

Appendix F

MOBILITY HUB IMPLEMENTATION GUIDANCE

Fall 2020



DRAFT MEMORANDUM

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Project #:
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To: Saravana Suthanthira and Aleida Andrino-Chavez, Alameda CTC

CC:

From: Laurence Lewis

Project: E. 14th St./ Mission Blvd. and Fremont Blvd. Multimodal Corridor Project

Subject: Mobility Hub Implementation Guidance

This memorandum describes implementation considerations for the mobility hub concept recommended as part of the E. 14th St./Mission Blvd. and Fremont Blvd. Multimodal Corridor Project (Project). Mobility hubs for the Project are defined as centers where transit, shared mobility, walking, and biking come together to provide an integrated suite of mobility services, amenities, and technologies. Mobility hubs are recommended as part of the overall vision for the Project to establish a high-quality transit corridor with robust, seamless connections between modes.

BACKGROUND AND SUPPORTING ANALYSIS

The Project's recommended long-term concept includes mobility hubs to increase BART ridership and improve first- and last-mile multimodal connections to BART and other high-capacity transit services. The need for improved connections to BART to facilitate increased ridership was identified through the baseline conditions analysis; relevant key findings are below:

- The share of transit trips within the Study Area is lower than for Alameda County as a whole, in particular for work trips in Hayward, Union City, and Fremont. This suggests potential opportunities for transit access improvements in these portions of the Study Area.
- Most BART stations in the Study Area have ridership levels that are below the average for the system as a whole. BART stations in the Study Area have a lower share of non-auto access when compared to other stations in the system. In the Study Area, walking and biking access is highest for stations in the north in San Leandro, decreasing as one moves south to Fremont. This suggests potential opportunities for improvements to non-auto access that can support BART ridership.

One of the long-term goals of the Project is to increase the share of trips made by transit, biking, and walking. Mobility hub improvements are intended to advance this goal by increasing the share of trips

accessing BART through non-auto modes. Mobility hub improvements are also intended to promote BART ridership by increasing the multimodal system capacity available to access each station.

MOBILITY HUB OVERVIEW

Mobility hubs are included in the recommended long-term concept at ten locations, as follows:

- San Leandro BART
- Bay Fair BART
- Hayward BART
- South Hayward BART
- Union City BART
- Decoto Rd./Fremont Blvd. Intersection
- Fremont BART
- Centerville ACE/Capitol Corridor Station
- Irvington BART (planned station)
- Warm Springs BART

The Project's recommended mobility hub improvements fall into three categories: infrastructure, mobility services, and traveler information and data. All three categories are currently present at each mobility hub location to varying degrees; Attachment A to this memorandum provides an inventory of existing facilities completed by BART. The long-term goal of the Project is to expand the range and depth of each of these elements to accommodate increased multimodal travel to and from BART and to improve the multimodal user experience. **Table 1** summarizes potential mobility hub components by category.

Table 1: Potential Mobility Hub Components

Infrastructure	Mobility Services	Traveler Information and Data
<ul style="list-style-type: none">• Bike Station and bike lockers• Electric vehicle charging stations• Bike and pedestrian facilities• Transit signal priority• Curbside improvements to accommodate mobility services	<ul style="list-style-type: none">• Carshare services• Bikeshare services• Scooters• Electric mopeds• Microtransit• Private employer shuttles	<ul style="list-style-type: none">• Real-time bus arrival data• Wayfinding signage• Real-time parking availability data• Real-time rideshare matching• Integrated online payment and reservation systems

Renderings of the mobility hub concept for the Project are included as Attachment B to this memorandum.

Infrastructure

Potential mobility hub infrastructure improvements include projects at the BART station as well as within a surrounding one-mile radius, and consist of the following:

- **Bike Station and bike lockers** to provide secure bicycle parking
- **Electric vehicle charging stations**
- **Bike and pedestrian facilities** to increase the safety and convenience for bicyclists and pedestrians
- **Transit signal priority** with a focus on improving bus travel times to and from BART stations

At the station, infrastructure improvements focus on parking and storage facilities of bicycle and micromobility services, as well as space for passenger loading/unloading to support shuttle and shared ride services. Infrastructure improvements within a one-mile radius of the station include bicycle and pedestrian improvement projects to address safety, comfort, and convenience.

Many specific infrastructure improvement projects surrounding the Study Area mobility hubs have been identified through plans completed by BART (station area gap studies completed for the San Leandro, Hayward, South Hayward, and Union City stations) and by local agencies (specific plans and active transportation plans). Mobility hub improvements for the Project will build upon these planned projects and programs.

Mobility Services

Mobility services would serve the station and the surrounding area (minimum one-mile radius) and include the following:

- **Carshare services** (e.g., Gig, Zipcar)
- **Bikeshare service** (e.g., Jump, Lime, Ford GoBike)
- **Scooters** (e.g., Lime, Bird, Spin)
- **Electric mopeds** (e.g., Revel)
- **Microtransit** (i.e., flexible route/schedule service using small shuttles or vans)
- **Private employer shuttles** to provide peak period service to and from the station

These mobility services are intended to allow BART stations to serve more passengers while reducing reliance on automobile parking at the stations. Mobility services are also intended to expand access to BART for those who do not have access to an automobile. Mobility services would serve a one- to two-mile radius around each mobility hub, with the extent of each service dependent upon land use context.

Supporting accommodations include parking spaces or docking stations for these services at the transit station. For the surrounding area, supporting facilities to be implemented through the Project may include: curbside loading and unloading zones at key destinations; free parking for shared vehicles through a combination of on-street and off-street spaces, and additional bicycle racks and lockers.

Traveler Information and Data

Traveler information and data components supplement the infrastructure and services by making them more attractive and easier to use. In particular, the traveler information and data components address seamless transfers between modes. Potential components are as follows:

- **Real-time bus arrival data** provided through displays at the transit station, in the surrounding area, and/or through mobile phone apps
- **Wayfinding signage** to inform travelers of available first/last mile travel options and direct them to/from these options
- **Real-time parking availability data** provided through a combination of phone-based apps and roadway signage to inform travelers of available parking prior to reaching the station, allowing them to choose non-auto modes to access the station
- **Real-time rideshare matching** provided through an app to create carpool matches in real time based on requested destinations
- **Integrated online payment and reservation systems (i.e., Mobility as a Service)** as a mid- to long-term improvement to provide a one-stop platform for travelers to view available shared mobility options, plan trips across multiple modes and service providers, and complete payment

MOBILITY HUB PILOT

A mobility hub pilot project is proposed as a way to achieve near-term benefits to multimodal access and BART ridership while serving as a model for implementation at other locations in the Study Area. The ideal pilot location will have the following:

- a demonstrated need related to increased BART ridership and improved non-auto access
- potential improvements that are implementable within a 3- to 5-year timeframe
- strong support from local agency partners.

Alameda CTC and BART will coordinate to identify the appropriate location consistent with the goals of this project and BART's agency priorities.

Two potential locations, San Leandro BART and Warm Springs BART, have been identified for a near-term pilot. These locations are based on the above identified aspects and factors such as pedestrian

connectivity, share of non-auto access to BART, and existing population and employment within one mile. These metrics were analyzed as part of the Tier 2 analysis prepared in July 2019; results of these analyses are referenced in the descriptions below.

The two potential mobility hub pilot locations are as follows:

- **San Leandro BART** – this location will serve as the terminus for the East Bay BRT that will go into operation this year. Compared to other locations in the Study Area, the station has both high BART ridership and high pedestrian network connectivity, suggesting that additional near-term improvements may have a greater benefit. The East Bay Greenway will serve San Leandro BART, providing bicycle network connectivity. BART mode of access data show this station has the highest share of non-auto access of those within the Study Area, with almost 50 percent of passengers walking and biking to the station. The following infrastructure and services currently exist at San Leandro BART
 - Bike lockers
 - Getaround car share
 - Links shuttle connecting San Leandro BART with employment areas west of the station. Links is a free shuttle managed by the San Leandro Transportation Management Organization.
 - Kaiser Hospital shuttle connecting San Leandro BART with the Kaiser Medical Center located at I-880 and Marina Blvd.

Micromobility services such as bike share and scooter share do not currently exist.

- **Warm Springs BART** – this location has the highest concentration of employment within 1 mile (approximately 24,000 employees) but the lowest pedestrian connectivity when compared to other mobility hub locations. Warm Springs BART and the surrounding area will be served by the planned East Bay Greenway Extension and additional on-street bike lanes planned by the City of Fremont. BART ridership is the second lowest among stations within the Study Area. This suggests both a large potential ridership market and a need for improvements to serve nearby employees. BART mode of access data is not available for this station, as the station was not in operation at the time of the 2015 survey. The following services exist at Warm Springs BART:

- Dockless bike share system (HOPR) that is citywide
- Last-mile shuttles for employers located near the station (Tesla and Cisco)
- Regional shuttle services for employers located outside Fremont (Apple and Google)

The City of Fremont has also instituted a Zipcar pilot project with vehicles located at the Fremont BART and Centerville ACE/Capitol Corridor stations, but not at Warm Springs BART. Additionally, Tesla is exploring the formation of a transportation management association (TMA) to implement an employee shuttle service that is shared among multiple employers. AC Transit staff have indicated potential support for microtransit services if costs are covered by others.

SELECTION OF A PILOT LOCATION

The mobility hub pilot location should have a high potential for near-term success related to increased BART ridership and increased non-auto access to BART. From an implementation standpoint, it is important that the pilot location have strong local agency support and improvements that are implementable within a 3- to 5-year timeframe. The efforts to form a TMA around Warm Springs BART provide a launching point for funding and implementing improvements. The lower BART ridership at this location allow for greater ridership benefits to be achieved. Based on these factors, Warm Springs BART is recommended as the mobility hub pilot location.

IMPLEMENTATION CONSIDERATIONS AND AGENCY ROLES

The following are key implementation considerations and agency roles for implementation of a mobility hub pilot program.

Infrastructure

For Alameda CTC, the primary focus of the mobility hub pilot will be the completion of infrastructure improvements at the BART station and in the surrounding area. Potential roles include the following:

- Lead agency or partner in preparing CEQA environmental clearance documents
- Lead agency or partner in preparing design plans, specifications, and estimates (PS&E)
- Prioritize funding for improvements through Alameda CTC's existing funding programs

For longer-term infrastructure improvements, Alameda CTC may also serve as the lead agency for submitting funding and grant applications.

Mobility Services

For mobility services, Alameda CTC will work to facilitate partnerships with private service providers, local governments, and BART to allow services to be introduced or expanded at stations. As an agency, Alameda CTC does not fund ongoing operations or maintenance. Services such as bikeshare, scooters, and employee shuttles will be operated by private entities. However, Alameda CTC may work with local agencies to fund and develop deployment plans for these services.

As stated earlier, supporting infrastructure accommodations at the station and in the surrounding area will be needed to support shared mobility services. As part of the near-term pilot, it is proposed that these infrastructure elements will be advanced as needed..

Traveler Information and Data

For traveler information and data, Alameda CTC's roles for a near-term mobility hub pilot are as follows:

- Lead agency or partner in implementing wayfinding signage program

- Lead agency or partner in the development of a real-time ridesharing app
- Partner agency in expanding or supporting existing agency apps (i.e., BART and AC Transit apps)

The development of an integrated online payment and reservation system is a longer-term goal for mobility hubs and will not be addressed through a near-term pilot program.

NEXT STEPS FOR PROJECT DEVELOPMENT

As next steps for the recommended pilot location, Alameda CTC will work with BART to select the location for the mobility hub pilot project. Once the recommended location is agreed upon, Alameda CTC will develop a scope of services for project development activities to advance mobility hub components specific to the BART station and local jurisdiction. This will be done in coordination with BART, the local jurisdiction, and AC Transit as needed.

ATTACHMENTS

- A. List of amenities at Study Area BART stations (received from BART August 2019)
- B. Example Mobility Hub rendering and plan view drawing showing recommended services and amenities

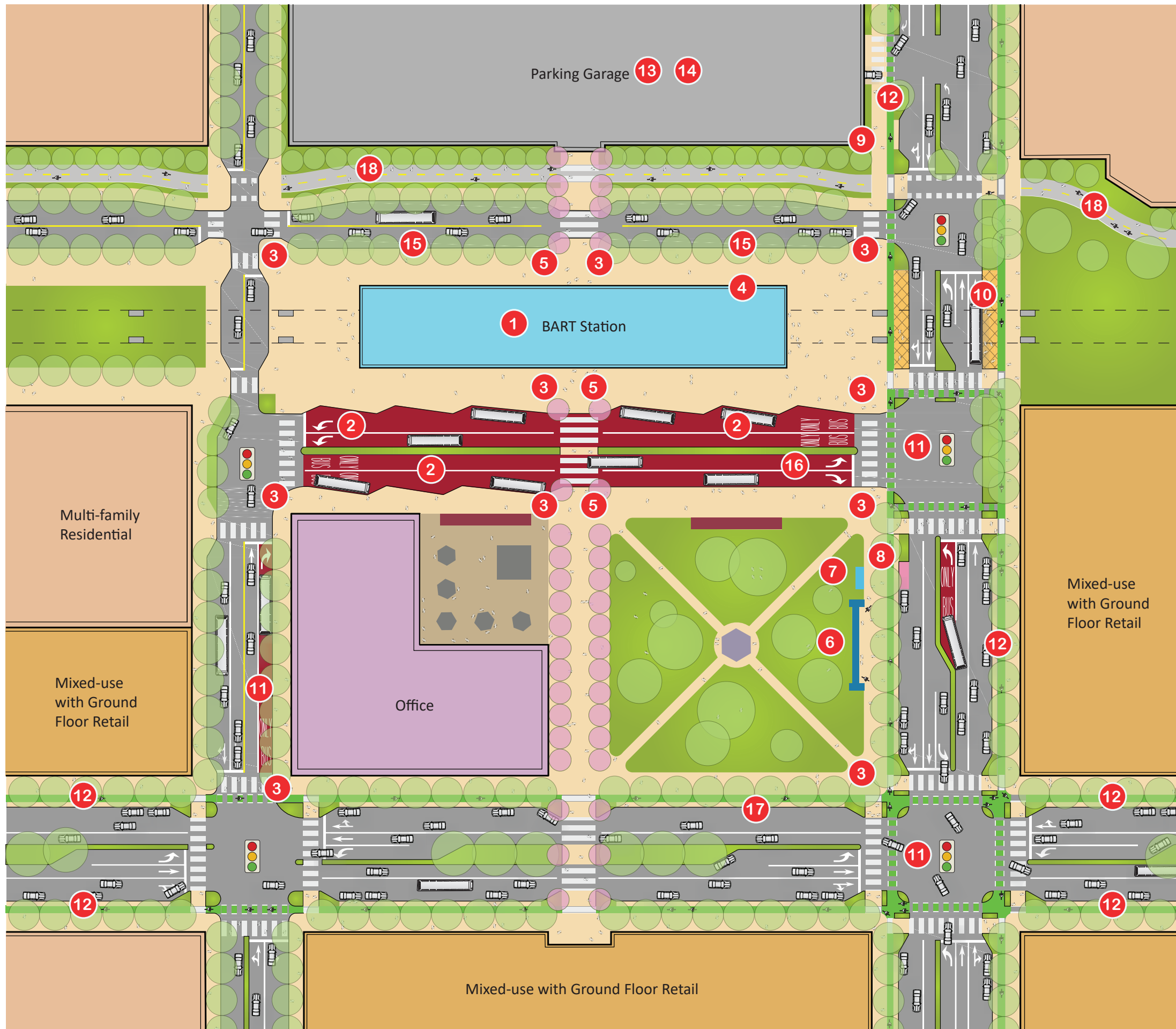
		Bike/Micromobility								Transit and Shuttles			TNCs are Geofenced		Car Share Spaces			Parking			
				Bike Lockers																	
Code	Station Name	Bike racks	BiKeep	Qty	Type	Jurisdiction	Bike Station	Bike Share Pod	Dockless Device Corral	Transit	Shuttles	Intercity	Uber	Lyft	ZipCar	Getaround	Gig	Permit	Scoop	Carpool	Carpool (Pay By App)
A40	San Leandro	no info yet	no info yet	no info yet	BikeLink Keyed	BART	no info yet	no info yet	N/A	AC Transit	Link, Flex, Kaiser					746, 747		no info yet			
A50	Bay Fair	Station Property		20	BikeLink	BART	no info yet	no info yet	N/A	AC Transit	Alameda County Health System/Highland Hospital, Google, Alameda County Employer Shuttle				(+1)	523, 524, 525		no info yet		21	
A60	Hayward	Station Property		36 20	BikeLink Keyed	BART	no info yet	no info yet	N/A	AC Transit	CSU East Bay, Genentech, Visa, Tesla	Greyhound				1230, 2131		no info yet			
A70	South Hayward	no info yet	no info yet	no info yet	no info yet	no info yet	no info yet	no info yet	N/A	AC Transit					(+1)	15, 16		no info yet			
A80	Union City	no info yet	no info yet	no info yet	no info yet	Station Property	no info yet	no info yet	N/A	AC Transit Union City Transit Dumbarton Express	Facebook, Google, Tesla					422, 423		no info yet	Yes	10	
A90	Fremont	Station Property		104	BikeLink	BART	no info yet	no info yet	N/A	AC Transit VTA	Apple, Cisco, Facebook, Google, Men's Wearhouse, Oath, Oracle					50, 51		no info yet		65	
S20	Warm Springs	no info yet	no info yet	no info yet	no info yet	no info yet	no info yet	no info yet	N/A	AC Transit VTA	Tesla, Apple, Cisco, Google				(+1)	2 spaces to right of station agent parking		no info yet	Yes	63	Yes



LEGEND

- 1** Elevated Rail Transit Station
- 2** Bus Transfer Facility
- 3** Wayfinding Signage
- 4** Bike Station / Bike Lockers
- 5** Real-time Transit Information
- 6** Bikeshare
- 7** Scooter share
- 8** Shared Electric Moped Parking
- 9** Real-time Parking Information*
- 10** Rapid Bus Station
- 11** Transit Signal Priority/ Bus-Only lanes
- 12** Class IV Bikeway

*Real-time parking information also available through an app



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- 10** Rapid Bus Station
- 11** Transit Signal Priority/ Bus-Only lanes
- 12** Class IV Bikeway
- 13** Carshare
- 14** Electric Vehicle Charging
- 15** On-demand Rideshare / Carpooling services
- 16** Microtransit
- 17** Private Buses
- 18** Multi-use Trail

*Real-time parking information also available through an app