4. LAND USE AND DESIGN PRINCIPLES

While this Land Use Alternatives Study focuses on uses in the Study Area, the ultimate success of the area will rely on the quality of both the private and public realms. Some of the broad principles for a high-quality built environment are summarized below. However, a more through set of design concepts, guidelines and standards will be developed for the Study Area in subsequent planning efforts by the City.

Place-Making

Most successful places, in terms of vibrancy and economic vitality, have a recognizable identity in terms of land use and character. Employing the highest urban design standards, the Study Area has the potential to become a District of Innovation and a place for community life. Such places tend to have a well-defined public realm, in terms of streets and open space, a unifying street and landscape character, and high-quality architecture that address and frame the streets and open space. Within the Study Area, the area within ½ mile of the planned BART station can become a recognizable center and hub for the area, with a rich mix of land uses, commercial and R&D enterprises and high-density housing, with a variety of unit types, organized around a network of streets and community spaces. Special uses, such as a "tech shop," technical school or community center, can create synergies with other innovative land uses in the area. Mission Bay in San Francisco is one such example, where a UCSF campus in combination with biotech companies create a center of biotechnology and innovation, all built within a framework of high-quality streets and open space. With careful planning, the Study Area has the potential to set a model for a high quality planned industrial zone with a mix of non-industrial uses.

The University Park project in Cambridge, MA organizes a variety of high-tech uses, hotels, and residential developments around a central open space, providing a high-quality identity for the district. (Cambridge, MA)

South Fremont/Warm Springs has potential to be accommodating for both industrial and R&D uses, as well as providing a place that fosters community identity by allowing a variety of land uses and network of pedestrian-friendly streets. (Davis, CA)

Public Space

Tanner Springs Park is an example of a former industrial area transformed into a neighborhood pocket park that re-introduces natural wetlands and vegetation. (Portland, OR)

Jamison Square is an example of a neighborhood plaza which provides outdoor seating, spaces for passive recreation, as well as a children's play area. (Portland, OR)

Public spaces, including privately-owned publicly-accessible open spaces (POPAS), become important components in creating a sense of place and building community. If well designed, they offer a place for recreating, respite, renewal and social interaction. Publicly-accessible spaces, whether outdoor or indoor, afford opportunities for informal gathering and chance interactions, including opportunities for exchange of ideas, much like the open space and quads of a college campus. Outdoor public space comes in the form of parks and streets, including ample sidewalk space for outdoor seating, landscaping and, in some cases, outdoor seating for cafés and restaurants.

Within the Study Area, the area leading to and nearest the planned BART Station can become a place for well-designed public spaces, supporting synergistic activities in innovation, providing recreation for office workers and neighborhood residents, and treating storm water run-off.

Mobility

Mobility options which provide efficient, attractive and convenient alternatives to single occupant automobiles, and meet the full service needs of all users, are an important component to the revitalization of the Study Area. Mobility must address the needs of industry, including truck access, while offering other modes of circulation that serve other users in the area. These other modes include an attractive and inviting network of bicycle pathways, pedestrian pathways, and transit and shuttle access. Mobility, and pedestrian orientation in general, also speak to the character and scale of blocks and streets.

Within the Study Area, a variety of attractive mobility options to the planned BART station can enhance the viability of the area. They include a bike/pedestrian crossing over the Union Pacific railroad tracks and shuttle service connecting surrounding businesses to the station. The introduction of a smaller-grain street pattern, particularly in the area nearest the planned BART station, would afford pedestrian activity. Pedestrian linkages to the Tesla factory, and other industries in the area, would support non-vehicular use. Other bike/pedestrian linkages include City plans for a bicycle and pedestrian trail along the Union Pacific Railroad corridor, some of which are abandoned and others that are still active rail corridors.

Mobility in the Study Area must address a variety of needs, including the increasing bicyclist community in Fremont and those who will be commuting by bike from BART.

A modern pedestrian and bike bridge crossing at the Pleasant Hill BART Station.

5. LAND USE ALTERNATIVES

Alternative 1: Innovation Center/Manufacturing

Example of new manufacturing facilities replacing an old GM plant in San Fernando Valley. (Los Angeles, CA)

Alternative 1 retains the Study Area for industrial and commercial uses only, creating a Center for Innovation in manufacturing processes, including the Tesla factory, related industries and other high-tech/green-tech companies. This alternative focuses general industrial and manufacturing mostly west of the railroad and locates a commercial district, accommodating a potential high-tech office campus, near the planned BART station. The commercial area and adjacent R&D could be closely linked to innovations in manufacturing in the nearby industrial areas, with the Tesla factory as an anchor. A pedestrian/bicycle crossing through the BART station and over the railroad tracks, and nearby open space amenities, connect the two sides of the commercial/R&D-focused TOD. In this alternative, this jobs-focused TOD would complement the residential-focused TOD's at BART stations north, and potentially south, of the station, providing work places for those living near other BART stations.

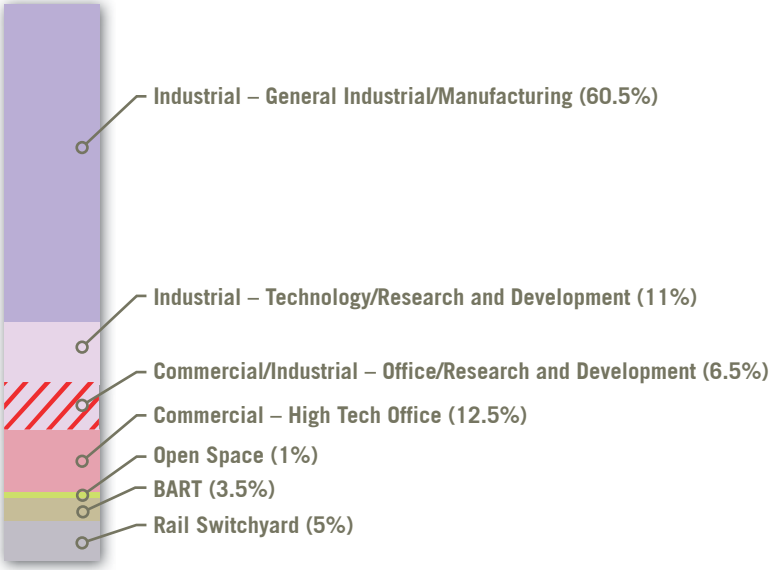
Motorola's China headquarters is an example of a commercial/industrial blend building, with landscaped setbacks, in an Economic and Technological Development Zone. (Beijing, China)

Alternative 1, with only industrial and commercial uses, does not introduce conflicts with non-industrial/commercial uses and keeps a singular focus on innovation and jobs. Because this alternative does not include residential uses, it would not result in a mixed-use residential neighborhood.

An office campus for Nike's headquarters (Beaverton, OR)

Land Uses

For the entire Study Area



New Development

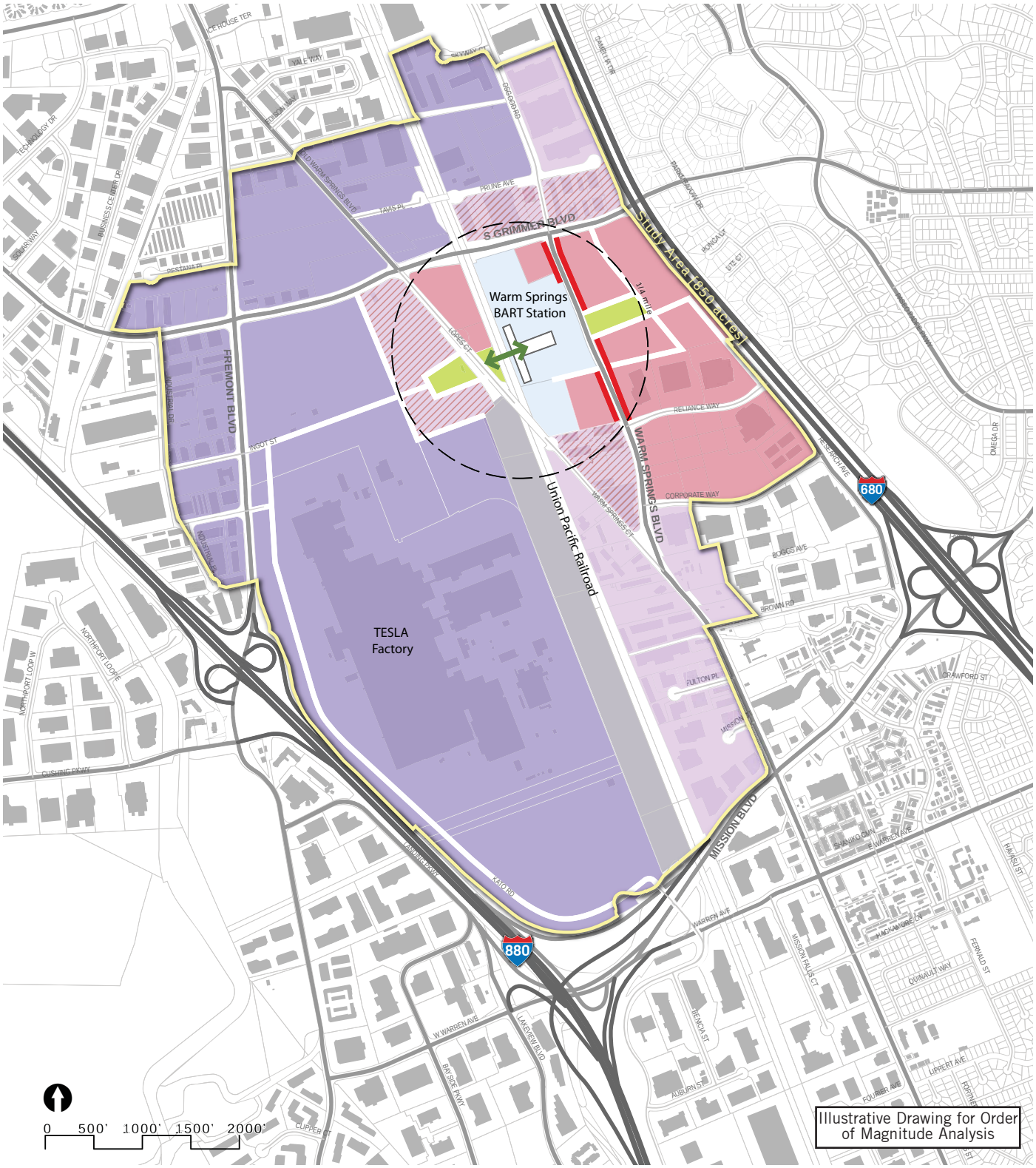
On existing vacant and under-utilized parcels and those subject to land use change

NON-RESIDENTIAL SQUARE FOOTAGE: from 5,700,000 sf to 9,000,000 sf

JOBS: from 12,300- 26,600 jobs

RESIDENTIAL UNITS: 0 units

Figure 5.1: Land Use Alternative 1 - Innovation Center/Manufacturing



	Industrial - General Industrial/Manufacturing		Commercial - Retail Center		BART
	Industrial - Technology/Research & Development		Residential - High Density (includes support services such as retail, schools, and parks)		Railroad / Railyard
	Commercial/Industrial - Office/Research & Development (Could include Special Uses such as entertainment, community facilities, and hotels)		Open Space		
	Commercial High Tech Office (Could include Special Uses such as entertainment, community facilities, and hotels)		Retail Frontage		

Note: A minimum of 15 acres of rail-related uses may be developed on Parcel 1, which could affect long-term build-out. If this were to occur, employment and development assumptions may potentially be relocated to other portions of the Study Area.