

CHAPTER 3 ACCESS IMPROVEMENTS

Regardless of the final development plan, there are numerous opportunities to improve access to South Hayward station. This chapter summarizes the analysis of access issues and presents recommended improvements. These will not only improve service for existing riders, but also help BART capture a greater share of trips. There is

great potential for increased ridership, given that to the north of the station (the census block groups between Tennyson Road and Harder Road), BART accounts for as little as 1.3% of commute trips. Figure 3-1 shows the transit mode share for commute trips by residents living in the station area.

Central Alameda County Community-Based Transportation Plan

The access improvements recommended in this chapter are partly drawn from the Central Alameda County Community-Based Transportation Plan. Completed in June 2004, this plan covered the communities of Cherryland, Ashland and South Hayward. The goal was to provide low-cost, short-term or high priority transportation solutions to meet some of the most critical community transportation needs. The Metropolitan Transportation Commission's new Lifeline Transportation Program, administered by the Alameda County Congestion Management Agency, provides a potential source of funding to implement many of these projects.

The ten key improvements identified in the Central Alameda County plan were:

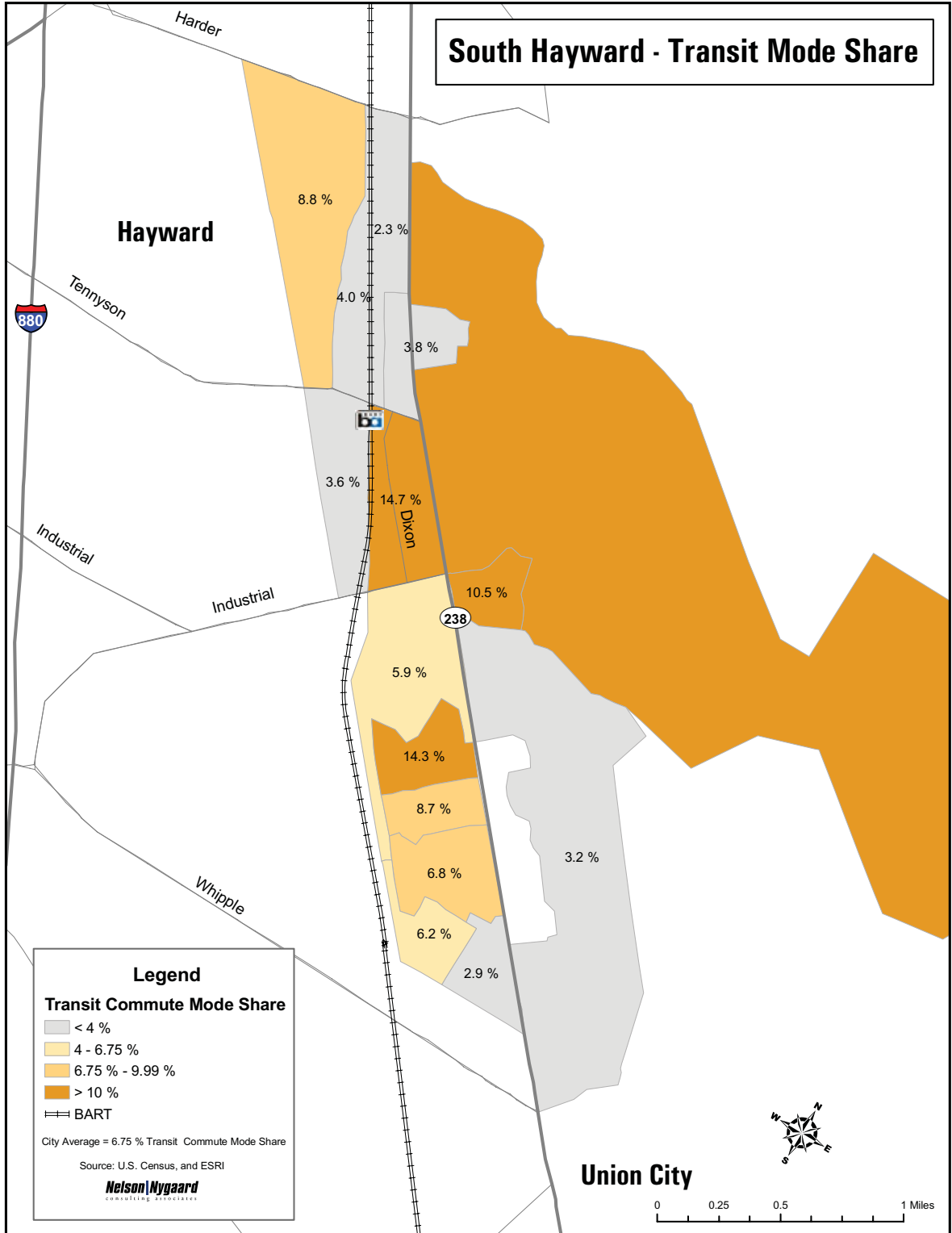
- Adjustments to AC Transit service
- Bus shelters
- Transportation information on cable television
- Information center
- Information at stops and on buses
- Multilingual information
- Sidewalks in Cherryland
- Lighting
- Bicycle purchase assistance and bicycle racks
- Auto loan program and car-sharing

Transit Access

Currently, the South Hayward BART Station has nine bus bays, served by seven AC Transit routes. The most frequent operate at 30-minute headways, and serve both Mission Boulevard and the neighborhoods to the west of the BART tracks, including Chabot College. A total of six routes serve the segment of Tennyson Road between the BART station and Huntwood Avenue. In addition, some routes are scheduled to “pulse” at the BART station, generally around the half hour.

The 99-Mission line (the only trunk line serving South Hayward station) has by far the highest ridership of any of these routes. AC Transit's service deployment policies focus the most frequent service on these trunk routes; 15-minute headways can be expected on this line in the future should ridership increase following new development, and should resources be available. Eventually, Rapid Bus treatments (similar to the San Pablo corridor) may be appropriate. At the public work-

Figure 3-1 Transit Mode Share for Station Area Residents



shop, increased bus frequencies on Mission Blvd ranked as the second highest priority of all access improvements, after creating pedestrian connections across Mission Blvd (see Appendix B). While the 99-Mission has the lowest percentage of riders transferring to and from BART compared to other AC Transit lines, it has the highest ridership and therefore some of the highest volumes of transferring passengers (see Appendix E).

Union City Transit previously served South Hayward station, providing an in-line connection from the western part of Union City for BART riders traveling to Oakland and San Francisco, avoiding the need for them to backtrack to reach Union City station. However, due to disappointing ridership, the route was discontinued; the agency currently has no plans to restore this service.

A transfer analysis conducted in June 2005 (provided in full in Appendix E) found that roughly 60% of bus patrons at South Hayward station transfer to or from BART, while 12% transfer between buses. In other words, the station is primarily an interchange between BART and bus, rather than between different bus lines.

As discussed in Chapter 2, as the proposed plan would reduce the amount of commuter parking at South Hayward, it is important to preserve the ability to increase transit service in the future. Even if there are no immediate plans to do so, new residential development will constrain the potential to expand transit coverage for the next 30 years or more. However, since increased frequencies are the main priority for transit improvements, the proposed intermodal facility with nine bays (including two for future expansion) will provide adequate future capacity. Moreover, taxi or kiss-and-ride spaces can be relocated onto Dixon Street if necessary to provide additional bus bays.

The 99-Mission line is the priority for frequency enhancements. *Photo: CD+A*



Figure 3-2 AC Transit Routes Serving South Hayward BART

AC Transit Routes Serving South Hayward BART	Weekday Frequency	Saturday Frequency
Route 77 Soto: Neighborhood service between Tampa Ave. & Tennyson Road, Ruus Lane and Georgian Manor, South Hayward BART, Gading Road and Harder Road and terminating at the Downtown Hayward BART Station.	30 minutes (peak) 30-60 minutes (off peak)	60 minutes
Route 83 Clawiter: Operating between South Hayward and Downtown Hayward BART stations, servicing Tennyson Road and Hesperian Boulevard, Eden Landing Road and Investment Boulevard, Clawiter Road and Industrial Boulevard, Winton Avenue and Hesperian Boulevard, Hesperian Boulevard and W. A Street.	30 minutes (peak) 60 minutes (off-peak)	No Service
Route 86 Winton: Operating between South Hayward and Downtown Hayward BART stations, servicing Tennyson Road and Hesperian Boulevard, Depot Road and Industrial Boulevard, AC Transit Hayward Division, Winton Avenue and Hesperian Boulevard.	30 minutes (peak hour only to S. Hayward)	No Service to S. Hayward
Route 91 Redwood: Service from San Antonio Street and San Luis Obispo Avenue, Industrial Parkway and Huntwood Avenue, South Hayward BART, Hayward BART, A Street and Foothill Blvd, Castro Valley BART and Castro Valley Senior Center.	30 minutes	No Service
Route 92 Southland: Servicing Chabot College, Southland Shopping Center, Hayward BART, Hayward High School, South Hayward BART, Campus Drive & Second Street and Cal State Hayward.	No Service to S. Hayward	60 minutes
Route 99 Mission: Line services four BART stations. Fremont BART, down Mission Boulevard to Union City BART, South Hayward BART and Hayward BART.	30 minutes 60 minutes (after 7 pm)	30-60 minutes
Route 210 Fremont Boulevard: Service from Ohlone College, along Fremont Boulevard, to Dyer Street and Alvarado Boulevard, Union Landing Shopping Center, Huntwood Avenue and Whipple Road, Industrial Parkway and Huntwood Avenue and South Hayward BART.	30 minutes (peak) 60 minutes (off peak)	30 minutes

Figure 3-3 AC Transit Route Map



Pedestrian Access

The main pedestrian access route to the station is from Dixon Street, through the BART parking lot. There is also a stairway that provides direct access to Tennyson Road, to the north of the station. Some of the key barriers to pedestrian movement (summarized in Figure 3-4) include:

- **BART tracks.** Pedestrian crossings of BART are limited to the vehicular undercrossings at Tennyson, Industrial and Harder, plus two pedestrian-only crossings. These include a tunnel to the south of Bowman School (Figure 3-4), which can best be described as a “pipe” – it is cramped, unpleasant and not ADA accessible. It is only open at limited times. However, it is an important link to the BART station with some of the neighborhoods to the west of the tracks, allowing pedestrians to continue to BART via Nuestro Parquecito. The other crossing is the pedestrian bridge at Sorensen Road, which is not ADA-accessible (see photo).
- **Tennyson Road.** Pedestrians accessing BART via Nuestro Parquecito must walk down an embankment, and climb the fence to jaywalk across Tennyson. Alternatively, they go along the embankment under the BART tracks, cross via the parallel Union Pacific rail bridge, and go under the BART tracks along the embankment on the other side. The legal option is to cross to the east at the Dixon Street intersection, but this involves a detour; it is apparent from the worn footpaths that many people cross along the desire line instead.
- **Mission Blvd.** The City of Hayward, in conjunction with ACTA, has improved pedestrian facilities at the Mission and Industrial intersection. Improvements along Mission Boulevard must be coordinated with Caltrans and are constrained by the limited right-of-way and the demands of the Route 238 Corridor Improvement Project. Crossings of Mission Blvd are also an issue, with limited green time for pedestrians.



Top: The bridge at Sorensen Road. *Photo: CD+A*
Bottom: Nuestro Parquecito is an attractive linear park, but lacks a good connection to the BART station across Tennyson Road, or under the BART tracks. *Photo: CD+A*

The shaded area in Figure 3-4 shows the half-mile radius from the BART station, using real walking distances based on current, legitimate pedestrian routes and street crossings. It illustrates that these barriers substantially reduce the number of homes that are within a half-mile walk, particularly to the west of the tracks.

In addition, informal interviews with BART patrons reveal that personal safety is a concern, and is one of the reasons why many prefer to avoid walking to the station. During the public workshop, crime on the south portion of Dixon Street was raised as a particular concern.

OVERHILL DR
GREELEY CT

Perceived safety concerns on Street

Pedestrian facilities along Mission Blvd. constrained by limited right-of-way and signal phasing



DIXON'S

THE VISTA PARK

MARINERS CT

SOUTH HAYWARD BART STATION



No legal crossing of Tennyson, pedestrians use freight bridge, jaywalk or deviate to the legal crosswalk at Dixon

Nuestro Parquecito lacks connections at either end



Tunnel under BART tracks cramped and unpleasant



E 16TH ST

ALCOCK ST

DOUGLAS ST
STEFER ST

NUESTRO PARQUECITO

M P
BOBKE DR

BEALE DR

WHITE DR

PACIFIC ST

WILSON BLVD

DE VACA WAY

WASH BLVD

MENDEZ DR

AXMINSTER DR

LEON CHARNOV BLVD

LANCASHIRE

QUINN

PACIFIC ST

WILSON BLVD

Bicycle Access

There are 30 bike lockers provided at the station parking facility, along with bicycle racks. Bicycle activity is quite noticeable at the station. The bike rack north of the station (which has a direct line of sight to the station agent) tends to fill up, while the one south of the entrance attracts more limited use.

In the station area, there are bicycle lanes along Tennyson Road and Dixon Street, and Whitman Street is signed as a Class III bicycle route. There is also an attractive off-street bicycle path along Industrial Parkway west of the BART tracks, which at present ends rather abruptly. However, the City’s Bicycle Master Plan proposes extending this path through the bowling alley property to Mission Boulevard.

Automobile Access and Parking

The South Hayward BART Station Area is located near the intersection of Tennyson Road and Mission Boulevard (State Highway 238). Regional and local traffic, as well as South Hayward BART station patrons, heavily utilize these roadways. The station entrance is located off Dixon Street and drivers can either drop their passenger off at the Kiss and Ride area or continue to the underground parking lots.

South Hayward is one of the few BART stations where parking does not regularly fill up. BART provides 1,207 parking spaces in two lots, which are approximately 83 percent full on a daily basis (Figure 3-5). There are 26 reserved spaces of which 21 are regularly unused; in contrast to most other stations there are unused regular spaces and there is little incentive to pay for the reserved spots. All other spaces are free of charge to BART riders.

There are also a significant number of vacant on-street spaces which could be used if required for BART patrons, along Dixon Street and Tennyson Road, although current regulations prohibit parking on Tennyson Road under the BART tracks.

Figure 3-5 Parking Supply and Occupancy Summary – South Hayward Station

Parking Supply	
Total Spaces	1,207
Carpool Spaces	0
Midday Spaces	12
Reserved Spaces	26
Available Spaces - 9:00 am	
Regular Spaces	239
Carpool Spaces	0
Reserved Spaces	24
Available Spaces - 1:00 pm	
Regular, Carpool, Midday and Reserved Spaces	210
Bicycle Occupancy*	
Parked Bicycles at 9:00 am	6
Parked Bicycles at 1:00 pm	5
Bicycle Locker Supply	
Available Bike Lockers	30

* Excluding bicycles in lockers
 Source: BART Stations – Parking Facility Occupancy Survey. April 20 – May 6, 2004.

Access Survey

An intercept survey conducted Wednesday, June 1 and Thursday, June 2, 2005 collected behavioral and demographic information about passengers boarding BART at the South Hayward BART Station between 6:30am and 10:00pm.¹ In total, 745 passengers participated in the survey. The survey results are provided in Appendix D.

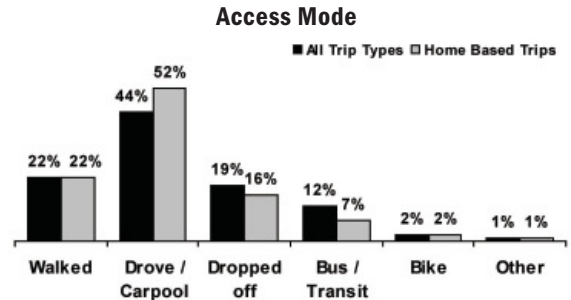
1 Corey, Canapary & Galanis Research. BART South Hayward Station Intercept Survey, June 2005.

The key findings of this survey are shown in Figure 3-6, and include:

- Patrons primarily arrive at the South Hayward BART Station by driving alone (39% of all riders, and 46% of those traveling from home). Overall, 63% arrive by automobile, with 5% carpooling and 19% being dropped off.
- Of the patrons driving alone, 96 percent parked in the BART parking lot. This is unsurprising given that BART parking facilities do not fill to capacity at this station.
- Bus and bicycle access assume greater importance for trips at the non-home end, i.e. for trips between the BART station and the workplace or school site. While South Hayward is primarily a home origin station, some local employment sites include schools (Cesar Chavez, Bowman and Moreau), Kaiser (at Tennyson and Hesperian), and the industrial area to the south of Industrial Pkway.
- Most patrons, 75 percent, utilize BART three or more days a week and mainly for commute purposes (66 percent). As such, 77 percent arrived at BART from home.
- Most of the respondents' trips, 79 percent, originated in Hayward, while ten percent started at Union City and five percent from Fremont.
- The survey found a relatively even racial distribution of passengers. 78 percent are younger than 50 years of age.

Figure 3-6 South Hayward Patron Survey Findings

Usage and Access



Demographics

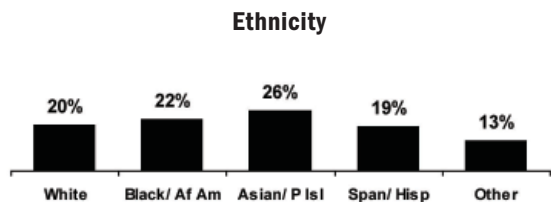
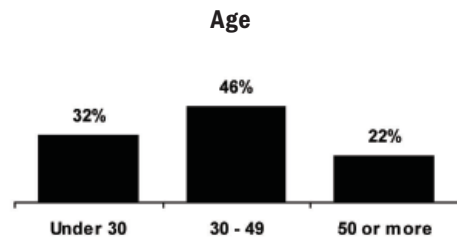
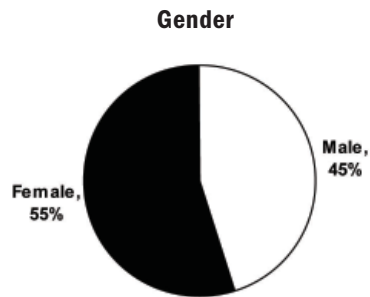


Figure 3-7 Access Mode to South Hayward BART Station

Access Mode	All origins		Home Origins	
	1998 Survey	2005 Survey	1998 Survey	2005 Survey
Walked	14%	22%	13%	22%
Bicycle	4%	2%	2%	2%
Motorcycle	*	0%	*	0%
Drove Alone	38%	39%	48%	46%
Carpool	19%	5%	15%	6%
Dropped off by Car	5%	19%	7%	16%
Bus/Transit	19%	12%	15%	7%
Other (Taxi, Wheelchair, Skateboard, Scooter)	1%	1%	0%	1%
Total	100%	100%	100%	100%

*Motorcycle mode split not isolated in 1998 BART Station Profile Survey
 Source: 1998 BART Station Profile Survey and 2005 BART Patron Survey

Figure 3-7 compares the 2005 results to the 1998 system-wide survey of BART riders. The main differences are a substantial increase in walk access (by 8 percent), and a decline in carpooling and transit use (by 14 percent and 7 percent, respectively). At the same time, the drive alone share increased slightly while the drop off rate increased by 14 percent.

Origins of BART Riders

Of the 745 surveys collected, 440 participants or 60 percent provided their place of origin and/or address. Figure 3-8 illustrates the mode of travel for survey respondents coming from home and those coming from all other locations. The majority of respondents live on or adjacent to Tennyson Road or Mission Boulevard and use a variety of modes to reach the station. Respondents who did not originate from their homes mainly started their trip from the Tennyson Road corridor and walked to the station.

Analysis of the data (provided in full in Appendix D) also shows that there is great potential to reduce the share of BART customers who drive alone to

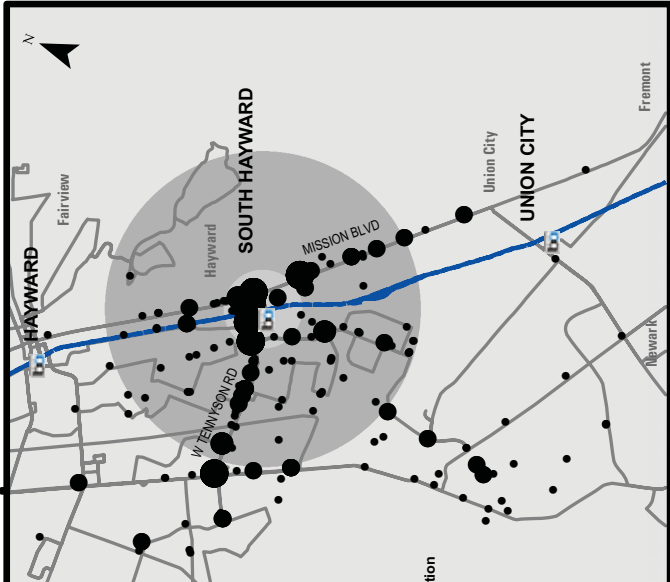
the station. Of those traveling from within a half-mile of the station – a ten-minute walk – 21% drive alone and park, representing approximately 125 riders per day. This is likely a reflection of poor pedestrian crossing facilities, personal safety fears, the need to run errands en route, and free and available parking at the station.

Mode shift to bus access is also a possibility, given that many customers are traveling from along the major bus corridors of Mission Boulevard and Tennyson Road. Of these passengers, 32% currently drive alone – approximately 170 passengers per day – while 12% ride the bus.²

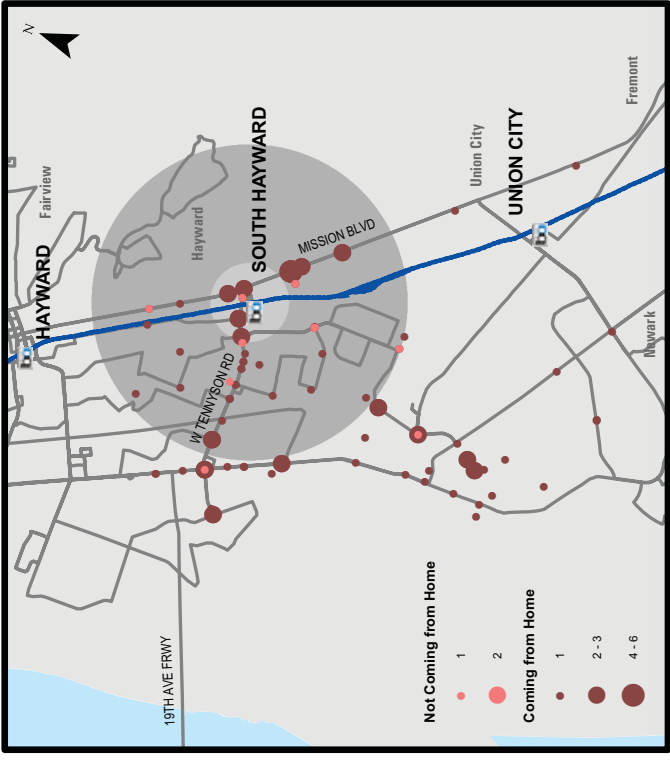
The analysis also shows that some park-and-ride users are traveling from Fremont or Union City. This shows the potential to increase parking provision at these stations as an alternative to catering for these riders at South Hayward.

² These figures refer to those within a 0.5 mile to 2 mile radius of the station, considered a short bus journey.

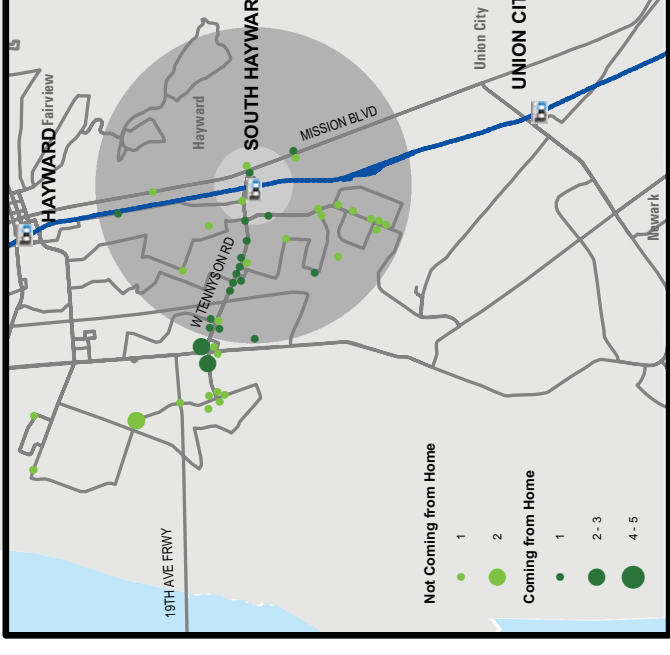
Access Modes



Drove Alone to Station



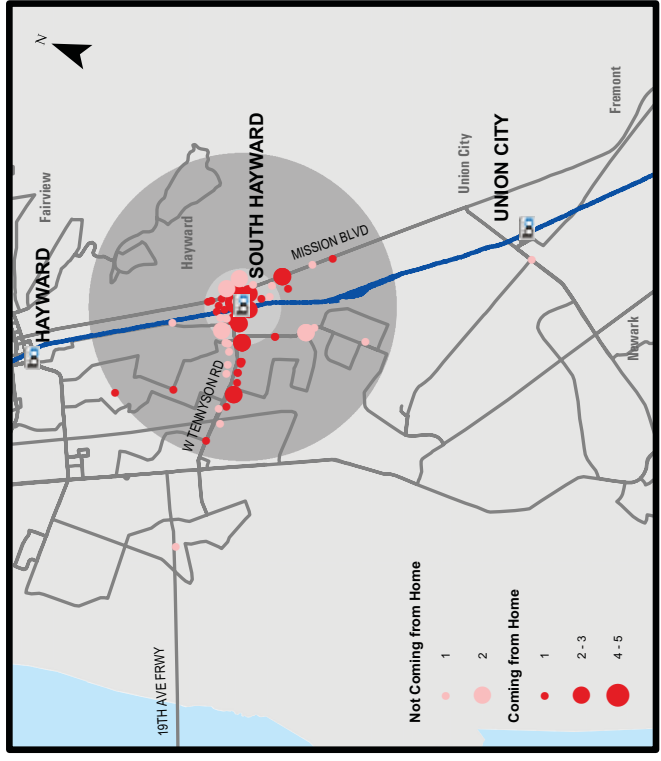
Rode Bus to Station



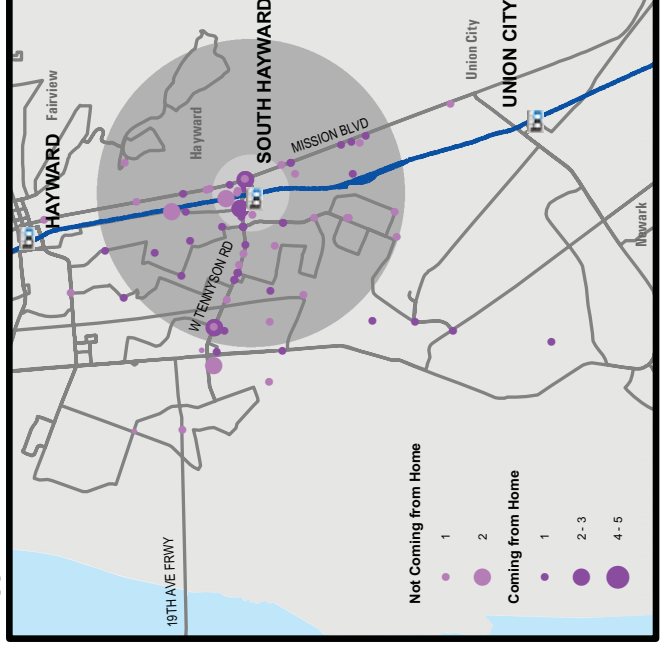
Transit Modes of Transportation to South Hayward Station



Walked to Station



Dropped off at Station



Recommendations

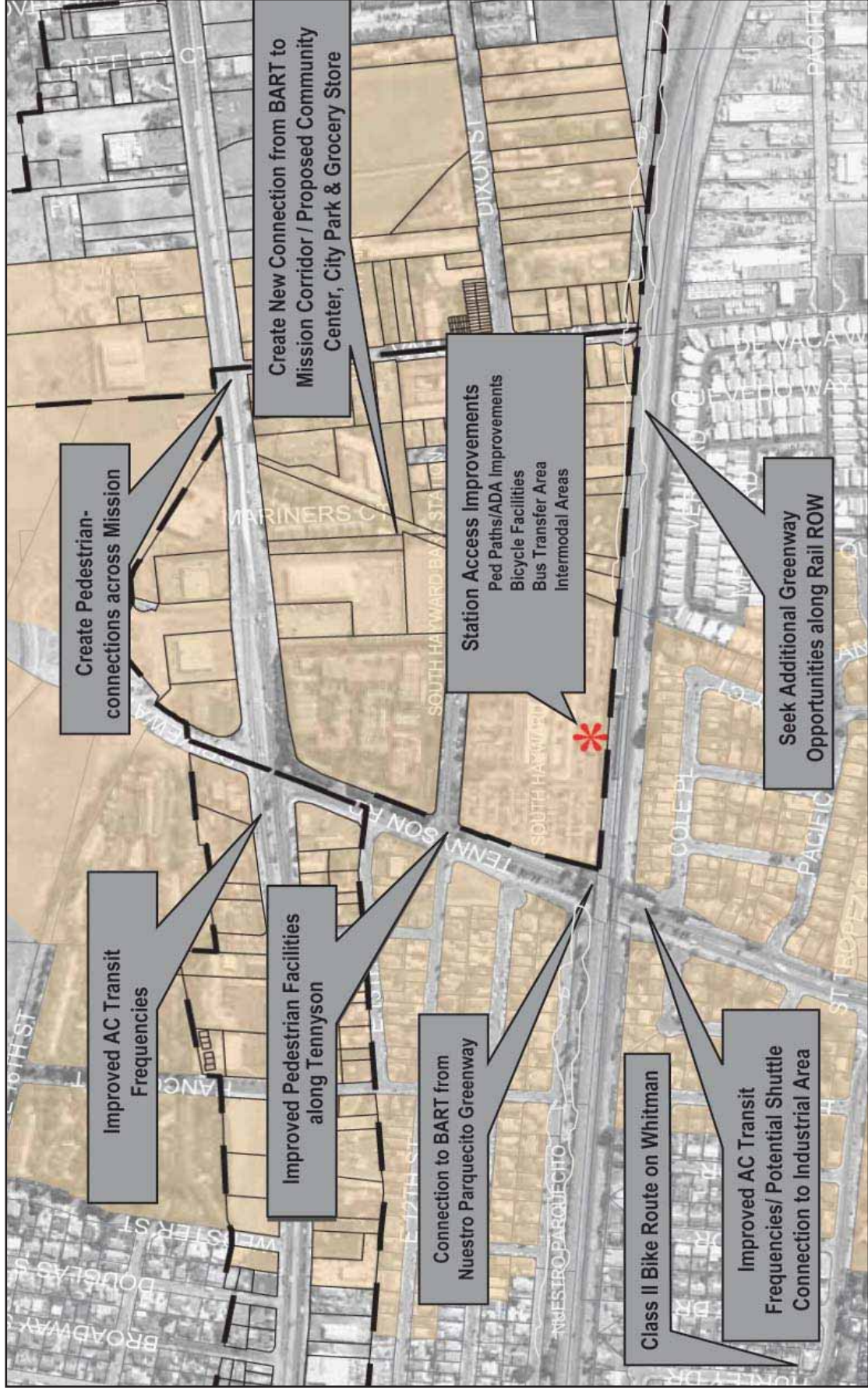
This section details specific multimodal access improvements recommended for South Hayward. These are summarized in Figures 3-9 and 3-10, and each is discussed in more detail below. It is important to recognize, however, that new development will yield some of the most important

access improvements, through the creation of new pedestrian connections, making higher bus frequencies feasible, and generating more activity in the station area. As Chapter 2 notes, new development as part of the City’s Concept Plan is expected to generate 671 new riders per day for BART.

Figure 3-9 Proposed Access Improvements to South Hayward BART Station

Project	Cost	Ridership	Timeliness	Priority	Other Comments
Pedestrian					
Enhanced walkways w/in half mile	Low/Moderate	Moderate	Moderate/High	Moderate/High	Includes sidewalk completion and other improvements in South Hayward BART/ Mission Blvd Concept Plan
Pedestrian bridge over Tennyson Rd to connect to Nuestro Parquecito	Moderate/High	Moderate	Moderate	Moderate/High	
Enhanced connections under BART tracks	Moderate/High	Low	Moderate	Moderate	Specific improvements may include upgrade to tunnel outside Bowman School and bridge at Sorenson
Ped/bike corridor along UP right of way	High	Moderate	Low/Moderate	Moderate	Could be combined with new west entrance to station
Bicycle					
Class II bike lanes on Whitman	Low	Low	Low	Low	Existing Class III bike route. Requires parking removal on one side on some blocks.
Stairchannels	Low	Low	Moderate	Moderate	
Replace single-user lockers with electronic lockers	Low	Low	Moderate	Moderate	Part of system-wide upgrade.
Transit					
Shuttle/AC Transit service to Industrial Pkwy	High	Low/Moderate	Low	Low	May be appropriate in conjunction with increased development
Increased frequencies on 99-Mission	High	Moderate	Moderate	Moderate	In conjunction with development along Mission Blvd
Bus shelters	Low	Low	Moderate	Moderate	In conjunction with streetscape improvements and/or new development with setbacks
Real-time information	Low	Low	Moderate	Moderate	Including information on bus and BART departures
Other					
Wayfinding	Low	Low	High	Moderate	Part of neighborhood wayfinding system compliant with regional standards. Primarily for pedestrians, but also bicycles and autos.
Parking benefit district	Low	Low	Moderate	High	On-street parking will need active management following new development and reduced BART parking.

Figure 3-10 Recommended Access Improvements



Pedestrian Improvements

- Enhanced walkways within a half-mile of the station.** These relate to sidewalk completion, pedestrian crossings and streetscape improvements. Tennyson Road is a priority, given that this is the most frequent bus corridor, and that the majority of current BART patrons are traveling from the west of the station. On-street parking should be permitted to provide a buffer between pedestrians and moving vehicles, but the main benefits will arise from new development on the north BART-owned parcel. The South Hayward BART/Mission Blvd Concept Plan, meanwhile, calls for setbacks for new development along Dixon Street to accommodate a wider sidewalk and a planting strip. Other improvements relate to creating connections through development parcels, such as through the BART parcel east of Dixon and the Perry & Key site to Mission Boulevard, as shown in Figure 3-11.
- Tennyson Road crossing.** Nuestro Parquecito provides an attractive route to the station from the north, but there is no connection to the station across Tennyson. (Riders at present appear to cross illegally via the freight rail bridge.) Given the grade changes, a pedestrian bridge is likely to be the best option.
- Enhanced connections under BART tracks.** As well as streetscape improvements, these include an upgrade to the tunnel outside Bowman School and the bridge at Sorenson Street. This will enable BART to serve the neighborhoods to the west of the tracks more effectively. Immediate improvements to the tunnel could include lighting, cleaning and extending hours of operation. In the longer term, improvements could include widening and deepening the tunnel and providing an ADA-accessible ramp. Most importantly, there should be clear lines of sight from the ends of the tunnel into the surrounding neighborhoods. To accomplish this, Nuestro Parquecito could be lowered to meet the tunnel on the east end, and a broad, wide ramp constructed on the west end.

- Union Pacific corridor.** The most important longer-term priority is to establish a pedestrian and bicycle path along the disused Union Pacific right-of-way, to the west of the BART tracks. This would run from Union City to Coliseum and beyond, serving all BART stations on this corridor – southern Alameda County’s version of the Iron Horse Trail. The Regional Rail Study³ now underway will determine whether this corridor is still needed for rail service, although the 100’ right of way can accommodate both rail and a pedestrian/bicycle path. At South Hayward, this might be coupled with a new west entrance to the station; this would require additional faregates but could be monitored by the existing station agent. This additional entrance should be evaluated as part of a future station capacity master plan.



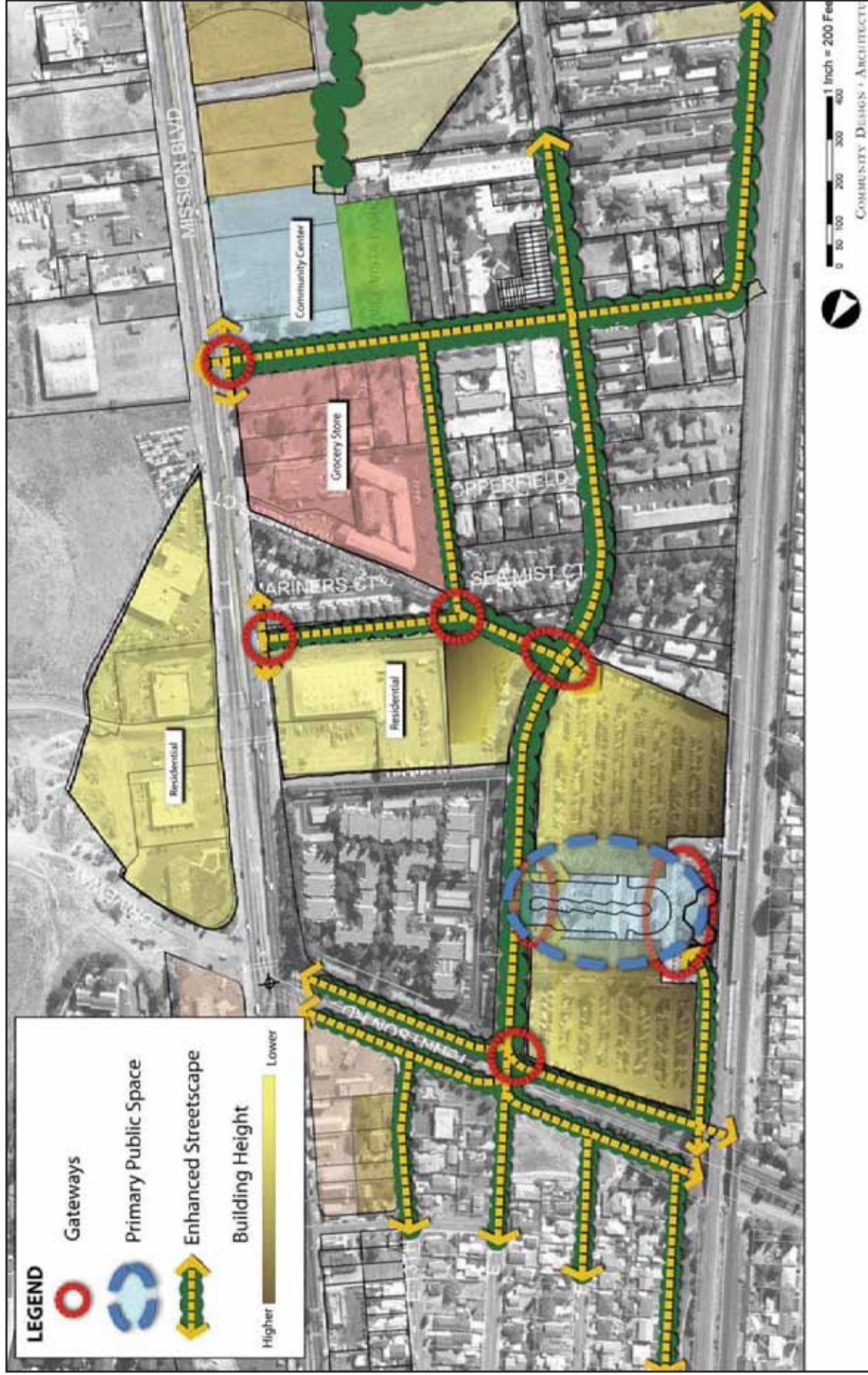
The Union Pacific Railroad right-of-way (to right) parallels the BART tracks, and offers exciting potential for a new multi-use trail. Photo: CD+A

Bicycle Improvements

- Class II bicycle lanes on Whitman.** This street is currently a Class III bicycle route, without dedicated lanes for cyclists. There is sufficient right-of-way to stripe bicycle lanes on many sections of this street, such as between Tennyson Road and Sorenson Road and between Berry Avenue and Orchard Av-

³ The Regional Rail Study is a partnership project been overseen by the Metropolitan Transportation Commission (MTC), BART, Caltrain and the California High Speed Rail Authority.

Figure 3-11 Streetscape Enhancements From New Development



enue. On other sections, bicycle lanes would require eliminating (underused) on-street parking on one side of the street, which the City of Hayward may not support. Whittman is a critical north/south bicycle connection since no bicycle provision is anticipated on the reconstructed Mission Blvd, the other north/south route in this part of the City.

- **Upgrade bicycle lockers.** The existing bicycle racks within view of the station agent are well used, but some potential cyclists still express security concerns. As well as siting new bicycle racks in a visible location, the existing single-user bicycle lockers should be replaced with electronic keycard-access lockers that permit multiple users.
- **Stair channels for bicyclists.** These make it easier to bicyclists to access the platform, and BART plans to introduce these at many stations.

Transit Improvements

- **Enhanced frequencies on Mission Blvd.** The two major transit corridors serving South Hayward are Tennyson Road and Mission Blvd. About one-third of riders (by all access modes) arrive from within one-quarter mile of one of these streets. AC Transit already operates at 15-minute peak frequencies on the entire length of Tennyson between Hesperian and South Hayward BART (via the 83 and 86 which operate at staggered 30-minute frequencies at peak times). Other routes combine to provide even more service east of Huntwood, although most are not staggered and therefore offer limited improvements to effective frequencies. This means that Mission Blvd is the priority corridor to increase service spans and frequencies, which should be doubled to every 15 minutes (initially at peak times, but subsequently all day). This is not just dictated by access considerations; the 99-Mission is one of AC Transit's trunk lines, and increased service will also be required to serve the considerable amount

of new development planned for Mission Blvd (at least 2,300 units between Harder and Industrial, according to draft plans). Since the 99-Mission does not terminate at the station, frequencies can be increased without adding bus bays.

- **Increased service to Industrial Pkwy.** New development in the far south of the City of Hayward may make increased service to Industrial Pkwy a longer-term priority. This could be accomplished through strengthening routes 84, 91, 210 or 391, or a new AC Transit or shuttle service.
- **Bus shelters.** Through a joint powers agency (JPA) with AC Transit as the lead agency, the City of Hayward and Alameda County contract with an advertising firm to provide bus shelters at no cost on major thoroughfares, when they can be accommodated in accordance with ADA standards. Mission Blvd is a priority street, and shelters may be feasible given the setbacks for new development (to permit widened sidewalks) envisioned in the City's concept plan. Shelters should include bus maps and schedule information.
- **Real time information.** This information should be provided in the bus intermodal, the station entrance and/or the BART platform, and indicate the times of the next bus and BART departures. AC Transit has already implemented real-time information at some stops on San Pablo Avenue as part of Rapid Bus improvements, and the 99-Mission would be a suitable line for initial implementation. BART departure information is available on platforms, but not in bus intermodal facilities. Real-time information is important given that most bus riders are transferring to and from BART.
- **New AC Transit intermodal.** Development in the station area will necessitate redesign of the existing intermodal facility. The new design should maintain bus operations by limiting potential bus/auto conflicts, while striving to reduce the overall footprint of the intermodal facility.

Bus shelters and more frequent AC Transit service and extended service hours – possibly taking the form of late-night demand-response service – were two of the most important priorities identified in the Central Alameda County Community-Based Transportation Plan. Other priorities include sidewalks and bicycle facilities (addressed in these recommendations), and programmatic improvements such as better information at bus stops.

Auto Improvements

Improvements for private automobile access are integral to the overall development alternative, and are discussed in detail in Chapter 2. Key issues include:

- **On-street parking management.** Implementation of the development program recommended in Chapter 2 will increase the pressure on on-street parking in the station area. This will be partly due to parking charges for residents and BART riders, and partly due to reduced BART replacement parking. BART should encourage the City of Hayward to introduce paid on-street parking, including residential permits, in order to avoid overspill from BART commuters or residents seeking to avoid parking charges. A Parking Benefit District, as used in Redwood City, would return this revenue for neighborhood improvements. Should the City prefer not to introduce paid on-street parking, time limits for non-residents are an alternative.
- **Parking garage location.** The garage should be sited for convenient roadway access, particularly to the south and west. However, it does not need to be immediately adjacent to the station, and siting decisions should consider the potential for pedestrian flows between the garage and faregates to strengthen the retail market. Providing BART parking in separate shared-use garages on different parcels will help reduce peak-hour congestion through providing multiple auto access routes.

- **Replacement parking.** As discussed in Chapter 2, not all of the existing BART commuter spaces need to be replaced. BART spaces should be shared with other uses, particularly visitor parking for residential uses. Since commuter parking is likely to be constrained, dedicated carpool parking should be considered in any new BART facility in order to maximize ridership per space.
- **Drop-off and taxi access.** The intermodal design (as proposed in Chapter 2) must provide adequate curbspace for drop-off vehicles and taxis to wait for passengers.

Wayfinding for All Modes

- **Wayfinding.** Any redevelopment of BART property should include new station signage for pedestrians, cyclists and drivers – both those wishing to park at the station, and those dropping off or picking up passengers. Wayfinding could be part of a neighborhood system, but subscribe to regional standards developed by MTC and BART.

Impact on Mode Share

Figures 3-12 and 3-13 show the projected impact of both the development program discussed in Chapter 2, and the access recommendations discussed above, on BART ridership at build-out in approximately 2025. It shows that new development will be by far the most important source of new ridership, and will boost the share of access trips made on foot. While reduced replacement parking means that there will be fewer park-and-ride users, around half of these riders can be expected to find alternative means to get to the station and will continue to ride BART (see discussion in Chapter 2 and Appendix C.)

As discussed in Chapter 1, BART has system-wide access mode share targets for shifting park-and-ride trips to other modes from . While there are no

formal targets for individual stations at present, the analysis shows how implementation of this South Hayward plan can contribute to system-wide policy goals. Depending on the level of replacement parking, drive-alone access mode share can be reduced from 39% to 22-27%, with the bulk of the new access trips made on foot. At the same time, overall ridership can grow by one-third.

Figure 3-12 Access Mode Share at Buildout (60% Replacement Parking)

Improvements and Developments	Access Mode								Total
	Drive Alone	Carpool	Drop Off	Bike	Pedestrian	Transit	Other*	Total	
Current Ridership									
Current Access Mode Share (1)	39%	5%	19%	2%	22%	12%	1%		
Current Boardings	1,139	146	555	58	642	350	29		2,920
Net Ridership Change at Buildout (2025)									
Pedestrian Improvements				Not quantified					0
Bicycle Improvements				Not quantified					0
Transit - Enhanced 99-Mission frequencies (2)						58			58
Transit Amenities (3)						18			18
Reduced Parking (4)	-274		44	5	60	19	3		-142
New Development (BART property) (4)			157	10	460	29			656
New Development (other within 1/2 mile) (4)			80	5	235	15			336
Net Change	(274)	-	281	20	756	139	3		925
Total Boardings at Buildout	865	146	835	79	1,398	489	32		3,845
% Mode Share at Buildout	22%	4%	22%	2%	36%	13%	1%		100%
Total Increase in Ridership									32%

(1) Source: 2005 Patron Survey.

(2) Currently 58 daily transfers from 99 Mission. Assumes that doubling frequency doubles transfers, i.e. that productivity will be maintained due to development along Mission Blvd. See also Livermore/Amador Valley "Rapid Bus" Plan, BART, 2004.

(3) Based on 5% increase in transit transfers. Source: <http://www.ulie/~infopolis/existing/index.html>. This methodology has been used to calculate impact of NextBus in San Francisco.

(4) See Replacement Parking Analysis in Appendix C. Assigned to mode based on current access mode share for home origins with 1/2 mile, excluding park-and-ride.



Figure 3-13 Access Mode Share at Buildout (75% Replacement Parking)

Improvements and Developments	Drive Alone	Carpool	Drop Off	Bike	Pedestrian	Transit	Other*	Net Change
Current Ridership								
Current Access Mode Share (1)	39%	5%	19%	2%	22%	12%	1%	
Current Boardings	1,139	146	555	58	642	350	29	2,920
Net Ridership Change at Buildout (2025)								
Pedestrian Improvements	Not quantified							
Bicycle Improvements	Not quantified							
Transit - Enhanced 99-Mission frequencies (2)						58		58
Transit Amenities (3)						18		18
Reduced Parking (4)	-81		13	2	18	6	1	-42
New Development (BART property) (4)			150	9	439	28		627
New Development (other within 1/2 mile) (4)			80	5	235	15		336
Net Change	(81)	-	243	16	693	124	1	995
Total Boardings at Buildout	1,058	146	797	74	1,335	475	30	3,915
% Mode Share at Buildout	27%	4%	20%	2%	34%	12%	1%	100%
Total Increase in Ridership								34%

(1) Source: 2005 Patron Survey

(2) Currently 58 daily transfers from 99 Mission. Assumes that doubling frequency doubles transfers, i.e. that productivity will be maintained due to development along Mission Blvd. See also Livermore/Amador Valley "Rapid Bus" Plan, BART, 2004.

(3) Based on 5% increase in transit transfers. Source: <http://www.ut.ie/~infopolis/existing/index.html>. This methodology has been used to calculate impact of NextBus in San Francisco.

(4) See Replacement Parking Analysis in Appendix C. Assigned to mode based on current access mode share for home origins with 1/2 mile, excluding park-and-ride.

CHAPTER 4 DESIGN GUIDELINES

BART has prepared Transit-Oriented Development Guidelines¹ to guide planning and development around all BART stations. In addition, the design principles identified below were prepared with the City of Hayward to help with the creation of TOD at the South Hayward BART Station. These principles are provided to assist stakeholders involved with new development at or adjacent to the South Hayward BART station. For a more detailed discussion (and examples), see the Design Guidelines Chapter of the City of Hayward's South Hayward BART/Mission Boulevard Concept Plan (2006).

A “Vision”

Creating attractive and safe pedestrian spaces are essential ingredients of community revitalization both for support of multimodal travel, for providing successful public spaces, and to support the desired economic revitalization of the station area. The following are some guiding principles for planning for a transit-oriented environment around the BART station that integrates into the existing built fabric.

Give pedestrians more, safe, comfortable, and interesting walking spaces. Pedestrians need wide pathways, not simply for room to maneuver, but also to feel comfortable. Beyond width, pedestrians desire shelter from sun and rain, as well as a sense of being enclosed by nearby buildings or trees, rather than being directly exposed to expanses of asphalt and high-speed traffic. Lastly, visually interesting, highly detailed surroundings and ame-

nities such as seating, outdoor retail displays, and sidewalk cafes, render a walk more enjoyable, and will entice people to linger and relax.

Create great outdoor spaces. Well-designed urban public spaces near the BART station, transit stops and high-pedestrian areas can cater to pedestrians, bicyclists, transit riders, and residents or workers from adjacent developments that either need to be outside, want to walk to retail and services, or simply want to enjoy the outdoors. Design guidelines for Mission Boulevard, Dixon Street and Valle Vista Avenue envision opportunities for sidewalks, courtyards, and pedestrian paths as opportunities for attractive and usable open space.

Shorten walking distances. Pedestrians are particularly sensitive to circuitous routes and long blocks because, at walking speeds, longer distances translate into much longer travel times. Pedestrian pass-throughs have been recommended in this Concept Plan to better connect the BART station with Mission Boulevard and surrounding neighborhoods.

Integrate new development into existing neighborhoods. Consistent with transit-oriented development principles, this Plan calls for higher-density development around the South Hayward BART Station, with the potential for buildings of up to seven stories. However, with appropriate design, impacts to existing residents will be minimized. Such design measures address building height, setbacks and massing by “stepping down” as a transition to existing neighborhoods.

¹ BART Transit-Oriented Development Guidelines, June 2003, San Francisco Bay Area Rapid Transit District, Oakland, CA (www.bart.gov/TOD).

CHAPTER 5 NEXT STEPS

The South Hayward BART site offers an excellent opportunity for high-density, transit-oriented development. The financial analysis showed that mixed-use development with condominium units is feasible given current market conditions; however, it should be noted that developing condominiums would likely require sale of the land to a developer. Meanwhile, Strategic Economics estimates that it will be 5 to 12 years before apartments could be developed at the desired densities. However, over time the attractiveness of the site for higher-density development will increase, as well as the potential revenues for BART. Given the length of time required for a Request for Proposals (RFP) process for joint development of the site, it may make sense for BART to begin negotiating with developers sooner rather than later.

Interviews with developers suggested that there is interest in developing the property using a master developer approach. It may also be possible for BART to promote a mix of for-sale and for-rent units in the station area by either selling a portion of the BART-owned land to a condominium developer or through a land swap. The most attractive site for rental housing in the station vicinity is the parcel that is currently optioned by a developer, which has frontage on Mission Boulevard. One potential development scenario could involve swapping this land for one of the parcels currently owned by BART.

A major challenge to developing the site will be funding the cost to build replacement parking. The current design scheme for the preferred alternative incorporates BART parking into a shared parking garage. Due to higher costs to

build BART-owned parking, this design would only make sense if the developer were to own and operate the garage. In order for this to be feasible, the parking lots would either have to charge an amount for parking sufficient to cover operating costs, or receive a subsidy from BART.

The development potential of the site will be enhanced by improvements to the neighborhood that are envisioned in the South Hayward/Mission Boulevard Concept Plan. To that end, BART should continue to partner with the City to promote the plan's goals, such as attracting neighborhood-serving retail to the area. BART should also work with the City to ensure that the nearby Caltrans parcels become available for development and help to facilitate development at the site. BART should also continue to encourage the City to plan for higher residential densities in the station area, so that higher density development can occur once the market has matured.

Next Steps

There are a series of next steps that BART can take to expedite the implementation of this plan.

Monitor the City of Hayward's environmental review and adoption of the South Hayward BART / Mission Boulevard Concept Plan. The development potential of the site will be enhanced by improvements to the neighborhood that are envisioned in the South Hayward/Mission Boulevard Concept Plan, and the proposed Plan may generate the highest return for BART if projects on Mission Boulevard first establish a local market for higher density residential development. To that end, BART should continue to partner with the

City to promote the plan’s goals, such as attracting neighborhood-serving retail to the area and encouraging higher residential densities.

Work with the City to ensure that the nearby Caltrans parcels become available for development. This will also help to establish the market for higher density residential development at the site, as well as provide an important source of ridership. BART should monitor City of Hayward negotiations with Caltrans to advance development on publicly-owned property in the station area.

Seek to implement access improvements that will help to increase ridership and add value to the station area for future developers. Specific steps include (i) Prepare preliminary design and cost estimates for specific access improvements; (ii) Refine the prioritized list of projects with partners agencies and staff; (iii) Encourage AC Transit to seek MTC/ACCMA Lifeline Transit funds to improve bus access in the station area; and (iv) Seek grant opportunities for specific projects in partnership with the City through grant programs such as Safe Routes to Transit, Transportation Fund for Clean Air and Transportation for Livable Communities.

Refine preferred parking ratios for the site. The residential parking ratios identified in this Plan are for purposes of analyzing the physical and financial feasibility of different development scenarios. BART should encourage developers and the City of Hayward to consider lower parking ratios that would help to promote transit ridership. It should also track MTC’s regional parking study, which will be examining parking policies to support transit-oriented development, including appropriate parking ratios and the feasibility of “unbundling” parking costs from housing costs in station areas.



Caltrans-owned properties may provide one option for leasing temporary parking during the construction of earlier phases.

Phasing

Phasing is also an important consideration, particularly in order to maintain parking provision during construction. Figure 5-1 shows one manner in which this can be accomplished, through the use of temporary parking – even if the north parcel (which will not include structured parking for BART riders) is developed first for financial reasons. If the south or east parcels are developed first, the task becomes easier as these sites are earmarked for shared BART parking structures, which would then become available in Phase 2. A detailed phasing plan can be agreed in partnership with a master developer.

Some potential options for temporary parking include:

- Use of vacant parcels in the immediate vicinity, particularly the Caltrans-owned parcels to the south of the station, for temporary parking. These parcels are located within a half-mile of the station.
- Maximizing on-street parking, for example through permitting parking on Tennyson Road under the BART tracks, and using currently vacant spaces on Dixon Street.
- Directing riders to neighboring BART sta-

tions with surplus parking, such as Downtown Hayward.

Bus stops can be accommodated on Dixon Street pending completion of the new intermodal, with a turnaround provided in the south/central BART parking lot.

Figure 5-1 Accommodating Parking During Construction

Phase	Parking Accommodation
1 – Redevelop North Parcel and construct central plaza/ bus intermodal	370 spaces lost in north lot, plus 103 spaces in central lot, accommodated as follows: <ul style="list-style-type: none"> • 300 spaces not planned to be replaced (including 205 spaces not currently used on an average weekday), assuming 75% parking replacement • c. 140 spaces available on-street on Dixon St and Tennyson Rd. • Direct remaining parkers to Downtown Hayward or other stations
2 – Redevelop South Parcel	551 spaces lost in south lot, accommodated in temporarily leased lot on Perry & Key site or Caltrans parcels
3 – Redevelop East Parcel and Perry & Key site	New garage now operational on South Parcel. Retain temporary lot on Perry & Key site (if BART parcel developed separately) or on Caltrans property until construction complete

APPENDIX A DETAILED DEVELOPMENT OPTIONS

Introduction

This first part of this appendix provides a description of earlier alternatives considered as part of the planning process. The second part of the appendix provides unit counts and parking space numbers for all alternatives and development options, including those presented in Chapter 2.

Scenario 3A – Maximized Parking Ratios

Scenario 3A (Figure A-1) focuses on maximizing the amount of parking available. It provides for complete replacement of BART parking spaces (1,207 spaces), and uses the standard City of Hayward residential multi-family parking ratios (1.5 spaces per one-bedroom unit and 2.1 spaces per two-bedroom unit). In order to achieve this, the buildings on either side of the station would have three- and four-story parking structures wrapped with residential units, with units on top of the structures. Type 1 construction would be required for all the buildings. Within these structures, BART parking would be split and shared with residential uses by controlled shared access. The ground floor of these buildings would have some commercial uses fronting the transit plaza.

The building on the north side of the station would be a seven-story structure with wrap-around parking up to the fourth floor. Using the City of Hayward parking ratios, this alternative would accommodate 239 units (156 one-bedroom units and 83 two-bedroom units) and 943 BART spaces with 325 spaces in the basement. One significant issue (which is common to all three alternatives) relates

to access to this parking garage. Two direction access on to Tennyson Road would either require a signal, which was not acceptable to the City due to visibility and spacing issues, or a right-in, right-out which would be difficult for commuters driving from the west. Access to Dixon Street would disrupt the pedestrian frontage, and provide little queuing space for traffic turning left onto Tennyson Road. Access into the bus intermodal would pose conflicts with buses and pedestrians.

The development on the south side would be a five-story building wrapping around a three-story plus partial basement parking structure, and a four-story podium-parked, linear residential building along the southern and eastern edge of the property. There would be 314 residential units (192 one-bedroom units and 122 two-bedroom units). The 283 BART spaces would be accommodated in the parking structure and with some limited surface spaces.

On the east side of Dixon Street, the BART property would have a four-story, 84 unit residential building with podium parking and some surface spaces accommodating the parking for the building residents.

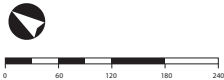
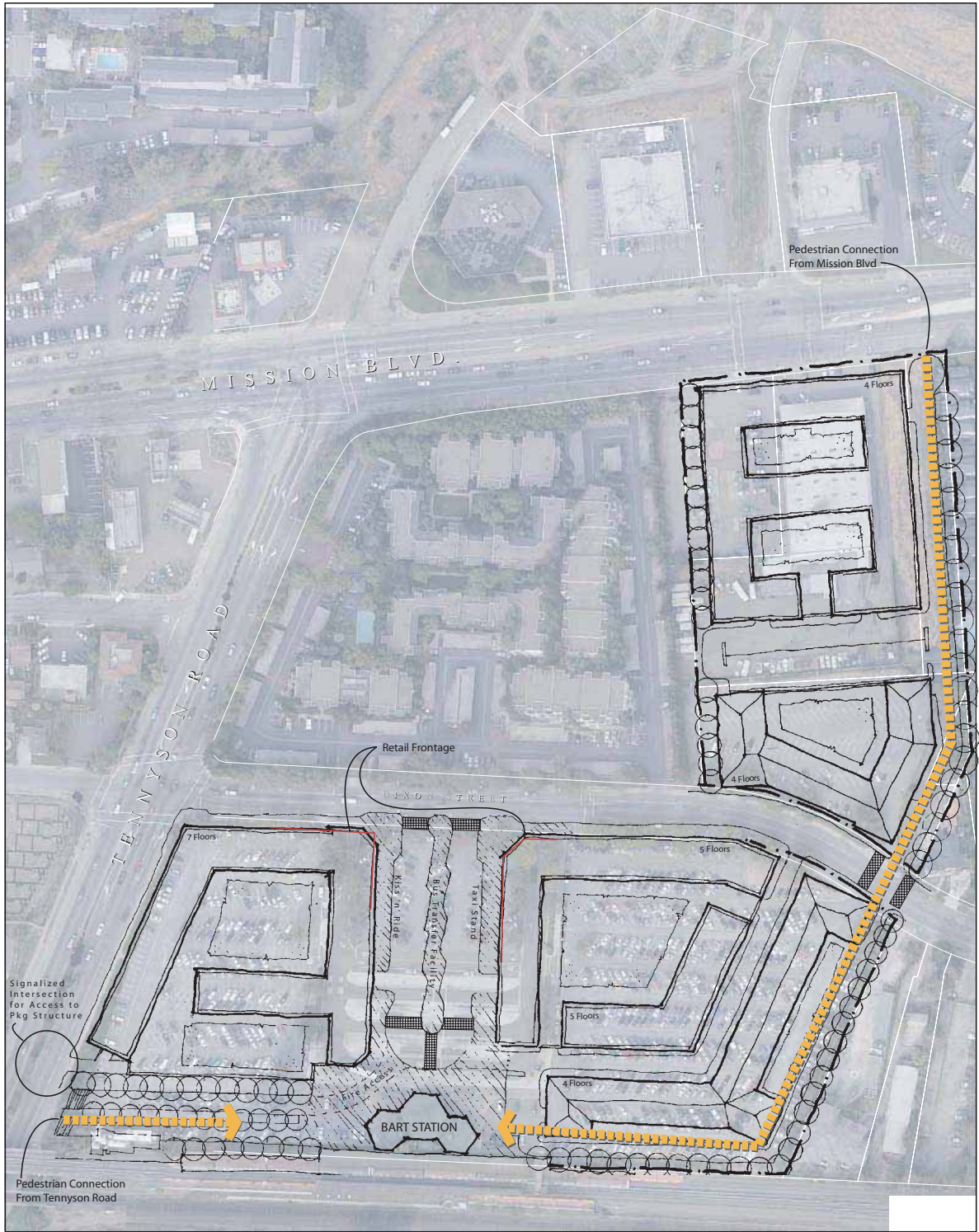
This option managed to obtain a gross density of 56 dwelling units per acre on the BART properties – much lower than the 75-100 units/acre desired by the City of Hayward Concept Plan. The mix of one-bedrooms (399 units) to 2-bedrooms (238 units) is also not necessarily a desirable mix. Furthermore, accommodating the full replacement of BART spaces on the BART properties required



South Hayward BART

adding basements to both parking structures. Finally, there are roughly 140 on-street spaces along Dixon Street and Tennyson Road that are in close proximity to BART properties that are not counted towards parking requirements.

Figure A-1 Scenario 3A - Maximized Parking



Scenario 3B – Minimized Parking Ratios

Scenario 3B (Figure A-2) examines what happens when residential parking ratios are reduced to reflect likely lower levels of vehicle ownership for residents living close to BART, while retaining full replacement parking for BART commuters. It uses residential parking ratios of 1 and 1.3 spaces per one- and two-bedroom unit respectively.

In this option the building footprints and the parking structure layouts on either side of the station remain consistent with Scenario 3A, with variations made to heights and the provision of basement parking. BART parking would still be split between the two parking structures and would have controlled shared access with the residents. Type 1 construction would be required for all the buildings.

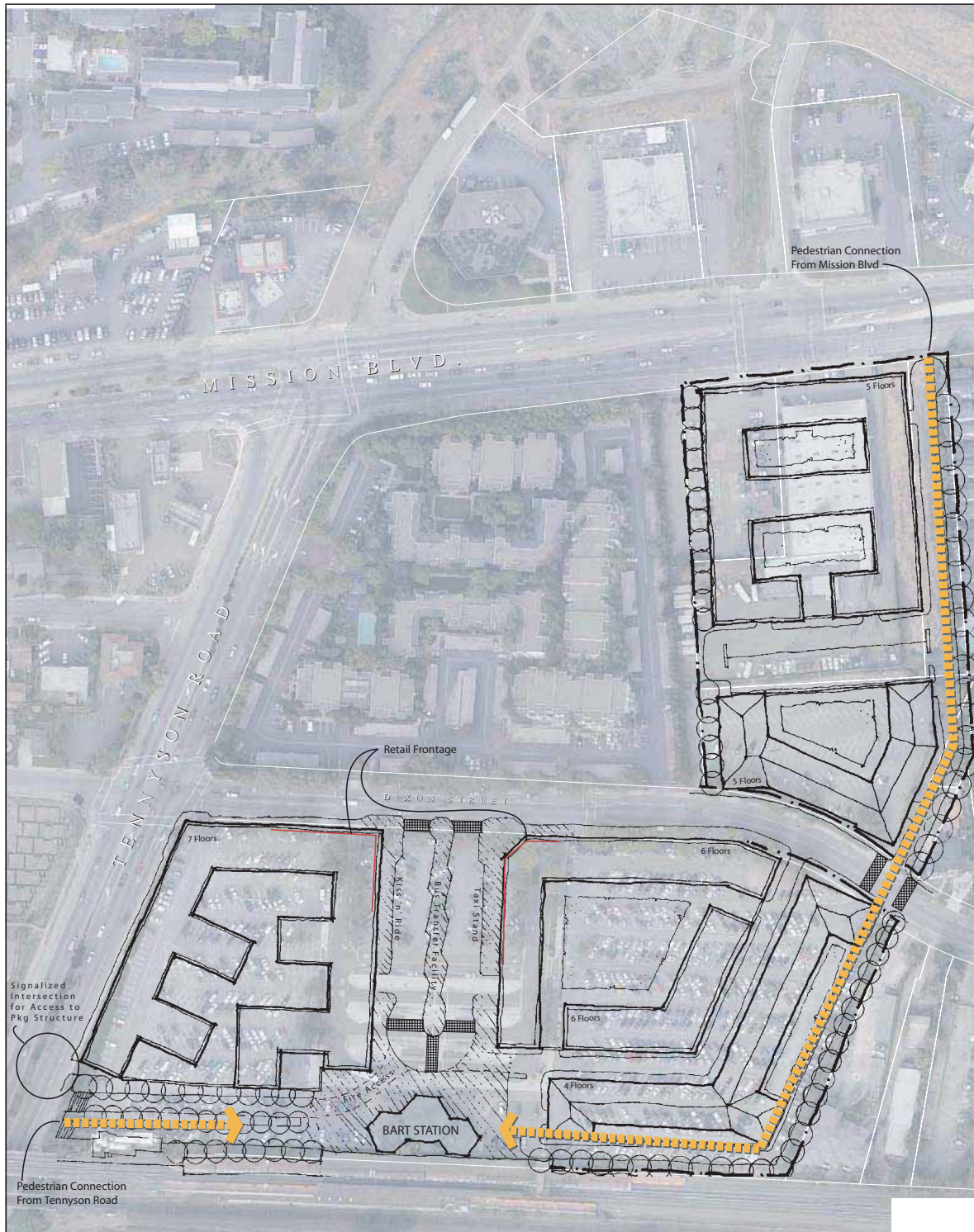
The building on the north side of the station would be similar to that in Scenario 3A up to the fourth floor. However, the structure above the parking deck would have more mass and tighter open areas. The north side could accommodate 337 units (103 one-bedroom units and 234 two-bedroom units) with 941 BART spaces, including 325 spaces accommodated in the basement.

The development on the south side would be a six-story building wrapping around a three-story parking structure, and the same four-story podium parked linear residential building along the edge of the property as in Scenario 3A. There would be 417 residential units (243 one-bedroom units and 174 two-bedroom units), and 268 BART spaces would be accommodated in the parking structure with some surface spaces. On the east side of Dixon Street, the BART property would have a five-story building with 118 units consisting of 63 one-bedroom units and 55 two-bedroom units.

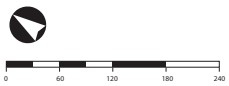
With the minimized parking ratios, this option managed to obtain a gross density of 77 dwelling units per acre on the BART properties, within the 75-100 du/ac range of the desired by the Station Area Density. The mix of one-bedrooms (409 units) to two-bedrooms (463 units) is more of a desirable mix.

The reduction in parking requirements helped increase the residential density and remove the basement on the south side building. Again, the approximately 140 on-street spaces along Dixon Street and Tennyson Road are not counted towards parking requirements. If they were to be included into the BART replacement parking, the north side basement could be reduced to half of its size.

Figure A-2 Scenario 3B - Minimized Parking



Development, Design & Access Plan



Scenario 3C – Maximized Density

Scenario 3C (Figure A-3) focuses on maximizing density in the station area and attempts to achieve a gross density of 100 units per acre. BART replacement parking is a secondary concern. The residential parking ratios are kept at the proposed TOD ratios of 1 and 1.3 spaces per one- and two-bedroom unit respectively. Type 1 construction would be required for all the buildings.

The north side building maintains the same footprint and height as the previous scenarios, however the parking deck is reduced to three stories with basement parking being optional.

On the south side, a single building wrapped around a parking structure is illustrated (rather than two buildings illustrated in the previous scenarios). In order to maximize density, the building would be seven stories with a greater setback from the adjacent property. BART parking would remain split between the two parking structures, and would have controlled shared access with the residents.

The north side could accommodate 419 units (223 one-bedroom units and 196 two-bedroom units) with 291 BART parking spaces (325 additional spaces could be accommodated in an optional basement). On the south side there would be 554 residential units (294 one-bedroom units and 260 two-bedroom units). 237 BART spaces would be accommodated in the parking structure with a limited number of additional surface spaces.

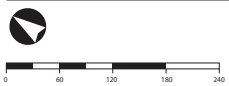
The building on the east side of Dixon Street would be seven stories with a two-story parking deck. The building would have 148 dwelling units with 70 one-bedroom units and 78 two-bedroom units.

The Maximized Density option has a gross density of 99 dwelling units per acre on the BART properties with 587 one-bedroom units, and 534 two-bedroom units. The BART parking is reduced to 528 spaces, less than half of the 1,207 present spaces. The BART parking spaces could be increased with adding the optional basement on the north side (325 spaces) and/or counting the on-street spaces (140) as BART replacement. This would increase the BART spaces to over 75% of the present number. 75% replacement could also be achieved by reducing the number of two-bedroom units to 200, but with the mix of unit sizes already favoring one-bedrooms, this would not be desirable. Also undesirable would be the uniform bulk of the seven-story buildings. Refinement to this option that would step down the height to a maximum of four stories abutting adjacent properties and Dixon Street would entail a reduction in density.

Figure A-3 Scenario 3C – Maximized Density



Development, Design & Access Plan



Scenarios 3D

Two variants of a further scenario were produced, which focus on maximizing development, but massed in such a way that seven-story buildings are stepped back so that only four stories front adjacent streets, development and the Transit Plaza. This scenario also includes the Perry & Key and adjacent Caltrans parcel. This scenario was originally intended to be a preferred alternative, but the financial and replacement parking analysis (shown in Appendix C) indicated that this would result in a substantial net loss to BART due to the level of replacement parking and reduction in unit counts from the earlier scenarios.

Key parking assumptions include:

75% BART replacement parking (906 spaces) split between the east side of Dixon and the south parcel on the west side;

A uniform residential parking ratio of 1.3 spaces per dwelling unit; and

BART parking split and shared with residential uses by controlled shared access.

The ground floor of the buildings fronting the Transit Plaza and Mission Boulevard would be primarily residential, but have some limited commercial uses and possibly community facilities associated with the development such as day care, common rooms, offices, etc. Type 1 construction would be required for all the buildings.

On the west side, the building on the north parcel would be a total of seven stories (75'-80') with the first two stories being a parking garage, residential uses only, wrapped on two sides with residential and commercial uses. A central courtyard would sit atop a portion of the parking structure. The

building could accommodate 294 units (114 1-bedroom units and 180 2-bedroom units).

The development on the south parcel would be a seven-story building with the first four stories wrapping a parking garage on three sides. An access road, designed as a local street, would run along the southern and western perimeter of the parcel allowing access to the station and the parking garage, and would be directly fronted on the south side by residential uses. There would be a total of 288 dwelling units (112 one-bedroom units and 176 two-bedroom units), and 483 BART spaces accommodated in the parking structure and on some limited surface spaces directly adjacent to the station and along the access road.

On the east side of Dixon Street, the current BART property would have a seven-story, 112 unit residential building (41 one-bedroom units and 71 two-bedroom units) with podium parking and some surface spaces accommodating the parking for building residents only. To the east, the Perry & Key /Caltrans site would have another seven-story building with a four-story parking garage, wrapped on two sides with residential and commercial uses, that would accommodate half the assumed BART replacement parking (453 spaces), as well as parking for residents. The building would accommodate a total of 193 units (77 one-bedroom units and 116 two-bedroom units).

The accessway illustrated along the southern edge of the east side parcels is primarily intended as a pedestrian and bicycle connection between Mission Boulevard and the BART station. It also provides vehicular and emergency access to the development, but is not designed as, nor intended as a new street directly connecting Mission Boulevard with Dixon Street.

The garage on the north parcel would have a right-in, right-out access from Tennyson Rd, and a second access from Dixon St. The south parcel garage would have one access directly from Dixon St, and two accesses from a new local street wrapping around the south and west sides of the building.

An Option B for the east-of-Dixon properties has also been included (Figure A-6, with the parking layout in Figure A-7) illustrating how the development could be contiguous between the BART property and the Perry & Key sites. Essentially units would line a long, narrow 4 story parking structure on all sides with additional three-stories atop the structure and set back from adjacent streets and development (similar to configuration of the other buildings in the Preferred Scenario). This option is for illustrative purposes only and unit and parking numbers have not been included.

This scenario obtains a gross density of 59 dwelling units per acre on the west side of Dixon, and 61 dwelling units per acre on the east side.

Figure A-4 Scenario 3D (Separate Parcels East of Dixon) - Roof Layout

