Oriented Development (TOD) are also described and additional summary information is provided regarding recent development trends locally and elsewhere in transit-related development and site design.

PROCESS AND SCHEDULE

The Warm Springs BART Area Specific Plan is a comprehensive planning effort to determine the future development of this portion of the City of Fremont. This report represents the first stage of this effort. Subsequent stages will include the preparation and evaluation of alternative development scenarios for the area, and a final description of a preferred plan, guidelines and implementation approach. An EIR will also be prepared on the Specific Plan to identify any impacts of the plan and required mitigations. The entire process associated with preparation of the Plan and EIR will take approximately two years.

PARTICIPANTS/CONSULTANT TEAM

This Existing Conditions/Analysis Report has been prepared by the City's consultant team comprised of the following firms:
BMS Design Group (BMS) – urban design and planning
Economic Research Associates (ERA) – real estate economics
Kimley Horn and Associates – transportation planning.

The work has been guided by city staff, including:
Jan Perkins, City Manager
Lynn Danzker, Assistant City Manager,
Jeff Schwob, Deputy Planning Manager and Interim Director, Development and Environmental Services Department
Avanindra Gangapurum, Assistant Project Manager
Chandler Lee, Planning Consultant and Project Manager
Dan Marks, former Planning Director.

PROJECT AREA AND GOALS

For planning purposes, two areas have been defined:

- Specific Plan Study Area
- Specific Plan Project Area.

STUDY AREA AND SPECIFIC PLAN AREA

The Study Area extends approximately 1-1/2 miles in all directions from the future BART station location. It is generally bounded by Auto Mall Parkway on the north, I-680 on the east, SR 262 on the south, and I-880 on the west

The study area lies in the southern portion of the City of Fremont. Figure 2 shows the study area and the City of Fremont in the context of the south bay and Silicon Valley. As described further in the Planning Analysis section of this report, the site is close to and has excellent vehicular access to the jobs base of Silicon Valley, the Tri-Valley area, and western Alameda County. With construction of the Warm Springs BART station, it will also have excellent transit access to San Francisco, Oakland and in the future, San Jose. It is also within easy access to emerging and affordable housing communities to the east and south of Fremont.

As shown in Figure 3, within the City of Fremont the Warm Springs BART area is located to the south of the Civic Center and Central Business District of the City. Warm Springs is one of 5 original districts within Fremont; the two adjoining districts are Irvington and Mission San Jose, which lie to the north and northwest of the Warm Springs area.

The future alignment of the BART extension, and the adjoining existing and planned BART stations are shown on these figures.

The Specific Plan Project Area is smaller than the study area, and consists of 320 acres. The Project Area will be the focus of regulatory and policy changes implemented through the Specific Plan. It will address a site consisting of properties immediately surrounding the identified BART station site, as illustrated in Figure 3. This configuration has been determined based on existing land uses, property owner interest, and the area of influence (generally considered to be a ½ mile radius) of the BART station site. The planned BART station lies near the center of the Specific Plan Project Area.

HILLS EAST OF SPECIFIC PLAN AREA

NUMMI PLANT

FIGURE 1: REGIONAL CONTEXT

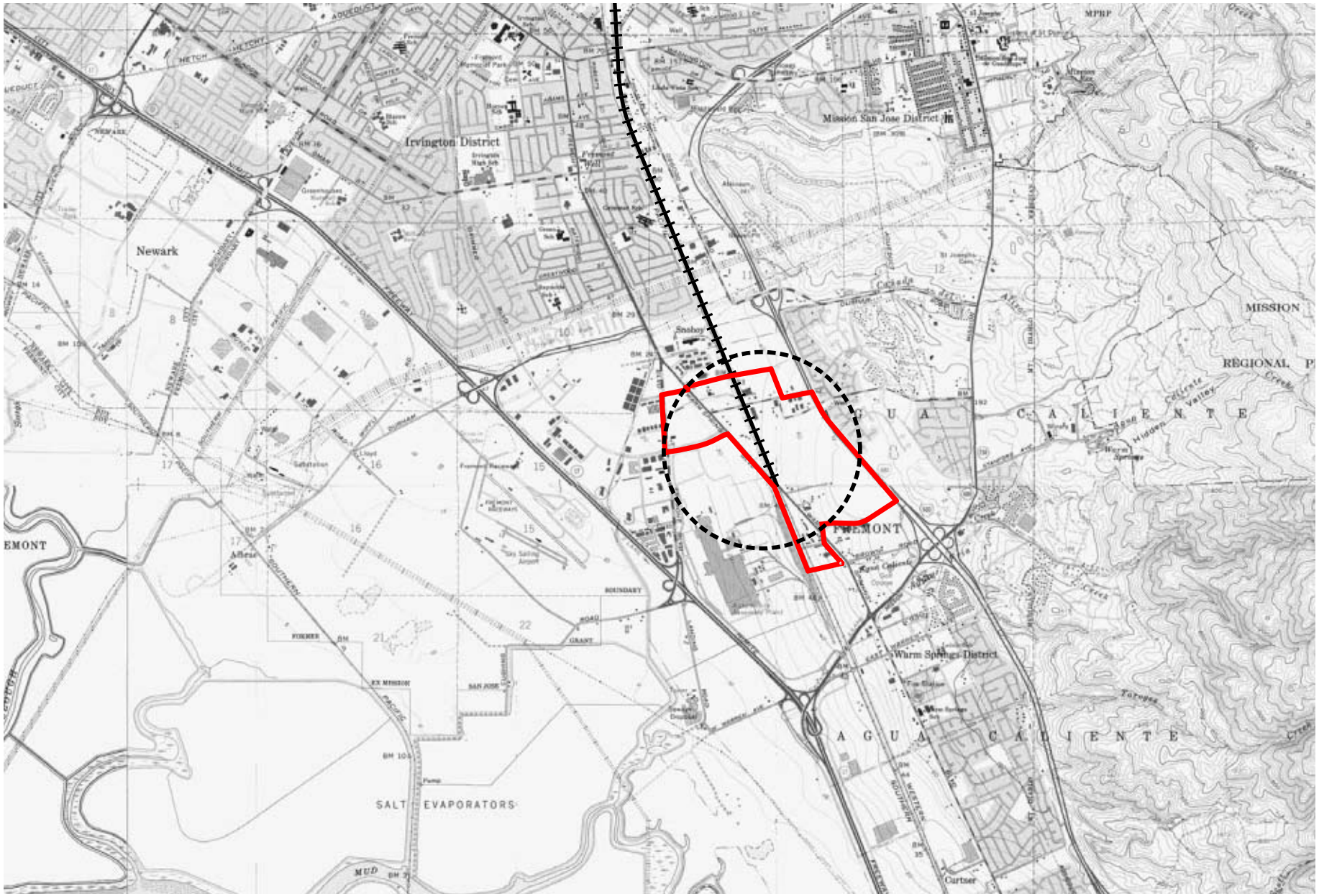


FIGURE 2: CITY-WIDE CONTEXT

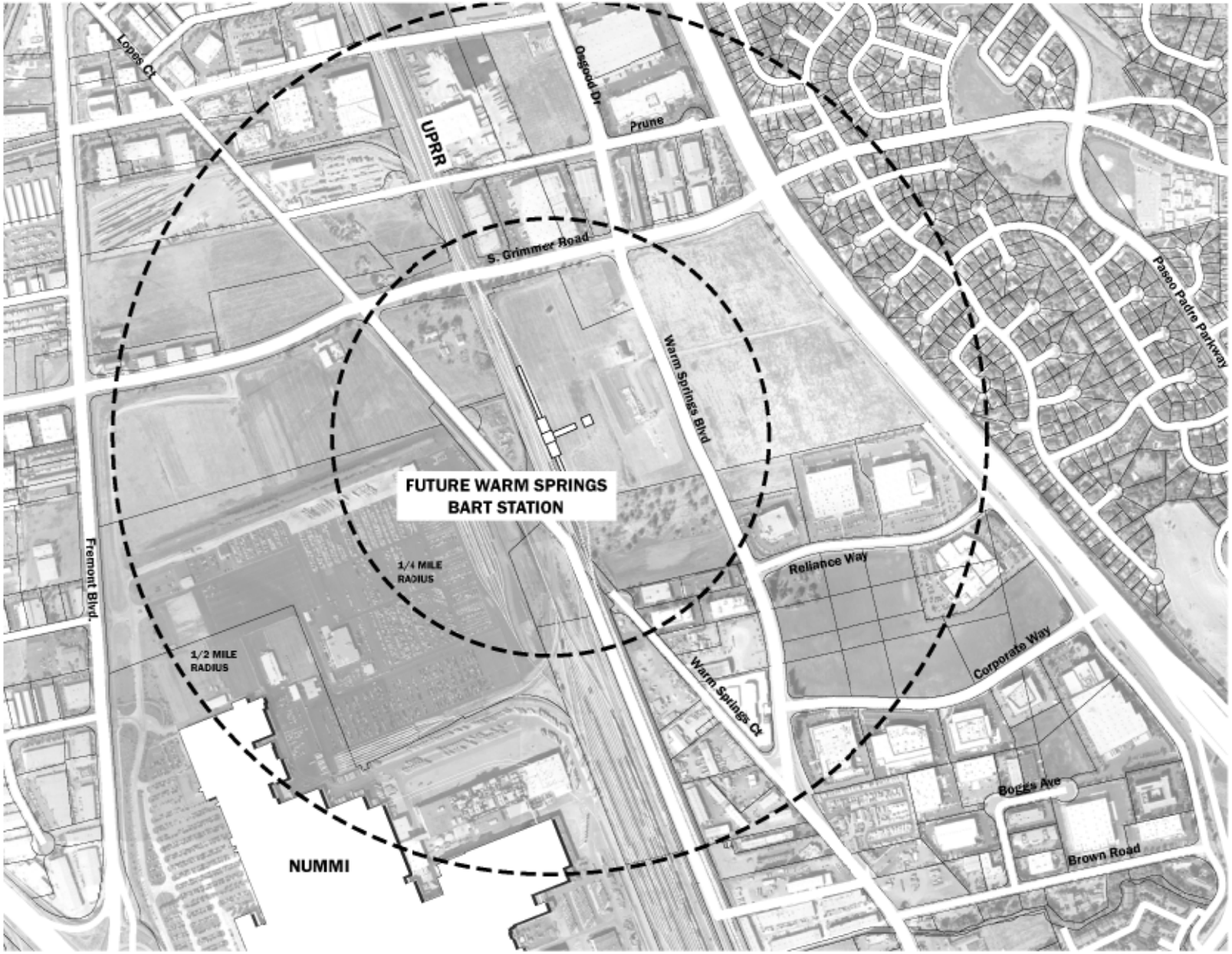


FIGURE 3: SPECIFIC PLAN PROJECT AREA

PROJECT GOALS

There are several perspectives on the future of the Warm Springs BART area, most importantly those of the City of Fremont and its citizens, BART, and local property owners.

City of Fremont Goals

The City of Fremont has undertaken to prepare a Specific Plan for the Warm Springs BART station area in response to a variety of factors, including ongoing development pressure and policy directions required for the BART station planning. The City has articulated the purpose of the Specific Plan, a definition of a Specific Plan, and Goals for the planning study as follows:

Purpose of the Specific Plan: To provide a vision for a well planned, transit-oriented community that capitalizes on the unique location of Fremont and the project site surrounding the proposed Warm Springs BART Station. Future development shall enhance the economic base of the City of Fremont by encouraging land uses that optimize market dynamics and long-term development trends for Fremont, the Silicon Valley and Northern California.

Specific Plan: Specific Plans are established by State law to allow local governments to guide the location, intensity and character of land uses. A Specific Plan typically contains: land uses, zoning and parking standards, circulation patterns, public facilities, park and open space areas, and infrastructure improvements. It also provides design guidelines and an implementation and funding program.

Goals of the Study: (In no priority order)

1. To define specific land uses and zoning for the long term build out of the area.
2. To provide a physical framework for streets, landscaping and public improvements that encourages high quality development and allows for change and intensification as market conditions change over time.
3. To provide design guidelines for future development and public improvements.
4. To incorporate transit oriented development (TOD) principles in land use, zoning and design guidelines for the area.
5. To maximize opportunities for ridership on BART by promoting high-intensity, transit-oriented development.
6. To provide a mechanism for planning and funding infrastructure improvements to facilitate development in the area.

Further discussion of the City's policies, regulations and guidelines as they relate to the Warm Springs BART Station Area are also found in the General Plan, Zoning Code, and other city documents. These are reviewed in more detail in the Planning Analysis section of this report.

BART Goals

BART has goals for all of its station areas that address a range of issues:

- Enhance customer safety and convenience
- Create an attractive, dynamic station area
- Increase ridership and revenue
- Take advantage of development opportunities and revenue generation for local jurisdictions
- Improve system and station operational efficiency.

To meet these general goals, in recent years BART has taken a strong interest in appropriate development on lands surrounding stations. The Warm Springs BART Specific Plan Area includes perhaps the largest amount of vacant or under utilized land of any of the sites proposed along the extension from downtown Fremont through San Jose. BART's interest is strong, therefore, in pursuing plans for higher intensity, transit-oriented development (TOD). BART's Strategic Plan states that "In partnership with the communities BART serves, we will promote transit ridership and enhance the quality of life by encouraging and supporting transit-oriented development within walking distance of BART stations." Further discussion of the characteristics of transit-oriented development are discussed in a subsequent section of this report: Transit Oriented Development Characteristics, Experience and Comparables.

Other Property Owner Perspectives

There are numerous property owners in the Warm Spring BART Specific Plan Area and the surrounding study area with concerns about the future, including BART itself. Each of these owners has a unique perspective and set of

issues regarding the short and long term disposition of its property. Interviews with several of the property owners in this area were conducted in an effort to understand future goals and interests of major stakeholders. Figure 5 illustrates the location of major stakeholders and those that were interviewed.

In general, property owners were interested in ensuring flexibility over the future development of their properties. Some owners expressed support for transit oriented development. Other land use ideas that came out of these interviews included the creation of a ballpark, major shopping and retail establishments, and mixed use housing and retail. Some of the participants were interested in maintaining existing industrial uses of their land.

New United Motors Manufacturing, Inc. (NUMMI) is particularly concerned about the potential encroachment of residential uses on industrial areas. Diesel exhaust, noise and vibration, paint odors and bright lights at late hours are among the potential issues associated with ongoing industrial uses such as NUMMI. Truck traffic generated by NUMMI is also a concern. NUMMI is, however, supportive of increasing ridership on BART and the extension of BART to San Jose.

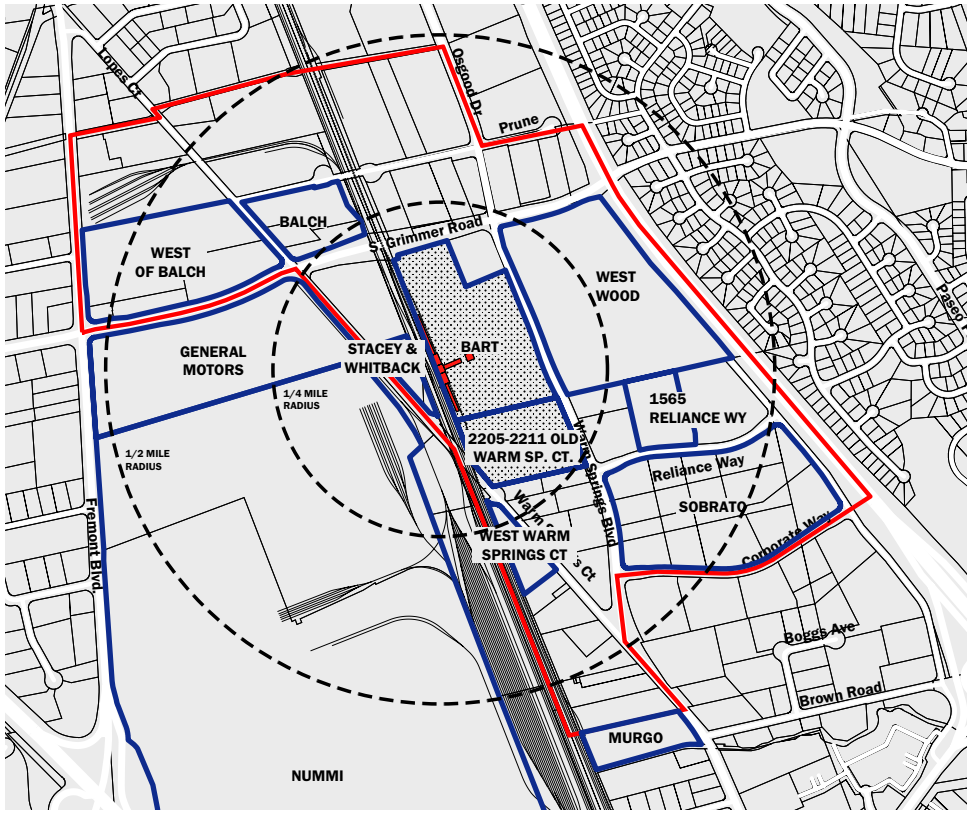


FIGURE 4: MAJOR STAKEHOLDERS IN THE SPECIFIC PLAN PROJECT AREA

PLANNING ANALYSIS

The Planning Analysis included in this section addresses the three topics required for a clear understanding of the opportunities and constraints associated with future development in the project area. These topics are the Real Estate Market, Land Use and Urban Design Considerations, and the Transportation Framework. Each topic is addressed below in some detail, with accompanying figures and tables.

MARKET ANALYSIS

Introduction

This section evaluates the market for various land uses in the vicinity of the proposed Warm Springs BART station in Fremont. Future demand is analyzed in the context of trends in the broad market area, which is defined to include the cities of Fremont, Newark, Union City, Milpitas, Sunnyvale, Santa Clara and San Jose. This section includes:

- A review of the Silicon Valley economy;
- A discussion of the strengths of the regional location;
- An overview of demographic trends in the market area;
- An analysis of current real estate market conditions and prospects for future development; and
- Projected demand for retail, office, research and development (R&D), hotel and housing development within the Warm Springs station area to the year 2025.

An Economy Based Upon Innovation

The Silicon Valley economy, which has powered the growth of Fremont during much of the past 20 years, has been built upon the increasing computing power of the microprocessor. Moore's Law suggests that computing power doubles every 18 months without an increase in cost. Computer processors are now nearly 30,000 times faster than those first introduced into commercial application some 30 years ago.

The recent economic downturn, which has led to the loss of nearly 80,000 jobs in Santa Clara County during 2001 and 2002, has led some developers and public officials to be pessimistic about the future of the valley. However, Silicon Valley has had periods of economic contraction and employment loss in the past; and a new round of economic resurgence has followed each period of contraction. The resurgence has been based upon innovation, resulting in new products and services. Even factoring in the recent recession, Santa Clara County has added an average of 12,400 new jobs per year since 1983 (Table 1).

With the strongest concentration of technology companies and technically sophisticated labor force to be found anywhere in the world, the Silicon Valley economy will once again rebound and move forward. The next cycle of growth will be based once again upon innovation, and innovation in Silicon Valley is a collective process. "Geographic proximity promotes the repeated interaction and mutual trust needed to sustain collaboration and to speed the continual recombination of technology and skill. When production is embedded in these regional social structures and institutions, firms compete by translating local knowledge and relationships into innovative products and services; and industrial specialization becomes a source of flexibility rather than atomism and fragmentation." (Regional Advantage: Culture and Competition in Silicon Valley and Route 128, Annelee Saxenian)

With each cycle of contraction followed by renewed expansion, the Silicon Valley economy is also undergoing long-term structural change. Like most urban area economies, this structural change reflects a decreasing dependence on manufacturing and an increasing tendency toward service employment (Figure 5). Because of high land, labor and housing costs, manufacturing companies that compete by using mature technology more cost effectively will tend to migrate to lower cost areas. Existing and new firms that will drive the economy forward are providing innovative products but more and more frequently new services. Services firms use office space rather than manufacturing or R & D space.

The challenges to the continued forward movement of this economy are lack of affordable housing, insufficient transportation infrastructure and shortage of community amenities. The Warm Springs BART station area enjoys a transportation rich location facilitating access to both the intellectual centers of Silicon Valley as well as the more affordable residential communities in Northern California. The Specific Plan process can be used to introduce new community amenities.

	Total Non Farm Employment			Manufacturing Employment			Services Employment			Business Services		
1983	715,000			263,200			167,300					
1984	759,700	44,700	6.3%	280,400	17,200	6.5%	179,400	12,100	7.2%			
1985	766,200	6,500	0.9%	273,200	-7,200	-2.6%	184,300	4,900	2.7%			
1986	757,100	-9,100	-1.2%	259,900	-13,300	-4.9%	186,000	1,700	0.9%			
1987	775,000	17,900	2.4%	256,100	-3,800	-1.5%	197,000	11,000	5.9%			
1988	803,700	28,700	3.7%	259,800	3,700	1.4%	208,500	11,500	5.8%	56,700		
1989	809,300	5,600	0.7%	262,500	2,700	1.0%	208,600	100	0.0%	56,400	-300	-0.5%
1990	814,500	5,200	0.6%	258,200	-4,300	-1.6%	214,400	5,800	2.8%	58,000	1,600	2.8%
1991	805,800	-8,700	-1.1%	251,500	-6,700	-2.6%	217,700	3,300	1.5%	59,000	1,000	1.7%
1992	792,100	-13,700	-1.7%	236,800	-14,700	-5.8%	226,600	8,900	4.1%	65,500	6,500	11.0%
1993	796,600	4,500	0.6%	231,700	-5,100	-2.2%	237,900	11,300	5.0%	74,200	8,700	13.3%
1994	799,900	3,300	0.4%	226,000	-5,700	-2.5%	245,100	7,200	3.0%	81,900	7,700	10.4%
1995	831,900	32,000	4.0%	231,200	5,200	2.3%	265,300	20,200	8.2%	96,200	14,300	17.5%
1996	879,900	48,000	5.8%	245,900	14,700	6.4%	283,900	18,600	7.0%	109,500	13,300	13.8%
1997	926,600	46,700	5.3%	258,200	12,300	5.0%	301,800	17,900	6.3%	120,600	11,100	10.1%
1998	956,300	29,700	3.2%	261,300	3,100	1.2%	317,800	16,000	5.3%	130,300	9,700	8.0%
1999	971,300	15,000	1.6%	250,700	-10,600	-4.1%	332,900	15,100	4.8%	139,600	9,300	7.1%
2000	1,030,000	58,700	6.0%	261,900	11,200	4.5%	366,400	33,500	10.1%	165,200	25,600	18.3%
2001	1,016,500	-13,500	-1.3%	254,000	-7,900	-3.0%	362,300	-4,100	-1.1%	153,800	-11,400	-6.9%
2002	950,500	-66,000	-6.5%	220,400	-33,600	-13.2%	342,200	-20,100	-5.5%	138,100	-15,700	-10.2%
AVG		12,395	1.6%		-2,253	-0.8%		9,205	3.9%		4,284	5.1%

Source: State Department of Employment Development

TABLE 1: ANALYSIS OF LONG TERM EMPLOYMENT GROWTH IN SANTA CLARA COUNTY

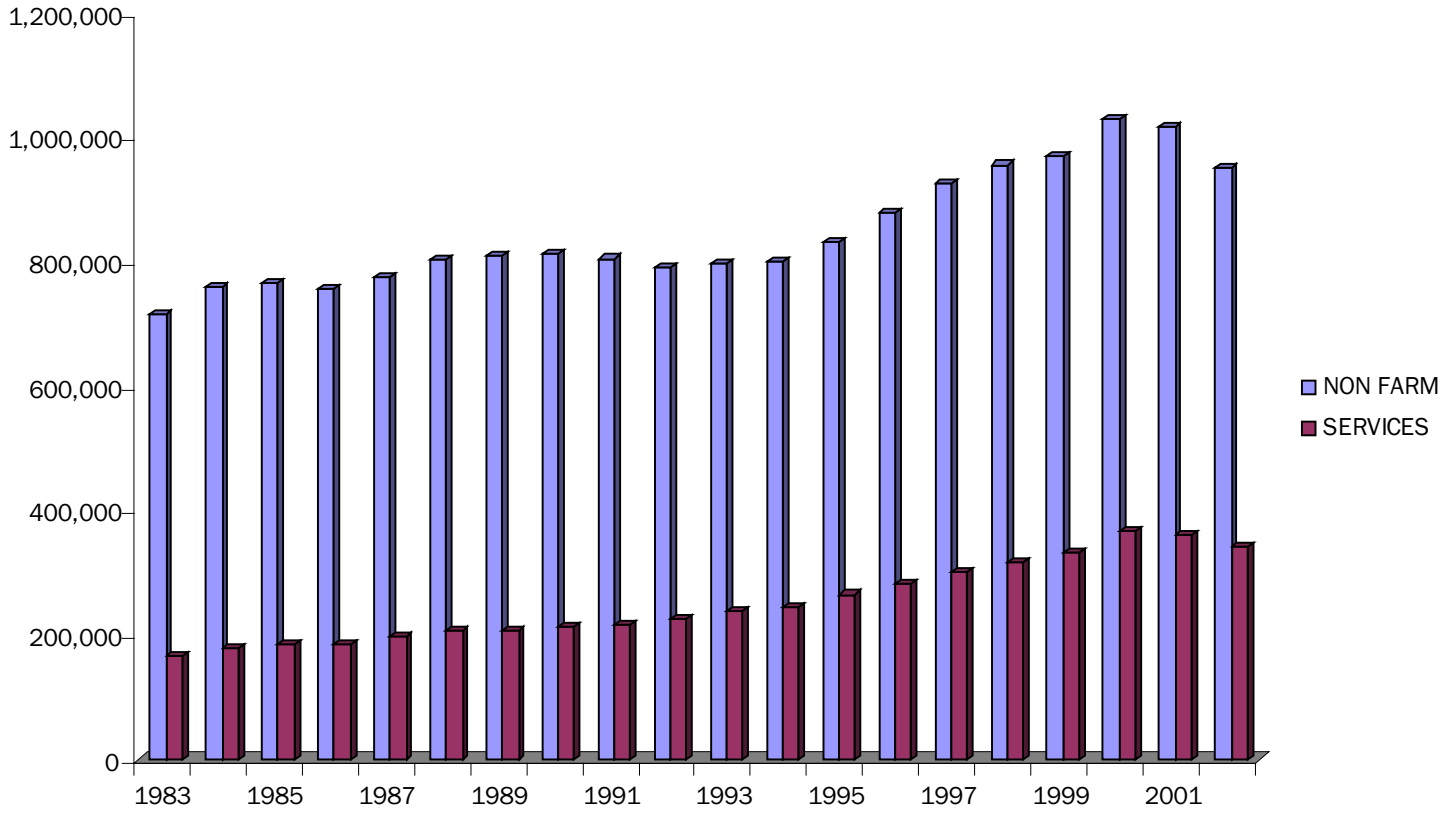


FIGURE 5: SANTA CLARA COUNTY EMPLOYMENT

Strengths of Warms Spring BART Regional Location

The Warm Springs BART station area enjoys excellent regional location due to its proximity to the regional freeway network and important employment and population centers. Located at the eastern edge of the Silicon Valley, the site is well located for future development particularly once BART service arrives to augment its already excellent freeway access. With Auto Mall Parkway on the north and Mission Boulevard on the south linking Interstate 880 (I-880) and Interstate 680 (I-680), the site offers good access to Oakland and San Francisco to the north, San Jose to the south and the Tri-Valley to the east. Highway 84 a few miles to the north, which is Thornton Avenue in Fremont, connects to Palo Alto to the west across the Dumbarton Bridge and the lower cost housing communities to the east such as Livermore and Tracy. With the recent widening of I-880 between Fremont and San Jose and the widening of U.S. Highway 101 (U.S. 101) south of San Jose, employers located in the Warm Springs area would be within reasonable commuting distances of communities in Monterey, Santa Cruz, San Benito, San Joaquin and Stanislaus Counties.

With completion of the Warm Springs BART extension, currently scheduled to open in 2009, this area will enjoy rapid transit connections to all of the Bay Area currently served by BART. As the system expands further into San Jose, transit access from the Warm Springs area will only improve.

Demographic Trends

A current forecast of population and employment was prepared for cities in southern Alameda and northern Santa Clara Counties, including Fremont, Newark, Union City, Milpitas, San Jose, Sunnyvale and Santa Clara (Table 2). The forecast is based on projections originally prepared by the Association of Bay Area Governments (ABAG) and the Silicon Valley Manufacturing Group, but adjusted by the recent population and employment data provided by the Bureau of Census and Bureau of Labor Statistics. The area population grew from about 1.3 million to 1.5 million between 1995 and 2000, and employment grew from about 716,000 to 841,000 during the same period. However, many parts of the greater Silicon Valley, including Fremont, have experienced population declined during the past two years. Over the longer term, growth in both population and employment are expected to continue (albeit most likely at a slower pace than during the boom years of the late 1990s). It is projected that the population of Fremont will grow to about 212,000 by 2005 and to nearly 238,000 by 2020.

The broad market area included about 873,000 jobs and 490,000 households during 2000 (Table 3). Between 1990 and 2000, the number of jobs grew faster than the number of households, as housing development did not keep up with employment growth. The jobs/housing ratio for the broad market area grew from 1.54 in 1990 to 1.78 in 2000. In Fremont, the jobs/housing ratio grew from 1.24 to 1.58 during the same period. The ratio tends to be highest in the heart of the Silicon Valley and decreases as one moves east and south (for instance, Union City had one job for every housing unit in 2000).

Currently only about 254 households live within one-half mile of the site (Table 4). Just over 1,900 households are within one mile of the site, and more than 23,000 households are within three miles. Incomes tend to be higher within one mile of the site. Within a one-half mile radius the population is predominately Asian (67 percent), and within a three-mile radius the population is 44 percent white, 42 percent Asian and about 14 percent Hispanic.

Market Overview

Following is a summary of market trends in retail, residential, office, R&D and lodging, which serve as the basis for the projections presented at the end of this section. This market analysis assumes that Warm Springs Boulevard will be upgraded into an urban boulevard with two lanes of through traffic plus a parking lane in each direction. The on- street parking is essential to the success of mixed-use development with an active pedestrian frontage.

Retail

The market area for retail analysis was defined as the cities of Fremont, Newark, Union City and Milpitas. Taxable sales in the four cities combined grew from $2.8 billion in 1990 to $6.2 billion in 2000, then fell to $5.6 billion in 2001 (Table 5). Taxable sales in Fremont doubled between 1990 and 2000, reaching 2.8 billion. Much of the new retail in Fremont has been on the western side of the city, including the Fremont Auto Mall and other new development along Auto Mall Parkway. Fremont's share of market area sales has remained relatively steady, at about 45 to 47 percent.

Retail has weathered the recession better than other types of commercial land uses in the Bay Area, prompting some developers to turn to retail devel-

	1995	2000	2001	2002	2003	2005	2010	2015	2020
Population									
Fremont	181,800	202,600	207,784	206,856	207,477	211,856	222,663	231,713	237,564
Newark	39,200	42,300	43,448	43,331	43,461	44,378	46,642	48,538	49,764
Union City	57,200	66,500	69,924	69,879	70,089	71,568	75,219	78,276	80,253
Milpitas	57,900	62,700	63,306	63,700	63,827	65,175	68,161	70,755	72,542
San Jose	825,300	893,300	906,183	900,443	898,642	917,611	959,653	996,184	1,021,339
Santa Clara	96,900	101,800	102,324	101,867	101,663	103,809	108,565	112,698	115,544
Sunnyvale	124,300	131,600	131,517	129,687	129,039	131,762	137,799	143,045	146,657
Total All Cities	1,382,600	1,500,800	1,524,486	1,515,763	1,514,198	1,546,159	1,618,702	1,681,209	1,723,662
Employment									
Fremont	97,305	107,961	108,642	108,281	110,230	114,908	129,375	142,142	149,392
Newark	20,765	23,039	23,184	23,107	23,523	24,521	27,608	30,333	31,880
Union City	28,048	31,119	31,315	31,211	31,773	33,121	37,291	40,971	43,061
Milpitas	26,646	31,747	31,037	28,371	27,520	28,156	31,856	35,172	36,966
San Jose	416,601	496,357	485,248	443,571	430,264	440,214	498,062	549,901	577,951
Santa Clara	55,742	66,414	64,927	59,351	57,570	58,902	66,642	73,578	77,331
Sunnyvale	70,829	84,388	82,500	75,414	73,152	74,843	84,678	93,492	98,261
Total All Cities	715,936	841,025	826,853	769,306	754,032	774,666	875,513	965,588	1,014,843

TABLE 2: ACTUAL AND PROJECTED POPULATION AND EMPLOYMENT
SOUTHERN ALAMEDA AND NORTHERN SANTA CLARA COUNTIES

SOURCE: ECONOMICS RESEARCH ASSOCIATES

	1990	1995	2000	2005	2010	2015	2020
Total Jobs							
Fremont	74,823	88,552	107,977	114,274	124,479	134,194	144,495
Newark	14,896	16,381	18,595	19,042	21,400	23,482	24,473
Union City	14,355	15,670	18,573	20,802	24,235	27,113	29,738
Milpitas	36,378	44,234	50,192	50,796	55,779	58,118	58,988
San Jose	311,782	361,132	419,786	419,501	449,805	481,081	501,443
Santa Clara	107,591	120,600	135,215	134,608	141,867	147,136	148,658
Sunnyvale	119,013	120,873	123,149	124,280	137,012	147,554	153,566
Total All Cities	678,837	767,443	873,486	883,303	954,577	1,018,677	1,061,361
Total Households							
Fremont	60,385	62,474	68,446	70,151	73,729	76,981	79,188
Newark	12,016	12,231	12,975	13,287	13,923	14,620	14,989
Union City	15,841	16,437	18,627	19,554	20,608	21,504	22,047
Milpitas	15,015	16,930	18,069	18,728	19,530	20,216	20,845
San Jose	252,760	263,254	280,031	285,860	299,892	313,265	323,209
Santa Clara	37,470	38,225	39,457	39,927	41,756	43,513	44,612
Sunnyvale	48,512	50,528	52,640	52,705	55,120	57,448	59,136
Total	441,998	460,079	490,247	500,212	524,558	547,547	564,026
Jobs/Housing Ratio							
Fremont	1.24	1.42	1.58	1.63	1.69	1.74	1.82
Newark	1.24	1.34	1.43	1.43	1.54	1.61	1.63
Union City	0.91	0.95	1.00	1.06	1.18	1.26	1.35
Milpitas	2.42	2.61	2.78	2.71	2.86	2.87	2.83
San Jose	1.23	1.37	1.50	1.47	1.50	1.54	1.55
Santa Clara	2.87	3.16	3.43	3.37	3.40	3.38	3.33
Sunnyvale	2.45	2.39	2.34	2.36	2.49	2.57	2.60
Total All Cities	1.54	1.67	1.78	1.77	1.82	1.86	1.88

TABLE 3: ACTUAL AND PROJECTED JOBS AND HOUSEHOLDS
SOUTHERN ALAMEDA AND NORTHERN SANTA CLARA COUNTIES

SOURCE: ECONOMICS RESEARCH ASSOCIATES

	Within 1/2 Mile	Within 1 Mile	Within 3 Miles
Population	836	6,502	73,147
Households	254	1,934	23,290
Average Household Size	3.3	3.4	3.1
White	223	2,107	31,867
Black	10	79	1,704
American Indian, Eskimo, or Aleut	1	12	389
Asian or Pacific Islander	558	3,858	30,815
Other	13	177	4,156
Hispanic Origin	36	464	9,941
Population Male	417	3,250	36,605
Population Female	419	3,251	36,542
Median Household Income	$125,531	$139,319	$96,792
Average Household Income	$159,974	$185,576	$119,801
Per Capita Income	$48,744	$55,174	$38,241

TABLE 4: MARKET OVERVIEW
WARM SPRINGS BART STATION AREA, 2003

SOURCE: ESRI

Year	Milpitas	Newark	Union City	Fremont	Total	Fremont Share of Total
Total Sales						
1990	$568,751	$545,992	$319,914	$1,397,946	$2,832,603	49.4%
1995	$958,002	$669,350	$528,174	$1,842,193	$3,997,719	46.1%
1996	$1,086,664	$703,549	$604,977	$2,100,060	$4,495,250	46.7%
1997	$1,230,379	$800,620	$610,988	$2,344,443	$4,986,430	47.0%
1998	$1,182,138	$885,186	$588,244	$2,313,888	$4,969,456	46.6%
1999	$1,333,503	$981,062	$586,654	$2,406,937	$5,308,156	45.3%
2000	$1,591,328	$1,104,739	$646,205	$2,847,001	$6,189,273	46.0%
2001	$1,345,741	$1,005,308	$633,219	$2,609,749	$5,594,017	46.7%
Per Capita Sales						
1990	$11.24	$14.43	$5.96	$8.09	$9.00	
1995	$16.55	$17.08	$9.23	$10.13	$11.89	
1996	$18.58	$17.88	$10.50	$11.43	$13.25	
1997	$20.71	$20.09	$10.36	$12.48	$14.41	
1998	$19.60	$21.88	$9.55	$11.96	$13.97	
1999	$21.58	$23.41	$9.11	$12.17	$14.51	
2000	$25.38	$26.12	$9.72	$14.05	$16.54	
2001	$21.26	$23.14	$9.06	$12.56	$14.55	

TABLE 5: TAXABLE SALES IN FREMONT, NEWARK AND UNION CITY
ALL OUTLETS, IN THOUSANDS OF DOLLARS

SOURCE: CALIFORNIA STATE BOARD OF EQUALIZATION, US CENSUS BUREAU

opment strategies in the short term. The housing market, which is playing catch up after a decade of accelerated job growth, has fueled new retail development opportunities. In Fremont, Catellus Development Corporation recently shifted the Pacific Commons mixed-use project from a plan that included mostly office and hotel uses to one centered on retail development. Currently, about 850,000 square feet of shops and restaurants are planned on an 80-acre site within the entire 370-acre complex. The project is expected to include a variety of retail development, including big box retailers such as Lowe's and a new department store for Northern California, Kohl's, as well as mid- and small-size retailers.

Despite recent growth, Fremont remains underserved for retail, with a significant amount of local retail spending occurring in towns to the north and south, including Newark and Milpitas. However, the logical location for new big box and other retail with a regional draw is at sites with better freeway access, such as along Auto Mall Parkway and Mission Boulevard. Thus, it is projected that future demand for retail within the Specific Plan Project Area will consist primarily of convenience and service retailers that serve a local market. Demand for these types of retail will increase along with housing and employment growth at the site.

The potential demand for a cinema complex at the site was also investigated. Currently, there are two first-run movie theaters within five miles of the planned Warm Springs BART station (The Cinedome 7 West and the Cinedome 8 East), with a combined 15 screens. Residents of the area also have access to the Century 25 Theater in Union City and the Naz 8, which shows international films. Based upon the population within a five-mile radius that is able to support 18 screens, it does not appear that there is sufficient demand to warrant development of another cinema complex in the project area.

Housing

The late 1990s economic boom stimulated a significant amount of housing development in the Fremont area. Annual single-family permits grew from 281 in 1990 to a high of 815 in 1997 (Table 6). The number of multifamily permits also peaked in 1997 at 694 units. Since 1997, the pace of residential construction has slowed steadily. A similar trend was observed in other South Bay cities, as the economy cooled and land for residential construction became increasingly scarce. New single-family homes in Fremont were considered very desirable during the late 1990's because they offered a relatively short commute to Silicon Valley employment, were modern and large in size, and offered access to the highly regarded Fremont school district. Overall, an average of 609 housing units were permitted in Fremont between 1990 and 2002. Most of the multifamily development consisted of town homes and apartments targeting young professionals priced out of Silicon Valley.

During the second quarter of 2003, the median house price was $530,000 in the San Jose Metropolitan Area. It is estimated that only about one quarter of households can afford to own a median priced home in the region, despite historically low mortgage interest rates.

The Bay Area rental market appears to be stabilizing after two years of declining rents and rising vacancy rates. The San Jose apartment market has suffered more than other parts of the area, due to higher job losses and many new apartment buildings that have come on line since 2000. With the exception of San Jose, most Bay Area cities are beginning to see rents rise once more.

Fremont apartment rents tend to be slightly below San Jose (Table 7). Local rents reached their peak in 2001 fueled by the dot-com boom but fell sharply in 2002, and then continued to decline in 2003. This decline was due in part to growth in the number of units on the market, as over 1,800 new units were permitted in San Jose in 2001, and another 1,300 in 2002. Occupancy rates in Fremont fell from a high of 98.9 percent in 2000 to 94.5 percent in 2003.

Apartment rents are expected to continue to decline in San Jose, but at a less dramatic pace than previously. Despite the recent declines, rents remain high relative to most other parts of the country, and occupancy rates remain relatively high. The number of apartment units planned for construction is down, which should help to keep rents from falling significantly. The apartment market has benefited from high home prices, which prices a number of households out of the ownership market. Notably, prices for apartment buildings have not fallen as much as rents, because they are seen as a good long-term investment given the historic housing affordability gap in the Bay Area and because investment in real estate has grown in popularity relative to the stock market.

As discussed previously, studies show that despite the regional economic

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	YTD 2003	Annual Average	Average 98-02	Average 93-97
Single Family[1]																	
Fremont	281	286	273	173	471	436	468	815	537	435	235	85	99	80	334	278	473
Newark	38	73	46	68	89	32	0	25	68	81	107	61	53	0	53	74	43
Union City	208	110	203	170	144	131	341	483	592	254	340	127	88	55	232	280	254
Milpitas	286	374	295	145	165	119	171	151	133	68	17	4	3	0	138	45	150
Santa Clara	43	86	46	116	89	49	55	213	177	41	107	74	484	114	121	177	104
Sunnyvale	127	97	89	140	162	88	38	18	47	138	59	11	26	42	77	56	89
San Jose	283	636	895	776	902	830	2,240	2,332	1,975	1,599	1,328	551	562	606	1,108	1,203	1,416
TOTAL	1,266	1,662	1,847	1,588	2,022	1,685	3,313	4,037	3,529	2,616	2,193	913	1,315	897	2,063	2,113	2,529
Multifamily[2]																	
Fremont	277	455	72	99	494	233	266	694	608	123	317	110	4	100	275	232	357
Newark	8	4	2	0	0	0	0	318	0	0	0	0	0	0	24	0	64
Union City	0	0	0	0	0	0	9	125	45	0	157	0	0	6	24	40	27
Milpitas	516	0	64	0	0	0	69	306	0	161	221	392	0	0	124	155	75
Santa Clara	460	236	0	0	72	17	268	48	276	485	34	487	57	558	214	268	81
Sunnyvale	227	40	318	2	183	97	273	1,078	102	30	424	168	0	123	219	145	327
San Jose	1,780	1,404	554	1,536	1,118	1,081	1,892	2,040	2,888	2,016	3,131	2,928	1,902	2,644	1,922	2,573	1,533
TOTAL	3,268	2,139	1,010	1,637	1,867	1,428	2,777	4,609	3,919	2,815	4,284	4,085	1,963	3,431	2,802	3,413	2,464
Total																	
Fremont	558	741	345	272	965	669	734	1,509	1,145	558	552	195	103	180	609	511	830
Newark	46	77	48	68	89	32	0	343	68	81	107	61	53	0	77	74	106
Union City	208	110	203	170	144	131	350	608	637	254	497	127	88	61	256	321	281
Milpitas	802	374	359	145	165	119	240	457	133	229	238	396	3	0	261	200	225
Santa Clara	503	322	46	116	161	66	323	261	453	526	141	561	541	672	335	444	185
Sunnyvale	354	137	407	142	345	185	311	1,096	149	168	483	179	26	165	296	201	416
San Jose	2,063	2,040	1,449	2,312	2,020	1,911	4,132	4,372	4,863	3,615	4,459	3,479	2,464	3,250	3,031	3,776	2,949
TOTAL	4,534	3,801	2,857	3,225	3,889	3,113	6,090	8,646	7,448	5,431	6,477	4,998	3,278	4,328	4,865	5,526	4,993

TABLE 6: RESIDENTIAL BUILDING PERMITS, 1990 TO 2003

[1]Single family housing includes detached, semi-detached, rowhouse and townhouse units. Rowhouses and townhouses are included when units are separated by a ground-to-roof party or firewall. Condominiums are included in single-family when they are of zero-lot-line or zero-property line construction; when units are separated by an air space; or, when units are separated by anunbroken ground-to-roof party or fire wall.

[2]Mulitfamily housing includes duplexes, 3 to 4 unit structures, apartment buildings with five units or more, and condominium units in structures of more than one living unit that do not qualifyas single-family housing under the above definition.

SOURCE: CONSTRUCTION INDUSTRY RESEARCH BOARD

Year	Fremont Rent	Fremont Occupancy	San Jose Rent	San Jose Occupancy
1996	$910	98.2%	$977	97.0%
1997	$1,010	96.6%	$1,089	97.0%
1998	$1,106	94.2%	$1,195	94.7%
1999	$1,171	95.6%	$1,236	95.6%
2000	$1,506	98.9%	$1,608	98.6%
2001	$1,542	95.6%	$1,662	94.3%
2002	$1,323	94.8%	$1,362	91.7%
2003	$1,238	94.5%	$1,272	92.2%

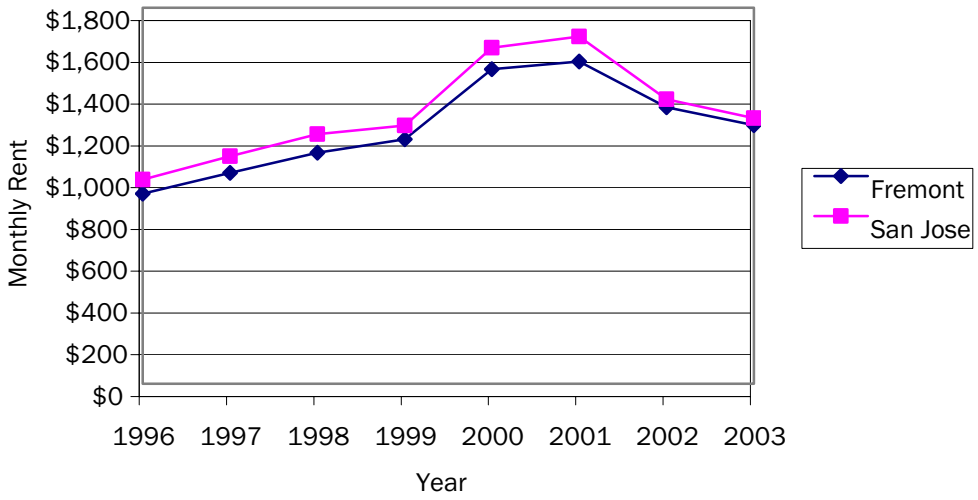


TABLE 7: FREMONT AND SAN JOSE APARTMENT RENTS

SOURCE: REALFACTS

downturn, housing remains in short supply relative to demand in the Silicon Valley. Housing construction did not keep pace with job growth during the 1990's, and housing affordability will continue to be an issue as the economy recovers. Most of the long-term regional population growth is expected to occur in the 20 to 24 and 55 and older age groups. Meanwhile, the number of persons aged 25 to 54, which generally supplies most of the demand for single family units, is expected to remain fairly level until 2010, then decline. These trends suggest a shift toward demand for higher density units and rental units.

While the Warm Springs BART station area is dominated by industrial and commercial uses, some of the sites that do not directly abut industrial uses could be excellent sites for housing development. These projects would benefit from good highway access, as well as BART service.

Office

Fremont is positioned at the edge of the Silicon Valley office market, and local demand for office space is dependent upon the Silicon Valley economy. During the late 1990s and 2000, employment growth caused very high rents and low vacancy rates in the Silicon Valley area. This prompted developers to build a large amount of new office space. The total square footage of space grew from about 42 million square feet to 53 million square feet between 1990 and 2002, an increase of 28 percent (Table 8). Vacancy rates reached an all-time low of 1.9 percent in 2000. The combination of the economic downturn and continued office development led to very poor office market conditions beginning in 2001, characterized by extremely high vacancy rates and very low asking rents. The vacancy rate was 25 percent as of mid-2003, and many brokers believe the market has finally reached the bottom.

As employment rises once more, demand for office will increase, but not at the unprecedented pace seen during the late 1990's. Absorption was projected in the Silicon Valley office market to determine how long it might be before demand for office space returns to the Fremont area. It is expected that the Silicon Valley office vacancy rate will not fall below ten percent until around 2010, at which point new development may occur (Figure 6). Once demand for new office space returns, the Warm Springs Station Area with appropriate infrastructure investment could become a very strong location for office development. At that point in time, office development will likely command higher land values than any other use. Successful office location depends upon peak hour access to a large labor pool. The Warm Springs Station Areas enjoys excellent regional labor force access because of its proximity to both I-880 and I-680 in addition to new BART service. Employers at this location are able to benefit from selecting their work force from a very large labor pool, ranging from scientists living in Palo Alto to executives living in Alamo or assembly workers living in Salinas or Modesto.

Notably, in the near term, many developers in the Silicon Valley have converted their plans for office development to residential and/or retail uses. This will reduce the supply of land available for new office development in the future, making the Warm Springs BART station area an even more desirable location for office development.

Research and Development

Fremont is one of the centers for research and development (R&D) in the Bay Area. The city has about 21,683,000 square feet of R&D space, or about 22 percent of R&D in southern Alameda and northern Santa Clara counties (Table 20). The Bay Area R&D market has suffered along with the office market during the past few years. Currently, area vacancy is about 29 percent (as of the third quarter of 2003). The highest vacancy rates are in Newark (28.0 percent), Santa Clara, (27.1 percent), and Fremont (24.6 percent). Average asking rates are currently about $1.00 per square foot. Given high vacancies, it is projected that the R&D market will take nearly as long as the office market to rebound. By that time, most land values in the station area will likely be too high to warrant R&D development, which tends to be single-story and land-intensive. Consequently, it is anticipated that demand for R&D space in the Warm Springs station area will be relegated to locations that are not appealing for office or higher density residential development if permitted.

Lodging

The Fremont lodging industry expanded during the late 1990's, stimulated by growing numbers of business travelers coming to the Silicon Valley. Several new hotels were built in the Fremont area, many offering limited service or executive suites. This growth can be seen in historic room revenues, which rose dramatically during the late 1990's (Table 9 and Figure 7). Fremont experienced substantial growth in lodging revenues, but still represents only a small fraction of the total area lodging market (approximately 6 percent).

At the national level, the hospitality industry has been hard hit by declining consumer spending resulting from the recent recession, as well as reduced

Year Ending	New Construction	Inventory	Occupied	Available	Previously Occupied	Unimproved Space	Gross Absorption	Net Absorption	Vacancy Rate	Net Abs. as % of Occupied
1988	818,000	40,722,000	34,132,000	6,591,000	4,023,000	2,568,000	5,327,000	2,235,000	16.2%	6.5%
1989	492,000	41,214,000	35,178,000	6,035,000	4,385,000	1,651,000	4,248,000	1,047,000	14.6%	3.0%
1990	466,000	41,680,000	35,669,000	6,011,000	4,586,000	1,425,000	3,252,000	490,000	14.4%	1.4%
1991	238,000	41,918,000	35,593,000	6,325,000	5,548,000	777,000	4,257,000	(76,000)	15.1%	-0.2%
1992	166,000	42,084,000	35,792,000	6,292,000	5,733,000	559,000	3,926,000	199,000	15.0%	0.6%
1993	0	42,084,000	36,132,000	5,952,000	5,595,000	357,000	4,053,000	340,000	14.1%	0.9%
1994	0	42,084,000	36,791,000	5,293,000	5,117,000	176,000	4,258,000	659,000	12.6%	1.8%
1995	262,000	42,346,000	38,979,000	3,367,000	3,255,000	112,000	5,622,000	2,188,000	8.0%	5.6%
1996	546,000	42,892,000	40,833,000	2,060,000	1,918,000	142,000	5,269,000	1,854,000	4.8%	4.5%
1997	1,079,000	43,971,000	41,840,000	2,132,000	1,586,000	546,000	4,312,000	1,007,000	4.8%	2.4%
1998	1,661,000	45,633,000	42,631,000	3,002,000	2,337,000	665,000	5,466,000	791,000	6.6%	1.9%
1999	729,000	46,362,000	44,699,000	1,663,000	1,442,000	221,000	6,791,000	1,968,000	3.6%	4.4%
2000	454,000	46,816,000	45,950,000	866,000	0	0	6,880,000	2,818,000	1.9%	6.1%
2001	6,219,000	53,035,000	42,174,000	10,862,000	0	0	8,302,000	(322,000)	20.5%	-0.8%
2002	240,000	53,275,000	41,288,000	11,987,000	0	0	0	(885,000)	22.5%	-2.1%
Annual Average	891,000	44,408,000	39,179,000	4,747,000	0	0	5,140,000	1,086,000	11.6%	2.7%

TABLE 8: SILICON VALLEY OFFICE MARKET (INCLUDING FREMONT)
AVAILABILITY AND ABSORPTION TRENDS

SOURCE: COLLIERS INTERNATIONAL

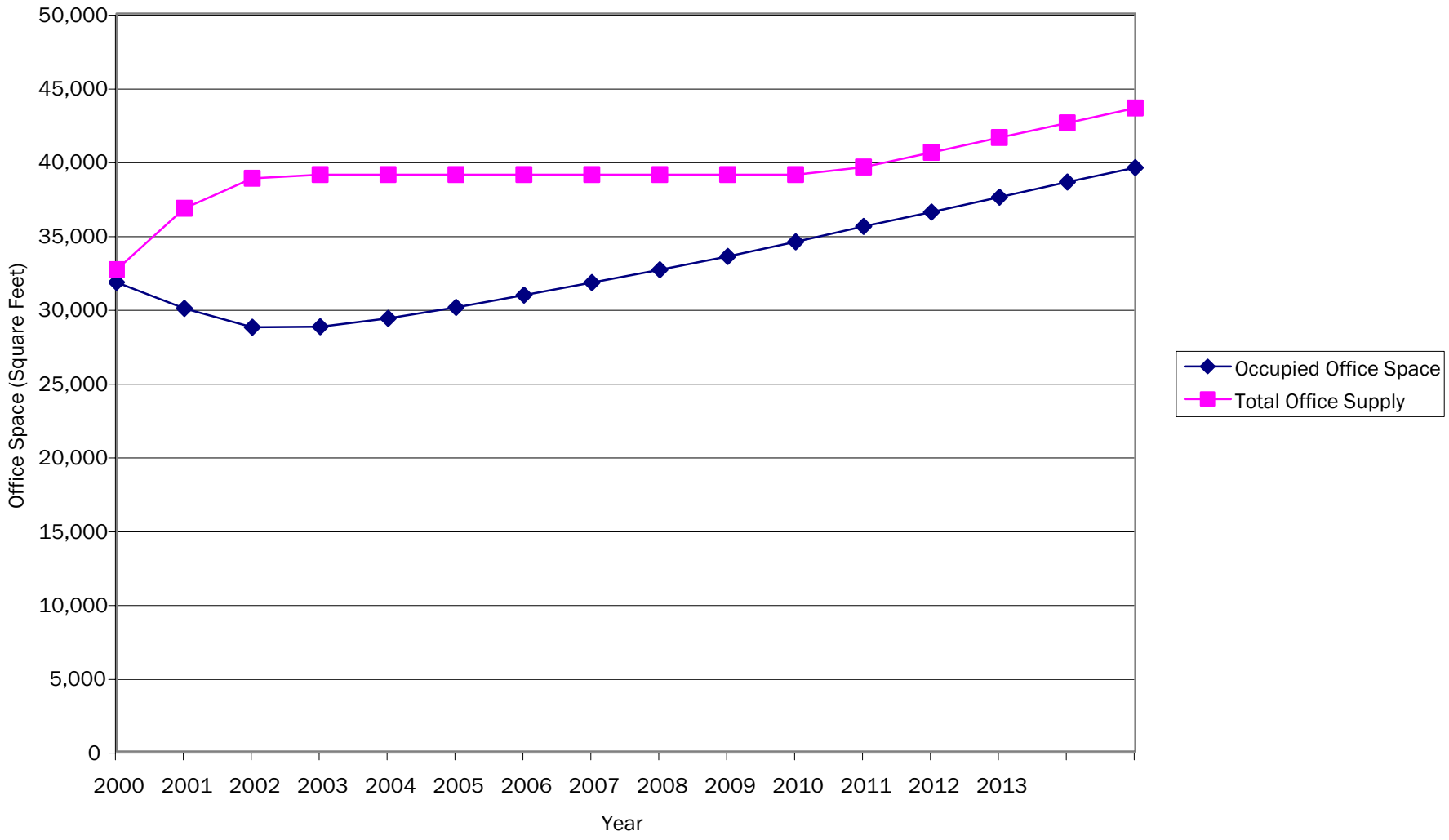


FIGURE 6: TOTAL OFFICE SUPPLY AND OCCUPIED SPACE IN THE SILICON VALLEY, 2000 TO 2015

City	Total Building Base	Percent of Total	Available Square Feet	Vacancy Rate	Average Asking Rate
Union City	933,446	1%	74,725	8.0%	$0.96
Newark	2,571,492	3%	720,741	28.0%	$0.95
Fremont	21,682,747	22%	5,323,765	24.6%	$0.99
Sunnyvale	22,663,625	23%	4,524,792	20.0%	$1.09
Santa Clara	22,530,720	22%	6,115,125	27.1%	$1.10
San Jose	41,594,318	41%	9,817,689	23.6%	$1.03
Milpitas	13,813,630	14%	2,924,776	21.2%	$1.07
Total	100,602,293	100%	29,501,613	29.3%	n/a

TABLE 9: RESEARCH AND DEVELOPMENT SPACE
SOUTHERN ALAMEDA AND NORTHERN SANTA CLARA COUNTIES
SECOND QUARTER 2003

SOURCE: BT COMMERCIAL

City	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Fremont	$8,650	$9,213	$11,625	$14,138	$16,463	$19,800	$20,963	$41,763	$52,638	$27,450
Newark	$12,160	$10,253	$10,880	$14,147	$17,627	$20,920	$19,387	$24,387	$34,107	$26,307
Union City	$2,094	$2,318	$2,518	$3,247	$4,153	$4,224	$4,106	$6,282	$9,706	$6,565
Milpitas	$19,975	$22,450	$18,413	$31,213	$37,163	$48,550	$59,500	$79,100	n/a	n/a
San Jose	$77,990	$88,340	$97,670	$120,470	$145,360	$175,520	$182,030	$206,810	$255,080	$169,980
Santa Clara	$50,274	$55,000	$60,105	$75,189	$88,579	$108,284	$109,242	$120,589	$156,011	$98,874
Sunnyvale	$40,812	$40,988	$46,024	$58,953	$71,682	$85,565	$89,012	$82,271	$125,882	$73,682
Total	$211,955	$228,562	$247,234	$317,356	$381,026	$462,862	$484,239	$561,202	$633,423	$402,857
Fremont Share of Total	4.1%	4.0%	4.7%	4.5%	4.3%	4.3%	4.3%	7.4%	8.3%[1]	6.8%[1]

TABLE 10: AREA LODGING ROOM REVENUES, 1993 TO 2002
FOR FISCAL YEAR ENDING JUNE 30 ($000'S)

SOURCE: DEAN RUNYAN ASSOCIATES

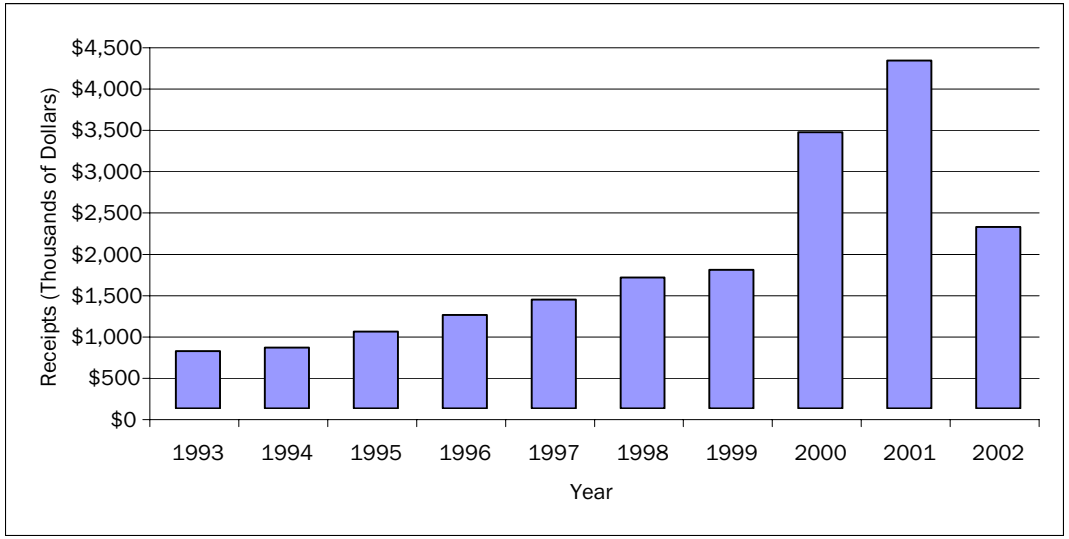


FIGURE 7: FREMONT LODGING ROOM REVENUES, 1993 TO 2002

SOURCE: DEAN RUNYAN ASSOCIATES

traveling after September 11, the US war with Iraq and the SARS epidemic. Nevertheless, room rates and occupancy rates are expected to improve during 2004. The Silicon Valley hospitality industry has been particularly hard hit due of the regional economic downturn and declining business travel spending. The area has been impacted by reduced business trips as businesses have cut spending and relied increasingly on technological improvements in communication such as videoconferencing. Some economists believe that there has been a permanent shift downward in demand since September 11, 2001, especially for air travel destinations. Consequently, demand for new lodging units in the Warm Springs area will begin in 2011, concurrent with demand for new office space and R & D space. Visibility from the freeways and proximity to the freeway interchanges will be important considerations for hotel location. A prominently improved Warm Springs Boulevard, with office and possibly higher density residential development, will be a viable location for business oriented hotel development when the market returns.

Demand Forecast

Potential demand for the land uses discussed above was projected in the general project area (within about ½ mile of the Warm Springs BART station site), to the year 2025 (Table 11). Generally, land values are expected to increase over time, stimulating demand for higher density uses, especially office and residential. Notably, these are also the uses that benefit from proximity to the BART station.

In the near term, demand exists primarily for residential uses. Between 2003 and 2010, demand for about 300 units of small lot single-family homes, 300 apartments and 100 condominium units is expected. Between 2011 and 2025, an additional 540 apartments and 260 condominiums will be expected.

Beginning around 2010, the office, R & D and hotel markets are expected to recover, and the Warm Springs area could become a prime location for employment development given its strong regional location and the new BART extension. Local office and R & D development will also generate demand for new lodging facilities on sites that are visible from the freeway and offer good access.

Because office uses support higher land values than other uses when rents are high, no major or “big box type” of retail development will occur once demand for office returns. Limited new retail development will be built as parts of mixed-use projects to service the local office and/or residential population. Meanwhile, the proximity to the new BART station will tend to encourage higher-density apartments and condominiums. However, once the office market returns, the higher land values supportable by office development will tend to push the residential and R & D uses toward the less prominent locations unless public regulatory policy (such as the Specific Plan) determines otherwise.

	2003-2005	2006-2010	2011-2015	2016-2020	2021-2025	Total 2003-2025
Retail (SF)	0	0	45,000	20,000	40,000	105,000
Office (SF)	0	0	500,000	700,000	600,000	1,800,000
R&D (SF)	0	45,000	120,000	80,000	50,000	295,000
Lodging (Units)	0	0	150	250	100	500
Residential (Units)						
Small Lot/Single Famil	100	200	0	0	0	300
Apartment	120	180	240	180	120	840
Condo	50	50	80	80	100	360
Densities (FAR)						
Retail	0.20	0.25	mixed use	mixed use	mixed use	
Office	0	0	0.60	0.90	1.10	
R&D	0	0	0.25	0.30	0.35	
Lodging (Units/Acre)	0	0	50	50	50	
Residential (Units/Acre)						
Small Lot/Single Famil	8	8	0	0	0	
Apartment	40	44	50	50	50	
Condo	32	36	42	44	44	

TABLE 11: MARKET DEMAND FORECAST -- WARM SPRINGS BART STATION AREA (NOT PLAN OR POLICY RECOMMENDATION)

SOURCE: ECONOMICS RESEARCH ASSOCIATES

PLANNING/URBAN DESIGN ANALYSIS

HISTORY OF THE WARM SPRINGS BART STATION AREA

(City/Chandler to provide)

EXISTING LAND USES AND POLICIES

Today, the Warm Springs BART Specific Plan Project Area includes almost exclusively industrial uses and undeveloped land (Figure 9). Directly adjacent to the BART station area are smaller industrial buildings including flex R&D users, small manufacturing facilities, warehouses, parking lots, and storage facilities. A heavily used Union Pacific freight rail corridor bisects the site adjacent to the proposed BART station.

A number of parcels in the area are currently undeveloped, including parcels located on the east side (a 35 acre parcel) and west side (including a 107 acre parcel) of the proposed Warm Springs BART Station. The large size of these parcels provide a unique opportunity to guide development of the Specific Plan Project Area as they involve the coordination and action of a single land-owners who can plan and develop the properties in a comprehensive manner. The Specific Plan area includes over 50 individual properties. Major landowners include the following:
Westwood: 36 acres
BART: 36 acres
Sobrato: 33 acres

Outside of the Specific Plan Project Area but in the larger study area, lie a variety of uses. The nearby developed area located on the east side of I-680 is dominated by single-family housing that ranges from four to ten dwelling units per acre. This neighborhood is largely buffered from the industrial neighborhoods to the west by the freeway. Similarly, the area bounded by Mission Boulevard/SR 262 on the north, I-680 on the east side and Warm Springs Boulevard on the west side mostly contains residential developments. An AmeriSuites Hotel is located on Warren Avenue and a Marriott Hotel is located on the west side of I-880.

The major development and employment center in the area is the New United Motors Manufacturing, Inc. (NUMMI). The NUMMI site is located east of Kato Road and south of Grimmer Boulevard. NUMMI currently employs a total of 5700 employees and occupies approximately 250 acres.

Other major developments in the general area include Fry's Electronics located at the intersection of Auto Mall Parkway/Osgood Road, Skyway Business Center on Osgood Road south of Auto Mall Parkway, and Sunnyvale Lumber at the intersection of Old Warm Springs Boulevard/Tavis Place. A shopping center complex is located at the intersection of Mission Boulevard/ Warm Springs Boulevard. A large scale retail center (Home Depot, REI store, City Beach recreational facility, and other commercial uses) was recently constructed at the intersection of Auto Mall Parkway/Fremont Boulevard.

Since this area has historically been reserved for industrial use, schools, parks and local serving retail are largely absent within the study area.

The City of Fremont General Plan (Figure 10) currently designates two primary land uses in the study area: Restricted Industrial (R) between I-680 and Warm Springs Boulevard, and General Industrial (G) to the west of Warm Springs Boulevard. This is with the exception of the site identified for the establishment of the Warm Springs BART Station, which is designated as a BART station (B) and Public (P) use. This site is located on the southwest quadrant of the intersection of Grimmer Boulevard/Warm Springs Boulevard (excluding a small corner property at the intersection).

The 1991 City of Fremont General Plan allows consideration of converting certain land uses under specified conditions. Relevant sections of the City's General Plan include:

- Designated industrial areas shall be reserved for industrial uses and related commercial activities. However, the City may consider General Plan amendments to convert industrially designated land to an alternative use.....conversion of the site would not substantially affect viability of existing and future nearby industrial uses (Policy LU 3.9).
- Proposed non-industrial commercial uses in industrially designated areas shall be subject to discretionary review (Policy LU 3.3).
- Non-industrial use....must be appropriate for the location. In particular conversion to residential uses shall have sufficient neighborhood services including parks, schools, and neighborhood commercial uses. Alternatively, the proposed residential uses shall be near an existing residential area having sufficient neighborhood services to serve the

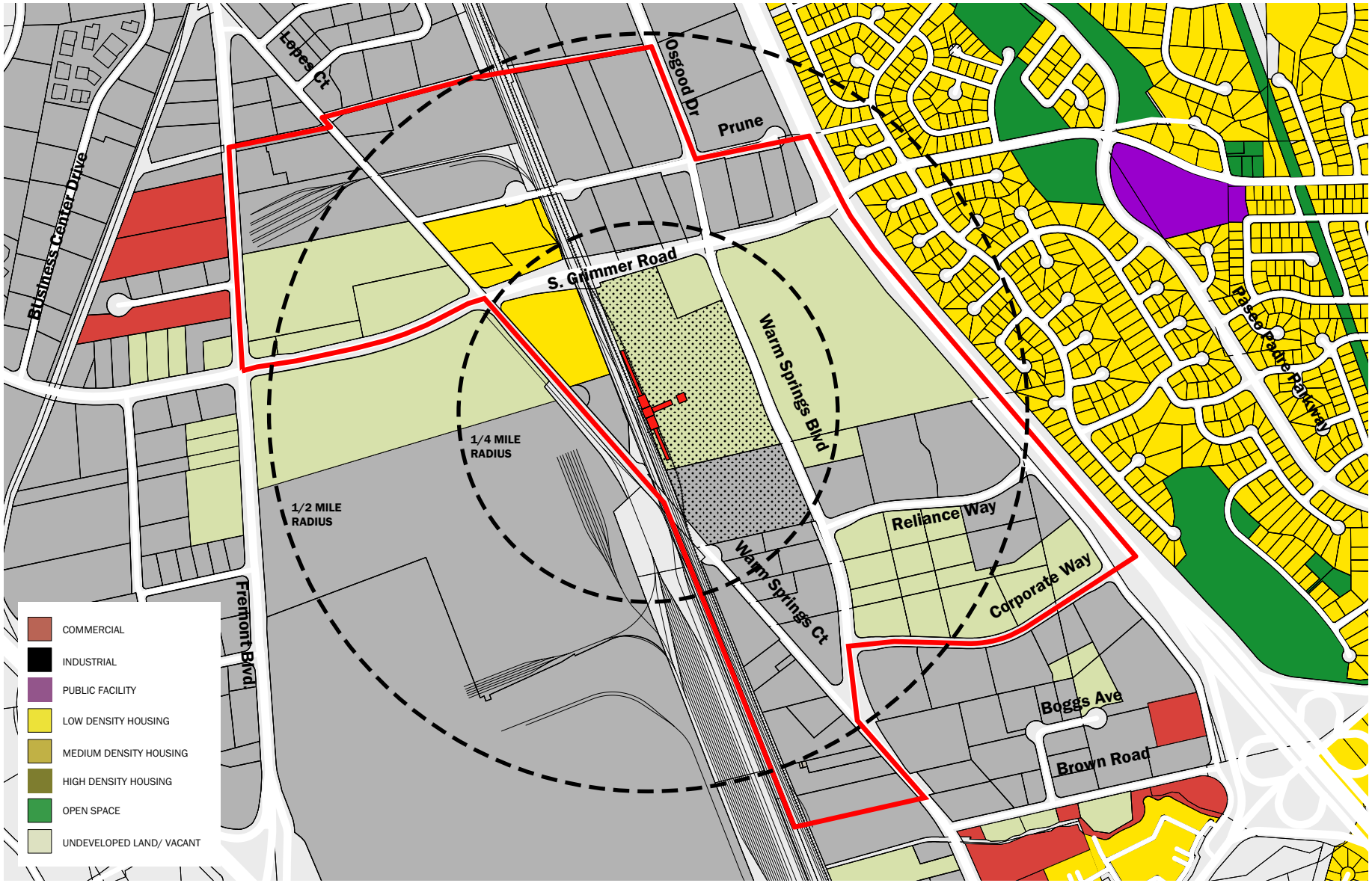


FIGURE 8: EXISTING LAND USES

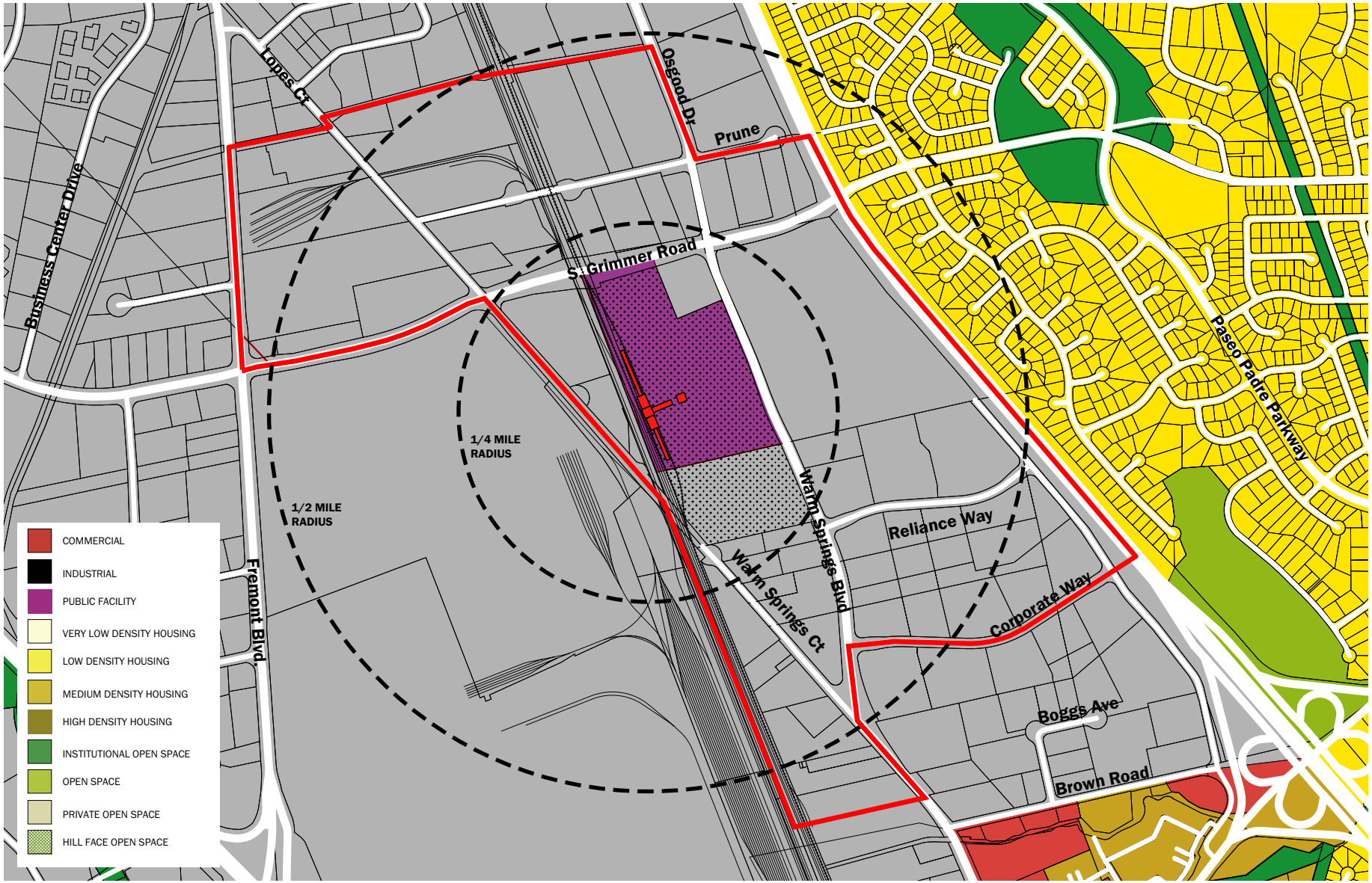


FIGURE 9: GENERAL PLAN LAND USE DESIGNATIONS

proposed conversion area without significant negative impacts on those services (Policy LU 3.9).

- Changes in land use to residential shall not occur unless noise factors affecting the potential residential land use can be mitigated as so to meet the noise standards found in the Health and Safety chapter of the Plan and unless light factors can be mitigated to eliminate glare onto proposed residential uses (Policy LU 3.9).
- Conditions shall be established to ensure the health, safety and welfare of recreational users and limit impacts on nearby industries (Policy LU 3.4).

Consideration of future land uses in the Specific Plan Project Area must be concerned with the nature of the resulting development and its relation to surrounding land uses and neighborhoods. Changes from industrial to other uses may result in a somewhat isolated neighborhood or employment center. This situation may be mitigated through other area land use and circulation framework changes that would better link the Warm Springs station area with other Fremont districts such as Irvington to the north. It will also be important to consider the availability, location and fiscal implications of services that would be needed to serve a new residential or employment center.

EXISTING ZONING

As illustrated in Figure 11 the Specific Plan Project Area includes four zoning districts, the P-F, P-2000-268, G-I and I-R districts. The P-F designation allows the public facilities associated with public transit, as well as parks, colleges and other public-owned facilities. The P district requires adoption of a precise plan, specifying standards for development to facilitate desirable development and redevelopment in the city. The intent of the G-I district is "to provide areas for general industrial, manufacturing, wholesale and other related service uses needed by the city and the region." Residential uses are specifically prohibited in the G-1 district. The I-R district is intended "to provide [an] area devoted to research and development activities such as product development, engineering, sales and administration, as well as light manufacturing and wholesale uses." Residential uses are also specifically prohibited in the I-R district.

These zoning designations have historically preserved this area for manufacturing and industrial uses and have protected the ability of existing users, such as NUMMI, to continue their manufacturing activities in the area. The industrial land use designations in the Project Area are in conflict with best practices for mixed use development within ½ mile of a major transit facility, which had not been envisioned at the time of these designations. As discussed in the Market Analysis section, the current real estate market will not deliver significant industrial development in this area for some time to come. The industrial designations also do not facilitate office development of the type that could, over time, be attracted to this highly visible and highly accessible Silicon Valley location.

APPROVED AND PENDING DEVELOPMENTS

The 2003 Supplemental Environmental Impact Report (SEIR) prepared for the BART Warm Springs Extension (BART WSX) identified the following list of approved developments in the study area.

Approved:

- Trumark Development: This project site is located south of Grimmer Boulevard and is approved to contain 594,000 square feet of research and development uses.

- Skyway Business Center: Located in the vicinity of the intersection of Skyway Court and Osgood Road. The project was approved to contain 103,000 square feet of industrial uses.

- Pacific Commons: This is a relatively large development to be located west of I-880 and south of Auto Mall Parkway. The development is planned to contain 8,316,000 square feet of industrial and commercial uses. Recently a portion of this development was approved for a major retail center as described in the Market Overview section of this report.

Pending:

- Six Buildings: To be located on Auto Mall Parkway near Technology Drive. This project proposes the development of 175,000 square feet of industrial uses.

- Five Buildings: Proposed for establishment in the vicinity of the intersection of Fremont Boulevard/Old Warm Springs Boulevard. This

ILLUSTRATION 10: ZONING DISTRICTS

pending development would contain 92,000 square feet of industrial uses.

- Wal-Mart: Planned for development at the Osgood Road/Skyway Court intersection. This Wal-Mart would contain 197,000 square feet of commercial use.

- Fremont MRF: Proposed for establishment on Boyce Road near Auto Mall Parkway, with a capacity of 1700 intake tonnage.

EXISTING CITY SERVICES: FIRE, POLICE, SCHOOLS AND PARKS

(City to provide additional information, discussions of limitations and implications.)

AS SHOWN IN fIGURE 12, there are no existing parks in the project area. East of I-680, there are several neighborhood parks, private open spaces and a golf course facility. West of I-880, there are large tracts of protected wetland open spaces.

There are no existing schools within the Specific Plan Project Area. Existing schools are located over ½ mile away from the BART area to the north, east and south of the site. These schools are nearing capacity.

Fire and police service are provided _____.
Limitations on these facilities include: _____.

INFRASTRUCTURE CAPACITY

City to provide additional information, discussion of limitations and implications.

SITE CONTAMINATION IN THE STUDY AREA

Figure 13 indicates addresses of parcels for which there is a record of site contamination.

(City to provide additional information, discussion of limitations and implications.)

SITE CHARACTERISTICS

Other characteristics of the study area will effect the ultimate configuration of land uses.

Views: The project area is located between the foothills to the east and the wetlands and water areas of San Francisco Bay to the west. Views of the foothills are immediate and vivid, with variations corresponding to the changing seasons. These views are among the most impressive in the Fremont area.

In addition, however, it is possible to view the Bay and the west bay hills, especially from an elevated point of view, as would occur with taller buildings on the site.

Wind: Prevailing winds are from the west, mostly from the northwest but also occasionally from the southwest.

(City: conclusions as to impacts from NUMMI plant to discuss here?)

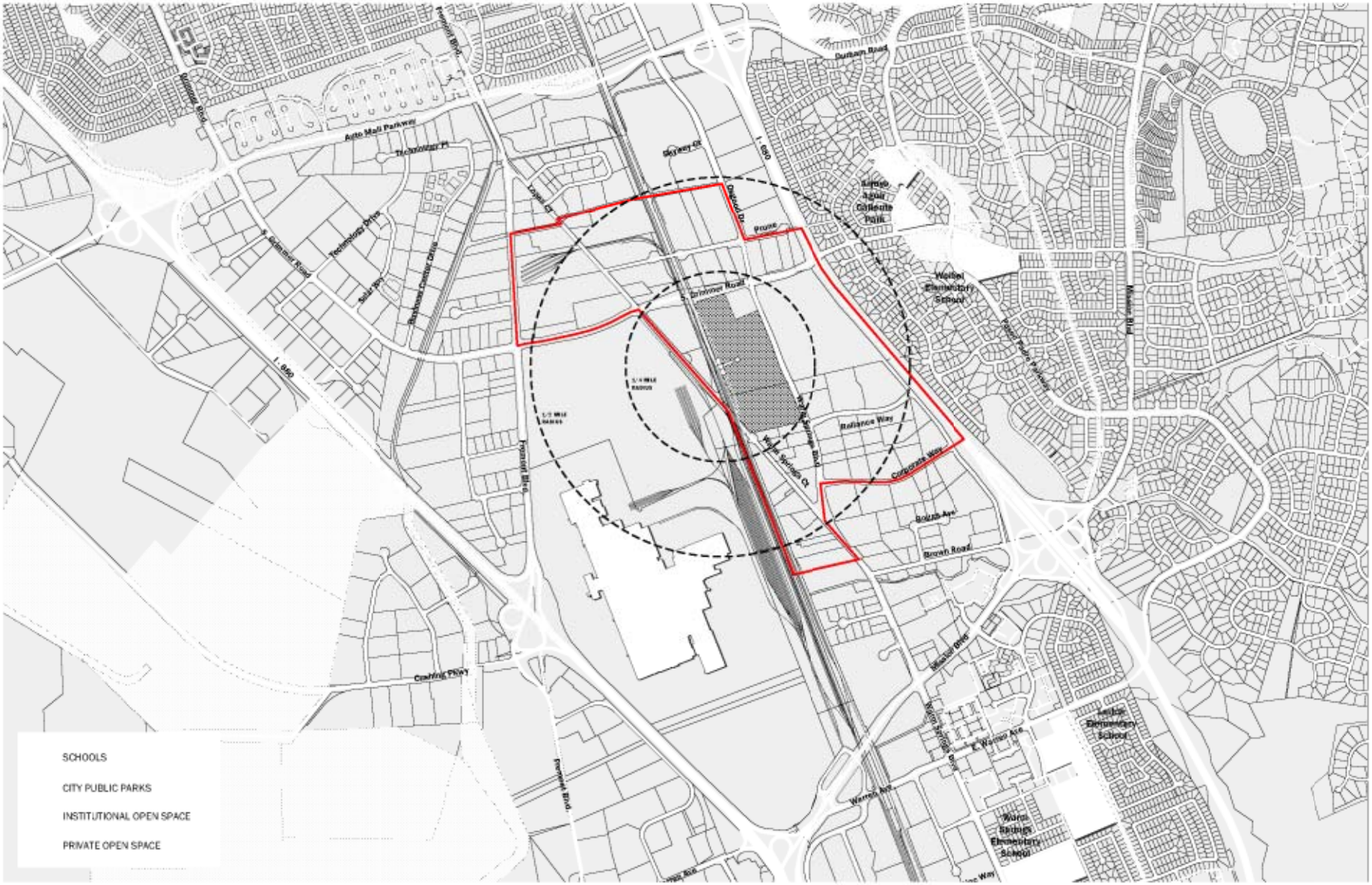


FIGURE 11: PARKS, OPEN SPACE, AND SCHOOLS

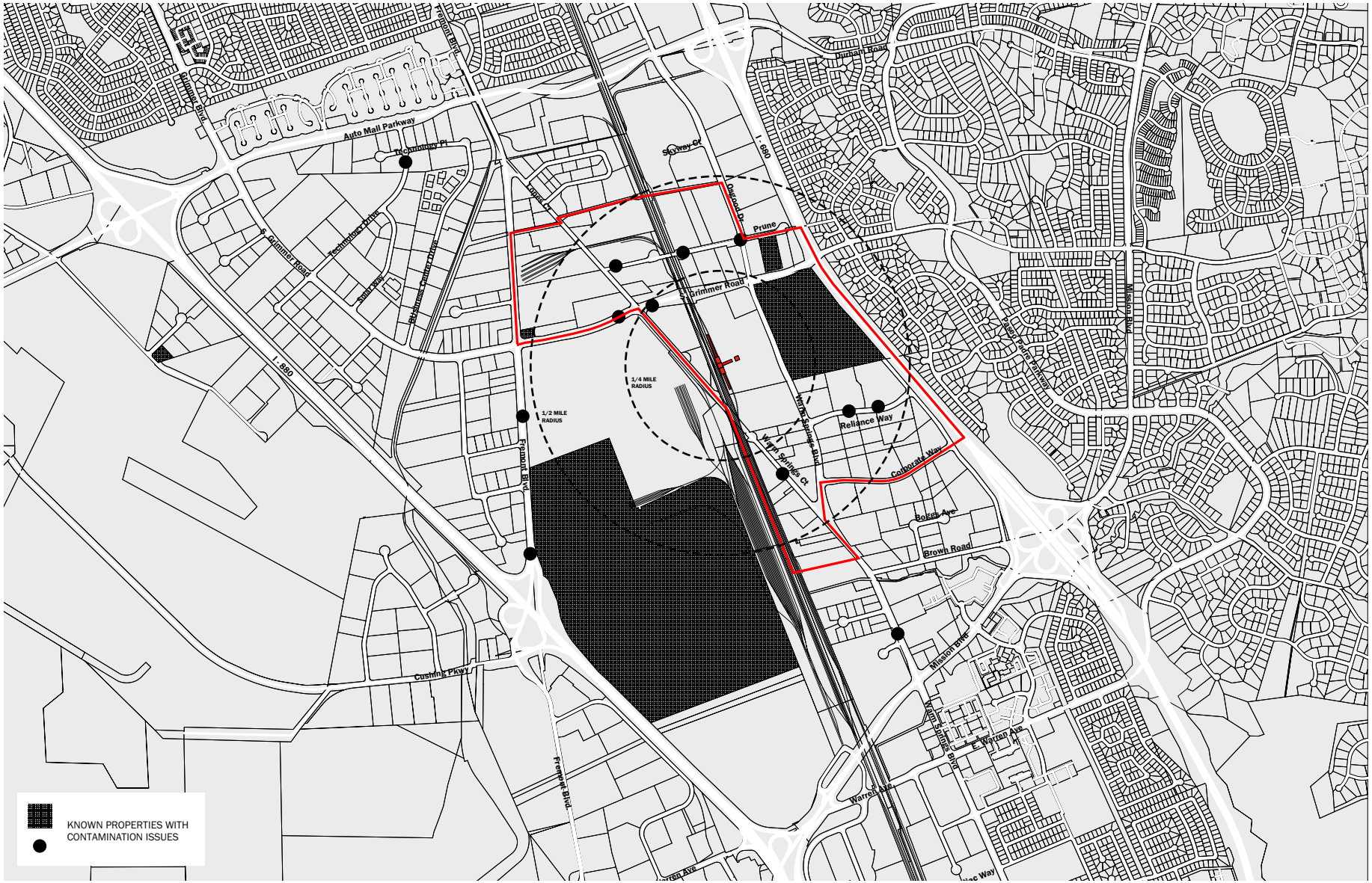


FIGURE 12: CONTAMINATED PROPERTIES

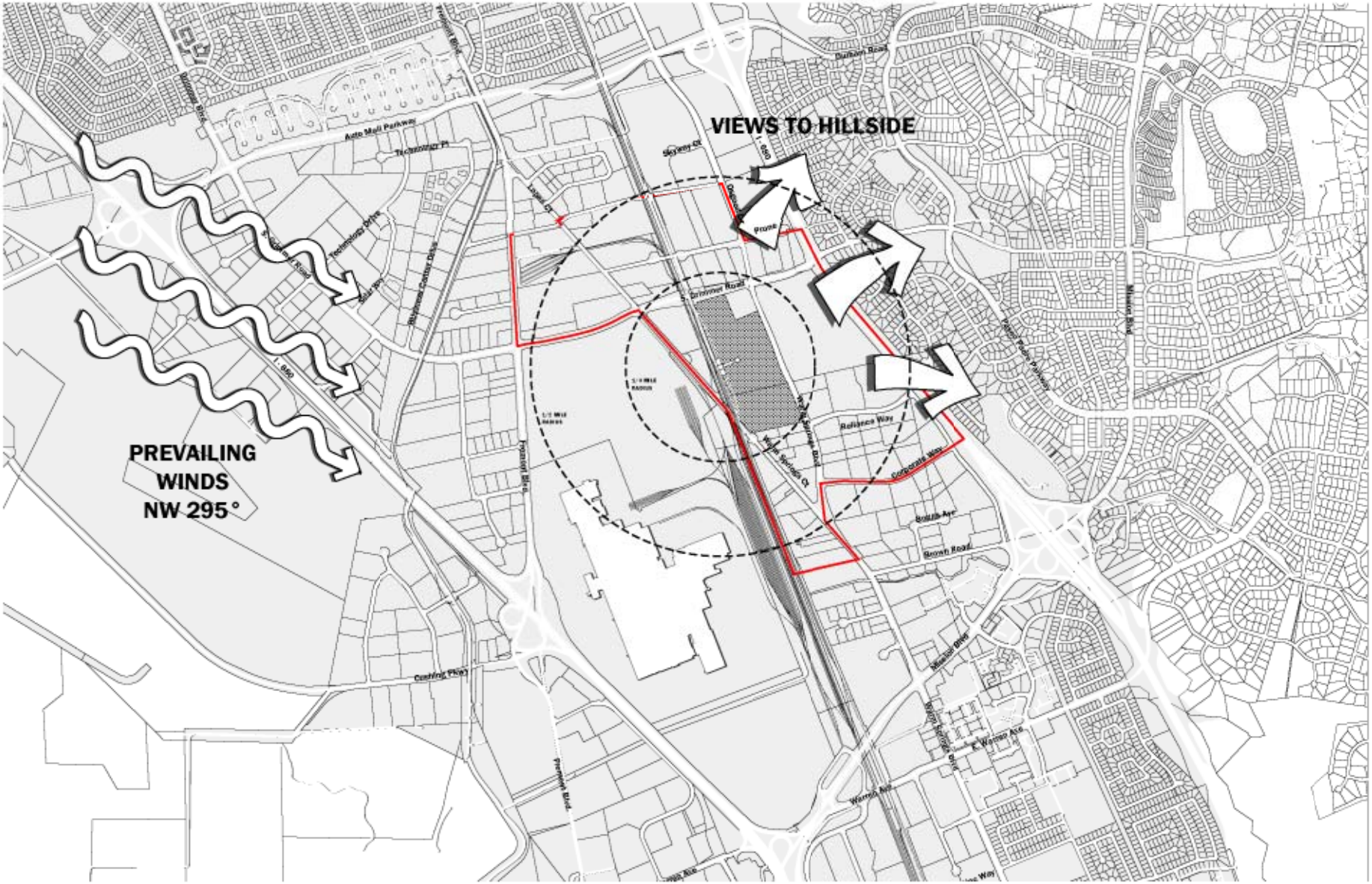


FIGURE 14: SITE CHARACTERISTICS

TRANSPORTATION ANALYSIS

This section describes the existing transportation system conditions in the Warm Springs BART Area Specific Plan Project Area and surrounding study area. The area identified for review is bounded by Auto Mall Parkway on the north, I-680 on the east, Mission Boulevard/State Route 262 on the south, and I-880 on the west. In addition to the existing conditions review, this report also summarizes key transportation system opportunities and constraints as they relate to the Specific Plan.

Like most suburban communities, Fremont's transportation system and pattern of land development in the study area were planned around the use of passenger vehicles and trucks.

General Roadway Classification

The following is a general description of the different roadway classifications as defined in the 1991 City of Fremont General Plan (changes in roadway classification may be considered as part of this Warm Springs BART Area Specific Plan).

- Freeway: High speed and high capacity facilities with grade-separated intersections. Freeways are intended to meet the need for longer trips.
- Expressway: Has medians dividing opposing traffic, has no or very few private driveways, and could have grade separated intersections.
- Arterials: Movement is the primary function of arterial roadways, which typically meet the demand for longer and through trips within a community. An arterial may be divided by a median and typically has two to three lanes per direction.
- Parkway: A parkway functions as an expressway or an arterial, but is designed to have park-like quality with more landscaping and openness/setbacks.
- Collector: Provides both access and movement with residential, commercial, and industrial areas. Collectors serve relatively short trips and collect trips from local streets and distribute them to the arterial network.
- Local: The primary function of local streets is land access, and they serve trips traveling to and from the collector and arterial network.

Area Roadway Network

Main roadways serving local and regional traffic in the study area are described below:

I-680: This is an interstate freeway located along the easterly side of the Specific Plan area. The subject segment of I-680 is a six lane facility that runs north-south. Caltrans recently completed a High Occupancy Vehicle (HOV) lane in the southbound direction between the interchanges of I-680 with SR 237 and SR 84. Last year, an auxiliary lane was completed in the southbound direction between the interchanges of I-680 with Auto Mall Parkway and SR 262. There are plans to establish a HOV lane in the northbound direction when funding becomes available.

I-880: This interstate freeway travels north-south along the westerly boundary of the Specific Plan study area. It is an eight-lane facility with HOV lanes in the northbound and southbound directions.

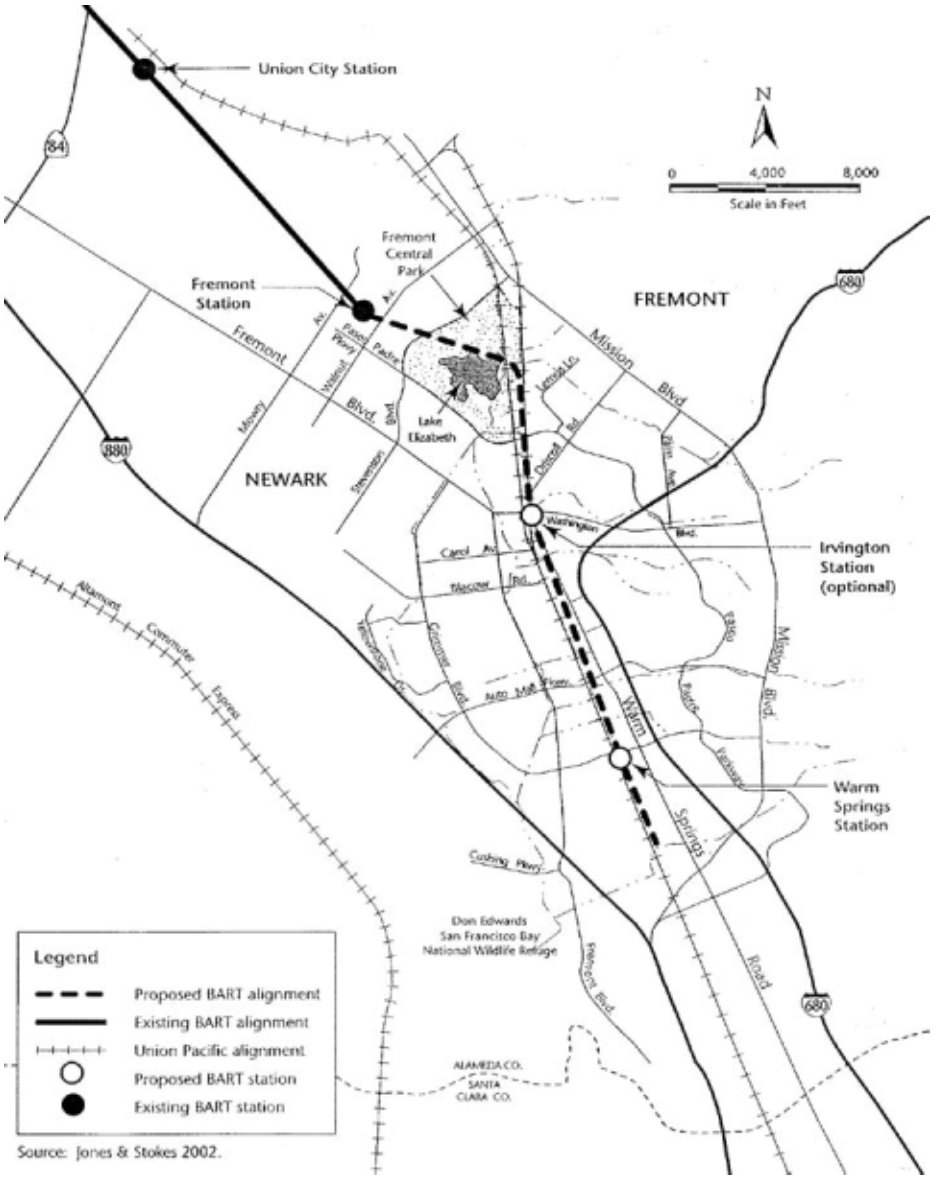
Mission Boulevard/SR 262: State Route 262 is located along the southerly boundary of the study area. It is a four-lane facility that connects between the interchanges with I-680 and I-880.

Auto Mall Parkway: The northerly boundary of the Specific Plan area is Auto Mall Parkway, which is an arterial roadway that runs east-west with interchanges with I-680 and I-880. This is a four to six-lane facility that was recently removed from the designated truck routes network.

Fremont Boulevard: This is a four to six-lane arterial that serves as a primary north-south circulation route within the City of Fremont. Adjacent to the Specific Plan study area, Fremont Boulevard meets I-880 at a grade-separated interchange.

Grimmer Boulevard: West of I-680, Grimmer Boulevard is a four-lane arterial. It is expected that it would serve as a main access road to the proposed Warm Springs BART station.

Warm Springs Boulevard/Osgood Road: This is a north-south arterial that varies from two to four-lane roadway cross sections. The roadway changes names at Grimmer Boulevard. Osgood Road is located to the



Source: Jones & Stokes 2002.

FIGURE 14: AREA ROADWAY NETWORK & PLANNED BART EXTENSION

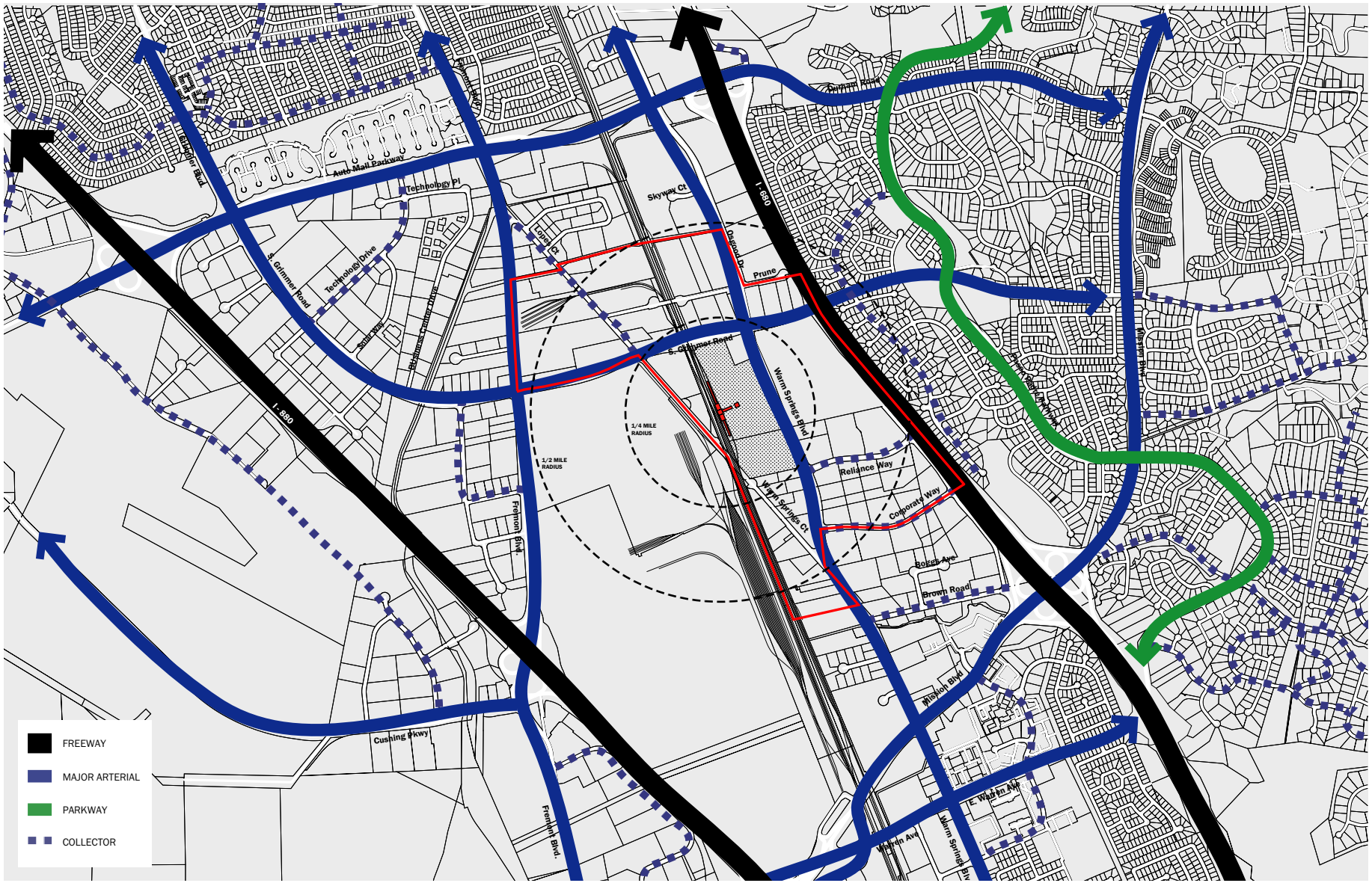


FIGURE 15: ROADWAY CLASSIFICATIONS

north of Grimmer Boulevard and extends until it meets with Washington Boulevard. Warm Springs Boulevard extends south from Grimmer Boulevard to the City of Milpitas where it turns into Milpitas Boulevard.

Existing Uses and Transportation Characteristics

The planning area identified for the Warm Springs BART Area Specific Plan (bounded with Auto Mall Parkway on the north, I-680 on the east, SR 262 on the south and I-880 on the west) mostly contains a mixture of light industrial, office and neighborhood serving commercial developments. A number of parcels are currently undeveloped, including vacant parcels located on the east side (a 35 acre parcel) and west side (including a 107 acre parcel) of the Warm Springs BART Station.

A major development and employment center in the area is the New United Motors Manufacturing, Inc. (NUMMI). NUMMI currently employs a total of 5700 employees. The 24-hour operation of this facility has three maintenance shifts (from 6:30 a.m. to 2:30 p.m., from 2:30 p.m. to 10:30 p.m., and from 10:30 p.m. to 6:30 a.m.), and two production shifts (from 6:00 a.m. to 2:30-4:30 p.m. with the end time varying based on overtime, and from 4:30 p.m. to 1:00-3:00 a.m.). The largest number of employees present on site takes place during the first day shift for maintenance and production, which has an approximate total of 3,145 employees.

NUMMI offers a shuttle service to the Fremont BART station to reduce automobile trip making made by employees of the first day shift. The shuttle vans have a travel time of approximately 20 minutes, and their pick-up times are 5:25, 6:45, 7:30 and 8:05 a.m. at the BART station, and 2:45, 3:32, 4:07, 4:45 and 5:25 p.m. at the NUMMI site. In addition, NUMMI helps manage a carpool/vanpool initiative offered by three employee vehicles in the first shift and seven employee vehicles in the second shift. Based on information supplied by NUMMI, approximately 5% of the employees presently use BART and another 5% carpool/vanpool. Implementation of the BART extension is expected to reduce the overall travel time, particularly by reducing travel time of the shuttle service. This in turn would encourage a larger percentage of employees to use BART in their commuting trips. It should also be noted that NUMMI pays staff for the time of their meal break (one half hour), if they remain on site.

Planned Network Changes

The following list summarizes relevant City of Fremont projects located at, or near the Specific Plan study area that are included in the City's Impact Fee Program.

- Widening Osgood Road to four lanes between Washington Boulevard and Grimmer Boulevard, along with the construction of sidewalks and new curb and gutters;
- Signal modifications at the intersections of Osgood Road/Washington Boulevard, Osgood Road/Auto Mall Parkway, and Fremont Boulevard/Grimmer Boulevard;
- Installation of a new signal at the intersection of Osgood Road/Blacow Road.

In addition, the Alameda Congestion Management Agency has included in its travel forecasting model a number of roadway projects, which would be regionally funded. These projects are as follows:

- Widen Washington Boulevard from two to four lanes between Osgood Road and the I-680 interchange;
- Widen Auto Mall Parkway from four to six lanes between Osgood Road and the I-680 interchange;
- Widen Grimmer Boulevard from two to four lanes between Warm Springs Boulevard and the I-680 overpass;
- Widen Warm Springs Boulevard from two to four lanes between Grimmer Boulevard and Mission Boulevard;
- Extend Auto Mall Circle as a four lane roadway to join Cushing Parkway; and,
- Widen Cushing Parkway from four to six lanes between Northport Loop West and Fremont Boulevard.

The City of Fremont has implemented a program to eliminate existing at-grade railroad crossings. One of the proposed grade-separation projects is located along Washington Boulevard approximately from Roberts Avenue to Bruce Drive. This project would require raising the entire intersection of Washington Boulevard/Osgood Road along with changes to lane configurations on the eastbound, northbound, and southbound intersection approaches.

I-680/I-880 Cross Connector Study

A study is presently underway to investigate possible cross connectors between I-680 and I-880. This study is sponsored by Caltrans, Santa Clara County's Valley Transportation Authority (VTA) and Alameda County Transportation Improvement Authority (ACTIA). Main study objectives are to facilitate regional mobility, relieve localized bottlenecks, and provide improved HOV connections between the two interstate highways. The study would bring about a package of improvements that could lead directly to programming and preparation of Caltrans Project Study Reports (PSR). Following is a list of the six alternative connectors under evaluation and summary of associated changes:

1) Auto Mall Parkway: This connector would require widening Auto Mall Parkway to six lanes, grade separation at Osgood Road, and implementation of interchange improvements.

2) Fremont Boulevard-Grimmer Boulevard: This connector would involve the establishment of either an at-grade HOV access between I-680 and I-880, or a new parallel/aerial HOV freeway connection along the Fremont-Grimmer alignment. Portions of this connector runs within the Warm Springs BART Specific Plan Project Area and is later described in more detail.

3) Mission Boulevard: Would involve construction of a below grade freeway under Mission Boulevard, grade separation at Warm Springs/Mission Boulevard, as well as improvements at the Mohave Drive/Mission Boulevard intersection and Mission Boulevard/I-680 interchange.

4) Scott Creek Road: Would involve extending Kato Road to future Fremont Boulevard, providing HOV access to I-880 from Scott Creek Road, as well as widening of Scott Creek Road, Milmont Drive and Dixon Landing Road.

5) Route 237/Calaveras Boulevard: Would require widening of Route 237 and Calaveras Boulevard to six lanes, implementing grade separation at Abel Street/Calaveras Boulevard, establishing modifications at the Route 237/I-680 interchange, and providing an elevated/aerial HOV connection between the two freeways.

6) Montague Expressway: This connector would involve widening of Montague Expressway to eight lanes, extending the HOV lanes on I-680 from Calaveras Boulevard to Montague Expressway, modifying HOV access at the I-680 and I-880 interchanges, and grade separation of Montague Expressway from west of Great Mall Parkway to east of BART tracks.

A few of the proposed connectors under evaluation would impact the area of the Warm Springs BART Specific Plan. This is particularly the case for connector number 2 (Fremont Boulevard-Grimmer Boulevard), which is expected to serve as one of the main access routes to the future Warm Springs BART station. Based on the information provided by the consultant undertaking the I-680/I-880 Cross Connector Study, there are two alternatives that are presently being recommended for agency review/approval before moving to the next level of conceptual design of this connector. The two alternatives include:

1) Widening of Fremont and Grimmer Boulevards within the corridor to provide three lanes in each direction, which would consist of one HOV lane and two mixed flow lanes. This alternative would maintain existing movements to/from the Fremont/Grimmer corridors with the existing local streets (i.e., Industrial Drive, Ingot Street, Old Warm Springs Boulevard, and Warm Springs Boulevard). It may also require the addition of turning lanes at some of the intersections with local streets; or,

2) Building an elevated HOV structure between I-680 and I-880. This would parallel the corridor, on an elevated concrete viaduct, and it would not provide any connections to any of the local streets. The local connections on existing Fremont and Grimmer Boulevards would be maintained as they currently exist.

In view of the location of this connector and future access to the planned Warm Springs BART station, the ongoing Cross Connector study should evaluate its impacts on the movements of not only vehicular traffic, but also on pedestrian and bicycle traffic movements along this route.

Transit Service

Transit services play a key role in providing travel means locally, as well as regionally. The main transit service provider in Fremont is the Alameda-Con-

tra Costa Transit agency (AC Transit). AC Transit provides the primary local bus service (17 routes) to the Fremont BART Station, the nearest existing station to the Warm Springs BART Specific Plan Project Area . The different AC Transit routes serving the Warm Springs and surrounding areas are illustrated on Figure __. As the figure illustrates, AC Transit Route 212 travels on Fremont Boulevard, Route 218 travels on Grimmer Boulevard, Route 232 on Auto Mall Parkway, Routes 215 and 253 on Warm Springs Boulevard, and Routes 141, 217 and 234 on Mission Boulevard. Route numbers 212, 215 and 234 operate based on 30-minute headways on weekdays, and on one-hour headways on Saturdays, Sundays and holidays. Route numbers 218 and 232 operate on weekdays only based on 30-minute headways with no service provided on weekends. Route number 217 runs on 30-minute headways Monday through Saturday, and on one-hour headways on Sundays and holidays. Route number 253 provides service only during the morning and afternoon commuting hours with a 5-10 minute headways during the AM peak period, and 30-minute headways during the PM peak period.

The Santa Clara County's Valley Transportation Authority (VTA) provides express commuter services to major activity centers in Santa Clara County. VTA also operates four express bus routes that connect Santa Clara County to the Fremont BART Station, only one of which (Route 180) operates throughout the day seven days per week. The Dumbarton Express provides commuter bus services across Route 84 to the Peninsula with routes originating from Union City and connecting portions of north Fremont.

BART provides transit service to San Mateo, San Francisco, Contra Costa and Alameda Counties. The BART train service presently operates from the Fremont station to the City of Richmond in Contra Costa County, and to Daly City in San Mateo County. The Fremont BART station is located at the intersection of Civic Center Drive/Bart Way. The Fremont BART station and VTA bus routes are also shown on Figure ___. It should be noted that the planned BART extension and Warm Springs BART station are expected to result in changes in other transit routes to ensure better inter-modal connections.

Altamont Commuter Express (ACE) is a commuter train providing service to San Jose and Stockton. The ACE station is located in the Centerville District of Fremont near the intersection of Fremont Boulevard and Peralta Court.

Amtrak is also located in the Centerville District sharing the station with the ACE line. Amtrak provides intercity passenger rail throughout the County. Amtrak's Capitol Corridor service runs trips daily between Sacramento and San Jose.

Bicycle and Pedestrian Facilities

A primary goal of the 2002 City of Fremont Bicycle and Pedestrian Plan is to provide bicyclists and pedestrians with safe and accessible routes to all destinations within and outside the City that are served by public roads, trails, transit and rail. As part of achieving this goal, the Plan aims at closing existing gaps in bikeways and walkways and providing projects that improve inter-modal connections for bicyclists and pedestrians.

According to the City's Bicycle and Pedestrian Plan, the Warm Springs BART Specific Plan study area presently contains the following bicycle facilities. Bicycle lanes (marked on pavement) are provided on Auto Mall Parkway between I-880 and I-680, on South Grimmer Boulevard between Auto Mall Parkway and I-680, and on Fremont Boulevard between Auto Mall Parkway and I-880. There is a signed bicycle route (15-foot travel lane with prohibited parking and no markings on pavement) on Warm Springs Boulevard between Auto Mall Parkway and north of Mission Boulevard.

Improvements planned for the designated bike route on Warm Springs Boulevard include the installation of bike route signs that are in conformance to the City's General Plan and Alameda County Bicycle Plan. The signs will be installed on both sides of the roadway between Auto Mall Parkway and Reliance Way, as well as on the east side of the roadway (i.e., for the northbound direction) between Mission Boulevard and Mission Court. It is also planned to widen Warm Springs Boulevard from Corporate Way to South of Brown Road in order to improve access to the proposed Warm Springs BART Station. This planned roadway widening project would consider the installation of bicycle route signs or bike lanes.

The Warm Springs BART Specific Plan study area presently contains some deficiencies in terms of pedestrian facilities. For example, there are no sidewalks on Warm Springs Boulevard south of Grimmer Boulevard. Also, there is no sidewalk on either side of Grimmer Boulevard along the section located between Fremont Boulevard and Old Warm Springs Boulevard, and no sidewalk on the south side of the roadway along the section between Old Warm Springs Boulevard and the I-680 underpass.

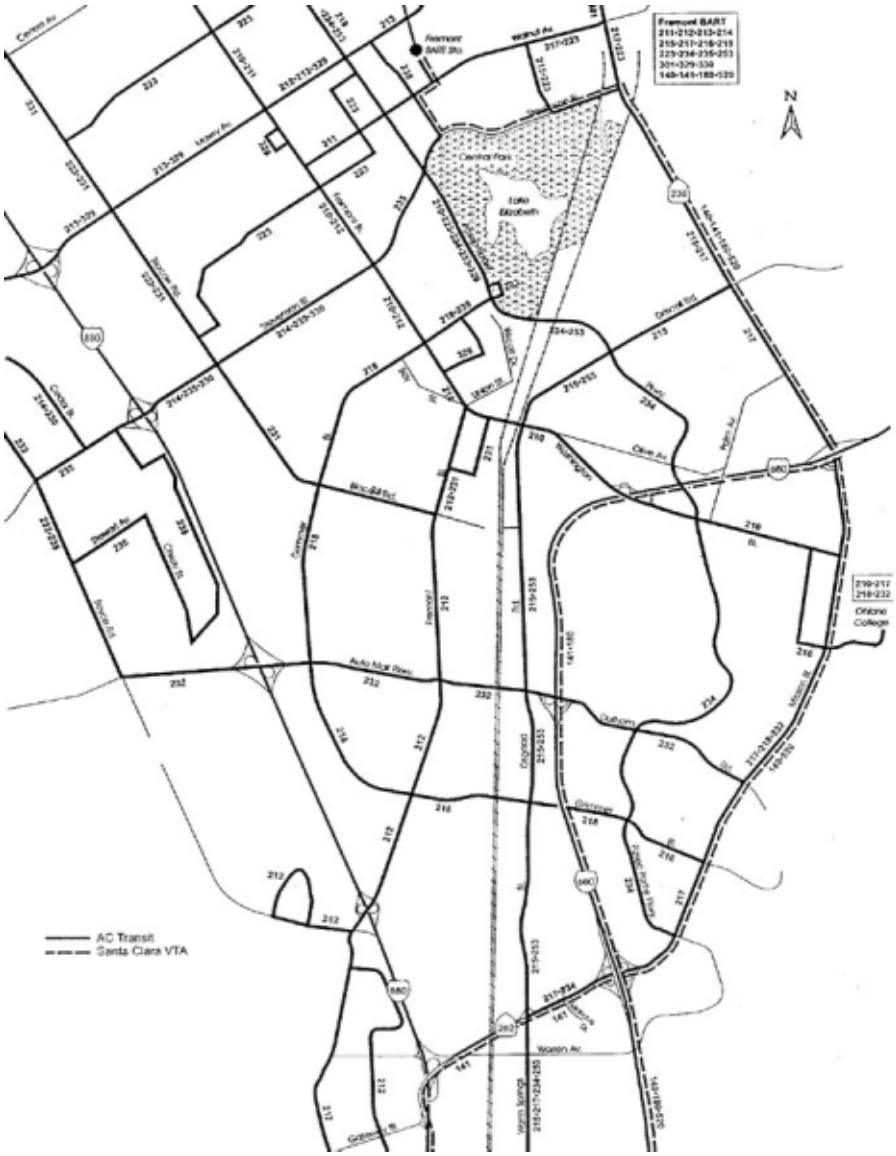


FIGURE 16: EXISTING TRANSIT SERVICES

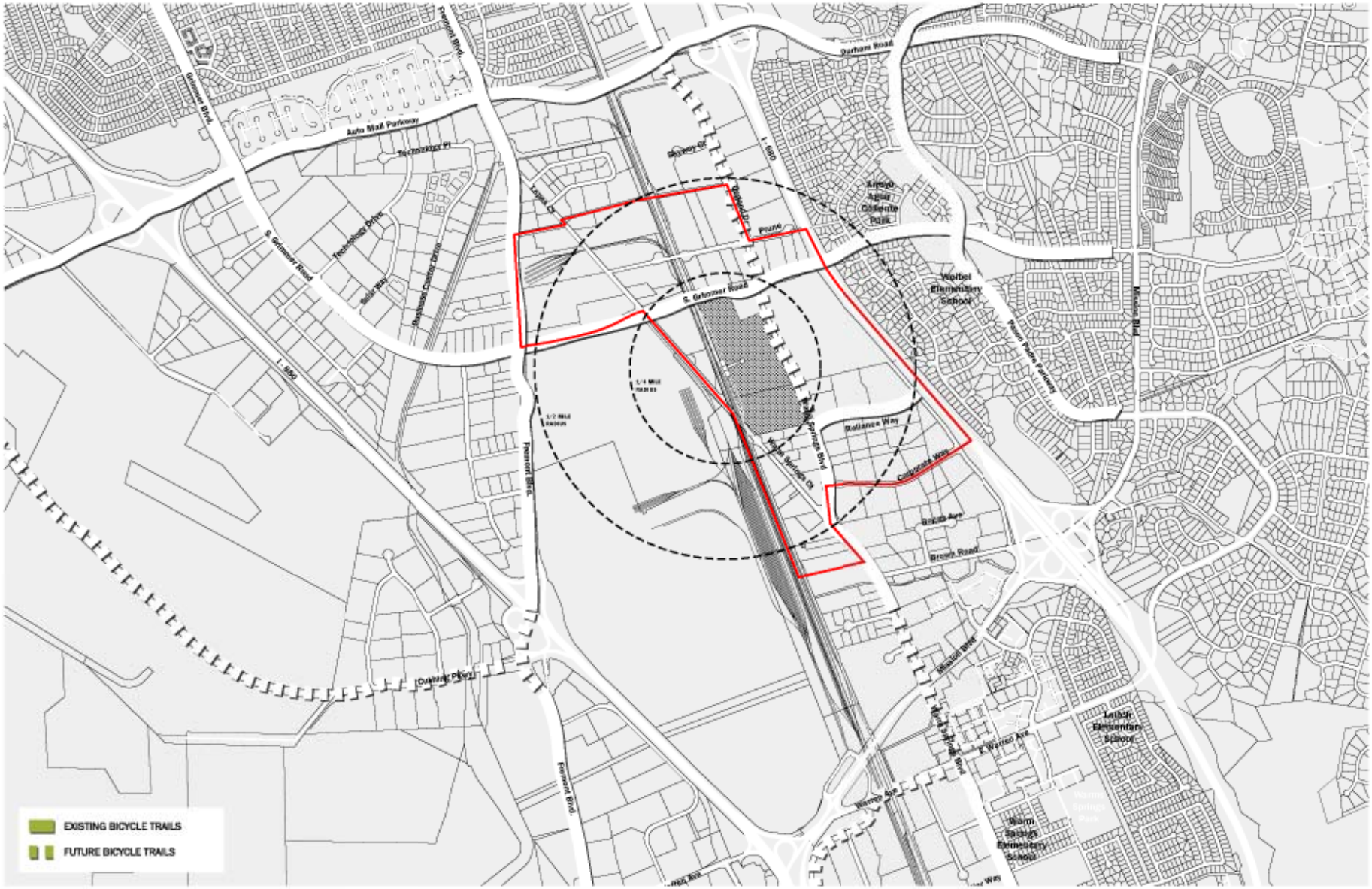


FIGURE 17: BICYCLE FACILITIES

The 2002 City of Fremont Bicycle and Pedestrian Plan recommends the provision of sidewalk connections to activity centers, as well as to transit and rail stations. It also recommends constructing ramps at various locations throughout the City in order to provide accessibility and connectivity within public-right-of-way to adjacent developments. In addition, it is planned to implement improvements at some signalized intersections pertaining to bicycle and pedestrian crossing operations. Such improvements could be through the installation of countdown pedestrian signals, audible pedestrian equipment, and bicycle detection. City staff is also evaluating the feasibility of installing in-pavement lighted crosswalks at some key locations within the City to increase motorists' awareness of pedestrian crossings.

Truck Routes

Fremont's industry and commerce is dependent on trucks to import goods and to export products. Designated truck routes located within the Warm Springs BART Specific Plan study area are State Route 262 and Interstate highways I-680 and I-880. The section of Auto Mall Parkway located between I-680 and I-880 was recently removed from the designated network of truck routes. All trucks exceeding 10,000 pounds must use the truck routes except for local delivery or pick-up. There is no truck terminal in Fremont.

Rail Freight Service

The Union Pacific (UP) Railroad that travels within the Specific Plan Project Area is an active line. This line serves major industries including the NUMMI facility located just to the west of the UP corridor and south of Grimmer Boulevard. Freight service along this UP line operates on a 24-hour basis, with its daily schedule fluctuating based on demands. As noted earlier in this report, the City of Fremont has implemented a program to eliminate existing at-grade railroad crossings. One of the proposed grade-separation projects is located along Washington Boulevard approximately from Roberts Avenue to Bruce Drive. This project would require raising the entire intersection of Washington Boulevard/Osgood Road along with changes to lane configurations on the eastbound, northbound, and southbound intersection approaches. In addition, access to the planned Warm Springs BART station would create the need for a grade separated crossing of the UP railway tracks adjacent to the NUMMI site, to accommodate the movements of pedestrians and cyclists.

Parking Facilities

In general, existing developments located within the area of the Warm Springs BART Specific Plan have sufficient on-site parking supply, with no or little demand for on-street parking. There are currently 2,330 parking spaces available at the Fremont BART station for the use of its patrons. According to the 2003 supplemental EIR performed for the BART Warm Springs Extension, the Fremont BART station has approximately 30 spaces designated for Hertz BART car-sharing program, nearly 20 spaces designated for disabled person parking, more than 60 spaces designated for carpool vehicles, and nearly 50 spaces available for parking only after 10:00 a.m. This station's parking area is often filled to capacity, and future increase in its parking demand may result in parking overspill into nearby residential neighborhoods. Parking facilities presently provided at the Fremont BART station can be repeated at the planned Warm Springs station since it would be the new end of the line. On-site parking would consist of daily parking (available 24 hours), mid-day parking (free spaces for customers who arrive at the station after 10:00 a.m.), carpool (each car must have at least two passengers when parking), and disabled parking (located adjacent to the station's entry pavilion and concourse), with BART staff parking integrated near the station.

Proposed BART Station Access

As noted earlier in the report, the proposed Warm Springs BART station would be located on the southwest corner of the intersection of Grimmer Boulevard and Warm Springs Boulevard. Direct vehicular access to the proposed station would be provided along Warm Springs Boulevard via two signalized intersections and one right-in, right-out driveway. A secondary access would be provided via a proposed extension of Warm Springs Court. According to the supplemental EIR of the BART extension project, a total of 2,040 on-site vehicular parking spaces would be provided at the Warm Springs station. Areas for patron pick-up and drop-off by private automobiles would also be provided. Bicycle parking would be located adjacent to the station's conceptual entry pavilion on the north and south sides of the station. Bicycle lanes would be provided along all major driveways connecting with City streets and leading to the main station entrance. A schematic illustration of the proposed Warm Springs BART station is shown in Figure 20.

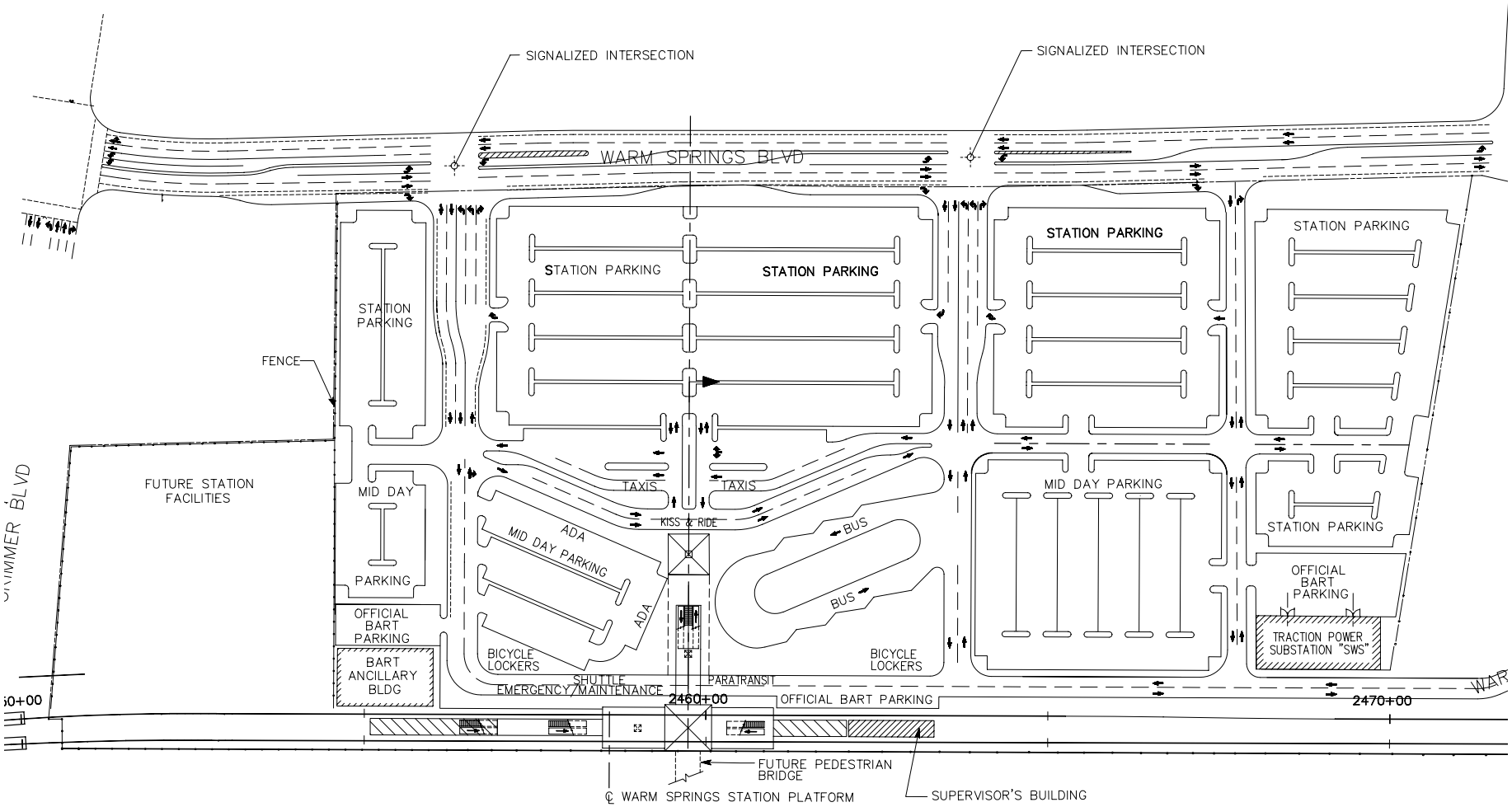


FIGURE 20: PROPOSED SITE PLAN OF WARM SPRINGS BART STATION

OPPORTUNITIES AND CONSTRAINTS TO DEVELOPMENT OF THE WARM SPRINGS BART STATION

Establishment of the Warm Springs BART Area Specific Plan provides a rare opportunity to establish an integrated and improved land use and transportation framework with benefits at both on the regional and local levels. Nevertheless, there are constraints and challenges that face the implementation of such improvements. Opportunities and associated constraints/issues are summarized below:

KEY OPPORTUNITIES ASSOCIATED THE SPECIFIC PLAN:

- The project area is one of the strongest real estate market locations in the Bay Area.
- The Warm Springs BART Specific Plan area has excellent regional accessibility both for its transit facilities and future land uses;
- The undeveloped land surrounding the proposed BART station provides a "blank slate" for establishing an integrated street and block pattern that will provide inter-connectivity for all modes of travel;
- There are a relatively small number of land owners with relatively large parcels, making planning and implementation of an integrated plan more likely;
- There are few land use adjacency constraints other than those imposed by the NUMMI plant, the active rail line, and the I-680 corridor; most areas of the site are not constrained;
- Warm Springs Boulevard provides an opportunity to create a identifiable "urban boulevard" serving the BART station and fronting land uses. This could take many forms, including the creation of a classic double-median boulevard which provides local land access and on-street parking but retain through capacity;
- Some intersections in the Specific Plan area are nearing limit of City's Level of Service (LOS) standards. Extending BART service in Warm Springs would help maintain and improve operational LOS on City roadways and intersections, as well as at highway interchanges which are under Caltrans' jurisdiction. Although this potential improvement must be balanced with the traffic demand created by the new end of the line BART station;
- Overall, a BART station and associated Transit Oriented Development can enhance regional mobility and relieve traffic congestion on state highways, especially on I-880, and reduce traffic related air pollution.

KEY CONSTRAINTS:

- The transportation system in the area is a broad grid of arterials and freeways lacking a fine grained street system for internal travel and pedestrian and bicycle systems;
- Land uses are widely dispersed with limited connections to surrounding areas, thereby channeling all modes of traffic onto the same arterial network;
- The railroad tracks and NUMMI plant limit the ability to provide additional east-west roadway connections. Therefore, traffic access to the BART corridor and proposed Warm Springs station would remain on the existing arterial streets;
- The proposed I-680/I-880 Cross Connection Option that utilizes the Fremont/Grimmer corridor could potentially affect access and circulation to the Specific Plan area. At a minimum, it could impact pedestrian and bicycle access (real or perceived) from surrounding neighborhoods;
- Balancing the parking needs of an end of the line park and ride facility with the potential for transit oriented development on the BART station site;
- Lack of pedestrian and bicycle facilities on some of the area roads resulting in a need for transportation system improvements well beyond the Specific Plan area to ensure connectivity;
- The conflict between current plans to widen Warm Springs Boulevard adjacent to the proposed BART station and potentially deviating from

City standards to create a walkable urban boulevard; and

- Developing shared parking (or reduced parking) standards and a parking phasing plan that adequately serves transit oriented development in both the near and long terms;

- NUMMI, the rail line, and I-680 present land use adjacency issues that must be buffered or otherwise address in site planning;

- If new uses such as residential are introduced, they will be somewhat isolated from adjacent neighborhoods to the north and east. Strong connections to these neighborhoods will be needed and/or the full range of public services such as park and support services will be needed to create a fully integrate Fremont neighborhood;

- The area is currently entirely auto-dependent.

TRANSIT-ORIENTED DEVELOPMENT: CHARACTERISTICS, EXPERIENCE AND COMPARABLES

If a TOD strategy is to be implemented in the Warm Springs BART Specific Plan Project Area, it is important to understand characteristics of a TOD, comparable experience and the potential within the study area for achieving such a development pattern. While transit-oriented development is becoming more commonly understood and is being implemented successfully in several locations around the Bay Area and the country, there remain varying understandings of what is involved in a TOD development and what the commonly accepted standards are for a TOD project. The material that follows explores definitions of transit-oriented development and of smart growth, an important related topic.

Smart Growth

Smart Growth is a regional land use strategy gaining widespread support throughout the Bay Area. In June 2003 a study was published by the San Francisco District Council of the Urban Land Institute (ULI) entitled: "Smart Growth in the San Francisco Bay Area: Effective Local Approaches". This document defines smart growth and identifies strategies such as transit-oriented and compact development patterns.

Smart Growth advocates promoting more livable and functional communities, environments that:

- Enhance mobility for all residents, not just those with automobiles, as they carry out daily tasks, such as traveling to work or school, shopping, and maintaining community ties;
- Accommodate the need for new housing, employment growth, and population increase by making the most efficient use of urban land;
- Preserve and protect important open space and species habitat;
- Are respectful of the needs of neighboring jurisdictions and the region as a whole; and
- Make the carrying out of smart growth practices by developers, lenders, builders, and other interested parties as simple and streamlined as possible.

Smart Growth Strategies identified in the ULI study include:

- Infill development
- Transit-oriented development
- Inclusionary housing
- Mixed-use development
- Adaptive reuse
- Jobs-housing balance
- Compact development

Transit-oriented Development

The California Department of Transportation (Caltrans) defines transit-oriented development (TOD) as "moderate- to high-density development located within an easy walk of a major transit stop, generally with a mix of residential, employment, and shopping opportunities designed for pedestrians without excluding the auto. TOD can be new construction or redevelopment of one or more buildings designed and oriented to facilitate transit use."

As Caltrans notes, successful TOD developments are characterized by a mix of uses, compact development patterns, and a strong pedestrian environment. TOD allows for more efficient uses of valuable property around stations than traditional low-density or park-and-ride development. This development format encourages new private investment and provides attractive, multi-use development.

BART TOD Guidelines

BART has also established guidelines related to transit-oriented development. The BART Transit-Oriented Development Guidelines, published in June 2003, support the BART Strategic Plan, which states "In partnership with the communities BART serves, we will promote transit ridership and enhance the quality of life by encouraging and supporting transit-oriented development within walking distance of BART stations."

BART describes a series of guidelines intended to clarify the system's priorities for TOD on and around station sites, and to assist in the planning and development process. While these guidelines are rather detailed, they identify useful priorities in land use and site planning for station areas. BART describes 37 guidelines for TOD; following are the most relevant to planning for the Warm Springs station area:

1. BART stations should be served by streets, bus and bicycle routes that extend beyond the immediate station area.

2. The highest residential and employee densities within each community served by an existing or future BART station should be located within walking distance of the station.

3. Regional attractions in the Bay Area should be located within a comfortable walk or short, frequent shuttle/transit ride from a major transit station to enhance universal access.

4. Development at any BART station should be planned to take full advantage of frequency, scheduling, coverage and other characteristics of train service along the line serving the station.

5. BART stations should be located in active, walkable, developed areas that can support ridership growth with reduced reliance on additional parking.

6. Incorporate well-loved features that establish community identity with the TOD

7. Sidewalks connecting the station fare gates to key intersections and destinations in the station area should be as short, direct and visually unobstructed as possible.

8. Sidewalks linking the fare gates to the surrounding community should be wide and smooth enough for wheelchairs and strollers, and lined with trees, lights, and wayfinding signs to improve orientation and safety.

9. The size and layout of blocks near the station should anticipate the need for direct pedestrian paths.

10. Pedestrians should be encouraged to cross major streets and intersections at street level.

11. Buildings along the sidewalks serving the fare gates should open directly on the path, with transparent ground floors and good views of the path from the upper floors.

12. Continuous building frontages along sidewalks should be maintained by avoiding front and side setbacks, blank walls, and surface parking lots that face the sidewalk.

13. The main sidewalks and crosswalks in the area should not be disrupted by wide turning radii, driveways, garage entrances, and dedicated turning lanes that require pedestrian refuge islands.

14. Street width in the immediate station are should not be wider than needed to accommodate "design" travel speeds and emergency vehicle egress, and if applicable any bike and/or parking lanes.

15. The link between BART and connecting transit should be direct, short and uninterrupted by other types of vehicular traffic.

16. Bus, shuttle and light rail waiting and loading areas should be concentrated to facilitate transit-to-transit connections and to avoid wasting land and creating expansive "dead" zones.

17. Local and regional bike networks should be connected with BART stations, marked with signage and free of any barriers such as curbs

and fences.

18. Carpool and vanpool parking should be located close to the fare gates.

19. Driveways serving parking garages and lots should avoid crossing main pedestrian circulation routed in the station area.

20. Parking facilities should “feed” pedestrians onto primary pedestrian routes and should be located to promote retail opportunity along these routes.

21. Parking garages should be designed to accommodate retail or other “active” uses, where viable, at the ground floor to improve the casual monitoring and appearance of the main pedestrian routes serving the area.

22. BART parking facilities should be sized and located to enhance shared-use strategies with other station area destinations whose periods of demand complement BART’s.

23. Consider using traffic lanes as midday or temporary towaway parking to buffer pedestrian traffic and to provide additional short-term parking for the station area.

24. Suggested targets for minimum residential densities in the station area:

    - Individual Project: 40 dus/acre (80-100 residents/acre)
    - Overall Station Area: 20 residents/gross acre

25. Residential parking provisions should generally be lower in a BART TOD than in neighborhoods farther from BART.

26. The suggested target density for station area employment is a minimum of 10 jobs per gross acre.

27. The pedestrian connection from the workplace to the station fare gates should be as short as possible, directly oriented toward the station and unobstructed by parking and landscaping.

28. Parking provisions for commercial uses in the station area should

BART TOD HOUSING (HAYWARD)

BART TOD STATION AREA (HAYWARD)

generally be lower than the provisions for commercial uses farther from BART.

29. Community services in the TOD should be easily accessible for pedestrians and should support the primarily transit-oriented function of the station area.

TOD Experience

There is considerable experience locally and around the country in TOD development. The following section is a brief overview of recent, successful projects.

TOD at BART Stations
BART has already begun to realize its goals for transit oriented development at several Bay Area stations. Built projects and plans to redevelop BART property around these stations include a mix of uses: housing, commercial office, high density residential and parking structures. BART has also worked with local municipalities, developers and community groups to encourage transit oriented uses on properties adjacent to BART stations. Exemplary transit oriented developments around existing stations are described below.

Fruitvale BART Station
A new transit village is almost completed at the former park-and-ride lot at the Fruitvale BART station. The project is a joint development with non profit developer, Unity Council, drawing from a number of funding sources, including 501 (c) (3) bond debt, private financing, local and national grants and local library bond issues. The project includes a mix of housing, shops, offices, a library, a child care facility, a pedestrian plaza, and other community services all surrounding the BART station. The project demonstrates effective partnerships to generate funding, inclusion of moderate to low income housing, and effective use of stakeholders to generate strong public support for the project.

- Use Mix: Commercial Office, Retail, Residential, Public Facility
- Residential Density: 40-50 dus/acre

Walnut Creek

FRUITVALE BART TRANSIT VILLAGE

PROPOSED PLEASANT HILL BART TOD

Dublin

Pleasant Hill
The 198 acre area surrounding the Pleasant Hill BART station includes more than 2,400 housing units, two hotels, and offices with more than 4,000 jobs, all within walking distance of the BART station. Future plans for the development of the BART property at Pleasant Hill station (now home to a park-and-ride) calls for higher densities of both housing and commercial office, ground floor retail, a network of parks and open spaces, and a walkable network of pedestrian oriented streets that create connections throught the site.

- Use Mix: Commercial Office, Retail, Residential, Public Facility, Transit
- Residential Density: 25 dus/acre

Hayward
The Hayward TOD development is generally considered to be successful in reinforcing a downtown business district for the City of Hayward. The success of the project is in part attributed to the City's decision to relocate its civic center within close proximity of the BART station. A vibrant pedestrian environment is enhanced by wrapping the bases of of mid- to high-density residential development with retail at the street's edge. Housing densities developed on the BART property have fallen short of BART's desired housing density objectives. Recently completed is a high density housing project adjacent to the station with 48 dwelling units per acre.

- Use Mix: Commercial Office, Retail, Residential, Public Facility, Transit
- Residential Density: 15 – 48 dus/acre

Other Bay Area TOD Projects
The Crossings, Mountain View (San Antonio Caltrain Station)
The San Antonio TOD is located in an area that historically was the home to three shopping malls, movie theatres and a health club.. The Crossings development has increased density in the area in a strong pedestrian environment, incorporating the Caltrain commuter rail transit station. The development was largely led by the developers and site designers while the City encouraged density, livability and pedestrian links to the local grocery store and transit station. Increased density has been helpful in the midst of high housing prices and a jobs housing imbalance in Santa Clara County. While The Crossings is a pedestrian-oriented development the surrounding San Antonio area of Mountain View has heavy auto traffic and auto oriented

THE CROSSINGS, MOUNTAIN VIEW

OHLONE CHYNOWETH COMMONS

retail with large parking lots and one and two story buildings." (California TOD database)

- Use Mix: Retail, Residential, Transit
- Residential Density: 21 Dus/acre

Ohlone-Chynoweth, San Jose (VTA Light Rail Station)
The Ohlone-Chynoweth Commons is a 194-unit 3-story affordable housing development totaling 197,000 square feet and set on 7.3 acres of land. The units are targeted to people making between 30% and 60% of the area median income. The project also includes 4,400 square feet of retail space, a day care center with a 40-child capacity, and a 4,000 square foot community center that includes a computer training facility." (California TOD database)

- Use Mix: Retail, Residential, Transity
- Residential Density: 25 Dus/acre

National TOD Experience
Washington D.C. Area
The Washington Metropolitan Area Transit Authority (WMATA), through its Joint Development Program provides some of the finest examples in the country of transit-supportive economic development. Working in partnership with local jurisditions and the private sector WMATA has taken a proactive approach to encouraging transit-friendly development around the stations on its Metrorail system. TOD development has been encouraged by increased height and density standards in the station area and by public monies set aside for infrastructure and streetscape improvement and for structured parking. Several of its suburban stations, including Bethesda, Maryland, and the Rosslyn, Court House, Clarendon, Virginia Square, and Ballston stations in Arlington, Virginia, have served as catalysts for new retail, office, and high-density residential projects, as well as streetscape and other civic improvements, in the areas surrounding the stations.

Clarendon METRO Station Area, Arlington, VA
The Market Common development at the Clarendon station is located on approximately ten (10) acres of land winthin a 1/4-mile walk of the Clarendon station. It is not located on WMATA land. In addition to the more than 240,000 SF of prime retail, the completed project includes 300 apartments, 87 townhomes, 100,000 square feet of office space and nearly 1,200 parking spaces. Stores and restaurants wrap the lower levels of the project,

MISSION COMMONS, CLARENDON METRO STATION

creating a strong pedestrian environment all centered around a new public park.

- Use Mix: Commercial Office, Retail, Residential
- Residential Density: 40 dus/acre

LAND USE LOCATION CONSIDERATIONS

Within the study area, portions of the site are constrained in a number of ways and are therefore suited to certain future uses more than others. Among the criteria affecting the suitability of any given site for a particular use are its adjacency to the future BART station; adjacency to existing and future surrounding streets, arterials and freeways; surrounding land uses; and potential visibility of the site. Each of the potential land uses or mix of uses that are candidates for the development of the site are therefore more or less suited to various locations.

The following discussion and accompanying diagrams describe the issues associated with each potential use and sites on which these uses might be suitably located. No conclusions have been reached at this time, however, as to the appropriate mix, locations or other characteristics of any of the candidate uses.

Potential Residential Locations

Figure 21 illustrates sites that are potentially feasible for residential uses. Generally, parcels to the east of the BART and rail alignment are most suited to residential development. Access to these sites is good from the regional roadway network, including Warm Springs Boulevard, and sites are close to the proposed BART station. In addition these sites are distant from the potential impacts of the industrial uses of the NUMMI plant, and are generally not downwind of the plant.

Residential uses may be located in proximity to freeways and to rail corridors, although setbacks should be required to buffer housing as appropriate. In particular, the heavy use of the rail corridor for freight and for passenger rail suggest a significant setback would be desirable here.

Parcels less suitable for residential development include those sites west of the BART station within close proximity to existing industrial and manufacturing uses such as NUMMI. The parcels west of the BART station also have poor connection to existing residential neighborhoods. .

Potential Commercial Office Locations

As Figure 22 illustrates, virtually any site in the study area is potentially

FIGURE 21: RESIDENTIAL LOCATIONS

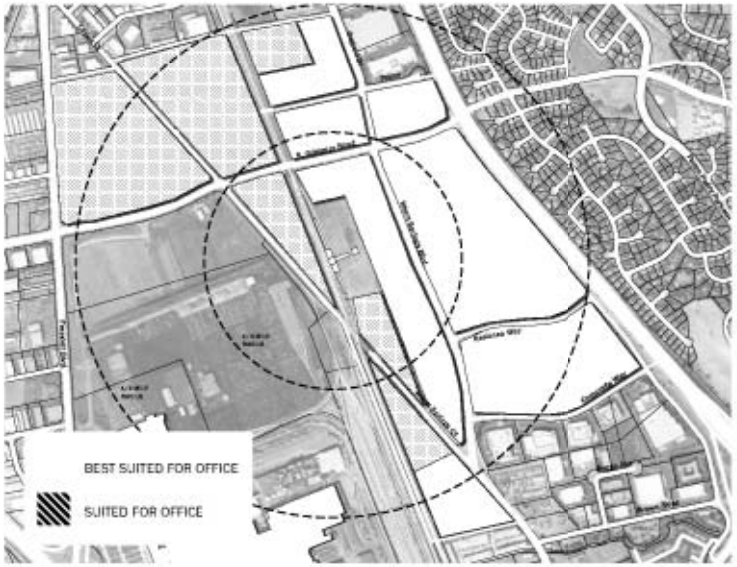


FIGURE 22: COMMERCIAL OFFICE LOCATIONS

suitable for commercial office, however, priority sites are located on the east side, between the rail lines and the freeway. Commercial office developers prefer to provide sites with good access and a prominent address. Warm Springs Boulevard offers the prime locations for commercial office uses: access is direct and clear from the freeways and interchanges, and the boulevard can be improved to provide a suitably attractive office environment.

Parcels with addresses on South Grimmer, adjacent to the NUMMI plan or those directly adjacent to the tracks are less desirable for commercial office uses, due to proximity to industrial uses and poorer access. The future of a connecting route between 880 and 680 may make South Grimmer a more suitable address for commercial office.

Potential R&D Locations

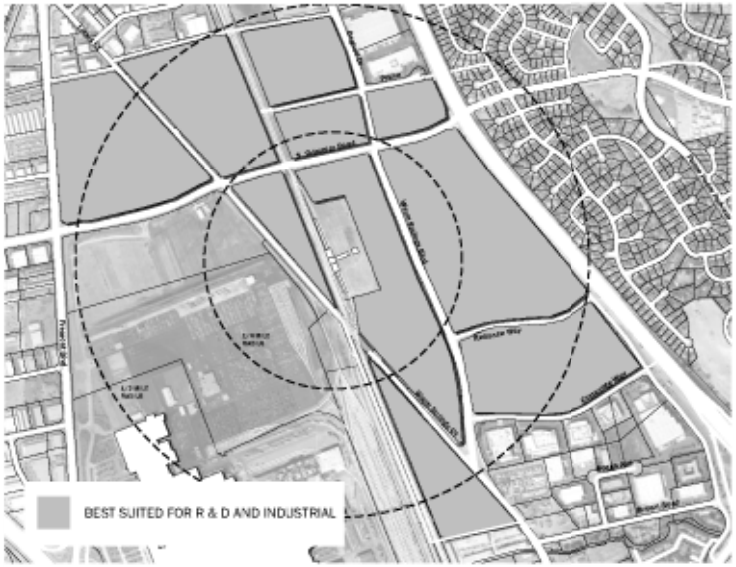
Any site within the study area, with the exception of the areas required for the BART station and parking, are potentially suitable for R&D uses. The current regulatory and policy framework established by the City identifies these uses as allowed, and some industrial and R&D already exist in the area. R&D uses in the area are generally buffered from residential uses by the freeway network and already existing industrial uses. For purposes of R&D uses, which are not as desirous of highly visible or accessible sites, sites within the study area have adequate vehicular access and good proximity to freight rail service.

However, the low densities typically associated with R&D do not optimize use of the study area parcels, and do not provide densities of employment or housing that support transit ridership. .

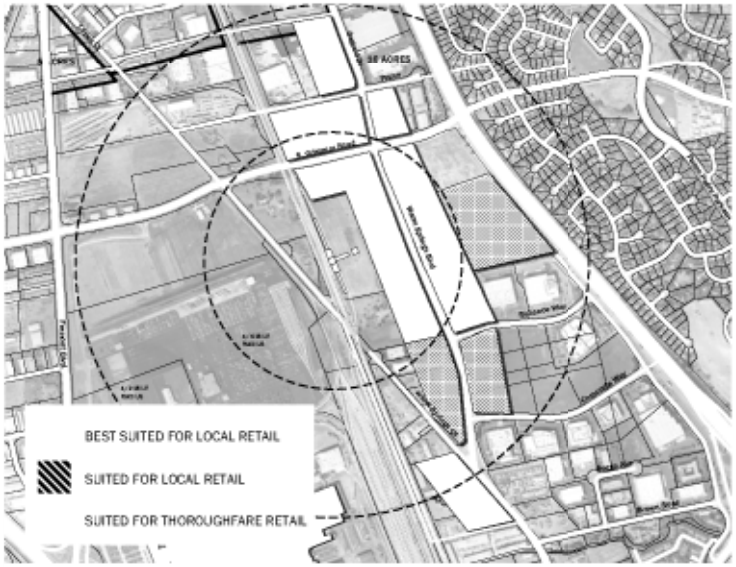
Potential Retail Locations

The location of retail uses is highly dependent of the arrangement and location of other uses such as office or housing, and on the configuration of the BART station and parking.

The optimum location for retail balances adjacencies to users (either office or residential), accessibility and visibility. Assuming the currently planned location of the BART station and parking, and assuming that the highest density uses of any type will be located in proximity to the station, the optimum retail sites are within a ¼ mile walking radius of this centroid of activity.



R&D LOCATIONS



RETAIL LOCATIONS

Given the barrier that the rail tracks impose on pedestrian and vehicular circulation, sites to the east offer the best opportunities for retail. Depending on the configuration of streets and uses, retail might focus on Warm Springs Boulevard, or might focus on the east/west axis leading from the BART station.

NEXT STEPS: PREPARATION OF ALTERNATIVE DEVELOPMENT SCENARIOS FOR EVALUATION

As the next step in the planning process, alternative development scenarios for the Warm Spring BART Specific Plan Project Area will be prepared and summarized for evaluation by the City. In order to facilitate discussion on the preferred future of the site, concepts will be explored that represent a broad range of possible combinations of uses. The alternative concepts will be structured in such a way as to illuminate the relative positive and negative impacts of various combinations and arrangements of uses to allow for a useful evaluation.

The following are proposed as concepts to be developed, refined and evaluated.

CONCEPT ONE: BUILD OUT OF THE SPECIFIC PLAN PROJECT AREA UNDER CURRENT ZONING AND POLICIES: R&D AND INDUSTRIAL

This concept will illustrate a scenario in which uses in the study area are predominately R&D and light industrial, consistent with existing zoning and land use policies, and similar to those uses already in existence in the area. Densities of employment population would be relatively low, consistent with typical R&D and light industrial use patterns. This concept is essentially a continuation of current policies and serves as a base line for comparison with other alternatives.

CONCEPT TWO: EMPLOYMENT CENTER/COMMERCIAL OFFICE TOD

In this concept, commercial office land uses would predominate. Commercial office uses would be of a service sector nature, allowing taller, higher density development and serving as a major non-industrial employment center within the City of Fremont. Modest amounts of other uses such as support retail would also be mixed in or adjacent to the employment center, but the emphasis would be on office uses and jobs. Some limited R&D and light industrial uses will likely be included in areas undesirable for commercial office, such as next to the rail corridor.

CONCEPT THREE: RESIDENTIAL TOD

A predominately residential TOD would be explored in this concept. The plan would emphasize residential uses at a variety of densities, all appropriate for proximity to a major regional rail station. A mix of other uses would be included as complementary to the residential TOD. A small amount of commercial office, primarily intended to serve the residential uses (such as real estate agents and local tax or bookkeeping firms) would be included. Retail uses suitable to a residential village or neighborhood would also be included, likely at ground level, accessible by pedestrian and by vehicles. Some limited light industrial and R&D uses will also be included in this alternative in areas unsuitable for residential.

CONCEPT FOUR: MIXED USE TOD

This scenario will include a mix of uses including commercial office/ employment, residential and retail. Like the other alternatives, small amounts of industrial may also be included. This scenario will most closely model BART and other TOD guidelines for design and planning – a full mix of uses at relatively high densities.