

Phase 1 Memo

This memo describes the overall activities and results of Phase 1 of the Bayshore Multi-Modal Facility Study.



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Department and the San
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December 22, 2015

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1.0 INTRODUCTION

1.1 PURPOSE AND NEED STATEMENT

A new multi-modal facility in the Bayshore area is needed for the following reasons:

- Both the City of San Francisco and City of Brisbane are planning for major development in the bi-county area over the next 10 years.
- The City of San Francisco seeks to support land use policy goals within Priority Development Areas (PDAs) as outlined by the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG).
- The City of San Francisco seeks to support Caltrain's policies toward station siting, transit-oriented development, and reducing project impacts.
- The City of San Francisco seeks to minimize the regional impacts of Single-Occupant Vehicle (SOV) trips and Vehicle Miles Traveled (VMT) through the greater use of transit and alternative modes, consistent with its commitment to BRT in the Bayshore area.
- To serve these ends, a study is needed to evaluate the benefits and feasibility of locating a multi-modal facility in the bi-county area.

Given the above needs, the purpose of the Bayshore Multi-Modal Facility Study (the Study) is as follows:

- Establish criteria for evaluating the performance of potential multi-modal facility locations and identify a site that will (at a minimum) best serve the residents and employees of San Francisco.
- Establish a feasible configuration for the proposed multi-modal facility and assess its transit operational needs, engineering feasibility, land use connections, and economic development potential.
- Develop a funding and implementation strategy for the future multi-modal facility.

1.2 CONTEXT

Sites such as Schlage Lock, Executive Park, Candlestick Point, Hunters Point, Sunnydale HOPE SF, and the Brisbane Baylands will develop in the next 10 years and generate trips to and from points all over the Bay Area. These development sites are shown in Figure 1. Plans such as the 2013 San Francisco Transportation Plan and 2013 Plan Bay Area stress the importance of attracting as many of these new trips as possible to transit and other more sustainable modes. The planning for the Brisbane Baylands is currently underway. Plans for the rest of the sites, which are all located in San Francisco, are relatively established.

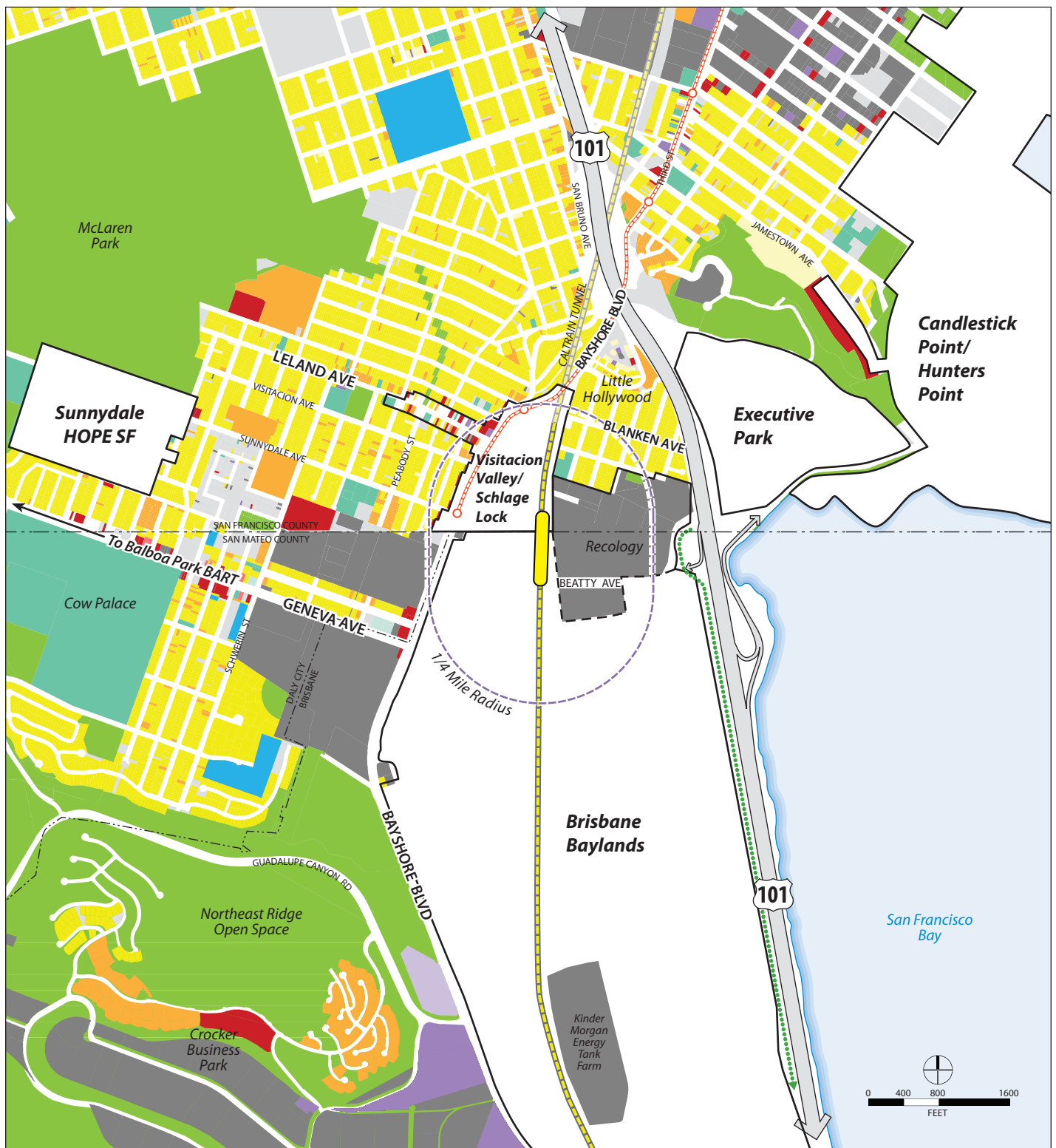
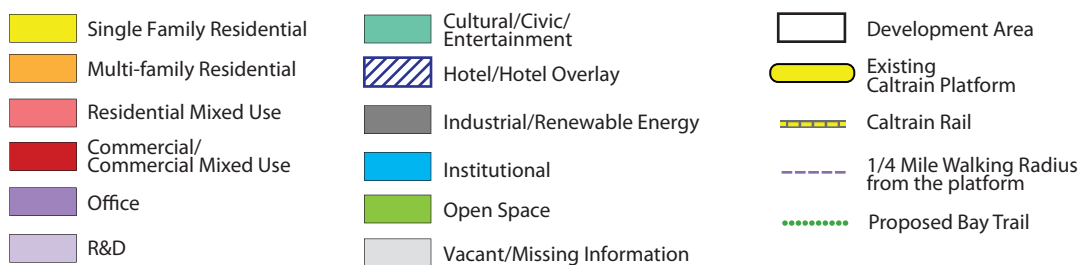


Figure 1: Study Area



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Existing Caltrain and Muni services, as well as the planned east-west Geneva-Harney BRT service and express bus services to Downtown San Francisco, will play an important role in reducing the VMT and greenhouse gas emissions of the new developments by attracting residents and employees to transit. The Geneva-Harney BRT Feasibility Study analyzed the benefits of a near-term BRT alignment from Balboa Park BART Station to Candlestick Point and Hunters Point. This high-quality transit link will be needed in the near term to serve travel demand and avoid exacerbating congestion on existing roadways.

For the entire transit system to function in the bi-county area, however, there will need to be strong connections between the various transit modes. It will be particularly important to link Caltrain service to Muni services, as Caltrain provides San Francisco residents with the most comprehensive and direct access to points south on the Peninsula. Furthermore, a new multi-modal facility will need to be sized to respond appropriately to the scale of development in the bi-county area and associated demand.

In addition to facilitating transfers, a new multi-modal facility will need to encourage access by bicycle and foot. The bi-county area is currently missing key bicycle and pedestrian connections to bi-county, Downtown San Francisco, and Peninsula destinations. A new multi-modal facility will play a part in filling these gaps.

The Study is just one piece of the planning program that is being carried out in the bi-county area, and identifying the location and configuration of a future multi-modal facility will inform on-going and future plans related to transportation and land use. For example, the Study could help confirm station locations for the Geneva-Harney BRT and design requirements for the roadway network in the bi-county area, including a possible Geneva Avenue Extension. As for land use, it could inform the design of buildings and open space on the Schlage Lock site, as the window for changes to that project is quickly closing.

While the Bayshore multi-modal facility is part of the San Francisco County Transportation Authority's Bi-County Program, it is also a critical component of regional land use and transportation goals, particularly those of Plan Bay Area. The Plan expects station investments in PDAs to contribute to considerable strides towards reducing VMT, increasing the number of transit-accessible jobs, and providing the region with an expanded transit-accessible housing stock in the bi-county area. In addition, the Study will consider eligibility for construction and operation funding sources, including Proposition K, the One Bay Area Grant (OBAG), Measure A, and other funding programs.

More information about previous plans and the planning context can be found in Appendix A.

1.3 METHODOLOGY

The Study utilizes the Bayshore Intermodal Station Access Study (March 2012) as a starting point, particularly its evaluation framework. However, it is necessary to revisit the 2012 Study because of

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recent entitlements on the Schlage Lock site, potential transit-supportive development at the Schlage Historic Office Building, recent activity with regards to the Brisbane Baylands site, the low prioritization of a T-Third Extension project by the SFMTA, and technical findings and input from the Geneva-Harney BRT Study. The 2012 Bayshore Intermodal Station Access Study presented two potential multi-modal station locations/configurations, and these are represented (with some changes) by one of the multi-modal facility location options in the Study. The other multi-modal facility location options were identified using assumptions about transfer walking distance acceptability and land use availability. A status quo option was also developed. These options are presented in detail in Chapter 3.0.

The 2012 Bayshore Intermodal Access Study recommendation was dependent on the type of land use to be developed in the Brisbane Baylands site. With the Baylands site still under consideration, the Study utilizes three land use scenarios from the Brisbane Baylands DEIR, plus one that is a hybrid of two of these scenarios, to generate a range of development options to support the evaluation process required for the Study. These land use scenarios are described in Chapter 2.0. With four alternative multi-modal facility locations and four Brisbane Baylands land use scenarios, there are a total of 16 facility location/land use combinations. The evaluation takes into consideration ridership capture, non-motorized access, intermodal connectivity, transit operations, place-making, and physical implementation ability. The evaluation is described in Appendix F, showing how much each multi-modal facility location was ranked within each land use scenario. There was an obvious preferred multi-modal facility location (i.e., a location that performed well according the criteria under all of the land use scenarios), and the Study recommends that location. However, if the multi-modal facility location had ranked differently depending on the land use scenario, then land use scenarios would have been prioritized in terms of how well they complied with regional plans and policies, and the multi-modal facility location that performed the best in the most compliant land use scenario would have been recommended by the Study. This methodology was used to ensure that that the Study could progress to Phase 2 with a single recommended multi-modal facility location for further study.

Phase 2 will concentrate on the configuration and sizing of a multi-modal facility in the Study's preferred location, indicating how passengers will travel to and within the facility and what the operational implications are for the various transit services. It includes a fatal flaws analysis, particularly with respect to Caltrain, Muni, and SamTrans operations. Phase 2 will also explore the implications of the facility's location for land use plans and economic development, and ultimately result in a proposed funding and implementation strategy.

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Land Use Scenarios

2.0 LAND USE SCENARIOS

The Study identified, mapped, and presented data for existing land use conditions near the existing Bayshore Caltrain Station as well as for the various land use and transportation planning efforts that are underway in the area. Current planning efforts include those for the Baylands in the City of Brisbane, and plans are well established for the Schlage Lock/UPCC site, Executive Park, Candlestick Point/Hunters Point Shipyard, and the Sunnydale HOPE project in the City of San Francisco. As such, for this study, the plans for the developments in San Francisco were assumed to be fixed and based on the most recently approved planning document. Variations are based on the Brisbane Baylands site (including Recology) only. Specifically, Phase 1 of the Study used the following four land use scenarios:

- **Scenario 1:** Community Proposed Plan-Variant (CPP-V)
- **Scenario 2:** Developer-Sponsored Plan-Variant (DSP-V)
- **Scenario 3:** Renewable Energy Generation Plan (RE)
- **Scenario 4:** Community Proposed Plan with Renewable Energy/Industrial Hybrid (CPP/Industrial Hybrid)

The first three scenarios are drawn directly from the Brisbane Baylands DEIR in order to represent a range of potential development outcomes. The fourth scenario is a combination of Scenario 1 and 3 and is included in the set of land use scenarios in order to provide a mid-intensity development scenario without introducing complexity or elements that are new to the public.

The specific land use scenarios were chosen because they offered a variety of potential environments for the facility options. In particular, CPP-V was selected because it includes the Recology Expansion, which would have a large impact on a facility in terms of access, truck traffic, and adjacent land use. DSP-V was selected because it included an Arena/Theater/Arena/Parking land use which would have an impact on activity by time of day. There were a handful of "Other" options, but the Renewable Energy (RE) option was selected because it had the least amount of building area, other than the no-build option, which was felt to be a low-probability outcome and possibly incompatible with a project.

The land uses were made slightly more generic than how they were shown in the DEIR for simplicity and to allow for a wider range of land uses to be considered in the evaluation than was shown in the DEIR. It was stressed that this project is not a land use study; the facility locations were evaluated in the context of the various land uses, but the land uses themselves were not evaluated (although they could have been in a tie breaker situation).

Information about these developments is provided in Appendix B, and the land use scenarios are described below.

2.1 LAND USE SCENARIO 1: SF DEVELOPMENTS + COMMUNITY PREFERRED PLAN –VARIANT (CPP-V)

Land Use Scenario 1 shows the CPP-V as described in the 2013 Brisbane Baylands DEIR and 2015 FEIR. One of the four Concept Plans evaluated in the Project Description Chapter of the DEIR, this plan includes no residential units and about 8.3 million square feet of non-residential uses on the Baylands site—retail, hotel, office/institutional, R&D, and cultural/entertainment uses. This scenario assumes the expansion of Recology per the 2011 plan, and an extension of Geneva Avenue that crosses the Caltrain tracks about 2,050 feet (0.39 miles) south of the County line.

Per the Brisbane Baylands DEIR, the mixed commercial area north of Geneva Avenue is “intended to encourage, support, and enhance the immediate multimodal transit hub area as a high-intensity employment center” with a variety of commercial uses, including retail. South of Geneva, a cultural/entertainment district is anchored by an east-west “Main Street” with active uses required on the ground floor. The mixed commercial district is intended to be built out with Floor Area Ratios (FARs) of between 1.0 and 3.5 and building heights that approach 160 feet, while the Cultural/Entertainment district is intended to have FARs of 0.4 to 2.5 and heights reaching 55 feet. Over both districts on either side of Geneva Avenue and west of the rail line is a hotel/extended stay overlay, which would accommodate up to 1,500 hotel rooms, and through the center of the new street grid runs a north-south linear open space leading to the Roundhouse. East of the rail line, the CPP-V shows office, R&D and a regional exhibition space.

Figure 1 shows the CPP-V plan in the context of other plans in the area. To the north, residential mixed uses and public open space on the Schlage Lock site establish a walkable destination area; however, the pedestrian-oriented area with ground-floor retail on the Schlage Lock site and the “Main Street” area on the Baylands site are over a half-mile apart (0.52 miles). A north-south linear park extends through the Baylands, connecting the “Main Street” with residential areas on the Schlage Lock site, while office uses and a performance venue line Geneva Avenue between Executive Park and the rail line.

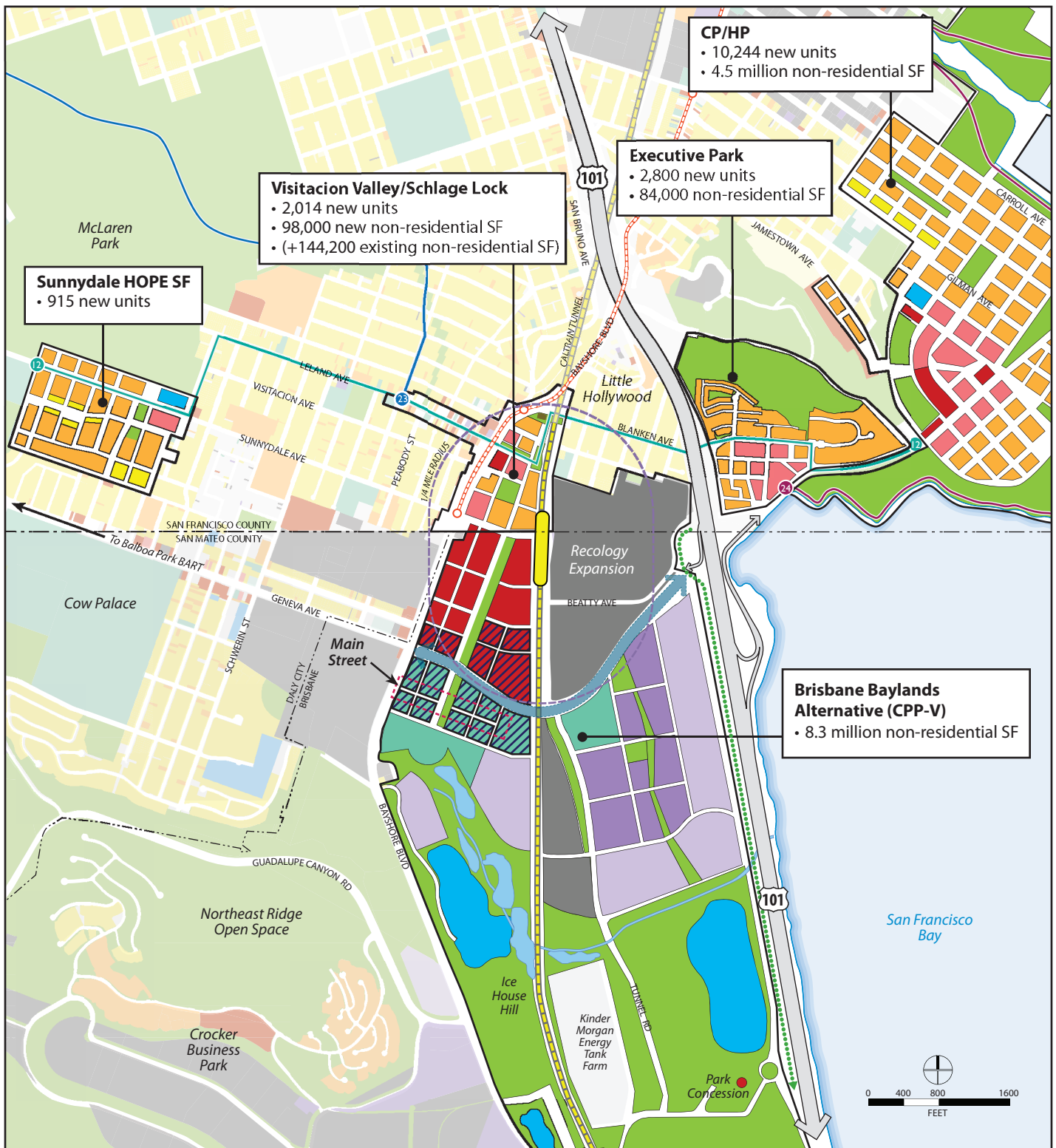
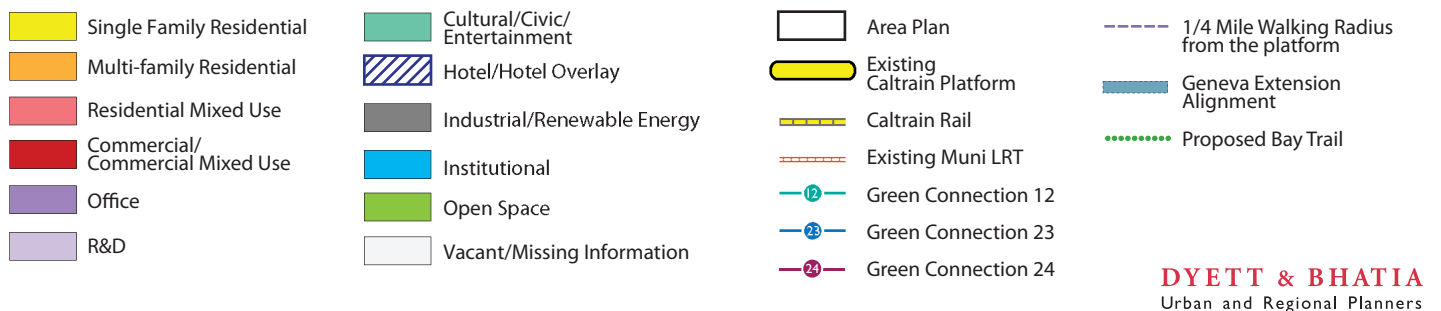


Figure 2: Land Use Scenario 1 - Community Proposed Plan-Variant (CPP-V)



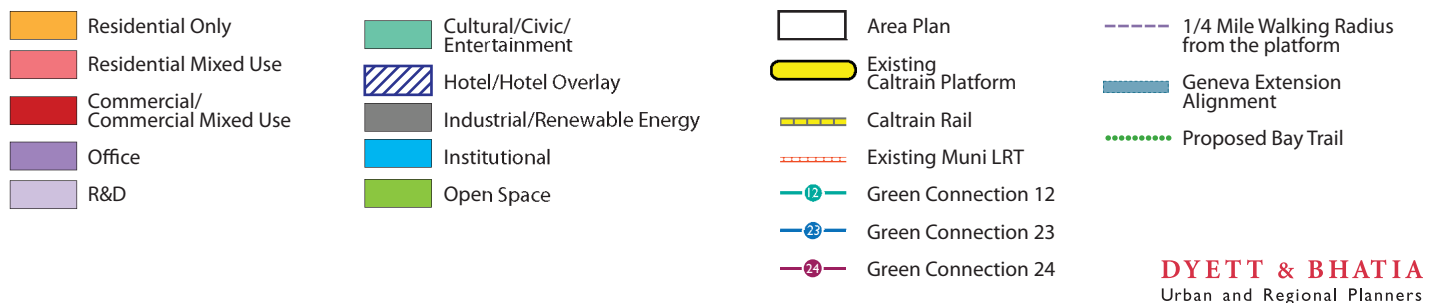
2.2 LAND USE SCENARIO 2: SF DEVELOPMENTS + DEVELOPER - SPONSORED PLAN –VARIANT (DSP-V)

Land Use Scenario 2 shows the San Francisco developments, existing land uses, and DSP-V plan as described in the 2013 Brisbane Baylands DEIR. This alternative for the Baylands includes 4,434 new residential units and about 7.1 million square feet of non-residential uses within the Baylands planning area, with active retail and entertainment uses on both sides of the rail line and on both sides of Geneva Avenue. Residential uses include medium- to high-density flats and townhomes, and commercial development includes retail, mid- and high-rise office, R&D, and a small amount of hotel uses. This scenario assumes that Recology does not expand in the area, and that Geneva Avenue crosses the Caltrain tracks about 1,700 feet (0.32 miles) south of the County line.

Figure 3 shows the DSP-V in the context of existing and approved land use plans in the area. As described the Brisbane Baylands Specific Plan, the retail uses along Geneva Avenue near the transit station are planned to be intensive two- to three-story retail, and office uses on the east side of the rail line near Geneva Avenue are intended to reach up to nine stories with FARs of 2.25 to 3.50. West of the rail line, a wide linear park bisects the residential area, connecting the Schlage Lock site with the Roundhouse and open space to the south. Residential uses extend from the north end of the Schlage Lock site continuously to the Ice House Hill.



Figure 3: Land Use Scenario 2 - Developer-Sponsored Plan-Variant (DSP-V)



2.3 LAND USE SCENARIO 3: SF DEVELOPMENTS + RENEWABLE ENERGY (RE) PLAN

Land Use Scenario 3 incorporates existing land uses, approved land uses, and the Renewable Energy Generation plan as identified in the Brisbane Baylands DEIR. Listed as an alternative intended to avoid significant effects of the proposed project, this plan is based on a proposal by the Committee for Renewable Energy for the Baylands (CREBL) and has broad support among the Brisbane community. The plan adds no residential units and 1.9 million square feet of non-residential uses to the Baylands site. It shows 173,800 square feet of mixed commercial in the northwest corner of the site; the remainder of the built square footage is R&D, Industrial, and the expanded Recology facility. The plan designates a total of 170 acres on both sides of the rail line as Renewable Energy Generation, including photovoltaic solar farms, rooftop PV solar panels, and vertical-axis wind turbines. Per the DEIR, this alternative would "be consistent with the development intensity contemplated by the General Plan and its EIR, while meeting most of the project objectives."

Figure 4 shows the Renewable Energy Generation Plan with Industrial in the context of other plans in the area.

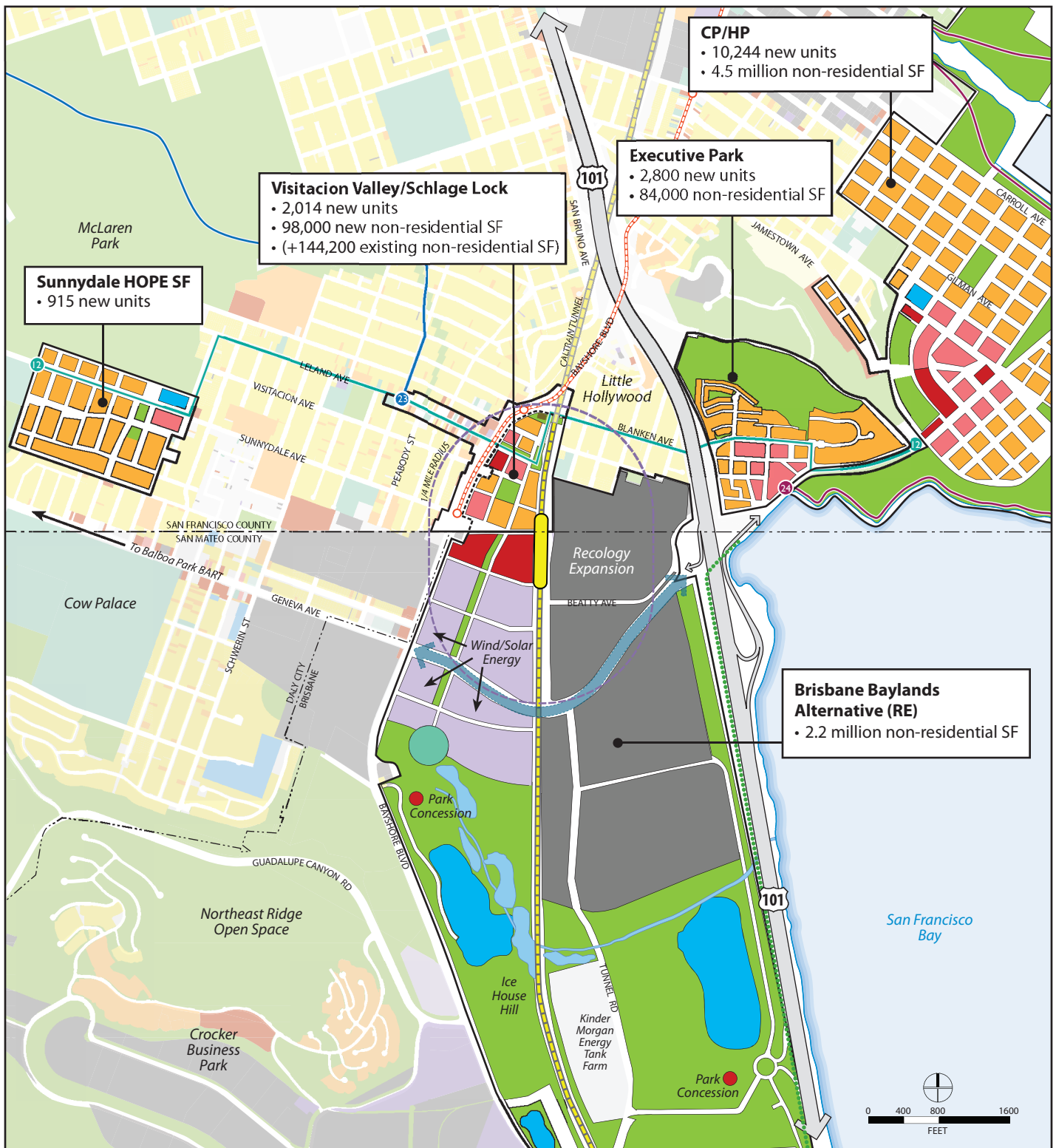
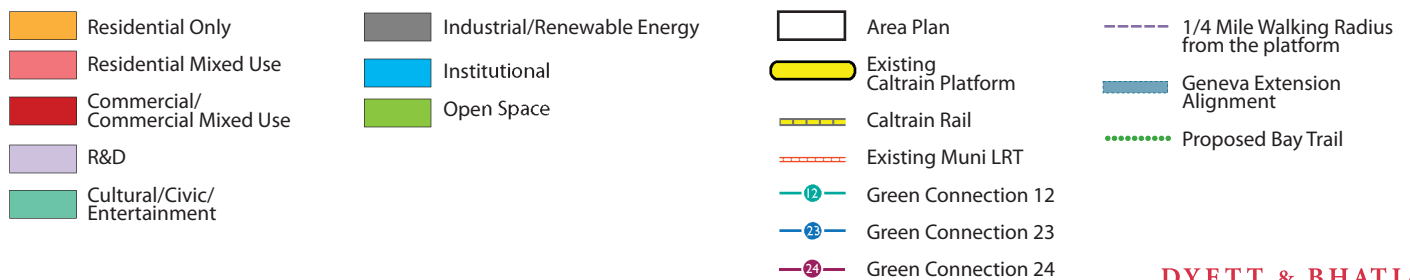


Figure 4: Land Use Scenario 3 - Renewable Energy Generation Plan (RE)



2.4 LAND USE SCENARIO 4: SF DEVELOPMENTS + HYBRID OF CPP-V AND RE

Land Use Scenario 4 shows existing land uses, approved land uses, and a scenario for the Baylands planning area that is not represented in the DEIR: it is instead a hybrid of the CPP and the Renewable Energy Generation Plan. This hybrid scenario is included because it meets a number of community objectives, including a commercial mixed use district and R&D uses as well as area for renewable energy generation.

West of the rail line, this scenario is identical to Scenario 1, with commercial uses that include retail, hotel, R&D, and cultural/entertainment. Like in Scenario 1, Geneva Avenue crosses the rail about 2,050 feet (0.39 miles) south of the county line, and the two pedestrian-oriented destination areas—the Schlage Lock site near Leland Avenue and the “Main Street” area within the Baylands site—are about a half-mile apart.

In this scenario, the area east of the rail is designated primarily as industrial/renewable energy. This land use is intentionally left flexible—generally it would be low in intensity and would not generate a significant number of transit riders. Recology remains as is in this scenario, and the buildable area between Recology and Geneva Avenue is designated as R&D, which would complement the renewable energy and/or industrial uses to the south.

Figure 5 shows the CPP/Industrial Plan in the context of other plans in the area.

Additional information about these four land use scenarios is provided in Appendix B.

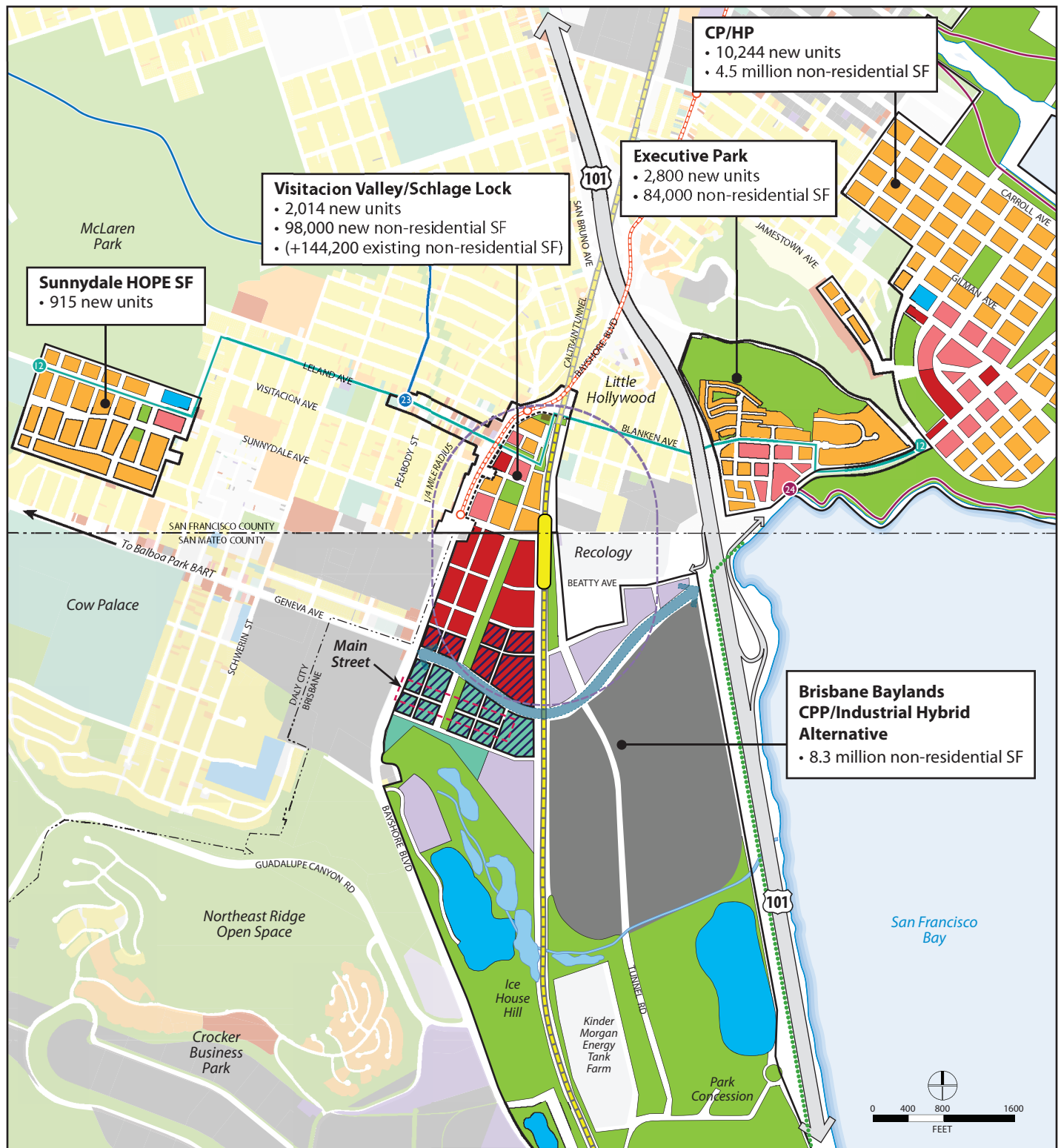
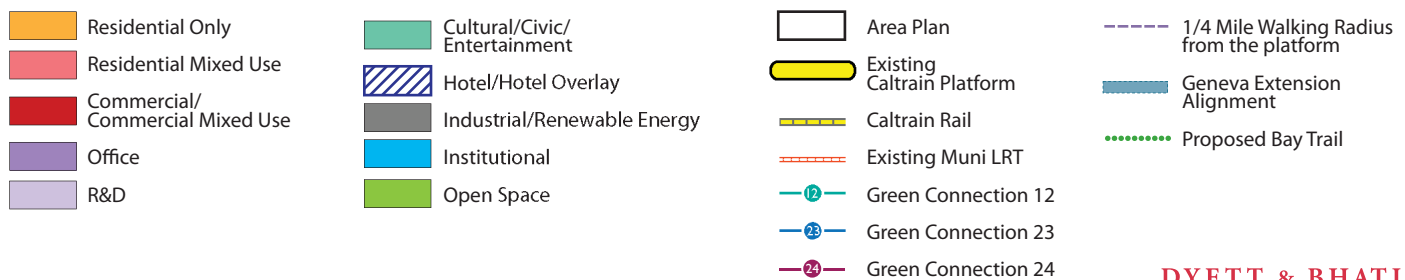


Figure 5: Land Use Scenario 4 - Community Proposed Plan with Renewable Energy/Industrial (CPP/Industrial Hybrid)



3.0 FACILITY LOCATIONS

Four facility location options were developed as part of the Study. One is a status quo option that continues to center existing and future activity around the Caltrain platforms. The second and third options consider the feasible transfer walking distance of ¼ mile around the LRT platforms and a ½ mile around the Caltrain platforms and identify flat, logical locations for a facility that easily connects to both (and a future BRT alignment). The fourth alternative is drawn from the Bayshore Intermodal Access Study to provide some continuity in the study of a facility location that incorporates a future Geneva Avenue Extension.

The facility location options were developed with the following assumptions:

- While Caltrain is an important part of the future transportation system in the Bayshore area, it is not the only service that could be incorporated into and benefit from a multi-modal facility. The Study had to consider all modes and take into consideration what location would benefit existing and future San Francisco residents the most. One of the consequences of this assumption is that the Caltrain platform locations do not change from their existing location in any of the facility locations.
- The evaluation is intended to roughly correspond to a 20-year time frame, but this is very conceptual. There were facility locations that were more focused on near term implementation (Locations #1, #2, and #3) and one that was more focused on long-term implementation. It is expected that the items conceived of in the evaluation could happen in 20 years, such as the full build out of the Brisbane Baylands site, the Geneva Extension, and a T-Third extension. High speed rail and the Caltrain Downtown Extension projects are likely not part of this time frame.
- Some bus routes could change in response to the multi-modal facility location.
- The BRT route could change in response to the multi-modal facility location:
- The maps show a rough area in which a multi-modal facility could be located; they are not meant to be definitive or to indicate the relative size of the multi-modal facility options.
- It is assumed that the service levels on each of the transit services is the same in each of the options.

The four location options are described in more detail below.

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Facility Locations

3.1 FACILITY LOCATION #1 (TUNNEL AVENUE/STATUS QUO)

This location, shown in Figure 6, is focused on the existing Caltrain platforms and would bring additional services and amenities (e.g. a bicycle share kiosk, ticket vending machines, bus routes) to this site. In particular, the Beatty Avenue alternative for the future Geneva-Harney BRT would be assumed, as it would allow for short transfers on the east side of the Caltrain platforms along Tunnel Avenue. Additional bus and shuttle services would be assumed to access the multi-modal facility from the west side through the future roadway network built in conjunction with the Schlage Lock site.

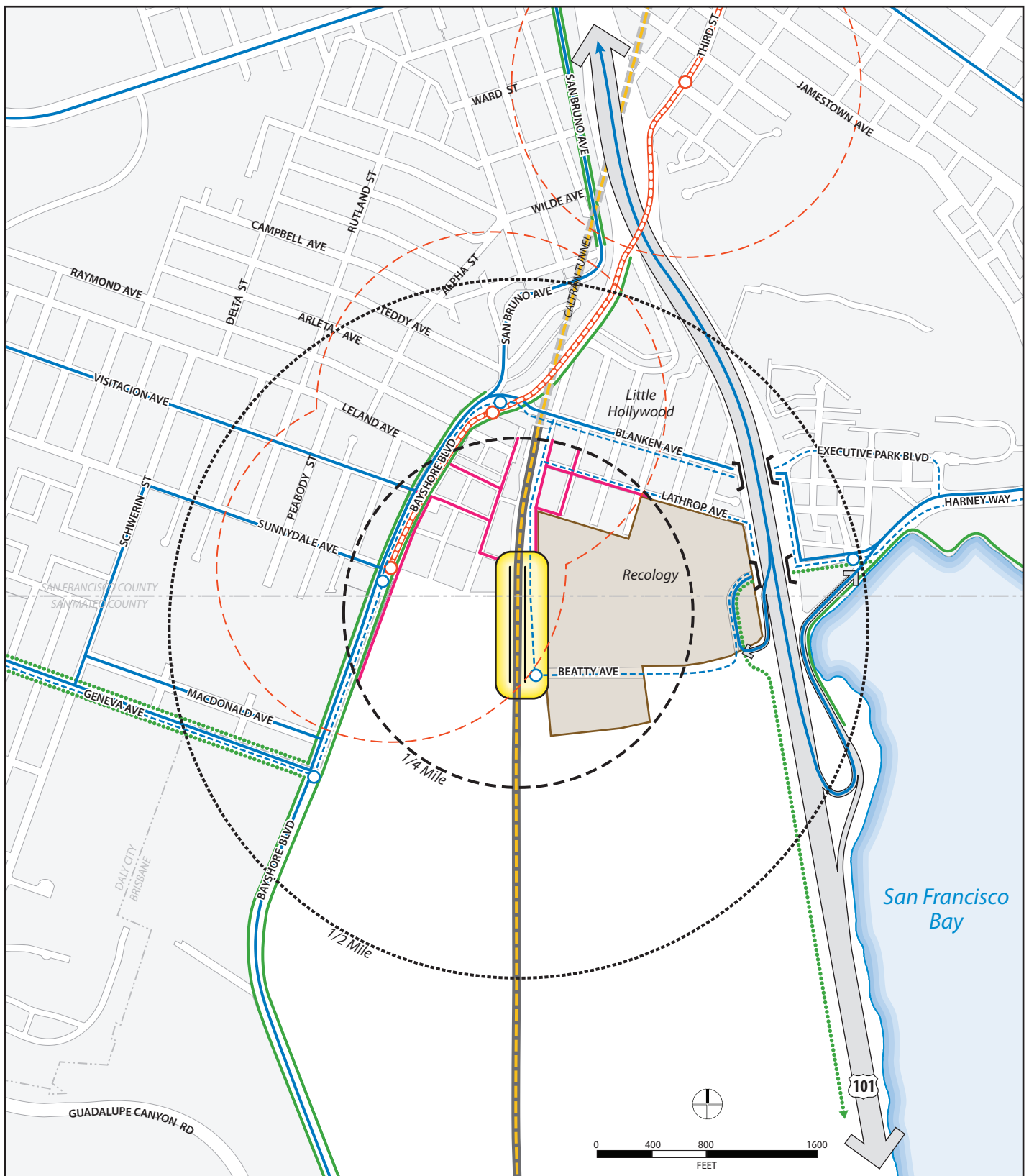
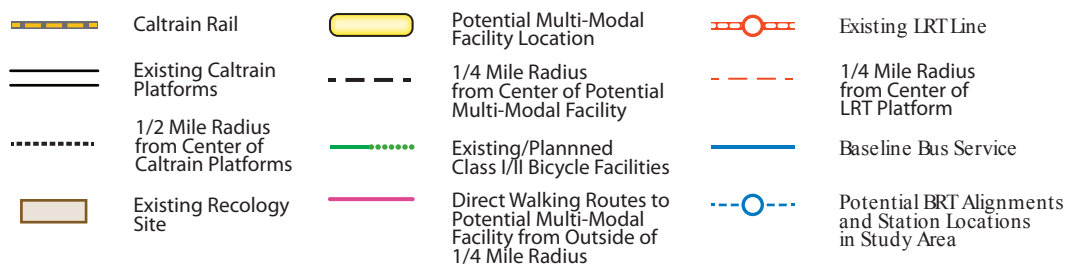


Figure 6: Potential Multi-Modal Facility Location #1 - Tunnel Avenue/Status Quo — Short Term Transportation Enhancements



3.2 FACILITY LOCATION #2 (BLANKEN AVENUE)

This location, shown in Figure 7, is focused on the intersection of Blanken Avenue and Bayshore Boulevard and would bring additional amenities to this site. Shuttle bus services would stop at this location, and the connection between this intersection and the Caltrain platforms would be enhanced through new vertical circulation elements, perhaps in conjunction with a shift of the Caltrain platforms to the north, if feasible. This location would support the rehabilitation of the Schlage Historic Office Building for the use of transit passengers and other community members as well as the restoration of an underpass to accommodate transferring passengers. The parking would likely remain available on Tunnel Avenue, and transfers to and from the T-Third line and Caltrain would be made via the roadway and path network developed as part of the Schlage Lock development.

This option is attractive because it involves the reuse of an existing building and will minimize construction costs. The location at Blanken Avenue Boulevard provides direct access to Executive Park and serves existing residents better than the other options.

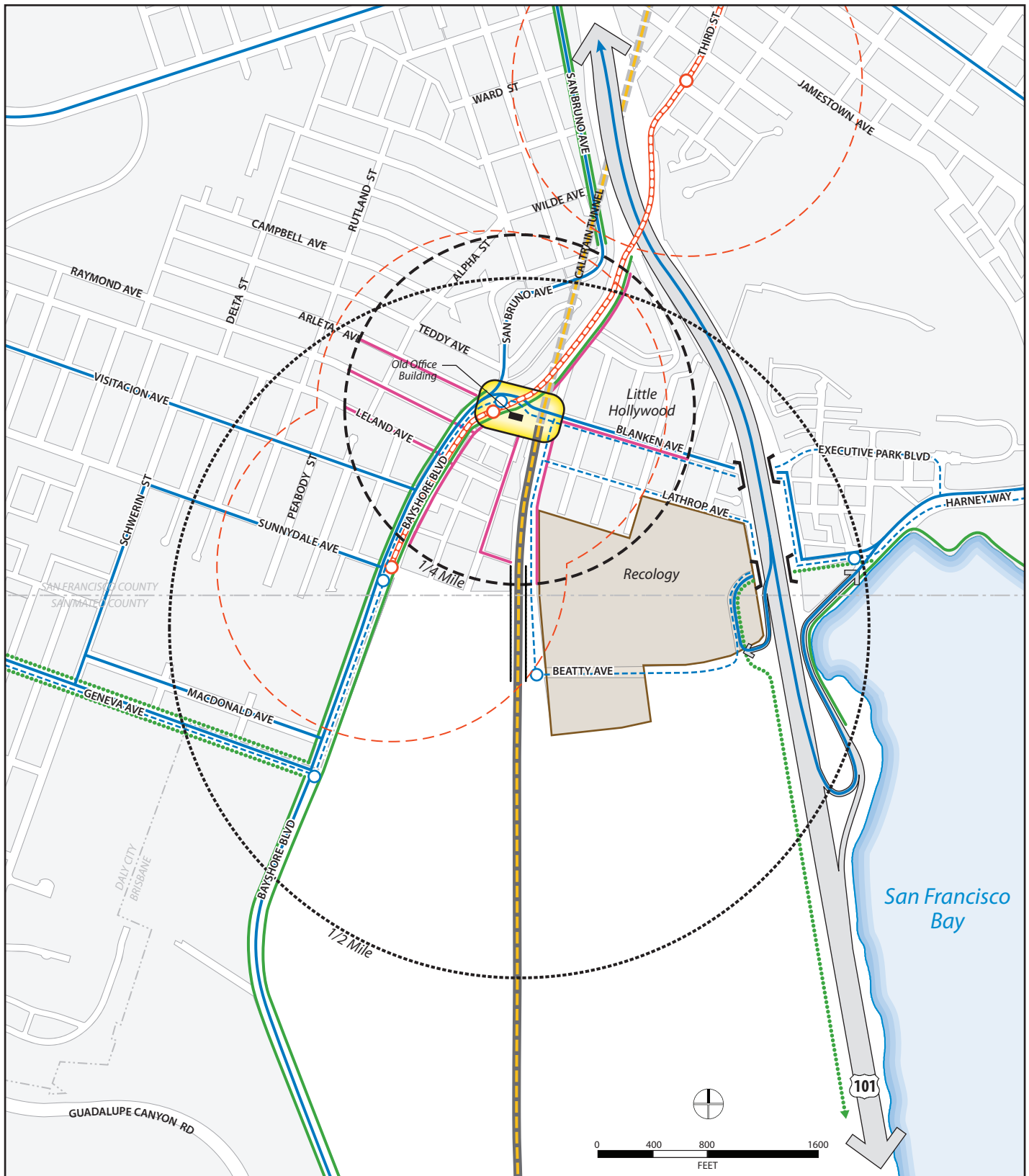
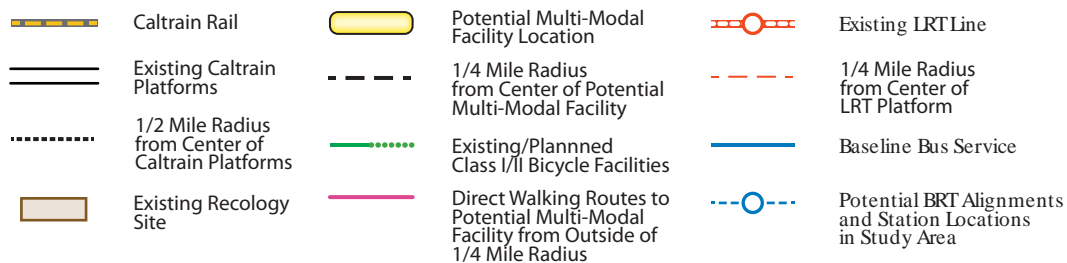


Figure 7: Potential Multi-Modal Facility Location #2 - Blanken Avenue — Short Term Transportation Enhancements



3.3 FACILITY LOCATION #3 (SUNNYDALE AVENUE)

This location, shown in Figure 8, is focused on the future extension of Sunnydale Avenue which will connect the Visitation Valley neighborhood to the Caltrain platforms. The transit services could be arranged in a number of ways, depending in large part on the planned treatments for the Sunnydale Avenue extension. It could be built to be a pedestrian right of way, in which case bus and light rail services would remain on Bayshore Boulevard, or the right of way could be turned into a transit mall, with buses and even light rail being routed onto Sunnydale to provide stops adjacent to the Caltrain platforms. An underpass could be built under Bayshore Boulevard to assist with access to the facility.

Like Location #2, this location allows the existing transit network to remain relatively unchanged, and therefore construction costs are not high. Transferring passengers would generally walk through the Schalte Lock site along Sunnydale Avenue, providing 24-hour activity to this street. The land uses could be made transit-compatible around this facility with ground level retail, integration of facility elements with building elements (e.g. awnings, landscaping), and office space. The buildings on the north side of the street are expected to have residential (or residential mixed-use) designations, while the buildings on the south side of the street (in the City of Brisbane) are expected to have commercial (or commercial mixed use) designations.

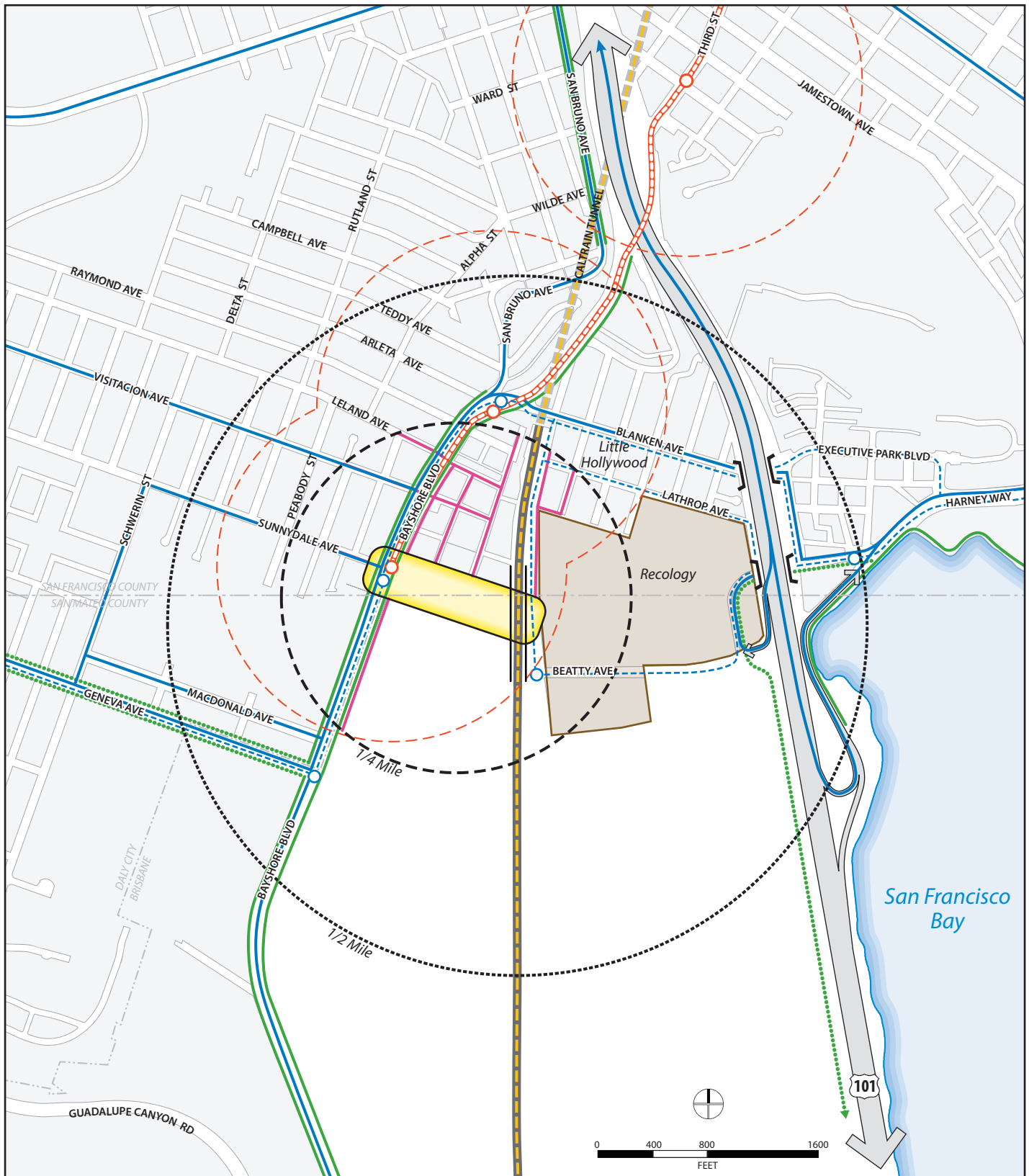
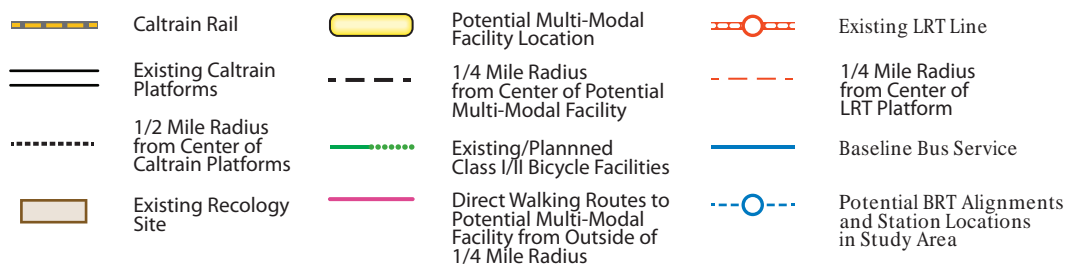


Figure 8: Potential Multi-Modal Facility Location #3 - Sunnydale Avenue — Short Term Transportation Enhancements



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Facility Locations

3.4 FACILITY LOCATION #4 (GENEVA EXTENSION / LONG TERM TRANSPORTATION IMPROVEMENTS)

This location, shown in Figure 9, is focused on the future extension of Geneva Avenue and associated reconstruction of the Highway 101 interchange and extension of the T-Third line. It is a facility that will consolidate many of the transfers in the area.

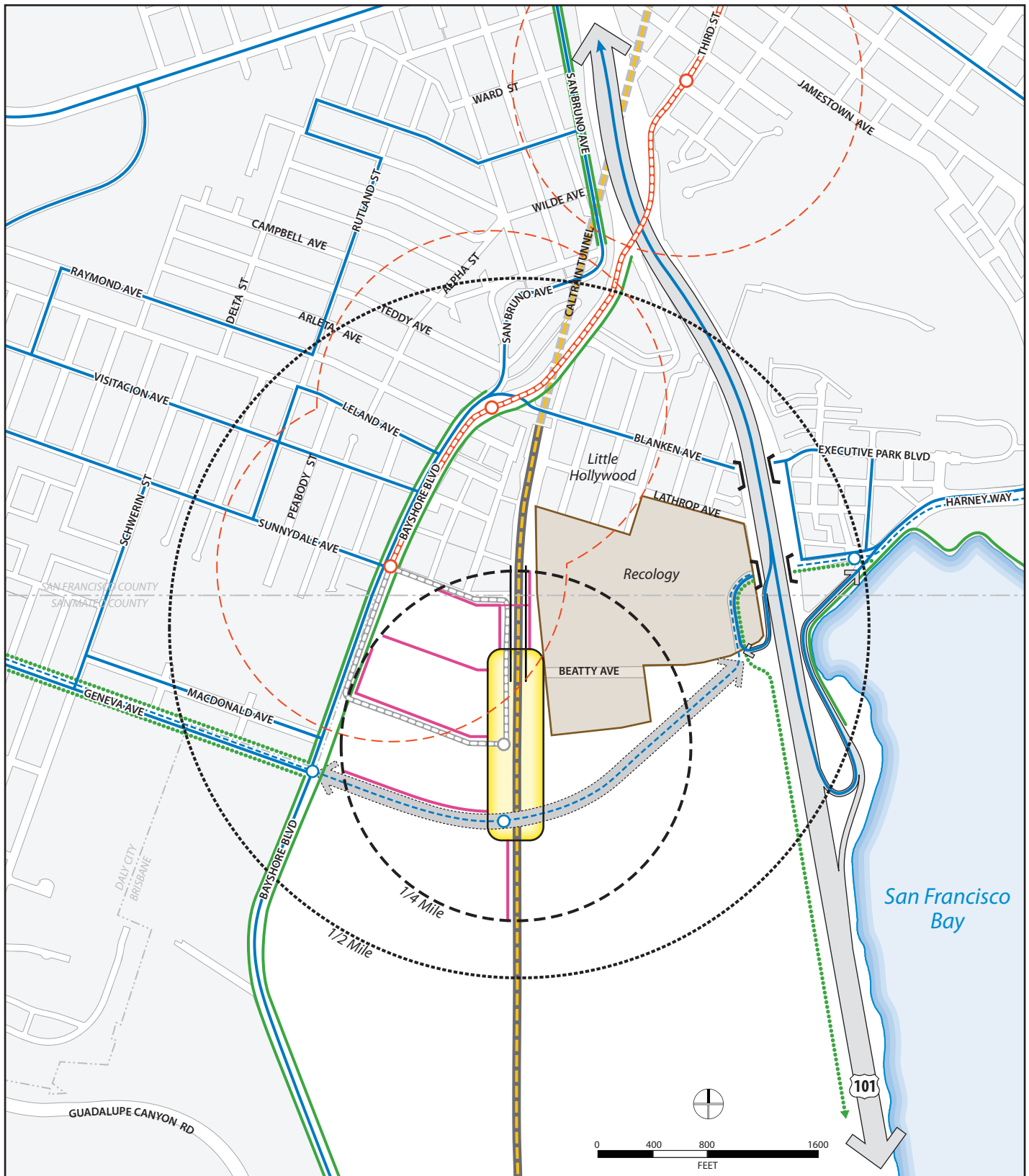
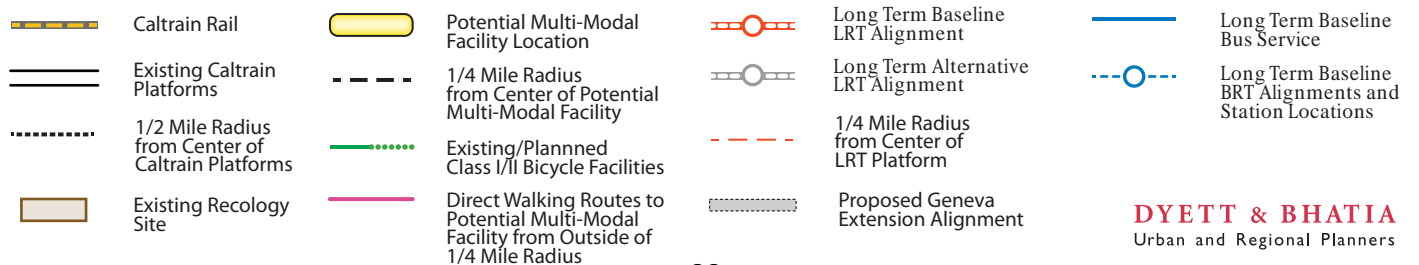


Figure 9: Potential Multi-Modal Facility Location #4 - Geneva Extension — Long Term Transportation Enhancements



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Multi-Modal Facility Elements

4.0 MULTI-MODAL FACILITY ELEMENTS

The Bayshore Intermodal Station Access Study laid out a program for the multi-modal facility that included the following:

- Two (possibly relocated) heavy rail platforms to accommodate Caltrain
- Two BRT platforms, with dedicated right-of-way and vertical circulation
- Five bus bays to accommodate Muni, SamTrans, and shuttle buses
- One LRT platform and support facilities for T-Third
- 150-310 parking spaces, 20 bicycle racks, and 40 bicycle lockers
- A station plaza and landmark architectural feature or building
- Station access points to provide entry from all directions
- General design features such as wayfinding, seating, weather protection, and accessibility compliance with the Americans with Disabilities Act

The Study started with the question of location, and the understanding that not all of the potential locations will be able to accommodate all of the above elements. As a result, some effort went into prioritizing the facility elements in Phase 1 of the Study. This may have to be revised in Phase 2 of the Study as conceptual designs are explored. These elements have been divided into high priority elements and optional elements, but this is subjective.

These elements were brought to the public for comments. Their responses can be found in the Public Meeting Summary in Appendix E.

4.1 HIGH PRIORITY ELEMENTS

Seating and Shelter: This refers to seating for waiting passengers and protection from the elements in the form of roofs, enclosed areas, or shade. This requirement was supported by the public, many of whom commented that the area can get very windy. Given the anticipated demand at many of the individual loading areas in the Study area, some form of seating and shelter would be expected per the standards of the individual service operators.

Pedestrian Access: This refers to the availability of direct and safe walking paths to and from the facility. This is very important given that the majority of users are expected to walk to the facilities. The facility area will have a new roadway network in conjunction with the build out of the Schlage Lock site, and this will facilitate many of the walking trips via the sidewalks.

In particular, in the short term, there will be a temporary pathway through the Schlage Lock site to allow for access to the Caltrain platforms from the west. It could be a paved pathway serving pedestrians and bicycles, but it does not necessarily have to be a full right of way with vehicular travel lanes, street furnishings, etc. This path will have to remain open throughout the build out of the Schlage Lock site. In the long term, it is expected that a permanent pathway to the Caltrain tracks be available along future Sunnydale Avenue Extension.

PHASE 1 MEMO

Multi-Modal Facility Elements

Bicycle Access: This refers to the availability of direct and safe bicycling paths to and from the facility and connections to existing bicycle routes in the Study area along Bayshore Boulevard, San Bruno Avenue, Blanken Avenue, Geneva Avenue, and Tunnel Avenue. However, the Study area has challenges created by Highway 101 and a limited number of east-west crossings, and to some extent, the conditions on the existing bicycle routes listed above. For example, Blanken Avenue is a narrow road, Bayshore Boulevard is a heavily congested road, and San Bruno is on a steep slope.

Wayfinding: This refers to the signage placed strategically around the facility area to direct people to the multi-modal facility and within the multi-modal facility to assist travelers to find specific modes and services.

Bicycle Share: This refers to a Bay Area Bikeshare kiosk. This would be a place where passengers could access or return shared bicycles. To be successful, there would have to be multiple kiosks around the Bayshore area and in the Executive Park, Hunters Point Shipyard and Candlestick Point developments, at a minimum.

Bicycle Storage: This refers to the bicycle lockers and bicycle racks, and perhaps even bicycle storage rooms. Caltrain in particular has a large percentage of passengers who access its services by bicycle, and so there is a known need for bicycle storage at this facility.

Information Kiosk: This would be a place where travelers could find information related to services, routes, and fares.

Shuttle/Bus Loading/Unloading Area: This refers to the location where the Caltrain shuttles and buses that have been rerouted to serve the multi-modal facility would unload and load passengers. This would be a place easily and directly accessible by the Caltrain shuttles, Muni routes, or SamTrans routes to minimize operating costs and improve travel times. This concept was proposed in the Bayshore Intermodal Station Access Study.

In conjunction with the above, it is also important that all facilities be ADA-accessible and that the transit routes serving the multi-modal facility provide high frequencies and/or important regional and local connections.

4.2 OPTIONAL ELEMENTS

Shared Platforms: This refers to the integration of a new LRT platform with the southbound Caltrain platform. This would allow for cross platform transfers between the T-Third line and southbound Caltrain services. The concept of shared platforms was proposed in the Bayshore Intermodal Access Study.

PHASE 1 MEMO

Multi-Modal Facility Elements

Pedestrian/Bicycle Underpass: This refers to an ADA-accessible passage built underneath a road or rail tracks for pedestrians and bicycles. Pedestrian underpasses would allow pedestrian and cyclists to cross roads or tracks in a safe manner and without waiting for a green light or a crossing arm. Underpasses have some drawbacks, mainly related to security and cost.

Pedestrian/Bicycle Ramp: This refers to ramps connecting an elevated Geneva Avenue to the at-grade Caltrain platforms or connecting Blanken Avenue (which is at a higher elevation) to the Caltrain platforms (which are at a lower elevation). These ramps are an integral part of several facility concepts.

Landmark Building: This refers to the Historic Office Building in the event that the Blanken Avenue (Location #2) is selected.

Public Art: This refers to public art intended to beautify the facility area. Normally, construction budgets include a small percentage for public art.

Parking: This refers to the provision of parking for transit riders. The facility will be located within a Priority Development Area (PDA), so it will presumably be very walkable, and there are opportunity costs for using land near the facility for parking. However, it may prove to be useful to offer some form of parking in the facility as a means to offer choice. The provision of parking may depend on the facility location.

5.0 EVALUATION

The evaluation identified Location #3 (Sunnydale Avenue) as the best location. It scored well in terms of non-motorized access, transit operations, and place-making in all land use scenarios. Specifically, it had the highest scores with Land Use Scenarios #1, #3, and #4, and the second highest score with Land Use Scenario #2. The tie-breaker was not needed.

A sensitivity analysis to test the options with rail extensions suggested that Location #3 would still score the best, even if the transfer distances were reduced through the extension of T-Third to the Caltrain platforms. In addition, sensitivity testing against costs showed that Location #3 would score the best under Land Use Scenario #2 (as well as under Land Use Scenarios #1, #3, and #4) if capital costs were weighted by a factor of three.

See Site Evaluation Memo in Appendix F and Evaluation Matrix in Appendix G for a summary of the evaluation. In addition, analysis related to facility-area density is provided in Appendix C and estimates of ridership capture are provided in Appendix D.

6.0 NEXT STEPS

The next steps are to develop conceptual facility designs for Location #3. These designs will incorporate findings from Phase 1, such as ridership estimates, promote the benefits that this location offered in the evaluation, and mitigate some of its weaknesses. Some of the concepts that have been discussed to date for this location are a transit mall, a moving walkway, a covered walkway, and a shopping street. The goals will be to develop several alternatives, present them to the public, and gather feedback on what conceptual design best meets the needs of existing and future residents.

In coordination with this process, we will carry out a feasibility study of the conceptual designs, including engineering analysis related to the construction of certain features on the site and capacity of the facility. The engineering analysis will look at the feasibility of underpasses and other components that may depend on the location of utilities and the geotechnical conditions of the site. The capacity analysis will consider the capacity of the major platforms and walkways in the facility and check to see that they are greater than what is needed to accommodate the anticipated demand.

In addition, we will check feasibility of the designs from an economic perspective. For example, pedestrianizing Sunnydale Avenue may dissuade some businesses from moving there, thereby producing some negative economic impacts. This could be the case even though it would produce a safe and pleasant walking environment for individuals transferring between services on Bayshore Boulevard and the Caltrain services.

PHASE 1 MEMO

Appendix A Data Collection

Memo December 22, 2015

Appendix A DATA COLLECTION MEMO

INTRODUCTION

The following is a description of the plans, policies, and data that were reviewed as part of the Bayshore Multi-Modal Facility Study (the Study).

BACKGROUND

Caltrain's Bayshore Station is located in the southeast part of San Francisco County and northeast part of San Mateo County. It is currently one of the least used stations in the Caltrain system, but it is expected that its daily ridership will grow significantly with the build out of key developments that are part of what is called the San Francisco/San Mateo Bi-County Area Priority Development Area (PDA). Additional use is expected by new residents from the Bayview/Hunters Point Shipyard/Candlestick Point/Executive Park PDA who would use a future facility to connect to a wide range of transportation services. These developments will also increase demand for other transit services in the Bi-County area, such as Muni BRT, Muni and SamTrans bus services, T-Third LRT, and private and public shuttles, and all of these transit services will have to work together seamlessly for transit to be successful. Development will also bring a need for bicycle access, pedestrian access, park-and-ride, and kiss-and-ride. To bring all of these modes and services to a single, convenient location, a multi-modal facility is proposed, and the search for an appropriate location, configuration, and implementation approach is driving this study. The image below illustrates the study area and its existing and changing land uses.



The current platforms at Caltrain's Bayshore Station are located on the County line (shown in red in the images below), but previously, the platforms were shorter and were located north of the County line. Caltrain service may be a component of the Bayshore Multi-Modal Facility, although it may also be accessed through wayfinding. The multi-modal facility would also contain most of the following: BRT, buses, shuttles, LRT, bicycles, pedestrians, and automobile users.

1993 Bayshore Caltrain Station Aerial



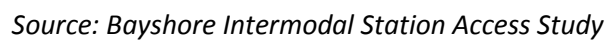
2003 Bayshore Caltrain Station Aerial



Source: San Francisco Planning Department

Agency Sponsor: San Francisco County Transportation Authority (SFCTA)

Three facility alternatives were developed, although the third alternative was dropped because the City of Brisbane believed it contradicted existing land use plans with respect to the placement of the Geneva Extension. The first alternative involved moving the existing Caltrain platforms 150 feet to the south of the existing platforms and constructing an elevated BRT alignment over the Caltrain platforms, as shown in the figure below. The second alternative involved moving the Caltrain platforms 300 feet to the south of the existing platform and constructing pedestrian ramps that would connect to a BRT alignment on the Geneva Extension. In the first option, it was expected that there would be a tunnel or bridge for buses to travel through the Recology site.



- Ridership maximization
- Non-motorized access
- Intermodal connectivity
- Transit operations

- Place-making
- Implementation ability

The station program consisted of the following:

- Two (possibly relocated) heavy rail platforms to accommodate Caltrain
- Two BRT platforms, with dedicated right-of-way and vertical circulation
- Five bus bays to accommodate Muni, SamTrans, and shuttle buses
- One LRT platform and support facilities for T-Third
- 150-310 parking spaces, 20 bicycle racks, and 40 bicycle lockers
- A station plaza and landmark architectural feature or building
- Station access points to provide entry from all directions
- General design features such as wayfinding, seating, weather protection, and accessibility compliance with the Americans with Disabilities Act

According to this study, the most common transfer at the multi-modal facility will be between Caltrain and BRT, so the study focused on maximizing the convenience of this particular transfer movement. The Bayshore Intermodal Station Access Study did not provide a definitive recommendation for the facility location because the location was dependent on land use, although the options explored both involved a move to south of where the Caltrain platforms are located today and the incorporation of the facility into the Geneva Extension.

Relevance:

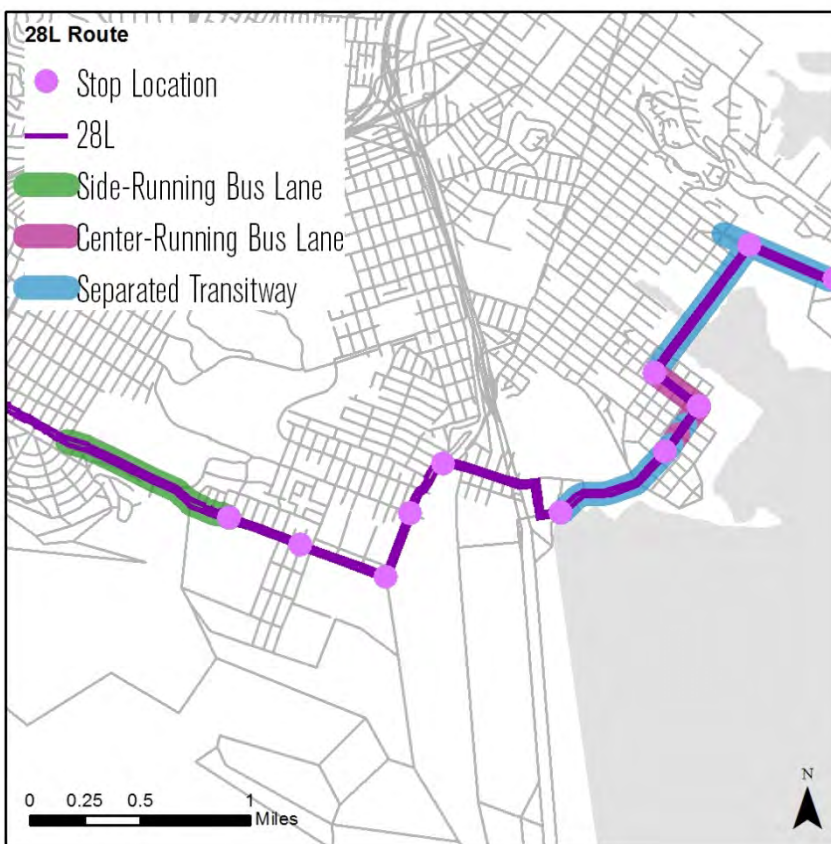
The Study will build on this 2012 study by using its general evaluation framework, borrowing elements of its station program, using the general southern facility location as a location option to compare against other options, and building off of its public outreach program. However, the Study incorporates changes in the planning environment, such as the progress made on the developments in the Hunters Point Shipyard, Candlestick Point, Executive Park, and Schlage Lock sites, and the results of the Geneva-Harney BRT Feasibility Study. As such, it establishes the need for a multi-modal facility in the near-term as opposed to the long-term. The short-term BRT alignment will have to use Bayshore Boulevard / Blanken Avenue (see project description below for more information), and the Geneva Extension may not be built in the near term. A short-term focus also suggests that Caltrain service may not play as large a role in this area as assumed in the original study. In response to these changes, the Study will consider additional multi-modal facility location options (including one that does not assume the inclusion of Caltrain platforms), a wider range of land use scenarios for the Brisbane Baylands site, and station ridership expectations based on input from the Geneva-Harney BRT Feasibility Study that were not available several years ago.

Geneva-Harney BRT Feasibility Study (2015)

Agency Sponsor: San Francisco County Transportation Authority (SFCTA)

The purpose of this study is to consider the feasibility of a BRT service through the Bi-County area, focusing on planning horizons in 2020 and in 2040. In both planning horizons, it is assumed that the

Caltrain station remains in its current location. The results have indicated that a near-term alignment would operate in mixed traffic and use Blanken Avenue, as shown in the image below.



Source: Geneva-Harney BRT Feasibility Study

A long-term option would use the Geneva Extension. In both planning horizons, the BRT service would be a new Muni route called 28R (previously called 28L) which would connect the Hunters Point Shipyard, Candlestick Point, Executive Park, the Bayshore area, and the Geneva Avenue corridor to the Balboa Park BART Station, 19th Avenue, and points north.

The City of San Francisco is obligated to provide BRT service by 2023 to support the Hunters Point and Candlestick Point development.

Relevance:

Essentially all aspects of the Geneva-Harney BRT Feasibility Study are relevant to the Study. The results of the Geneva-Harney BRT Feasibility Study will be used to establish the presumed BRT alignment(s) and provide a point of reference for near-term and long-term ridership forecasts at the multi-modal facility. The Study is exploring some of the same opportunities as the BRT Feasibility Study. For example, if Beatty Avenue were available for a future BRT route, the community of Little Hollywood would be less

impacted, and there would be more flexibility in where Caltrain platforms could be placed to facilitate short Caltrain-to-BRT transfers.

According to the DRAFT Input Assumptions for Geneva BRT 2020 Baseline SF-CHAMP model run dated October 29, 2014, it is expected that the 28R will operate at 8-minute headways during the day and every 15 minutes in the evening. The T-Third will operate at 7.5-minute headways and Caltrain will continue with its current schedule. Other new bus service will be introduced in the Bi-County area, as well, such as the Candlestick Point Express (CPX).

Forecasts suggest that if the 28R were in place by 2020, there would be a total of 1878 daily boardings at the Sunnydale/Bayshore and Arleta/San Bruno/Bayshore bus stops, and more with BRT enhancements. Ridership figures are shown below.

| 2020 – Daily Inbound Boardings & Alightings – 28R | | | |
|--|------------------|-------------------|--------------|
| <i>Bus Stop</i> | <i>Boardings</i> | <i>Alightings</i> | <i>Total</i> |
| Arleta/San Bruno/Bayshore | 373 | 389 | 762 |
| Sunnydale/Bayshore | 856 | 343 | 1199 |
| Total | 1229 | 732 | 1961 |

| 2020 – Daily Outbound Boardings & Alightings – 28R | | | |
|---|------------------|-------------------|--------------|
| <i>Bus Stop</i> | <i>Boardings</i> | <i>Alightings</i> | <i>Total</i> |
| Sunnydale/Bayshore | 188 | 1107 | 1295 |
| Arleta/San Bruno/Bayshore | 461 | 235 | 696 |
| Total | 649 | 1342 | 1991 |

The long-term scenario includes BRT using the Geneva Extension, a T-Third Extension, and a doubling of Caltrain service, and it is estimated to have 450 daily boardings at the Bayshore Station. This low number is likely due to the fact that the model reflects no increase in housing or employment in the Brisbane Baylands site per the San Mateo County PDA Growth and Investment Strategy (described later in this memo).

Muni Forward (2015)

Agency Sponsor: San Francisco Municipal Transportation Authority (SFMTA)

The Muni Forward project focuses on bus routes throughout the Muni network that serve a large number of passengers and which would benefit from improved travel times and reliability. Routes 9/9R are included in this plan, and the changes that resulted from the planning effort include the truncation of Route 9 at Sunnydale Avenue and the extension of 9R to provide local service in the Visitacion Valley community.

Relevance:

The improvement of bus services such as Route 9/9R in the study area suggests that bus services may continue to be more attractive to passengers than rail services in the Study area. This has consequences for where the multi-modal facility should be placed and configured.

SamTrans Service Plan (2013)

Agency Sponsor: SamTrans

This service plan addresses some of the key service changes SamTrans is set to make in the next five years in response to customer needs, performance, funding limits, and desired areas of focus. SamTrans has identified El Camino Real service as the main priority of its system and will likely continue to focus service and capital investments there. While there are currently a few routes that travel into downtown San Francisco, this service will likely be cut back, as it is a drain on resources, and riders have other options for getting to downtown (e.g. Muni, BART, Caltrain). Another focus will likely be on shuttles that serve peak period demand and connect Caltrain/BART stations to employment centers and residential areas.

Relevance:

SamTrans Route 292 currently serves the Bayshore area with 30-minute headways throughout the day (and hourly service after 6pm). This route connects the Bi-County area to downtown San Francisco and to points south such as Hillsdale Shopping Center. Given it is San Francisco service, it is a possible candidate for cutbacks.

On current bus route maps, Caltrain's Bayshore Station is not listed as being served by this route, but it would be desirable for a future multi-modal facility to incorporate this service, as well as others that use Bayshore Boulevard in the study area. Routes could be diverted into the Schlage Lock/Brisbane Baylands site or a better walking connection could be built through the sites.

Bi-County Transportation Study (March 2013)

Agency Sponsor: San Francisco County Transportation Authority (SFCTA)

The Bi-County Transportation Study was driven by the large amount of development planned for the San Francisco-San Mateo Bi-County area, and an understanding of the demands this development would place on the existing transportation system. The study collected a wide selection of projects proposed for the area and applied a set of three criteria to them in order to identify priority projects. The three criteria were that a project had to have a connection to the land developments, had to benefit both counties, and had to demonstrate effectiveness in terms of being able to meet the Bi-County goals. The resulting priority projects included the following:

- US 101 Candlestick Interchange Re-Configuration
- Geneva Avenue Extension
- Geneva-Harney Bus Rapid Transit Line
- T-Third Light Rail Extension (Segment "S")

- Bayshore Station Re-Configuration
- Bicycle-Pedestrian Connection Project
- Area-Wide Traffic Calming Program

The total cost of all of these projects was estimated to be \$548 million in 2010 dollars and the proposed concept for funding these projects was to share the costs among the public beneficiaries in San Francisco and San Mateo Counties and the private beneficiaries (i.e., the developers of the various sites).

In acknowledgement of the fact that this level of funding may not be available or if market forces change the rate of development in the Bi-County area, an interim program was proposed, which included the following projects:

- Reduced Geneva-Harney Bus Rapid Transit Project, in which buses would operate in mixed traffic between US 101 and Bayshore Boulevard.
- Reduced Geneva Avenue Extension, in which only half the lanes would be built out.
- Reduced Bicycle-Pedestrian Connections Project, in which the focus would be limited to connections to the BRT line and Caltrain.

The total cost of these three reduced projects was estimated to be \$153 million in 2010 dollars.

The study recognized that specific details of this plan might change, but that the overall framework would likely continue to have application in identifying and prioritizing projects in the Bi-County area. The study also recommended consideration of a Bi-County Projects Community Advisory Committee.

Relevance:

The interim program left out the Bayshore Station Re-Configuration project because it was felt that it would not be needed without the development of the Brisbane Baylands site. However, the Study reconsiders this assumption; if all of the other developments move forward, there will still be large demand for the multi-modal facility.

The Study recognizes the criteria used in the Bi-County Transportation Study to validate projects, including:

- Nexus with developments (it was estimated that about half of future boardings at Bayshore Station would be associated with Bi-County land developments).
- Benefits to San Francisco and San Mateo Counties (it was estimated that 70% of development related boardings at Bayshore Station would be from San Mateo developments, while 30% would be from San Francisco developments).
- Effectiveness toward Bi-County goals (provide transit connections in the Bi-County area).

Any facility location option would meet these minimum requirements, but not necessarily in the same way as was assumed in the Bi-County Transportation Study. In this study, the Bayshore Station Re-Configuration project was defined as follows:

“This project would redesign the Bayshore Caltrain Station to accommodate new transit connections, including a platform for the T-Third LRT Extension, stations and vertical circulation elements for the Harney-Geneva BRT line, loading areas for other local bus and shuttle connections, and any other needed station access elements and passenger amenities. The project may entail moving the existing Caltrain platforms. Conceptual design for the station is yet to be determined and the subject of the Bayshore Intermodal Station Access Study. Costs here have been estimated based on a similar design to the proposed Oakdale Station.”

Additional information that was drawn from this study was a general funding envelope, an assumption that developments will pay for at least part of the facility, and the concept of an interim program.

Project Study Report - Highway 101 / Candlestick Point Interchange (2014)

Agency Sponsor: City of Brisbane

Two options were presented in this Project Study Report (PSR) for the Highway 101 / Candlestick Point Interchange. Both involved adjusting the current on/off ramps at this location which are confusing to drivers, do not meet current standards, and do not provide continuous east-west bike lanes through the area. One option involves crossing under US 101 and the second involves going over US 101. The ramps connect to the proposed Geneva Avenue Extension on the west side of US 101 and to Harney Way on the east side of US 101.

The project is included in both Plan Bay Area (2013) and San Mateo County’s Measure A Expenditure Plan (2004). It was also addressed in the Bi-County Transportation Study.

Conceptual drawings indicate where the exclusive bus lanes and bicycle lanes would be. It assumes that the Geneva Extension project would be done before or concurrently with the interchange project. BRT lanes are placed in the median lanes on Geneva Avenue and its extension and transition to an exclusive right of way just to the north of Harney Way.

Relevance:

BRT will not use this alignment in the short term given the likely construction timing of the interchange.

It is interesting to note that the PSR is not consistent with the BRT configuration assumed in the Bayshore Intermodal Station Access Study, in which the BRT was assumed to travel in side-running lanes on Geneva Avenue.

Conceptual Engineering Report Segment S Presentation – Intermodal Terminal Extension (2007)

Agency Sponsor: San Francisco Municipal Transportation Agency (SFMTA)

The focus of this presentation was the potential layout of an intermodal station in the Bayshore area that would serve an extended Muni T-Third line, Muni buses, Caltrain, and Samtrans (but not BRT, which was not being considered at the time).

The LRT alignment would be eastbound along an extension of Sunnyvale Avenue, south parallel to the Caltrain tracks, then west along a new Universal Paragon Corporation (UPC) street, connecting back to Bayshore Boulevard. The platform would be a high level platform, 450' in length, combined with the Caltrain platform for easy transfers to southbound trains. Buses would use bus stops just west of the LRT line. The plan includes a new substation. The total project cost was estimated to be \$40.2 million (2007 dollars). The expectation was that this cost would be shared among the City and County of San Francisco, the City of Brisbane, the City of Daly City, San Mateo County, and Universal Paragon Corporation.

Relevance:

The T-Third extension is not a priority project for SFMTA, so it is not assumed to be built in the Study. Connections to T-Third stations are still important, however, so connections to Sunnydale and Arleta Stations will have to be supported through urban design.

Peninsula Corridor Electrification Project, Draft Environmental Impact Report (2014)

Agency Sponsor: Peninsula Corridor Joint Powers Board (PCJPB)

This is the most recent EIR related to this effort; an electrification concept was pursued previously, but it did not incorporate high speed rail. This EIR recognizes the future introduction of high speed rail (HSR), but addresses the electrification as a separate project because of its distinct utility and logical termini. HSR will be a component of another environmental review. Blended service, which refers to a future scenario in which there are up to six Caltrain and four HSR trains per hour per direction, is expected to begin between 2026 and 2029.

The purpose of the electrification project will be to:

- Provide electrical infrastructure for Caltrain service that is compatible with high speed rail.
- Improve train performance, increase ridership and increase service.
- Increase revenue and reduce cost.
- Reduce environmental impact by reducing noise emanating from trains.
- Reduce environmental impact by improving regional air quality and reducing greenhouse gas emissions.

The electrification is expected to result in 12,000 more passengers per day in 2020 compared to a no build scenario. The project is estimated to cost \$1.23 billion in YOE dollars.

Relevance:

To install the necessary electrical equipment, modifications will need to be made in some tunnels, such as the one to the north of the Schlage Lock site. This may involve creating notches in the tunnel ceiling for the OCS equipment, but it could also mean lowering track or widening tunnels to provide sufficient clearance.

The service increases will not necessarily improve service levels at Caltrain's Bayshore Station. New stations are being proposed throughout system, Baby Bullet trains are typically over capacity, and PDAs have been identified throughout the Caltrain alignment in San Francisco, San Mateo, and Santa Clara Counties, so the additional capacity is likely going to be taken up by those three trends. Unless a strong case can be made for additional service at the Bayshore Caltrain Station, service will remain hourly, and limited Caltrain service may stifle the number of passengers using the Bayshore Multimodal Station.

A paralleling substation is cited as a project component at the tunnel portal on the north side of the Schlage Lock site. A simulated image of this substation is shown in the image below taken from the Caltrain Electrification EIR. This may limit options for vertical circulation.



Source: Environmental Vision 2013

Figure 3.1-4
Simulation 2: PS2, San Francisco (near Bayshore)
 Peninsula Corridor Electrification Project

Source: Caltrain Electrification EIR

Alternatives Analysis Report for the San Francisco to San Jose Section (Supplemental to the California High-Speed Train Project Environmental Impact Report/Environmental Impact Statement) (2010)
Agency Sponsor: California High Speed Rail Agency (CHSRA)

This is an outdated plan due to the decision for Caltrain and CHSRA to work together on the Blended Service concept, but it gives some information on some of the HSR needs for the San Francisco to San Jose Section that might be included in their revised EIR.

Relevance:

This document outlines a location for a Brisbane/Bayshore Maintenance Facility Site immediately to the east of the existing Caltrain tracks, west of Highway 101, and south of the Recology site. The alternatives analysis identified two other options for a maintenance facility site, but eliminated them based on availability and size. It recommended moving forward with the Brisbane/Baylands site due to it having sufficient area (100 acres) and access to the mainline track. Its scope would also include 1050 parking spaces. The function of the maintenance facility would be to provide light maintenance, including daily inspections, minor maintenance, and cleaning.

The Blended Service concept that has been agreed to between Caltrain and CHSRA includes lower levels of HSR service than assumed in this EIR; however, Caltrain has some storage and maintenance needs, as well, and could be interested in sharing a new maintenance facility with the CHSRA.

Central Subway Project

Agency Sponsor: San Francisco Municipal Transportation Agency (SFMTA)

This project is a 1.7 mile extension of the T-Third line from its current northern terminal at 4th Street and King Street and it includes the construction of four new stations. It is currently in construction, and revenue service is expected to begin in 2019. Once open for service, the trains on this line will be extended from one car to two cars.

Relevance:

This extension will make T-Third service more desirable and a more important transportation service in this area.

Transbay Transit Center/ Caltrain Downtown Extension

Agency Sponsor: San Francisco County Transportation Authority (SFCTA)

This project includes the construction of a new downtown transit center and a 1.3 mile extension of Caltrain service. While the downtown transit center is expected to be complete by 2017, the Caltrain extension is currently unfunded and so there is uncertainty about when it will start revenue service.

Relevance:

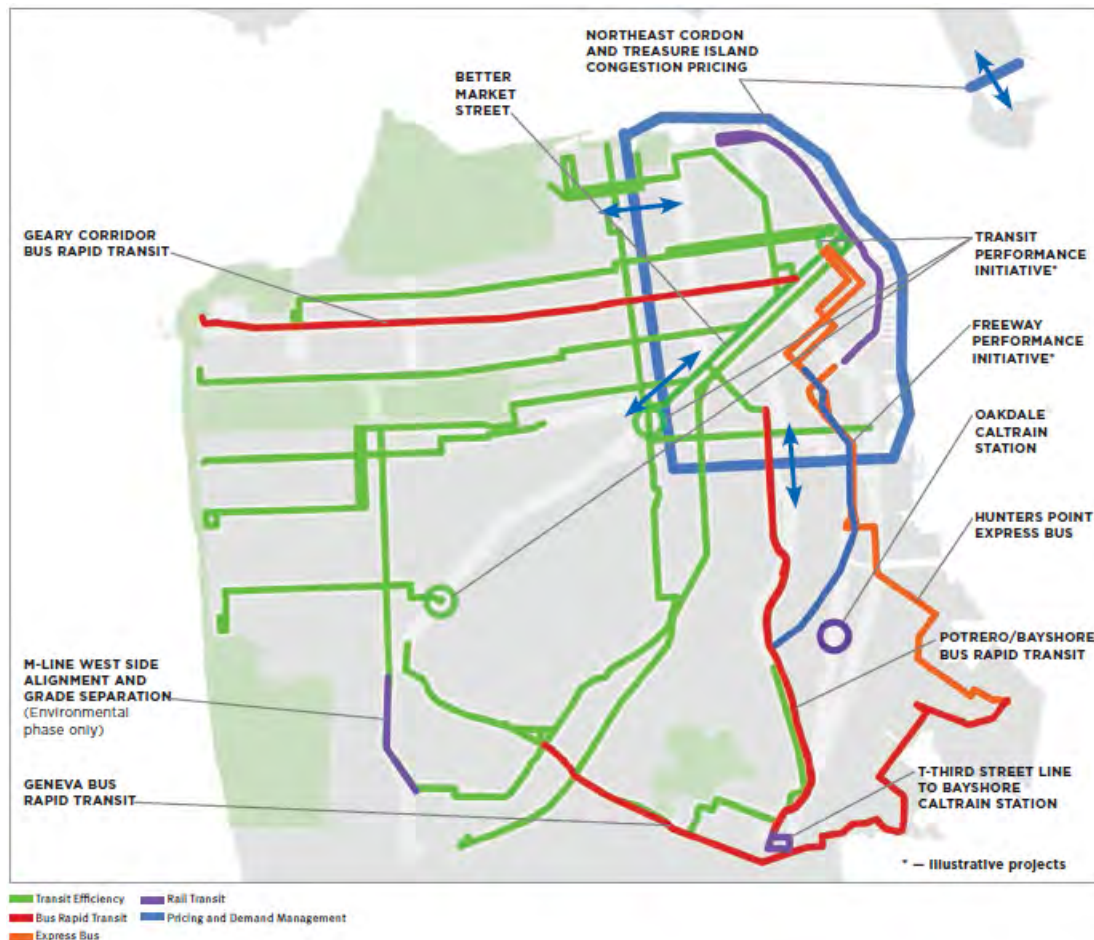
The extension will make Caltrain service more desirable and pave the way for high-speed rail. High-speed rail service will be available at Caltrain's Bayshore Station, but the premise is that passengers

wanting to access high-speed rail service to the south would travel south on Caltrain service to Millbrae where they could transfer.

San Francisco Transportation Plan 2040

Agency Sponsor: San Francisco County Transportation Authority (SFCTA)

This outlines invest plan and investment vision. Investment Plan has 88% of its funding claimed, with some available for new priorities. The investment vision is more funding for transit and therefore room for new unfunded priorities to be carried out. The plan covers the period to 2040.



Source: San Francisco Transportation Plan 2040 (2013)

Relevance:

This plan confirms the City's commitments to projects such as the Geneva-Harney BRT and express bus services from Candlestick Point and Hunters Point to Downtown. It also shows the extension of T-Third to Caltrain's Bayshore Station. It also shows that there will be a future BRT Line along Bayshore Boulevard/Potrero.

Bay Trail Plan

Agency Sponsor: Association of Bay Area Governments (ABAG)

Currently, there are 341 miles of the Bay Trail around the Bay, and future plans call for this to increase to 500 miles. The vision is for this trail to link the shorelines of the nine counties that make up the Bay Area, passing through 47 cities and seven toll bridges.

Relevance:

A new segment of the Bay Trail is planned through the Brisbane Baylands site, and as a multi-modal facility for the greater community, it will be important for the bicycle facilities built in conjunction with the Bayshore Multi-Modal Facility to connect to the Bay Trail. In addition, the continuation of the existing Bay Trail segment through Candlestick Point is planned along Alana Way, which is on the perimeter of Recology.

AGENCY POLICIES

Plan Bay Area (2013)

Agency Sponsor: Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG)

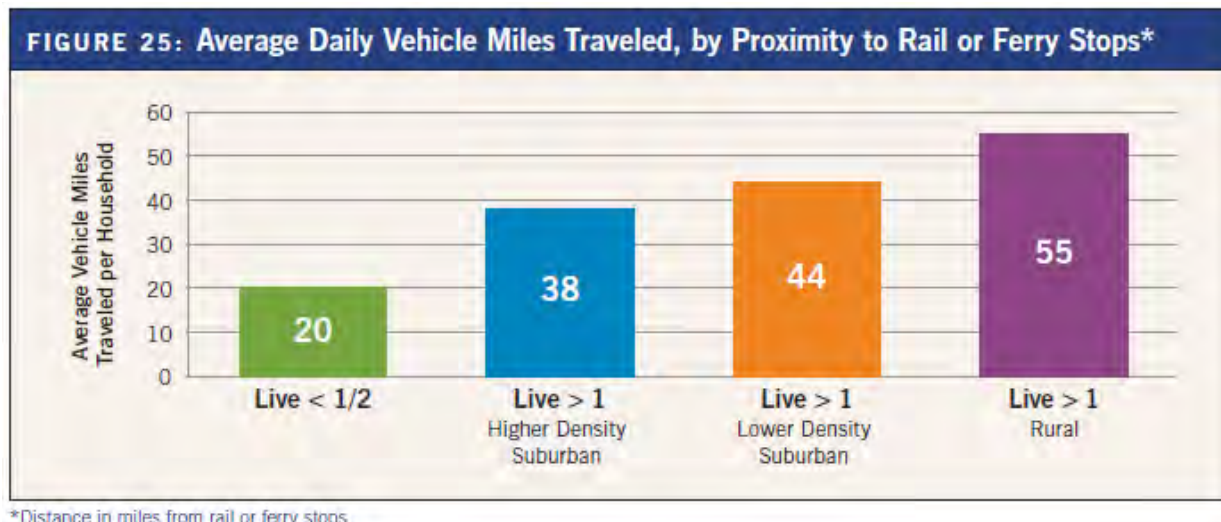
Plan Bay Area is a comprehensive regional land use and transportation plan that aims to fulfill the requirements of SB-375 related to greenhouse gas emission reductions and housing creation. These goals, as they relate to the Bay Area, are to achieve a 7% per capita reduction in emissions by 2020 and a 15% per capita reduction by 2035. The Plan's implementation is expected to result in a 10% reduction in greenhouse gas emissions by 2020 and a 16% reduction by 2035, exceeding the targets. As for the housing component of the plan, it is expected that 35% of total housing units will be located in PDAs by 2035. Plan Bay Area does not require jurisdictions to change their zoning, but expects that the concepts for densities and housing will be incorporated into specific plans. Congestion Management Agencies (CMAs) are responsible for creating PDA Investment and Growth Strategies that show annual progress towards building out these PDAs. Plan Bay Area covers the time period through 2040.

Plan Bay Area also estimates the funding that is expected to be available for transportation improvements, notes how much of it has already been committed to projects, and gives an estimate of \$60 billion that will be available in discretionary funding over the life of the plan. These funds have been distributed conceptually to different needs, but \$14.6 billion is being set aside for One Bay Area Grants (OBAGs), which are focused on the development of Priority Development Areas. \$320 million has been set aside over the next four years, directing federal funds to PDAs, distributed by County. Local CMAs are responsible for local project solicitation, evaluation, and selection. \$26 million has been allocated to San Mateo County and \$38 million has been allocated to San Francisco County for this period.

Plan Bay Area also discusses the CEQA process for housing and mixed-use projects and how it will be streamlined for projects that are consistent with the plan and meet specific criteria, such as proximity to transit. The assumption is that these projects would be located in places with densities greater than 20 units per acre and floor area ratios greater than 0.75.

Relevance:

The reason why Plan Bay Area focuses on development around transit stations is captured in the following diagram. This aligns with using a ½ mile radius around the multimodal station for determining impact on travel.



Source: Plan Bay Area

Brisbane Baylands is the San Mateo side of the San Francisco/San Mateo Bi-County PDA. The developments on the north side of the Bi-County PDA include Schlage Lock and Executive Park. The Cow Palace is in a separate Priority Development Area within Daly City. PDAs come with an expectation of significant development to take advantage of transit services that exist or are planned in that location. In the case of the Bi-County PDA, the planned Geneva-Harney BRT, the existing Caltrain service, and the T-Third line would support this development in such a way that vehicle trips are minimized.

Plan Bay Area assumes that the T-Third line will be extended to the Caltrain's Bayshore Station. The funding for this would be part of \$180 billion identified for maintaining, improving, and expanding the region's transit network. Similarly, the interchange improvements are noted for US 101 at Geneva Avenue/Candlestick Point and have an identified funding source. It is possible that funds currently allocated for these projects could be directed to other needs in the Bi-County area, such as the new Bayshore Multi-Modal Facility.

Transit Sustainability Project (2013)

Agency Sponsor: Metropolitan Transportation Commission (MTC)

This project was launched in response to the concern that funding for transit operations was not sustainable. This project identified \$70 to \$80 million per year that could be saved by the combined efforts of BART, SFMTA, Caltrain, AC Transit, Santa Clara VTA, SamTrans, and Golden Gate Transit. Its goal was to improve efficiency at these systems by 5% over five years, then maintain these efficiency gains indefinitely (while taking into consideration normal inflation).

By FY2018, MTC will review the progress of these agencies towards the performance goals, and by FY2019, it will start linking funding to the achievement of goals. Small transit systems will not be penalized as part of this process.

The following shows the targets for Caltrain and SamTrans.

| Metric | Baseline | 5% Reduction Target | 2017 Projection |
|-----------------------|-----------|---------------------|-----------------|
| Cost / Service Hour | \$ 319.12 | \$ 303.16 | \$ 340.61 |
| Cost / Passenger | \$ 7.60 | \$ 7.22 | \$ 6.59 |
| Cost / Passenger Mile | \$ 0.33 | \$ 0.31 | \$ 0.35 |

Source: Transit Sustainability Project: Caltrain Strategy

| | Target | Actuals | |
|---------------------|-------------|-------------|----------|
| Measure | 2017 | FY2012 | FY2013 |
| | (FY2011 \$) | (FY2011 \$) | |
| | | | |
| Fixed Route | | | |
| Cost/Service Hour | \$219.97 | \$204.27 | \$196.25 |
| Cost/Passenger | \$6.78 | \$7.51 | \$7.51 |
| Cost/Passenger Mile | \$1.45 | \$1.51 | \$1.55 |
| | | | |
| Paratransit | | | |
| Cost/Service Hour | \$69.18 | \$80.56 | \$76.16 |
| Cost/Passenger | \$41.39 | \$44.94 | \$45.54 |
| Cost/Passenger Mile | \$4.75 | \$4.99 | \$5.01 |

Source: SamTrans Short-Range Transit Plan & Transit Sustainability Project

Relevance:

A new multi-modal facility will have to contribute to improving or at least maintaining the performance of Caltrain, Muni, and SamTrans by increasing ridership on all three systems and minimizing additional operating costs.

Design Guidelines – Stations and Facilities

Agency Sponsor: Peninsula Corridor Joint Powers Board (PCJPB)

Caltrain's Design Guidelines for Stations and Facilities are considered minimum requirements. Any deviations from these require written approval from the Deputy Director of Engineering.

Relevance:

According to Caltrain's station classifications, Bayshore Station is currently a Tier 2 station (there are Multimodal, Tier 1, Tier 2, and Tier 3 stations). The classifications reflect the degree of connectivity to other transit services. With the introduction of the BRT service, it is likely that it would be elevated to a Tier 1 station, or even a Multimodal station, but there are no requirements associated with the different tiers.

The Caltrain Design Guidelines contain several elements that will have to be taken into consideration in either Phase 1 or Phase 2 of this study. The following is a list of the most important elements:

- There is a preference for stations on tangent track. **At most, the curve should be 1 minute 30 seconds at each end of the platform.**
- Planning and design of stations should consider platform extensions to 1000 ft.
- Parking needs at stations should be designated by Caltrain.
- There is a preference for outboard platforms that are directly opposite each other (the existing platforms at the Caltrain Bayshore Station have this configuration).
- Station planning must consider 20-year demand.
- Bike and ADA cars are generally in the north first and second cars.
- Underpasses are preferred to overpasses.
- Station design should consider Community Protection through Environmental Design (CPTED) principles.

Comprehensive Access Policy

Agency Sponsor: Peninsula Corridor Joint Powers Board (PCJPB)

In general, walking access to Caltrain stations has the highest priority, followed by transit, bike, and auto. This is important for Caltrain's financial sustainability and for meeting environmental goals related to transportation. However, the actual order of priority may depend on the station type.

Relevance:

Access priorities in the future will likely be allocated first to walking, second to transit, and third to bicycles. Parking will be prioritized after these modes.

California Green Building Standards Code (2013)

Caltrain has adopted Nonresidential Voluntary Measures from the 2013 California Green Building Standards Code for Planning and Design. A project could be considered a transit priority project if it 1) a) contained at least 50% residential use, based on total building square footage, b) had a minimum net density of at least 20 dwellings per acre, and b) was located within one-half mile of a major transit stop or high-quality transit corridor, and 2) was consistent with the prevailing sustainable communities strategy.

Relevance:

Meeting the Green Building Code will mean being eligible for more funding. These criteria will be used to assess compatibility with regional plans and policies.

Station Area Planning Manual (2007)

Agency Sponsor: Metropolitan Transportation Commission (MTC)

MTC's Station Area Planning Manual describes seven place types around transit stations and describes planning principles that are applicable to each.

Relevance:

Bayshore Station likely fits into the category of Suburban Transit Center. Expectations for this type of station are as follows:

- Mid-rise, low-rise, some high-rise and townhomes in the housing mix
- 2,500 to 10,000 housing units in the station area
- 35-100 dwellings per acre of new housing
- 7,500 to 50,000 jobs in the station area
- 4.0 FAR for new employment development

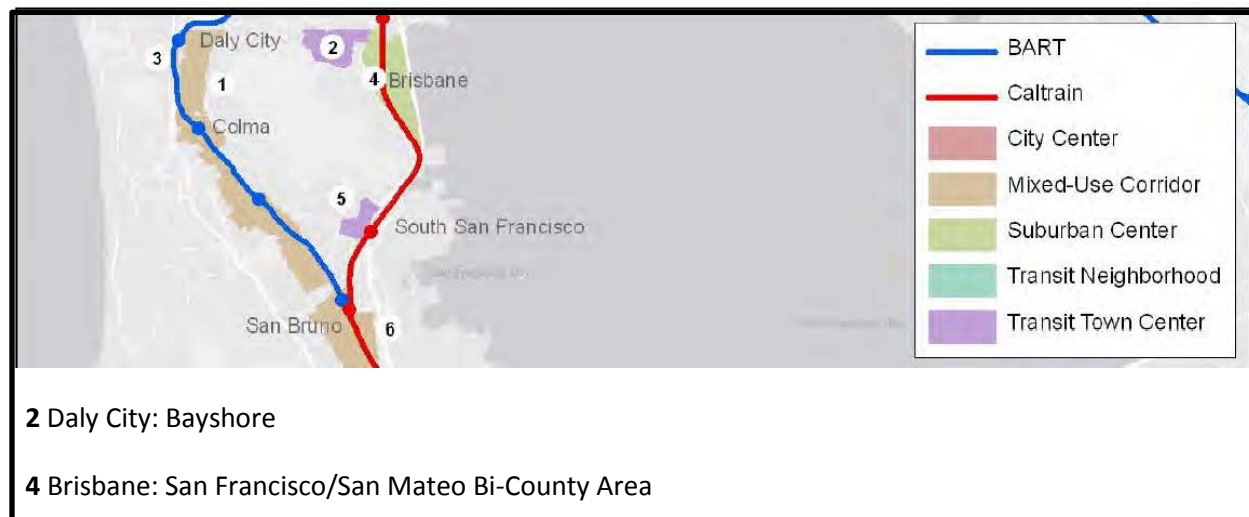
LAND USE PLANS

San Mateo County Priority Development Area (PDA) Investment & Growth Strategy (2014)

Agency Sponsor: City/County Association of Governments (C/CAG) of San Mateo

This is a required document per MTC's Resolution 4035, Appendix A-6 which requires CMAs to develop Investment & Growth Strategies for the locally-identified PDAs in Plan Bay Area. These plans are annual requirements, and so this is the second one completed for C/CAG.

There are 17 PDAs in San Mateo County, and they are expected to hold 70 percent of the County's projected housing growth from 2010 to 2040. PDAs in the north part of the County are shown below. PDAs are essentially continuous along El Camino Real and the BART alignment.



Source: San Mateo County Priority Development Area Investment & Growth Strategy

Relevance:

The current plan has allocated no housing units in the City of Brisbane PDA (the Brisbane Baylands site) and no additional jobs, but suggests that it will be a Suburban Center. The Daly City Bayshore PDA, designated a Transit Town Center, has not been allocated housing or employment, either. One Bay Area Grant (OBAG) funds can be used for projects that support multimodal access and projects in PDAs, but only if there is a commitment to growth and affordable housing.

Candlestick Point/Hunters Point Shipyard

Agency Sponsor: City of San Francisco Planning Department

This development is located northeast of the potential multi-modal facility locations and in the southeast part of San Francisco on the Bay. It is currently in construction, and it consists of 748 acres, 10,244 new housing units, and 4,315,000 sf of net new non-residential development. It is estimated that the density at full build out will be about 40 dwelling units per acre.

Relevance:

The Bayshore Multi-Modal Facility will serve people who arrive by BRT or bicycle from the Candlestick Point/Hunters Point Shipyard developments who are going to points south in San Mateo and Santa Clara Counties, Bayshore area shuttles, or to points within the study area.

Executive Park

Agency Sponsor: City of San Francisco Planning Department

This development is located east of the potential multi-modal facility locations and in the southeast part of San Francisco adjacent to US 101. This development was approved in 2011, and it consists of 70 acres, 2,800 new housing units, and 226,000 sf of net new non-residential development. It is estimated that there will be about 100 dwelling units per acre at full build out.

Relevance:

The Bayshore Multi-Modal Facility will serve people who arrive by BRT, on foot, or by bicycle from the Executive Park development who are travel to San Mateo or Santa Clara Counties or to the study area.

Schlage Lock

Agency Sponsor: City of San Francisco Planning Department

This development is located adjacent to the potential multi-modal facility locations and in the southeast part of San Francisco along Bayshore Boulevard. This development was approved in May 2014, and it consists of 46 acres, 2,014 new housing units, and 97,700 sf of net new non-residential development. It is estimated that there are about 65 dwelling units per acre at full build out.

Relevance:

The Bayshore Multi-Modal Facility will serve people who arrive by foot from the Schlage Lock development wanting transit service or other transportation services such as bicycle share or carshare. There may be opportunities for joint development on this site or the joint use of certain facilities, such as parking.

Brisbane Baylands

Agency Sponsor: City of Brisbane

This development is located south of and in some cases adjacent to the multi-modal facility locations and in the northeast part of San Mateo County in Brisbane. It is currently in planning, and it consists of 648 acres. It could accommodate up to 4,434 new housing units and 6,950,000 sf of net new non-residential development. It is estimated that there could be 60 to 95 dwelling units per acre at full build out.

Relevance:

The Bayshore Multi-Modal Facility will serve people who arrive by foot or shuttle bus from the Brisbane Baylands development. There may be opportunities for joint development on this site or the joint use of certain facilities, such as parking.

Recology Expansion

Agency Sponsor: City of Brisbane

The proposed Recology expansion would entail the expansion of the existing 44 acre site to 68 acres. This project will have to be fast tracked in order to meet San Francisco's 100% land fill diversion goal by 2020, and as such, there have been requests to separate this planning process from the Brisbane Baylands planning process. A Notice of Preparation (NOP) was released in April 2014, and comments were received through May 2015. There is no timeline for the EIR at this time.

Relevance:

Recology's plans for expansion will impact the circulation around the multi-modal facility area, the Tunnel Avenue alignment, and the overall level and type of activity.

DATA

Caltrain Ridership Data

Agency Sponsor: Peninsula Corridor Joint Powers Board (PCJPB)

Caltrain passenger counts were taken in February 2015 as part of an annual February count. Results showed that average weekday ridership had increased 9.3% in 2015 compared to 2014.

The analysis of the ridership data suggests that there is currently capacity on the trains that stop at Caltrain's Bayshore Station throughout the day. While many trains are over capacity in the peaks (in both directions of travel), these tend to be the express (i.e., Baby Bullet) and limited services. Only local trains (or the local portion of local/express) trains stop at Caltrain's Bayshore Station. The current service at Caltrain's Bayshore Station on weekdays is approximately one train per hour.

From Bayshore Station, the scheduled travel time to the San Francisco terminal is 14 to 16 minutes. The scheduled travel time back to the Bayshore Station from the San Francisco terminal is 10 minutes, except in the PM peak, when it is 13 minutes. Traveling south, it is 44 to 46 minutes to Palo Alto.

There was an average of 254 boardings per weekday at Bayshore Station in 2015. It is the least used station in San Francisco and San Mateo Counties. However, weekday boardings have nearly doubled at Bayshore Station since 2010, when it was 125 per weekday. In the morning peak, the dominant flow of passengers is onto southbound trains.

Weekend ridership appears to be dropping at the Bayshore Caltrain Station. Like weekdays, it appears that most people use the station to access points to the south on the Peninsula.

Relevance:

These figures will be used to establish a baseline for the travel patterns in the Bayshore area. Caltrain electrification will change the service plan, enabling more service overall (but not necessarily at Caltrain's Bayshore Station). It also suggests that the future multi-modal facility should be configured in such a way to facilitate transfers to the SB platform in the mornings and from the NB platforms in the evening.

2013 Caltrain Passenger Intercept Survey

Agency Sponsor: Peninsula Corridor Joint Powers Board (PCJPB)

The overall results showed the following breakdown of how passengers arrive at Caltrain stations in the AM peak period: 23% by car, 1% by taxi, 36% by walking, 14% by bicycle (and 13/14 of those brought their bicycle on board), and 26% by transit/shuttles.

Relevance:

At Caltrain's Bayshore Station, the access mode for the AM peak was as follows: 20% by walking, 13% by bicycle (all took bicycles on board), 33% by transit/shuttles, 20% drove alone, 15% got dropped off by

car. This was based on a survey taken June 5, 2013, a Wednesday, between 6:30am and 10:30am. This can be used in the assumptions that are part of the ridership forecasting.

MUNI T-Third Ridership

Agency Sponsor: San Francisco Municipal Transportation Agency (SFMTA)

This is station-by-station boarding and alighting data from 2007.

Relevance:

These figures will be used to establish a baseline for the travel patterns in the Bayshore area. This data suggests that during a 24-hour weekday period, there are about 705 offs and 15 ons on SB trains and 691 ons and 10 offs on NB trains at Arleta Station. There are 561 offs on SB trains and 336 ons on NB trains at Sunnydale Station.

MUNI Bus Ridership

Agency Sponsor: San Francisco Municipal Transportation Agency (SFMTA)

This is stop-by-stop boarding and alighting data from 2007.

Relevance:

These figures will be used to establish a baseline for the travel patterns in the Bayshore area. Boarding and alighting data from bus stops in the Bayshore area were pulled out from the data and are summarized below by bus route.

| Route | Direction | Daily Boardings | Daily Alightings |
|--------------|-----------------------|------------------------|-------------------------|
| MUNI 9 | NB | 321 | 77 |
| MUNI 9 | WB | 190 | 252 |
| MUNI 9L | NB | 450 | 6 |
| MUNI 9L | SB | 16 | 471 |
| MUNI 56 | WB @ Blanken/Tunnel | 12 | 2 |
| MUNI 56 | WB @ San Bruno/Arleta | 89 | 33 |
| MUNI 56 | EB @ Bayshore/Blanken | 44 | 45 |
| MUNI 56 | EB @ Blanken/Tunnel | 2 | 1 |
| MUNI 8X | NB | 449 | 358 |
| MUNI 8X | WB | 348 | 360 |
| MUNI 8AX | NB | 209 | 7 |
| MUNI 8AX | SB | 49 | 184 |
| MUNI 8BX | NB | 159 | 162 |
| MUNI 8BX | WB | 174 | 350 |

These numbers were then consolidated into general movements. Note that boardings on a bus that is ultimately heading west, but which is facing south in the Bayshore area, are allocated to WB ons.

| | |
|---------------|------|
| SB Alightings | 655 |
| SB Boardings | 65 |
| NB Alightings | 533 |
| NB Boardings | 1588 |
| EB Alightings | 46 |
| EB Boardings | 46 |
| WB Alightings | 997 |
| WB Boardings | 813 |

These figures suggest that there is currently more transit activity related to bus use in the Bayshore area than either T-Third or Caltrain activity. It will help that there are no costs associated with transferring between Muni buses in this area, while passengers would have to pay a premium to transfer to Caltrain to reach points in San Francisco.

Muni LRT and Bus Operating Costs

Agency Sponsor: San Francisco Municipal Transportation Agency (SFMTA)

Motor bus operation costs \$167.76 per revenue hour based on FY2012 performance data.

Relevance:

In calculating the impact on transit operations, this is the hourly rate that will be applied to increases in bus travel time to calculate operating cost impacts.

Shuttle Ridership

Agency Sponsor: Peninsula Corridor Joint Powers Board (PCJPB)

An informal phone conversation with commute.org indicated that there were about 60-70 boardings per day on the Bayshore-Brisbane Commuter Caltrain Shuttle and 90-120 boardings per day on the Brisbane-Crocker BART shuttle. According to observations, a significant share of the ridership on these shuttles comes from the T-Third line and the buses along Bayshore Boulevard and that there is considerable seasonal variability in demand. There is also a senior's shuttle that operates in the same general area, but in the midday period. According to its operator, there are not many people using this service who transfer from Caltrain. The ridership on this service is modest, ranging from about 7 to 25 boardings per day.

Relevance:

The shuttles will likely continue to operate in the station area, and there may be an additional one in the future to serve the Brisbane Baylands site.

GIS Data

Agency Sponsor: City of San Francisco Planning Department / San Mateo County

The GIS data that is parcel data from 2014. Assessor data for San Francisco is also available for 2014.

Relevance:

Assessor data will be used to estimate the commercial square footage and residential units that existing in the station catchment areas that are not included in any of the specific plans.

ENVIRONMENTAL PLANS

2013 Water Availability Study for the City and County of San Francisco (2013)

Agency Sponsor: San Francisco Public Utilities Commission

The purpose of this report is to inform environmental reviews for qualifying projects. The report indicates that current water supplies are 83.5 mgd, and that this is expected to increase to 90.3 mgd by 2035 as a result of capacity expansions projects. A demand analysis suggested that the demand will be satisfied in a normal year, as well as in a single dry year or multiple dry years.

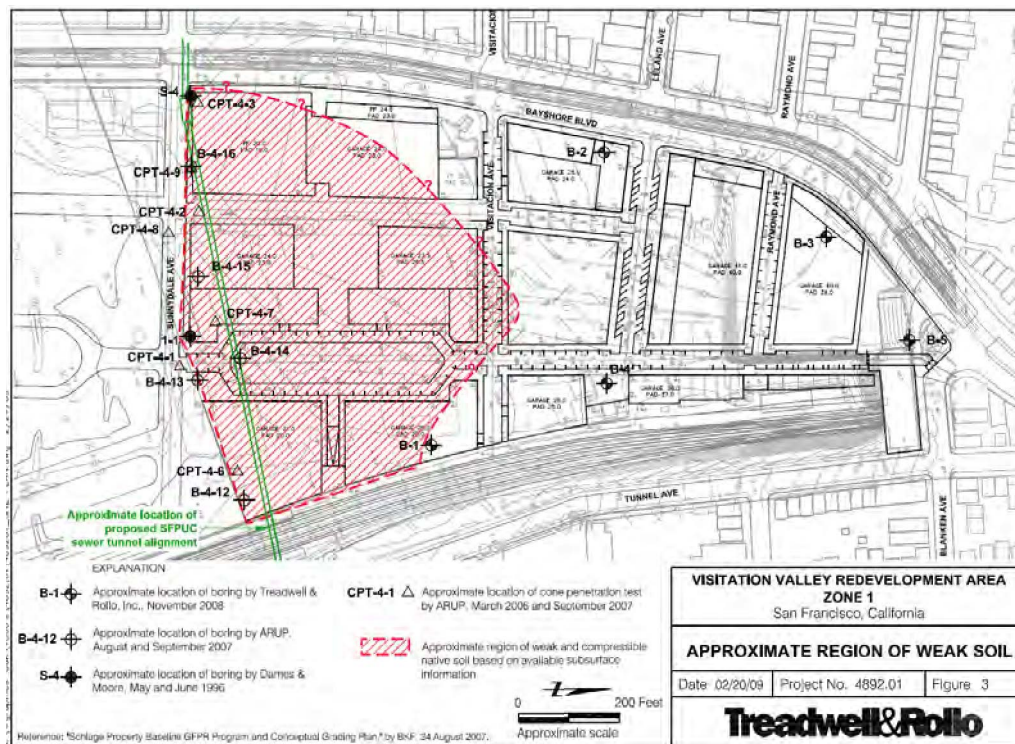
Relevance:

There appears to be no issue in serving known demand at this time, but the Brisbane Baylands site is likely not accounted for yet, and forecasts of demand could be adjusted in future years in response to Plan Bay Area.

Preliminary Geotechnical Investigation Visitation Valley Redevelopment Area, Zone 1 (2009)

Agency Sponsor: Universal Paragon Corporation

This plan shows that there is expected to be a new 9.5- to 11-foot diameter sewer tunnel installed across the southern part of Schlage Lock site, more or less in line with Sunnydale Avenue and under the northern end of the Caltrain platforms. It will be next to a five foot diameter sewer line and will be dug with a tunnel boring machine.



Source: Preliminary Geotechnical Investigation Visitation Valley Redevelopment Area, Zone 1

Relevance:

Construction of an underpass or of a new station could be impacted by this sewer pipe.

PHASE 1 MEMO

Appendix B Land Use Scenario
Information December 22, 2015

Appendix B LAND USE SCENARIO INFORMATION

| BAYLANDS | | | | | | | |
|---|-----------------------------------|--|------------------------------|--------------------------------|---|------------------------------------|------------------|
| | DSP-Entertainment Variant (DSP-V) | CPP-Recology Expansion Vairant (CPP-V) | Renewable Energy | VISITACION VALLEY/SCHLAGE LOCK | EXECUTIVE PARK | CANDLESTICK/HUNTERS POINT SHIPYARD | SUNNYDALE HOPE |
| Variables | | | | | | | |
| Stage | DEIR completed | DEIR completed | DEIR completed (Alternative) | Approved (May 2014) | Approved (June 2011) | Phase II | Approved |
| Station Location | Not specified | Somewhere between County line and Geneva extension | Existing Location | Existing Location | n/a | n/a | n/a |
| Geneva alignment | Smoothe curve | Curve dips 350 feet; Both Tunnel Ave and Geneva Ave are elevated | Curve dips 350 feet | n/a | n/a | n/a | n/a |
| Recology | no changes | Recology expands | Recology expands | n/a | n/a | n/a | n/a |
| Site & Development Summary | | | | | | | |
| Acres | 684 | 733 | 733 | 26 ¹ | 70 | 748 | 49 |
| Ownership | UPC | UPC | UPC | UPC (19); JPB & UPRR (3) | UPC/Yerby/Signature Properties/Top Vision | Lennar | (various) |
| Net New Residential Units | 4,434 | 0 | 0 | 2,014 ² | 2,800 ³ | 10,244 ⁴ | 915 ⁵ |
| Residential Density (du/ac) | 60 to 95 | 0 | | 65 | 100 | Approx. 40 | 57 |
| New Hotel Rooms | 719 | 1,500 | 0 | 0 | 0 | 220 | 0 |
| Existing Non-Residential SF to Remain | 170,700 | 256,700 | 256,700 | 144,716 | 0 | 225,000 | 0 |
| Existing Non-Residential SF to Go | 0 | 0 | 0 | 0 | 310,000 (office) | 13,500 | 0 |
| Net New Non-Residential SF | 6.90 million | 8.07 million | 1.98 million | 97,700 | -226,000 | 3,815,000 | 30,000 |
| Total Non-Residential SF | 7.06 million | 8.32 million | 2.24 million | 242,416 | 84,000 (retail and accessory uses) | 4.04 million ⁶ | 30,000 |
| Open Space | | | | | | | |
| Public Open Space | 168 acres | 330 acres | 330 acres | 2 acres | 25 acres | 250 acres | 6.4 acres |
| Renewable Energy Generation | 0 | 0 | 170 acres | 0 | 0 | 0 | 0 |
| ¹ Zone 1 (Visitacion Valley): 20 acres; Zone 2 (Schlage Lock): 6 acres ² Source: May 2014 Addendum to EIR. 1,679 units in Zone 1 (Schlage Lock Site) and 335 units in Zone 2 (Leland Ave, Visitacion Valley). ³ Source: 2011 Executive Park Summary Approval. Includes the 1,215 units north and east of of Executive Park Blvd that were recently built or are under construction. This is consistent with the EIR for the Subarea Plan and Yerba/UPC development projects. (UPC+Yerby: 1,600 units, Signature Properties: 450 units, Top Vision: 765 units) ⁴ Source: Candlestick Point/Hunters Point Shipyard Phase II DEIR. Excludes the existing 256 public housing units. ⁵ Source: 2012 NOP. Excludes the 785 replacement public housing units. ⁶ Source: Candlestick Point/Hunters Point Shipyard Phase II DEIR. Specifies an associated 24,465 residents and a permanent employee population of 10,730. | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Non-Residential Development Breakdown | | | | | | | |
| Hotel/Conference SF | 586,000 | 1 million | | | | 150,000 | |
| Retail/Commercial Mixed Use SF | 280,000 | 2.2 million | | 72,700 | 84,000 | 1.1 million | 15,000 |
| R&D single use SF | 2.5 million | 1.7 million | | | | 2.5 million | |
| Office/Institutional SF | 2.4 million | 1 million | | | | 250,000 | 15,000 |
| Entertainment/Civic SF | 1 million | 1 million | | 25,000 | | 75,000 + stadium | |
| Industrial SF | 140,000 | 1.2 million | | | | | |
| | | | | | | | |

PHASE 1 MEMO

Appendix C Quarter Mile Radius Estimates

December 22, 2015

Appendix C QUARTER MILE RADIUS ESTIMATES

Quarter Mile Radius Estimates

| | | LU Scenario 1 (CPP-V) | | | |
|--|--------------------|--|--------------------------------|----------------------------------|----------------------------------|
| | | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Within 1/4-mile of Potential Multi-Modal Facility Location | Residential Units | 1,859 | 2,738 | 2,159 | 169 |
| | Non-residential SF | 1,756,776 | 228,576 | 1,943,389 | 3,253,377 |
| | Jobs | 3,568 | 425 | 4,161 | 5,703 |
| | | LU Scenario 2 (DSP-V) | | | |
| | | Tunnel Avenue/Status | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Within 1/4-mile of Potential Multi-Modal Facility Location | Residential Units | 3,540 | 2,738 | 4,027 | 2,936 |
| | Non-residential SF | 583,895 | 237,856 | 482,993 | 1,691,511 |
| | Jobs | 726 | 434 | 925 | 3,501 |
| | | LU Scenario 3 (RE) | | | |
| | | Tunnel Avenue/Status | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Within 1/4-mile of Potential Multi-Modal Facility Location | Residential Units | 1,859 | 2,738 | 2,159 | 169 |
| | Non-residential SF | 611,302 | 228,576 | 709,998 | 777,229 |
| | Jobs | 949 | 425 | 1,294 | 1,086 |
| | | LU Scenario 4 (CPP/Industrial Hybrid) | | | |
| | | Tunnel Avenue/Status | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Within 1/4-mile of Potential Multi-Modal Facility Location | Residential Units | 1,859 | 2,738 | 2,159 | 169 |
| | Non-residential SF | 1,793,360 | 237,726 | 1,947,212 | 3,158,910 |
| | Jobs | 3,606 | 434 | 4,158 | 5,602 |

PHASE 1 MEMO

Appendix D Manual Ridership

Estimates December 22, 2015

Appendix D MANUAL RIDERSHIP ESTIMATES

Daily Transfers - Existing Estimates (2014)

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 10 | | 0 | 0 | 21 | | 35 | 7 | 71 | 585 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 0 | 0 | 5 | | 2 | 2 | 2 | 26 |
| Caltrain NB | | 9 | | | 0 | 0 | 24 | 9 | | 9 | 9 | 141 |
| BRT EB | | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 |
| BRT WB | | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 |
| Shuttles | | 21 | 25 | 5 | 0 | 0 | | 5 | | | | 20 |
| Buses NB | | 35 | | 3 | 0 | 0 | | | | 5 | 5 | 479 |
| Buses SB | | | 10 | | 0 | 0 | 7 | | 7 | 7 | 7 | 640 |
| Buses EB | | 7 | 10 | 3 | | | | 1 | 1 | | | 720 |
| Buses WB | | 35 | 10 | 3 | | | 0 | 0 | 10 | 10 | | 6 |
| Catchment | | 585 | 141 | 26 | 0 | 0 | 20 | 640 | 479 | 6 | 720 | |

| | |
|------|-------------------------------|
| 443 | TOTAL TRANSFERS |
| 3060 | TOTAL TRANSIT BOARDINGS |
| 49 | TOTAL PARK-AND-RIDE BOARDINGS |

Assumptions:

Of the 39 NB Caltrain boardings, assume that 12% arrive by shuttle, 7% arrive by NB Buses, 7% arrive by WB Buses, and 7% arrive by EB Buses

Of the 181 NB Caltrain alightings, assume that 13% depart by shuttle, 5% depart by NB T-Third, 5% depart by NB Buses, 5% depart by EB Buses, and 5% depart by WB Buses

Of the 207 SB Caltrain boardings, assume that 12% arrive by shuttle, 5% arrive by SB T-Third, 5% arrive by SB Buses, 5% arrive by EB Buses, and 5% arrive by WB Buses

Of the 36 SB Caltrain alightings, assume that 13% depart by shuttle, 5% depart by SB Buses, 5% depart by WB Buses, and 5% depart by EB Buses

Of the 705 SB T-Third alightings, assume that 10% transfer to WB Buses, 1% transfer to EB buses, 5% transfer to SB Buses, and 3% transfer to free shuttles

Of the 691 NB T-Third boardings, assume that 1% come from EB Buses, 5% come from WB buses, 5% come from NB Buses, and 3% transfer from free shuttles

Of the 655 SB Bus alightings, assume that 1% will transfer to a shuttle, 1% will transfer to an EB Bus, 1% will transfer to a WB Bus, and 1% will transfer to a SB Bus

533 SB Bus Boardings

Of the 533 NB Bus alightings, assume that 1% will transfer to EB Buses and 1% will transfer to WB Buses

655 NB Bus Boardings

Of the 46 EB Bus alightings, assuming that 2% will transfer to NB Buses, 2% will transfer to SB buses

of the 997 WB Bus alightings, assume that 1% will transfer to SB Buses and 1% will transfer to EB buses

Daily Transfers - Future (2020)

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 11 | | 184 | 97 | 22 | | 37 | 7 | 23 | 1056 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 12 | 6 | 5 | | 2 | 2 | 2 | 119 |
| Caltrain NB | | 10 | | | 246 | 130 | 25 | 10 | | 10 | 10 | 643 |
| BRT EB | | 73 | 146 | 7 | | | 7 | 7 | 7 | | | 396 |
| BRT WB | | 134 | 268 | 13 | | | 13 | 13 | 13 | | | 750 |
| Shuttles | | 22 | 26 | 5 | 12 | 6 | | 5 | | | | 91 |
| Buses NB | | 37 | | 3 | 12 | 6 | 0 | | | 6 | 6 | 864 |
| Buses SB | | | 11 | | 12 | 6 | 7 | | 7 | 7 | 7 | 1155 |
| Buses EB | | 7 | 11 | 3 | | | | 1 | 1 | | | 656 |
| Buses WB | | 37 | 11 | 3 | | | 0 | 0 | 11 | 11 | | 7 |
| Catchment | | 1056 | 643 | 119 | 750 | 396 | 91 | 1155 | 864 | 7 | 656 | |

| | |
|------|---------------------------------|
| 1856 | TOTAL TRANSFERS IN AREA |
| 7592 | TOTAL TRANSIT BOARDINGS IN AREA |
| 52 | TOTAL PARK-AND-RIDE BOARDINGS |

Assumptions:

Assumptions about BRT EB Alightings; assume that 10% transfer to NB T-Third, 20% transfer to SB Caltrain, 1% transfer to NB Caltrain, 1% transfer to shuttles, 1% transfer to NB Buses, 1% to SB Buses

Assumptions about BRT WB Alightings; assume that 10% transfer to NB T-Third, 20% transfer to SB Caltrain, 1% transfer to NB Caltrain, 1% transfer to shuttles, 1% transfer to NB Buses, 1% transfer to SB Buses

Assumptions about BRT EB Boardings, assume 15% transfer from T-Third SB, 1% transfer from Caltrain SB, 20% from Caltrain NB, 1% from shuttles, 1% from NB Buses, 1% from SB Buses

Assumptions about BRT WB Boardings; assume 15% transfer from T-Third SB, 1% transfer from Caltrain SB, 20% transfer from Caltrain NB, 1% transfer from shuttles, 1% transfer from Buses SB, 1% transfer from Buses NB

Assume background transfer increase of 1% per year

Assume catchment boardings increase 1% per year

52 New Development to NB Caltrain (Existing to Full Buildout around Location 3 Factor is 6.6, assume in 2020, about 30% buildout)

282 NB Caltrain to New Development (Existing to Full Buildout around Location 3 Factor is 6.6, assume in 2020, about 30% buildout)

282 New Development to SB Caltrain (Existing to Full Buildout around Location 3 Factor is 6.6, assume in 2020, about 30% buildout)

52 SB Caltrain to New Development (Existing to Full Buildout around Location 3 Factor 6.6, assume in 2020, about 30% buildout)

234 New Development to T-Third NB (Existing to Full Buildout around Location 2 Factor 1.3, assume in 2020, about 30% buildout)

234 SB T-Third to New Development (Existing to Full Buildout around Location 2 Factor 1.3, assume in 2020, about 30% buildout)

40 New Development to Shuttles (Existing to Full Buildout around Location 3 Factor 6.6, assume in 2020, about 30% buildout)

40 Shuttles to New Development (Existing to Full Buildout around Location 3 Factor is 6.6, assume in 2020, about 30% buildout)

256 New Development to NB Buses (Existing to Full Buildout around Location 2 Factor is 1.3, assume in 2020, about 30% buildout)

191 NB Buses to New Development (Existing to Full Buildout around Location 2 Factor is 1.3, assume in 2020, about 30% buildout)

191 New Development to SB Buses (Existing to Full Buildout around Location 2 Factor is 1.3, assume in 2020, about 30% buildout)

256 SB Buses to New Development (Existing to Full Buildout around Location 2 Factor is 1.3, assume in 2020, about 30% buildout)

0 New Development to EB Buses

0 EB Buses to New Development

288 New Development to WB Buses (Existing to Full Buildout around Location 2 Factor is 1.3, assume in 2020, about 30% buildout)

3 WB Buses to New Development (Existing to Full Buildout around Location 2 Factor is 1.3, assume in 2020, about 30% buildout)

Daily Transfers - Land Use Scenario 1 / Facility Location 1 (Full Buildout and 20-year Background Demand Growth)

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 13 | | 212 | 112 | 26 | | 43 | 9 | 26 | 804 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 17 | 9 | 6 | | 3 | 2 | 2 | 1471 |
| Caltrain NB | | 11 | | | 342 | 181 | 32 | 13 | | 11 | 11 | 2574 |
| BRT EB | | 84 | 204 | 10 | | | 10 | 8 | 8 | | | 1494 |
| BRT WB | | 154 | 373 | 19 | | | 19 | 15 | 15 | | | 689 |
| Shuttles | | 25 | 33 | 6 | 17 | 9 | | 7 | | | | 92 |
| Buses NB | | 42 | | 4 | 14 | 7 | 0 | | | 7 | 7 | 115 |
| Buses SB | | | 15 | | 14 | 7 | 10 | | | 8 | 8 | 460 |
| Buses EB | | 8 | 13 | 3 | | | | 1 | 1 | | | 0 |
| Buses WB | | 42 | 13 | 3 | | | | 0 | 12 | | | 0 |
| Catchment | | 2518 | 3879 | 1713 | 1637 | 1949 | 277 | 2334 | 1516 | 8 | 754 | |

| | |
|-------|--|
| 2351 | TOTAL TRANSFERS IN AREA |
| 1202 | TOTAL TRANSFERS IN FACILITY |
| 18937 | TOTAL TRANSIT BOARDINGS IN AREA |
| 8028 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 187 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

Adjustments to BRT routing, 9R extension to Caltrain platforms, and SamTrans

- 1471 New Development to NB Caltrain (From Brisbane Baylands DEIR)
- 2574 NB Caltrain to New Development (From Brisbane Baylands DEIR)
- 2574 New Development to SB Caltrain (From Brisbane Baylands DEIR)
- 1471 SB Caltrain to New Development (From Brisbane Baylands DEIR)
- 804 New Development to T-Third NB (From Brisbane Baylands DEIR)
- 804 SB T-Third to New Development (From Brisbane Baylands DEIR)
- 92 New Development to Shuttles (From Brisbane Baylands DEIR)
- 92 Shuttles to New Development (From Brisbane Baylands DEIR)
- 460 New Development to San Bruno/Downtown SF Buses (From Brisbane Baylands DEIR)
- 460 San Bruno/Downtown SF Buses to New Development (From Brisbane Baylands DEIR)
- 115 New Development to SamTrans Buses (From Brisbane Baylands DEIR)
- 115 Samtrans Buses to New Development (From Brisbane Baylands DEIR)
- 689 New Development to Hunters Point Buses (From Brisbane Baylands DEIR)
- 689 Hunters Point Buses to New Development (From Brisbane Baylands DEIR)
- 1494 New Development to Geneva Buses (From Brisbane Baylands DEIR)
- 1494 Geneva Buses to New Development (From Brisbane Baylands DEIR)
- Additional Development to Inbound BRT
- Additional Development to Outbound BRT
- Inbound BRT to Additional Development
- Outbound BRT to Additional Development

Daily Transfers - Land Use Scenario 1 / Facility Location 1 (Full Buildout and 20-year Background Demand Growth)

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 15 | | 212 | 112 | 31 | | 52 | 9 | 26 | 965 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 17 | 9 | 7 | | 3 | 2 | 2 | 1471 |
| Caltrain NB | | 13 | | | 342 | 181 | 35 | 13 | | 11 | 11 | 2574 |
| BRT EB | | 84 | 204 | 10 | | | 10 | 8 | 8 | | | 1494 |
| BRT WB | | 154 | 373 | 19 | | | 19 | 15 | 15 | | | 689 |
| Shuttles | | 31 | 33 | 6 | 17 | 9 | | 7 | | | | 92 |
| Buses NB | | 42 | | 4 | 14 | 7 | 0 | | | 7 | 7 | 115 |
| Buses SB | | | 15 | | 14 | 7 | 10 | | | 8 | 8 | 460 |
| Buses EB | | 8 | 13 | 3 | | | | 1 | 1 | | | 0 |
| Buses WB | | 42 | 13 | 3 | | | | 0 | 12 | | | 0 |
| Catchment | | 2679 | 3879 | 1713 | 1637 | 1949 | 277 | 2334 | 1516 | 8 | 754 | |

| | |
|-------|--|
| 2368 | TOTAL TRANSFERS IN AREA |
| 1322 | TOTAL TRANSFERS IN FACILITY |
| 19114 | TOTAL TRANSIT BOARDINGS IN AREA |
| 8921 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 148 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

Adjustments to BRT routing, 9R extension to Caltrain platforms, and SamTrans

- 1471 New Development to NB Caltrain (From Brisbane Baylands DEIR)
- 2574 NB Caltrain to New Development (From Brisbane Baylands DEIR)
- 2574 New Development to SB Caltrain (From Brisbane Baylands DEIR)
- 1471 SB Caltrain to New Development (From Brisbane Baylands DEIR)
- 965 New Development to T-Third NB (From Brisbane Baylands DEIR)
- 965 SB T-Third to New Development (From Brisbane Baylands DEIR)
- 92 New Development to Shuttles (From Brisbane Baylands DEIR)
- 92 Shuttles to New Development (From Brisbane Baylands DEIR)
- 460 New Development to San Bruno/Downtown SF Buses (From Brisbane Baylands DEIR)
- 460 San Bruno/Downtown SF Buses to New Development (From Brisbane Baylands DEIR)
- 115 New Development to SamTrans Buses (From Brisbane Baylands DEIR)
- 115 Samtrans Buses to New Development (From Brisbane Baylands DEIR)
- 689 New Development to Hunters Point Buses (From Brisbane Baylands DEIR)
- 689 Hunterspoint Buses to New Development (From Brisbane Baylands DEIR)
- 1494 New Development to Geneva Buses (From Brisbane Baylands DEIR)
- 1494 Geneva Buses to New Development (From Brisbane Baylands DEIR)
- Additional Development to Inbound BRT
- Additional Development to Outbound BRT
- Inbound BRT to Additional Development
- Outbound BRT to Additional Development

Daily Transfers - Land Use Scenario 1 / Facility Location 2

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 13 | | 233 | 123 | 31 | | 47 | 9 | 28 | 804 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 14 | 7 | 6 | | 2 | 2 | 2 | 1471 |
| Caltrain NB | | 11 | | | 283 | 149 | 29 | 11 | | 11 | 11 | 2574 |
| BRT EB | | 93 | 168 | 8 | | | 10 | 9 | 8 | | | 1494 |
| BRT WB | | 170 | 309 | 15 | | | 19 | 17 | 17 | | | 575 |
| Shuttles | | 31 | 30 | 6 | 17 | 9 | | 7 | | | | 92 |
| Buses NB | | 46 | | 3 | 16 | 7 | 0 | | | 7 | 7 | 115 |
| Buses SB | | | 13 | | 16 | 8 | 10 | | | 9 | 9 | 460 |
| Buses EB | | 9 | 13 | 3 | | | | 1 | 1 | | | 0 |
| Buses WB | | 46 | 13 | 3 | | | | 0 | 13 | | | 0 |
| Catchment | | 2518 | 3879 | 1713 | 1436 | 1949 | 277 | 2334 | 1516 | 8 | 754 | |

| | |
|-------|--|
| 2221 | TOTAL TRANSFERS |
| 864 | TOTAL TRANSFERS IN FACILITY |
| 18605 | TOTAL TRANSIT BOARDINGS |
| 5920 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 457 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

No adjustments to local bus routes, although new routing for shuttles

- 1471 New Development to NB Caltrain
- 2574 NB Caltrain to New Development
- 2574 New Development to SB Caltrain
- 1471 SB Caltrain to New Development
- 804 New Development to T-Third NB
- 804 SB T-Third to New Development
- 92 New Development to Shuttles
- 92 Shuttles to New Development
- 460 New Development to NB Buses
- 460 NB Buses to New Development
- 115 New Development to SB Buses
- 115 SB Buses to New Development
- 575 New Development to EB Buses
- 575 EB Buses to New Development
- 1494 New Development to Geneva Buses
- 1494 Geneva Buses to New Development
- Extra Development to Inbound BRT
- Extra Development to Outbound BRT
- Inbound BRT to Extra Development
- Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 1 / Facility Location 2

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 14 | | 233 | 123 | 31 | | 47 | 9 | 28 | 804 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 14 | 7 | 6 | | 2 | 2 | 2 | 1379 |
| Caltrain NB | | 12 | | | 283 | 149 | 29 | 11 | | 11 | 11 | 2413 |
| BRT EB | | 93 | 168 | 8 | | | 10 | 9 | 8 | | | 1494 |
| BRT WB | | 170 | 309 | 15 | | | 19 | 17 | 17 | | | 575 |
| Shuttles | | 31 | 30 | 6 | 17 | 9 | | 7 | | | | 92 |
| Buses NB | | 46 | | 3 | 16 | 8 | 0 | | | 7 | 7 | 115 |
| Buses SB | | | 13 | | 16 | 7 | 10 | | | 9 | 9 | 460 |
| Buses EB | | 9 | 13 | 3 | | | | 1 | 1 | | | 0 |
| Buses WB | | 46 | 13 | 3 | | | | 0 | 13 | | | 0 |
| Catchment | | 2518 | 3718 | 1621 | 1436 | 1949 | 277 | 2334 | 1516 | 8 | 754 | |

| | |
|-------|--|
| 2223 | TOTAL TRANSFERS |
| 855 | TOTAL TRANSFERS IN FACILITY |
| 18355 | TOTAL TRANSIT BOARDINGS |
| 5535 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 458 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

No adjustments to local bus routes, although new routing for shuttles

- 1379 New Development to NB Caltrain
- 2413 NB Caltrain to New Development
- 2413 New Development to SB Caltrain
- 1379 SB Caltrain to New Development
- 804 New Development to T-Third NB
- 804 SB T-Third to New Development
- 92 New Development to Shuttles
- 92 Shuttles to New Development
- 460 New Development to NB Buses
- 460 NB Buses to New Development
- 115 New Development to SB Buses
- 115 SB Buses to New Development
- 575 New Development to EB Buses
- 575 EB Buses to New Development
- 1494 New Development to Geneva Buses
- 1494 Geneva Buses to New Development
- Extra Development to Inbound BRT
- Extra Development to Outbound BRT
- Inbound BRT to Extra Development
- Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 1 / Facility Location 3

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 14 | | 233 | 123 | 31 | | 47 | 9 | 28 | 804 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 16 | 8 | 6 | | 2 | 2 | 2 | 1471 |
| Caltrain NB | | 12 | | | 311 | 164 | 32 | 12 | | 11 | 11 | 2574 |
| BRT EB | | 93 | 185 | 9 | | | 9 | 9 | 9 | | | 1494 |
| BRT WB | | 170 | 339 | 17 | | | 17 | 17 | 17 | | | 575 |
| Shuttles | | 31 | 33 | 6 | 16 | 8 | | 7 | | | | 92 |
| Buses NB | | 46 | | 3 | 16 | 8 | 0 | | | 7 | 7 | 115 |
| Buses SB | | | 14 | | 16 | 8 | 9 | | | 9 | 9 | 460 |
| Buses EB | | 9 | 14 | 4 | | | | 1 | 1 | | | 0 |
| Buses WB | | 42 | 14 | 4 | | | | 0 | 13 | 12 | | 0 |
| Catchment | | 2518 | 3879 | 1713 | 1436 | 1949 | 277 | 2334 | 1516 | 8 | 754 | |

| | |
|-------|--|
| 2334 | TOTAL TRANSFERS |
| 1704 | TOTAL TRANSFERS IN THE FACILITY |
| 18719 | TOTAL TRANSIT BOARDINGS |
| 11127 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 4 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

No new local bus routings, although new routings for shuttles

- 1471 New Development to NB Caltrain
- 2574 NB Caltrain to New Development
- 2574 New Development to SB Caltrain
- 1471 SB Caltrain to New Development
- 804 New Development to T-Third NB
- 804 SB T-Third to New Development
- 92 New Development to Shuttles
- 92 Shuttles to New Development
- 460 New Development to NB Buses
- 460 NB Buses to New Development
- 115 New Development to SB Buses
- 115 SB Buses to New Development
- 575 New Development to EB Buses
- 575 EB Buses to New Development
- 1494 New Development to WB Buses
- 1494 WB Buses to New Development
- Extra Development to Inbound BRT
- Extra Development to Outbound BRT
- Inbound BRT to Extra Development
- Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 1 / Facility Location 3

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 15 | | 233 | 123 | 31 | | 47 | 9 | 28 | 965 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 16 | 8 | 6 | | 2 | 2 | 2 | 1471 |
| Caltrain NB | | 13 | | | 311 | 164 | 32 | 12 | | 11 | 11 | 2574 |
| BRT EB | | 93 | 185 | 9 | | | 9 | 9 | 9 | | | 1494 |
| BRT WB | | 154 | 339 | 17 | | | 17 | 17 | 17 | | | 575 |
| Shuttles | | 31 | 33 | 6 | 16 | 8 | | 7 | | | | 92 |
| Buses NB | | 46 | | 4 | 16 | 8 | 0 | | | 7 | 7 | 115 |
| Buses SB | | | 14 | | 16 | 8 | 9 | | | 8 | 9 | 460 |
| Buses EB | | 8 | 13 | 3 | | | | 1 | 1 | | | 0 |
| Buses WB | | 42 | 13 | 3 | | | | 0 | 12 | 12 | | 0 |
| Catchment | | 2679 | 3879 | 1713 | 1436 | 1949 | 277 | 2334 | 1516 | 8 | 754 | |

| | |
|-------|--|
| 2315 | TOTAL TRANSFERS |
| 1602 | TOTAL TRANSFERS IN THE FACILITY |
| 18861 | TOTAL TRANSIT BOARDINGS |
| 11208 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 3 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

No new local bus routings, although new routings for shuttles

- 1471 New Development to NB Caltrain
- 2574 NB Caltrain to New Development
- 2574 New Development to SB Caltrain
- 1471 SB Caltrain to New Development
- 965 New Development to T-Third NB
- 965 SB T-Third to New Development
- 92 New Development to Shuttles
- 92 Shuttles to New Development
- 460 New Development to NB Buses
- 460 NB Buses to New Development
- 115 New Development to SB Buses
- 115 SB Buses to New Development
- 575 New Development to EB Buses
- 575 EB Buses to New Development
- 1494 New Development to WB Buses
- 1494 WB Buses to New Development
- Extra Development to Inbound BRT
- Extra Development to Outbound BRT
- Inbound BRT to Extra Development
- Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 1 / Facility Location 4

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 15 | | 233 | 123 | 28 | | 47 | 9 | 26 | 1609 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 16 | 8 | 6 | | 2 | 2 | 2 | 1471 |
| Caltrain NB | | 13 | | | 311 | 164 | 32 | 12 | | 11 | 11 | 2574 |
| BRT EB | | 93 | 185 | 9 | | | 9 | 9 | 9 | | | 2988 |
| BRT WB | | 170 | 339 | 17 | | | 17 | 17 | 17 | | | 1149 |
| Shuttles | | 28 | 33 | 6 | 16 | 8 | | 7 | | | | 115 |
| Buses NB | | 46 | | 3 | 14 | 7 | 0 | | | 7 | 7 | 115 |
| Buses SB | | | 14 | | 16 | 8 | 9 | | | 8 | 8 | 460 |
| Buses EB | | 8 | 13 | 3 | | | | 1 | 1 | | | 0 |
| Buses WB | | 42 | 13 | 3 | | | | 0 | 12 | | | 0 |
| Catchment | | 3322 | 3879 | 1713 | 1494 | 3170 | 189 | 2334 | 1516 | 8 | 754 | |

| | |
|-------|--|
| 2313 | TOTAL TRANSFERS |
| 2064 | TOTAL TRANSFERS IN THE FACILITY |
| 20692 | TOTAL TRANSIT BOARDINGS |
| 12719 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 20692 | TOTAL TRANSIT BOARDINGS |
| 87 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

Adjustments to some local bus routes, such as Route 292 (SamTrans) and Route 9, so that they are adjacent to the Caltrain platforms; T-Third extensor

- 1471 New Development to NB Caltrain
- 2574 NB Caltrain to New Development
- 2574 New Development to SB Caltrain
- 1471 SB Caltrain to New Development
- 1609 New Development to T-Third NB
- 1609 SB T-Third to New Development
- 115 New Development to Shuttles
- 115 Shuttles to New Development
- 460 New Development to NB Buses
- 460 NB Buses to New Development
- 115 New Development to SB Buses
- 115 SB Buses to New Development
- 1149 New Development to EB Buses
- 1149 EB Buses to New Development
- 2988 New Development to WB Buses
- 2988 WB Buses to New Development
- Extra Development to Inbound BRT
- Extra Development to Outbound BRT
- Inbound BRT to Extra Development
- Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 2 / Facility Location 1

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 13 | | 212 | 112 | 26 | | 43 | 9 | 26 | 393 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 17 | 9 | 6 | | 3 | 2 | 2 | 1213 |
| Caltrain NB | | 11 | | | 342 | 181 | 32 | 12 | | 11 | 11 | 1161 |
| BRT EB | | 84 | 204 | 10 | | | 10 | 9 | | | | 695 |
| BRT WB | | 154 | 373 | 19 | | | 19 | 17 | 17 | | | 290 |
| Shuttles | | 25 | 33 | 6 | 17 | 9 | | 7 | | | | 97 |
| Buses NB | | 42 | | 4 | 14 | 7 | 0 | | | 7 | 7 | 61 |
| Buses SB | | | 14 | | 14 | 7 | 9 | | | 8 | 8 | 242 |
| Buses EB | | 8 | 13 | 3 | | | | 1 | 1 | | | 0 |
| Buses WB | | 42 | 13 | 3 | | | | 0 | 12 | | | 0 |
| Catchment | | 2107 | 2466 | 1455 | 1238 | 1196 | 282 | 2116 | 1462 | 8 | 754 | |

| | |
|-------|--|
| 2339 | TOTAL TRANSFERS |
| 1332 | TOTAL TRANSFERS IN THE FACILITY |
| 15423 | TOTAL TRANSIT BOARDINGS |
| 6086 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 185 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

Beatty BRT alignment and extension of Route 9R and SamTrans

- 1213 New Development to NB Caltrain (From Brisbane Baylands DEIR)
- 1161 NB Caltrain to New Development (From Brisbane Baylands DEIR)
- 1161 New Development to SB Caltrain (From Brisbane Baylands DEIR)
- 1213 SB Caltrain to New Development (From Brisbane Baylands DEIR)
- 393 New Development to T-Third NB (From Brisbane Baylands DEIR)
- 393 SB T-Third to New Development (From Brisbane Baylands DEIR)
- 97 New Development to Shuttles (From Brisbane Baylands DEIR)
- 97 Shuttles to New Development (From Brisbane Baylands DEIR)
- 242 New Development to San Bruno/Downtown SF Buses
- 242 San Bruno/Downtown SF Buses to New Development
- 61 New Development to SamTrans Buses
- 61 Samtrans Buses to New Development
- 290 New Development to Hunters Point Buses
- 290 Hunterspoint Buses to New Development
- 695 New Development to Geneva Buses
- 695 Geneva Buses to New Development
- 0 Additional Development to Inbound BRT
- 0 Additional Development to Outbound BRT
- 0 Inbound BRT to Additional Development
- 0 Outbound BRT to Additional Development

Daily Transfers - Land Use Scenario 2 / Facility Location 1

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 15 | | 233 | 112 | 31 | | 43 | 9 | 26 | 472 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 17 | 9 | 6 | | 21 | 2 | 2 | 1213 |
| Caltrain NB | | 13 | | | 342 | 181 | 32 | 12 | | 11 | 11 | 1161 |
| BRT EB | | 84 | 204 | 10 | | | 9 | 9 | 8 | | | 695 |
| BRT WB | | 170 | 373 | 19 | | | 17 | 17 | 17 | | | 290 |
| Shuttles | | 31 | 33 | 6 | 16 | 8 | | 7 | | | | 97 |
| Buses NB | | 46 | | 3 | 16 | 8 | 0 | | | 7 | 7 | 61 |
| Buses SB | | | 14 | | 16 | 8 | 9 | | | 8 | 8 | 242 |
| Buses EB | | 8 | 13 | 3 | | | | 1 | 1 | | | 0 |
| Buses WB | | 42 | 13 | 3 | | | | 0 | 12 | | | 0 |
| Catchment | | 2357 | 2466 | 1455 | 1238 | 1196 | 282 | 2116 | 1462 | 8 | 754 | |

| | |
|-------|--|
| 2413 | TOTAL TRANSFERS |
| 1649 | TOTAL TRANSFERS IN THE FACILITY |
| 15747 | TOTAL TRANSIT BOARDINGS |
| 6871 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 147 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

Beatty BRT alignment and extension of Route 9R and SamTrans

- 1213 New Development to NB Caltrain (From Brisbane Baylands DEIR)
- 1161 NB Caltrain to New Development (From Brisbane Baylands DEIR)
- 1161 New Development to SB Caltrain (From Brisbane Baylands DEIR)
- 1213 SB Caltrain to New Development (From Brisbane Baylands DEIR)
- 472 New Development to T-Third NB (From Brisbane Baylands DEIR)
- 472 SB T-Third to New Development (From Brisbane Baylands DEIR)
- 97 New Development to Shuttles (From Brisbane Baylands DEIR)
- 97 Shuttles to New Development (From Brisbane Baylands DEIR)
- 242 New Development to San Bruno/Downtown SF Buses
- 242 San Bruno/Downtown SF Buses to New Development
- 61 New Development to SamTrans Buses
- 61 Samtrans Buses to New Development
- 290 New Development to Hunters Point Buses
- 290 Hunterspoint Buses to New Development
- 695 New Development to Geneva Buses
- 695 Geneva Buses to New Development
- 0 Additional Development to Inbound BRT
- 0 Additional Development to Outbound BRT
- 0 Inbound BRT to Additional Development
- 0 Outbound BRT to Additional Development

Daily Transfers - Land Use Scenario 2 / Facility Location 2

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 13 | | 233 | 123 | 31 | | 47 | 9 | 28 | 393 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 14 | 7 | 6 | | 2 | 2 | 2 | 1213 |
| Caltrain NB | | 11 | | | 283 | 149 | 29 | 11 | | 11 | 11 | 1161 |
| BRT EB | | 93 | 168 | 8 | | | 10 | 9 | 8 | | | 695 |
| BRT WB | | 170 | 309 | 15 | | | 19 | 17 | 17 | | | 242 |
| Shuttles | | 31 | 30 | 6 | 17 | 9 | | 7 | | | | 97 |
| Buses NB | | 46 | | 3 | 16 | 7 | 0 | | | 7 | 7 | 61 |
| Buses SB | | | 13 | | 16 | 7 | 10 | | | | 8 | 242 |
| Buses EB | | 9 | 13 | 3 | | | | 1 | 1 | | | 0 |
| Buses WB | | 46 | 13 | 3 | | | | 0 | 13 | | | 0 |
| Catchment | | 2107 | 2466 | 1455 | 1103 | 1150 | 282 | 2116 | 1462 | 8 | 754 | |

| | |
|-------|--|
| 2218 | TOTAL TRANSFERS |
| 836 | TOTAL TRANSFERS IN THE FACILITY |
| 15122 | TOTAL TRANSIT BOARDINGS |
| 4632 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 457 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

No adjustments to local bus routes

- 1213 New Development to NB Caltrain
- 1161 NB Caltrain to New Development
- 1161 New Development to SB Caltrain
- 1213 SB Caltrain to New Development
- 393 New Development to T-Third NB
- 393 SB T-Third to New Development
- 97 New Development to Shuttles
- 97 Shuttles to New Development
- 242 New Development to NB Buses
- 242 NB Buses to New Development
- 61 New Development to SB Buses
- 61 SB Buses to New Development
- 242 New Development to EB Buses
- 242 EB Buses to New Development
- 695 New Development to WB Buses
- 695 WB Buses to New Development
- 0 Extra Development to Inbound BRT
- 0 Extra Development to Outbound BRT
- 0 Inbound BRT to Extra Development
- 0 Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 2 / Facility Location 2

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 14 | | 233 | 123 | 31 | | 47 | 9 | 28 | 393 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 14 | 7 | 6 | | 2 | 2 | 2 | 1137 |
| Caltrain NB | | 12 | | | 311 | 149 | 29 | 11 | | 11 | 11 | 1088 |
| BRT EB | | 93 | 168 | 8 | | | 10 | 9 | 8 | | | 695 |
| BRT WB | | 170 | 309 | 17 | | | 19 | 17 | 17 | | | 242 |
| Shuttles | | 31 | 30 | 6 | 17 | 9 | | 7 | | | | 97 |
| Buses NB | | 46 | | 3 | 16 | 7 | 0 | | | 7 | 7 | 61 |
| Buses SB | | | 13 | | 16 | 7 | 10 | | | | 8 | 242 |
| Buses EB | | 9 | 13 | 3 | | | | 1 | 1 | | | 0 |
| Buses WB | | 46 | 13 | 3 | | | | 0 | 13 | | | 0 |
| Catchment | | 2278 | 2394 | 1379 | 1103 | 1150 | 282 | 2116 | 1462 | 8 | 754 | |

| | |
|-------|--|
| 2250 | TOTAL TRANSFERS |
| 835 | TOTAL TRANSFERS IN THE FACILITY |
| 15177 | TOTAL TRANSIT BOARDINGS |
| 4718 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 486 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

No adjustments to local bus routes

- 1137 New Development to NB Caltrain
- 1088 NB Caltrain to New Development
- 1088 New Development to SB Caltrain
- 1137 SB Caltrain to New Development
- 393 New Development to T-Third NB
- 393 SB T-Third to New Development
- 97 New Development to Shuttles
- 97 Shuttles to New Development
- 242 New Development to NB Buses
- 242 NB Buses to New Development
- 61 New Development to SB Buses
- 61 SB Buses to New Development
- 242 New Development to EB Buses
- 242 EB Buses to New Development
- 695 New Development to WB Buses
- 695 WB Buses to New Development
- 0 Extra Development to Inbound BRT
- 0 Extra Development to Outbound BRT
- 0 Inbound BRT to Extra Development
- 0 Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 2 / Facility Location 3

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 14 | | 212 | 123 | 28 | | 47 | 9 | 28 | 393 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 16 | 8 | 6 | | 2 | 2 | 2 | 1213 |
| Caltrain NB | | 12 | | | 311 | 164 | 32 | 12 | | 12 | 12 | 1161 |
| BRT EB | | 93 | 185 | 9 | | | 9 | 9 | 9 | | | 695 |
| BRT WB | | 154 | 339 | 17 | | | 17 | 15 | 17 | | | 242 |
| Shuttles | | 28 | 33 | 6 | 16 | 8 | | 7 | | | | 97 |
| Buses NB | | 46 | | 4 | 16 | 7 | 0 | | | 7 | 7 | 61 |
| Buses SB | | | 14 | | 14 | 8 | 9 | | | 8 | 9 | 242 |
| Buses EB | | 9 | 14 | 4 | | | | 1 | 1 | | | 0 |
| Buses WB | | 42 | 14 | 4 | | | | 0 | 13 | | | 0 |
| Catchment | | 2107 | 2466 | 1455 | 1103 | 1150 | 282 | 2116 | 1462 | 8 | 754 | |

| | |
|-------|--|
| 2278 | TOTAL TRANSFERS |
| 1558 | TOTAL TRANSFERS IN THE FACILITY |
| 15182 | TOTAL TRANSIT BOARDINGS |
| 9285 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 4 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

No route adjustments

- 1213 New Development to NB Caltrain
- 1161 NB Caltrain to New Development
- 1161 New Development to SB Caltrain
- 1213 SB Caltrain to New Development
- 393 New Development to T-Third NB
- 393 SB T-Third to New Development
- 97 New Development to Shuttles
- 97 Shuttles to New Development
- 242 New Development to NB Buses
- 242 NB Buses to New Development
- 61 New Development to SB Buses
- 61 SB Buses to New Development
- 242 New Development to EB Buses
- 242 EB Buses to New Development
- 695 New Development to WB Buses
- 695 WB Buses to New Development
- 0 Extra Development to Inbound BRT
- 0 Extra Development to Outbound BRT
- 0 Inbound BRT to Extra Development
- 0 Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 2 / Facility Location 3

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 15 | | 212 | 123 | 28 | | 47 | 9 | 28 | 472 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 16 | 8 | 6 | | 2 | 2 | 2 | 1213 |
| Caltrain NB | | 13 | | | 311 | 164 | 32 | 12 | | 12 | 12 | 1161 |
| BRT EB | | 93 | 185 | 9 | | | 9 | 9 | 8 | | | 695 |
| BRT WB | | 154 | 339 | 17 | | | 17 | 15 | 17 | | | 242 |
| Shuttles | | 28 | 33 | 6 | 16 | 8 | | 7 | | | | 97 |
| Buses NB | | 46 | | 4 | 16 | 7 | 0 | | | 7 | 7 | 61 |
| Buses SB | | | 14 | | 14 | 8 | 9 | | | 8 | 9 | 242 |
| Buses EB | | 9 | 14 | 4 | | | | 1 | 1 | | | 0 |
| Buses WB | | 42 | 14 | 4 | | | | 0 | 13 | | | 0 |
| Catchment | | 2357 | 2466 | 1455 | 1103 | 1150 | 282 | 2116 | 1462 | 8 | 754 | |

| | |
|-------|--|
| 2279 | TOTAL TRANSFERS |
| 1561 | TOTAL TRANSFERS IN THE FACILITY |
| 15433 | TOTAL TRANSIT BOARDINGS |
| 9410 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 4 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

No route adjustments

- 1213 New Development to NB Caltrain
- 1161 NB Caltrain to New Development
- 1161 New Development to SB Caltrain
- 1213 SB Caltrain to New Development
- 472 New Development to T-Third NB
- 472 SB T-Third to New Development
- 97 New Development to Shuttles
- 97 Shuttles to New Development
- 242 New Development to NB Buses
- 242 NB Buses to New Development
- 61 New Development to SB Buses
- 61 SB Buses to New Development
- 242 New Development to EB Buses
- 242 EB Buses to New Development
- 695 New Development to WB Buses
- 695 WB Buses to New Development
- 0 Extra Development to Inbound BRT
- 0 Extra Development to Outbound BRT
- 0 Inbound BRT to Extra Development
- 0 Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 2 / Facility Location 4

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 14 | | 233 | 123 | 28 | | 47 | 9 | 26 | 786 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 16 | 8 | 6 | | 2 | 2 | 2 | 1161 |
| Caltrain NB | | 12 | | | 311 | 164 | 32 | 17 | | 11 | 11 | 1213 |
| BRT EB | | 93 | 185 | 9 | | | 9 | 9 | | | | 1391 |
| BRT WB | | 170 | 339 | 17 | | | 17 | 17 | 17 | | | 484 |
| Shuttles | | 28 | 33 | 6 | 16 | 8 | | 7 | | | | 97 |
| Buses NB | | 42 | | 4 | 16 | 8 | 0 | | | 7 | 7 | 61 |
| Buses SB | | | 14 | | 16 | 8 | 9 | | 8 | 8 | 8 | 242 |
| Buses EB | | 8 | 14 | 4 | | | | 1 | 1 | | | 0 |
| Buses WB | | 42 | 14 | 4 | | | | 0 | 12 | 12 | | 0 |
| Catchment | | 2500 | 2466 | 1455 | 828 | 1573 | 171 | 2116 | 1462 | 8 | 754 | |

| | |
|-------|--|
| 2330 | TOTAL TRANSFERS |
| 2076 | TOTAL TRANSFERS IN THE FACILITY |
| 15662 | TOTAL TRANSIT BOARDINGS |
| 9532 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 75 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

Adjustments to some local bus routes, such as Route 292 (SamTrans) and Route 9, so that they are adjacent to the Caltrain platforms

- 1213 New Development to NB Caltrain
- 1161 NB Caltrain to New Development
- 1161 New Development to SB Caltrain
- 1213 SB Caltrain to New Development
- 786 New Development to T-Third NB
- 786 SB T-Third to New Development
- 97 New Development to Shuttles
- 97 Shuttles to New Development
- 242 New Development to NB Buses
- 242 NB Buses to New Development
- 61 New Development to SB Buses
- 61 SB Buses to New Development
- 484 New Development to EB Buses
- 484 EB Buses to New Development
- 1391 New Development to WB Buses
- 1391 WB Buses to New Development
- 0 Extra Development to Inbound BRT
- 0 Extra Development to Outbound BRT
- 0 Inbound BRT to Extra Development
- 0 Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 3 / Facility Location 1

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 13 | | 212 | 112 | 26 | | 43 | 9 | 26 | 402 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 17 | 9 | 6 | | 2 | 2 | 2 | 460 |
| Caltrain NB | | 11 | | | 311 | 164 | 32 | 12 | | 11 | 11 | 804 |
| BRT EB | | 84 | 204 | 10 | | | 10 | 9 | 8 | | | 747 |
| BRT WB | | 154 | 373 | 19 | | | 19 | 17 | 17 | | | 287 |
| Shuttles | | 25 | 33 | 6 | 17 | 9 | | 7 | | | | 29 |
| Buses NB | | 42 | | 4 | 14 | 7 | 0 | 0 | | 7 | 7 | 29 |
| Buses SB | | | 14 | | 14 | 7 | 9 | | 8 | 8 | 8 | 115 |
| Buses EB | | 8 | 13 | 3 | | | | 1 | 1 | | | 0 |
| Buses WB | | 42 | 13 | 3 | | | | 0 | 12 | | | 0 |
| Catchment | | 2116 | 2110 | 702 | 1235 | 1202 | 214 | 1989 | 1430 | 8 | 754 | |

| | |
|-------|--|
| 2299 | TOTAL TRANSFERS |
| 1300 | TOTAL TRANSFERS IN THE FACILITY |
| 14059 | TOTAL TRANSIT BOARDINGS |
| 5548 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 185 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

No adjustments to local bus routes

- 460 New Development to NB Caltrain
- 804 NB Caltrain to New Development
- 804 New Development to SB Caltrain
- 460 SB Caltrain to New Development
- 402 New Development to T-Third NB
- 402 SB T-Third to New Development
- 29 New Development to Shuttles
- 29 Shuttles to New Development
- 115 New Development to NB Buses
- 115 NB Buses to New Development
- 29 New Development to SB Buses
- 29 SB Buses to New Development
- 287 New Development to EB Buses
- 287 EB Buses to New Development
- 747 New Development to WB Buses
- 747 WB Buses to New Development
- 0 Extra Development to Inbound BRT
- 0 Extra Development to Outbound BRT
- 0 Inbound BRT to Extra Development
- 0 Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 3 / Facility Location 1

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 15 | | 233 | 112 | 31 | | 43 | 9 | 26 | 402 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 17 | 9 | 6 | | 3 | 2 | 2 | 460 |
| Caltrain NB | | 13 | | | 342 | 181 | 32 | 1 | | 11 | 11 | 804 |
| BRT EB | | 84 | 204 | 10 | | | 9 | 9 | 8 | | | 747 |
| BRT WB | | 170 | 373 | 19 | | | 17 | 17 | 15 | | | 287 |
| Shuttles | | 31 | 33 | 0 | 16 | 8 | | 7 | | | | 29 |
| Buses NB | | 46 | | 3 | 16 | 7 | 0 | 0 | | 7 | 7 | 29 |
| Buses SB | | | 14 | | 16 | 7 | 9 | | 8 | 8 | 8 | 115 |
| Buses EB | | 8 | 13 | 3 | | | | 1 | 1 | | | 0 |
| Buses WB | | 42 | 13 | 3 | | | | 0 | 12 | | | 0 |
| Catchment | | 2287 | 2110 | 702 | 1235 | 1202 | 214 | 1989 | 1430 | 8 | 754 | |

| | |
|-------|--|
| 2382 | TOTAL TRANSFERS |
| 1640 | TOTAL TRANSFERS IN THE FACILITY |
| 14313 | TOTAL TRANSIT BOARDINGS |
| 6310 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 147 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

No adjustments to local bus routes

- 460 New Development to NB Caltrain
- 804 NB Caltrain to New Development
- 804 New Development to SB Caltrain
- 460 SB Caltrain to New Development
- 402 New Development to T-Third NB
- 402 SB T-Third to New Development
- 29 New Development to Shuttles
- 29 Shuttles to New Development
- 115 New Development to NB Buses
- 115 NB Buses to New Development
- 29 New Development to SB Buses
- 29 SB Buses to New Development
- 287 New Development to EB Buses
- 287 EB Buses to New Development
- 747 New Development to WB Buses
- 747 WB Buses to New Development
- 0 Extra Development to Inbound BRT
- 0 Extra Development to Outbound BRT
- 0 Inbound BRT to Extra Development
- 0 Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 3 / Facility Location 2

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 13 | | 233 | 123 | 31 | | 47 | 9 | 26 | 402 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 14 | 7 | 6 | | 2 | 2 | 2 | 460 |
| Caltrain NB | | 11 | | | 283 | 149 | 29 | 11 | | 11 | 11 | 804 |
| BRT EB | | 93 | 168 | 8 | | | 10 | 9 | 8 | | | 747 |
| BRT WB | | 170 | 309 | 15 | | | 19 | 17 | 17 | | | 287 |
| Shuttles | | 31 | 30 | 6 | 17 | 9 | | 7 | | | | 29 |
| Buses NB | | 46 | | 3 | 16 | 7 | 0 | 0 | | 7 | 7 | 29 |
| Buses SB | | | 13 | | 16 | 7 | 10 | | 8 | 8 | 8 | 115 |
| Buses EB | | 9 | 13 | 3 | | | | 1 | 1 | | | 0 |
| Buses WB | | 46 | 13 | 3 | | | | 0 | 13 | | | 0 |
| Catchment | | 2116 | 2110 | 702 | 1149 | 1202 | 214 | 1989 | 1430 | 8 | 754 | |

| | |
|-------|--|
| 2224 | TOTAL TRANSFERS |
| 821 | TOTAL TRANSFERS IN THE FACILITY |
| 13897 | TOTAL TRANSIT BOARDINGS |
| 4538 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 457 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

No adjustments to local bus routes

- 460 New Development to NB Caltrain
- 804 NB Caltrain to New Development
- 804 New Development to SB Caltrain
- 460 SB Caltrain to New Development
- 402 New Development to T-Third NB
- 402 SB T-Third to New Development
- 29 New Development to Shuttles
- 29 Shuttles to New Development
- 115 New Development to NB Buses
- 115 NB Buses to New Development
- 29 New Development to SB Buses
- 29 SB Buses to New Development
- 287 New Development to EB Buses
- 287 EB Buses to New Development
- 747 New Development to WB Buses
- 747 WB Buses to New Development
- 0 Extra Development to Inbound BRT
- 0 Extra Development to Outbound BRT
- 0 Inbound BRT to Extra Development
- 0 Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 3 / Facility Location 2

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 14 | | 233 | 123 | 31 | | 47 | 9 | 28 | 402 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 14 | 7 | 6 | | 2 | 2 | 2 | 460 |
| Caltrain NB | | 12 | | | 311 | 149 | 29 | 8 | | 11 | 11 | 804 |
| BRT EB | | 93 | 168 | 8 | | | 10 | 9 | 8 | | | 747 |
| BRT WB | | 170 | 309 | 17 | | | 19 | 17 | 17 | | | 287 |
| Shuttles | | 31 | 30 | 6 | 17 | 9 | | 7 | | | | 29 |
| Buses NB | | 46 | | 3 | 16 | 7 | 0 | 0 | | 15 | 7 | 29 |
| Buses SB | | | 13 | | 16 | 7 | 10 | | 8 | 8 | 8 | 115 |
| Buses EB | | 9 | 13 | 3 | | | | 1 | 1 | | | 0 |
| Buses WB | | 46 | 13 | 3 | | | | 0 | 13 | | | 0 |
| Catchment | | 2116 | 2110 | 702 | 1149 | 1202 | 214 | 1989 | 1430 | 8 | 754 | |

| | |
|-------|--|
| 2263 | TOTAL TRANSFERS |
| 825 | TOTAL TRANSFERS IN THE FACILITY |
| 13937 | TOTAL TRANSIT BOARDINGS |
| 4538 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

No adjustments to local bus routes

- 460 New Development to NB Caltrain
- 804 NB Caltrain to New Development
- 804 New Development to SB Caltrain
- 460 SB Caltrain to New Development
- 402 New Development to T-Third NB
- 402 SB T-Third to New Development
- 29 New Development to Shuttles
- 29 Shuttles to New Development
- 115 New Development to NB Buses
- 115 NB Buses to New Development
- 29 New Development to SB Buses
- 29 SB Buses to New Development
- 287 New Development to EB Buses
- 287 EB Buses to New Development
- 747 New Development to WB Buses
- 747 WB Buses to New Development
- 0 Extra Development to Inbound BRT
- 0 Extra Development to Outbound BRT
- 0 Inbound BRT to Extra Development
- 0 Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 3 / Facility Location 3

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 14 | | 233 | 123 | 28 | | 47 | 9 | 28 | 402 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 16 | 8 | 6 | | 2 | 2 | 2 | 460 |
| Caltrain NB | | 12 | | | 311 | 164 | 32 | 12 | | 11 | 11 | 804 |
| BRT EB | | 93 | 185 | 9 | | | 9 | 9 | | | | 747 |
| BRT WB | | 154 | 339 | 17 | | | 17 | 15 | 17 | | | 287 |
| Shuttles | | 28 | 33 | 6 | 16 | 8 | | 7 | | | | 29 |
| Buses NB | | 46 | | 4 | 16 | 7 | 0 | 0 | | 7 | 7 | 29 |
| Buses SB | | | 14 | | 14 | 8 | 9 | | 8 | 8 | 9 | 115 |
| Buses EB | | 9 | 14 | 4 | | | | 1 | 1 | | | 0 |
| Buses WB | | 42 | 14 | 4 | | | | 0 | 13 | | | 0 |
| Catchment | | 2116 | 2110 | 702 | 1149 | 1202 | 214 | 1989 | 1430 | 8 | 754 | |

| | |
|-------|--|
| 2305 | TOTAL TRANSFERS |
| 1546 | TOTAL TRANSFERS IN THE FACILITY |
| 13979 | TOTAL TRANSIT BOARDINGS |
| 7350 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 4 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

No adjustments to local bus routes

- 460 New Development to NB Caltrain
- 804 NB Caltrain to New Development
- 804 New Development to SB Caltrain
- 460 SB Caltrain to New Development
- 402 New Development to T-Third NB
- 402 SB T-Third to New Development
- 29 New Development to Shuttles
- 29 Shuttles to New Development
- 115 New Development to NB Buses
- 115 NB Buses to New Development
- 29 New Development to SB Buses
- 29 SB Buses to New Development
- 287 New Development to EB Buses
- 287 EB Buses to New Development
- 747 New Development to WB Buses
- 747 WB Buses to New Development
- 0 Extra Development to Inbound BRT
- 0 Extra Development to Outbound BRT
- 0 Inbound BRT to Extra Development
- 0 Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 3 / Facility Location 3

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 15 | | 212 | 123 | 28 | | 47 | 9 | 28 | 402 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 16 | 8 | 6 | | 2 | 2 | 2 | 460 |
| Caltrain NB | | 13 | | | 311 | 164 | 32 | 12 | | 12 | 12 | 804 |
| BRT EB | | 93 | 185 | 9 | | | 9 | 9 | 8 | | | 747 |
| BRT WB | | 154 | 339 | 17 | | | 12 | 15 | 17 | | | 287 |
| Shuttles | | 46 | 33 | 6 | 16 | 8 | | 7 | | | | 29 |
| Buses NB | | 0 | | 4 | 16 | 7 | 0 | 0 | | 7 | 7 | 29 |
| Buses SB | | | 14 | | 14 | 8 | 9 | | 8 | 8 | 9 | 115 |
| Buses EB | | 46 | 14 | 4 | | | | 1 | 1 | | | 0 |
| Buses WB | | 42 | 14 | 4 | | | | 0 | 13 | | | 0 |
| Catchment | | 2287 | 2110 | 702 | 1149 | 1202 | 214 | 1989 | 1430 | 8 | 754 | |

| | |
|-------|--|
| 2292 | TOTAL TRANSFERS |
| 1540 | TOTAL TRANSFERS IN THE FACILITY |
| 14137 | TOTAL TRANSIT BOARDINGS |
| 7435 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

No adjustments to local bus routes

- 460 New Development to NB Caltrain
- 804 NB Caltrain to New Development
- 804 New Development to SB Caltrain
- 460 SB Caltrain to New Development
- 402 New Development to T-Third NB
- 402 SB T-Third to New Development
- 29 New Development to Shuttles
- 29 Shuttles to New Development
- 115 New Development to NB Buses
- 115 NB Buses to New Development
- 29 New Development to SB Buses
- 29 SB Buses to New Development
- 287 New Development to EB Buses
- 287 EB Buses to New Development
- 747 New Development to WB Buses
- 747 WB Buses to New Development
- 0 Extra Development to Inbound BRT
- 0 Extra Development to Outbound BRT
- 0 Inbound BRT to Extra Development
- 0 Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 3 / Facility Location 4

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 14 | | 233 | 123 | 28 | | 43 | 9 | 26 | 402 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 16 | 8 | 6 | | 2 | 2 | 2 | 460 |
| Caltrain NB | | 12 | | | 311 | 164 | 32 | 30 | | 12 | 12 | 804 |
| BRT EB | | 93 | 185 | 9 | | | 9 | 9 | 9 | | | 747 |
| BRT WB | | 170 | 339 | 17 | | | 17 | 17 | 17 | | | 287 |
| Shuttles | | 28 | 33 | 6 | 16 | 8 | | 7 | | | | 29 |
| Buses NB | | 42 | | 4 | 16 | 8 | 0 | 0 | | 7 | 7 | 29 |
| Buses SB | | | 14 | | 16 | 8 | 9 | | 8 | 8 | 8 | 115 |
| Buses EB | | 8 | 14 | 4 | | | | 1 | 1 | | 0 | 0 |
| Buses WB | | 42 | 14 | 4 | | | | 0 | 12 | 12 | | 0 |
| Catchment | | 2116 | 2110 | 702 | 632 | 929 | 103 | 1989 | 1430 | 8 | 754 | |

| | |
|-------|--|
| 2342 | TOTAL TRANSFERS |
| 1975 | TOTAL TRANSFERS IN THE FACILITY |
| 13114 | TOTAL TRANSIT BOARDINGS |
| 4497 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 75 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

Adjustments to some local bus routes, such as Route 292 (SamTrans) and Route 9, so that they are adjacent to the Caltrain platforms

- 460 New Development to NB Caltrain
- 804 NB Caltrain to New Development
- 804 New Development to SB Caltrain
- 460 SB Caltrain to New Development
- 402 New Development to T-Third NB
- 402 SB T-Third to New Development
- 29 New Development to Shuttles
- 29 Shuttles to New Development
- 115 New Development to NB Buses
- 115 NB Buses to New Development
- 29 New Development to SB Buses
- 29 SB Buses to New Development
- 287 New Development to EB Buses
- 287 EB Buses to New Development
- 747 New Development to WB Buses
- 747 WB Buses to New Development
- 0 Extra Development to Inbound BRT
- 0 Extra Development to Outbound BRT
- 0 Inbound BRT to Extra Development
- 0 Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 4 / Facility Location 1

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 13 | | 212 | 112 | 26 | | 43 | 9 | 26 | 938 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 16 | 9 | 6 | | 2 | 2 | 2 | 1072 |
| Caltrain NB | | 11 | | | 342 | 181 | 32 | 12 | | 11 | 11 | 1877 |
| BRT EB | | 84 | 204 | 10 | | | 10 | 9 | 8 | | | 1743 |
| BRT WB | | 154 | 373 | 19 | | | 19 | 17 | 17 | | | 670 |
| Shuttles | | 25 | 33 | 6 | 16 | 8 | | 7 | | | | 67 |
| Buses NB | | 42 | | 4 | 16 | 8 | 0 | 0 | | 7 | 7 | 67 |
| Buses SB | | | 14 | | 16 | 8 | 9 | | 8 | 8 | 8 | 268 |
| Buses EB | | 8 | 13 | 3 | | | | 1 | 1 | | 0 | 0 |
| Buses WB | | 42 | 13 | 3 | | | | 0 | 12 | 12 | | 0 |
| Catchment | | 2652 | 3182 | 1315 | 1618 | 2198 | 253 | 2142 | 1468 | 8 | 754 | |

| | |
|-------|--|
| 2359 | TOTAL TRANSFERS |
| 1338 | TOTAL TRANSFERS IN THE FACILITY |
| 17949 | TOTAL TRANSIT BOARDINGS |
| 7827 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 185 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

No adjustments to local bus routes

- 1072 New Development to NB Caltrain
- 1877 NB Caltrain to New Development
- 1877 New Development to SB Caltrain
- 1072 SB Caltrain to New Development
- 938 New Development to T-Third NB
- 938 SB T-Third to New Development
- 67 New Development to Shuttles
- 67 Shuttles to New Development
- 268 New Development to NB Buses
- 268 NB Buses to New Development
- 67 New Development to SB Buses
- 67 SB Buses to New Development
- 670 New Development to EB Buses
- 670 EB Buses to New Development
- 1743 New Development to WB Buses
- 1743 WB Buses to New Development
- 0 Extra Development to Inbound BRT
- 0 Extra Development to Outbound BRT
- 0 Inbound BRT to Extra Development
- 0 Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 4 / Facility Location 1

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 15 | | 233 | 112 | 31 | | 43 | 9 | 26 | 938 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 17 | 9 | 6 | | 3 | 2 | 2 | 1877 |
| Caltrain NB | | 13 | | | 342 | 181 | 32 | 12 | | 11 | 11 | 1072 |
| BRT EB | | 84 | 204 | 10 | | | 9 | 9 | 8 | | | 1743 |
| BRT WB | | 170 | 373 | 19 | | | 17 | 17 | 15 | | | 670 |
| Shuttles | | 31 | 33 | 6 | 16 | 8 | | 7 | | | | 67 |
| Buses NB | | 46 | | 3 | 16 | 7 | 0 | | | 7 | 7 | 67 |
| Buses SB | | | 14 | | 16 | 7 | 9 | | 8 | 8 | 8 | 268 |
| Buses EB | | 8 | 13 | 3 | | | | 1 | 1 | | | 0 |
| Buses WB | | 42 | 13 | 3 | | | | 0 | 12 | | | 0 |
| Catchment | | 2652 | 3182 | 1315 | 1618 | 2198 | 253 | 2142 | 1468 | 8 | 754 | |

| | |
|-------|--|
| 2399 | TOTAL TRANSFERS |
| 1648 | TOTAL TRANSFERS IN THE FACILITY |
| 17989 | TOTAL TRANSIT BOARDINGS |
| 8711 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 147 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

No adjustments to local bus routes

- 1072 New Development to NB Caltrain
- 1072 NB Caltrain to New Development
- 1877 New Development to SB Caltrain
- 1877 SB Caltrain to New Development
- 938 New Development to T-Third NB
- 938 SB T-Third to New Development
- 67 New Development to Shuttles
- 67 Shuttles to New Development
- 268 New Development to NB Buses
- 268 NB Buses to New Development
- 67 New Development to SB Buses
- 67 SB Buses to New Development
- 670 New Development to EB Buses
- 670 EB Buses to New Development
- 1743 New Development to WB Buses
- 1743 WB Buses to New Development
- 0 Extra Development to Inbound BRT
- 0 Extra Development to Outbound BRT
- 0 Inbound BRT to Extra Development
- 0 Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 4 / Facility Location 2

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 13 | | 233 | 123 | 31 | | 47 | 9 | 28 | 938 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 14 | 7 | 6 | | 2 | 2 | 2 | 1072 |
| Caltrain NB | | 11 | | | 283 | 149 | 29 | 11 | | 11 | 11 | 1877 |
| BRT EB | | 93 | 168 | 8 | | | 10 | 9 | 8 | | | 1743 |
| BRT WB | | 170 | 309 | 15 | | | 19 | 17 | 17 | | | 670 |
| Shuttles | | 31 | 30 | 6 | 17 | 9 | | 7 | | | | 67 |
| Buses NB | | 46 | | 3 | 16 | 7 | 0 | | | 7 | 7 | 67 |
| Buses SB | | | 13 | | 16 | 7 | 10 | | 8 | 8 | 8 | 268 |
| Buses EB | | 9 | 13 | 3 | | | | 1 | 1 | | 0 | 0 |
| Buses WB | | 46 | 13 | 3 | | | | 0 | 13 | 12 | | 0 |
| Catchment | | 2652 | 3182 | 1315 | 1532 | 2198 | 253 | 2142 | 1468 | 8 | 754 | |

| | |
|-------|--|
| 2238 | TOTAL TRANSFERS |
| 816 | TOTAL TRANSFERS IN THE FACILITY |
| 17742 | TOTAL TRANSIT BOARDINGS |
| 5630 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 457 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

No adjustments to local bus routes

- 1072 New Development to NB Caltrain
- 1877 NB Caltrain to New Development
- 1877 New Development to SB Caltrain
- 1072 SB Caltrain to New Development
- 938 New Development to T-Third NB
- 938 SB T-Third to New Development
- 67 New Development to Shuttles
- 67 Shuttles to New Development
- 268 New Development to NB Buses
- 268 NB Buses to New Development
- 67 New Development to SB Buses
- 67 SB Buses to New Development
- 670 New Development to EB Buses
- 670 EB Buses to New Development
- 1743 New Development to WB Buses
- 1743 WB Buses to New Development
- 0 Extra Development to Inbound BRT
- 0 Extra Development to Outbound BRT
- 0 Inbound BRT to Extra Development
- 0 Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 4 / Facility Location 2

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 14 | | 233 | 123 | 31 | | 47 | 9 | 28 | 938 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 14 | 7 | 6 | | 2 | 2 | 2 | 1877 |
| Caltrain NB | | 12 | | | 311 | 149 | 29 | 11 | | 11 | 11 | 1072 |
| BRT EB | | 93 | 168 | 8 | | | 10 | 9 | 8 | | | 1743 |
| BRT WB | | 170 | 309 | 17 | | | 19 | 17 | 0 | | | 670 |
| Shuttles | | 31 | 30 | 6 | 17 | 9 | | 7 | | | | 67 |
| Buses NB | | 46 | | 3 | 16 | 7 | 0 | | | 7 | 7 | 67 |
| Buses SB | | | 13 | | 16 | 7 | 10 | | 9 | 8 | 8 | 268 |
| Buses EB | | 9 | 13 | 3 | | | | 1 | 1 | | | 0 |
| Buses WB | | 46 | 13 | 3 | | | | 0 | 13 | | | 0 |
| Catchment | | 2652 | 3182 | 1315 | 1532 | 2198 | 253 | 2142 | 1468 | 8 | 754 | |

| | |
|-------|--|
| 2242 | TOTAL TRANSFERS |
| 815 | TOTAL TRANSFERS IN THE FACILITY |
| 17745 | TOTAL TRANSIT BOARDINGS |
| 5630 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

No adjustments to local bus routes

- 1072 New Development to NB Caltrain
- 1072 NB Caltrain to New Development
- 1877 New Development to SB Caltrain
- 1877 SB Caltrain to New Development
- 938 New Development to T-Third NB
- 938 SB T-Third to New Development
- 67 New Development to Shuttles
- 67 Shuttles to New Development
- 268 New Development to NB Buses
- 268 NB Buses to New Development
- 67 New Development to SB Buses
- 67 SB Buses to New Development
- 670 New Development to EB Buses
- 670 EB Buses to New Development
- 1743 New Development to WB Buses
- 1743 WB Buses to New Development
- 0 Extra Development to Inbound BRT
- 0 Extra Development to Outbound BRT
- 0 Inbound BRT to Extra Development
- 0 Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 4 / Facility Location 3

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 14 | | 233 | 123 | 28 | | 47 | 9 | 28 | 938 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 16 | 8 | 6 | | 2 | 2 | 2 | 1072 |
| Caltrain NB | | 12 | | | 311 | 164 | 32 | 12 | | 11 | 11 | 1877 |
| BRT EB | | 93 | 185 | 9 | | | 9 | 9 | 9 | | | 1743 |
| BRT WB | | 154 | 339 | 17 | | | 17 | 15 | 17 | | | 670 |
| Shuttles | | 28 | 33 | 6 | 16 | 8 | | 7 | | | | 67 |
| Buses NB | | 46 | | 4 | 16 | 7 | 0 | | | 7 | 7 | 67 |
| Buses SB | | | 14 | | 14 | 8 | 9 | | | 8 | 9 | 268 |
| Buses EB | | 9 | 14 | 4 | | | | 1 | 1 | | | 0 |
| Buses WB | | 42 | 14 | 4 | | | | 0 | 13 | | | 0 |
| Catchment | | 2652 | 3182 | 1315 | 1532 | 2198 | 253 | 2142 | 1468 | 8 | 754 | |

| | |
|-------|--|
| 2297 | TOTAL TRANSFERS |
| 1691 | TOTAL TRANSFERS IN THE FACILITY |
| 17801 | TOTAL TRANSIT BOARDINGS |
| 10480 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 4 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

Adjustments to some local bus routes, such as Route 292 (SamTrans) and Route 9, so that they are adjacent to the Caltrain platforms

- 1072 New Development to NB Caltrain
- 1877 NB Caltrain to New Development
- 1877 New Development to SB Caltrain
- 1072 SB Caltrain to New Development
- 938 New Development to T-Third NB
- 938 SB T-Third to New Development
- 67 New Development to Shuttles
- 67 Shuttles to New Development
- 268 New Development to NB Buses
- 268 NB Buses to New Development
- 67 New Development to SB Buses
- 67 SB Buses to New Development
- 670 New Development to EB Buses
- 670 EB Buses to New Development
- 1743 New Development to WB Buses
- 1743 WB Buses to New Development
- 0 Extra Development to Inbound BRT
- 0 Extra Development to Outbound BRT
- 0 Inbound BRT to Extra Development
- 0 Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 4 / Facility Location 3

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 15 | | 212 | 123 | 28 | | 47 | 9 | 28 | 938 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 16 | 8 | 6 | | 2 | 2 | 2 | 1877 |
| Caltrain NB | | 12 | | | 311 | 164 | 32 | 12 | | 12 | 12 | 1072 |
| BRT EB | | 93 | 185 | 9 | | | 9 | 9 | 8 | | | 1743 |
| BRT WB | | 154 | 339 | 17 | | | 17 | 15 | 17 | | | 670 |
| Shuttles | | 28 | 33 | 6 | 16 | 8 | | 7 | | | | 67 |
| Buses NB | | 46 | | 4 | 16 | 7 | 0 | | | 7 | 7 | 67 |
| Buses SB | | | 14 | | 14 | 8 | 9 | | | 8 | 9 | 268 |
| Buses EB | | 9 | 14 | 4 | | | | 1 | 1 | | | 0 |
| Buses WB | | 42 | 14 | 4 | | | | 0 | 13 | | | 0 |
| Catchment | | 2652 | 3182 | 1315 | 1532 | 2198 | 253 | 2142 | 1468 | 8 | 0 | |

| | |
|-------|--|
| 2278 | TOTAL TRANSFERS |
| 2090 | TOTAL TRANSFERS IN THE FACILITY |
| 17028 | TOTAL TRANSIT BOARDINGS |
| 10480 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 4 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

Adjustments to some local bus routes, such as Route 292 (SamTrans) and Route 9, so that they are adjacent to the Caltrain platforms

- 1072 New Development to NB Caltrain
- 1072 NB Caltrain to New Development
- 1877 New Development to SB Caltrain
- 1877 SB Caltrain to New Development
- 938 New Development to T-Third NB
- 938 SB T-Third to New Development
- 67 New Development to Shuttles
- 67 Shuttles to New Development
- 268 New Development to NB Buses
- 268 NB Buses to New Development
- 67 New Development to SB Buses
- 67 SB Buses to New Development
- 670 New Development to EB Buses
- 670 EB Buses to New Development
- 1743 New Development to WB Buses
- 1743 WB Buses to New Development
- 0 Extra Development to Inbound BRT
- 0 Extra Development to Outbound BRT
- 0 Inbound BRT to Extra Development
- 0 Outbound BRT to Extra Development

Daily Transfers - Land Use Scenario 4 / Facility Location 4

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 14 | | 233 | 123 | 28 | | 43 | 9 | 26 | 938 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 16 | 8 | 6 | | 2 | 2 | 2 | 1072 |
| Caltrain NB | | 12 | | | 311 | 164 | 32 | 12 | | 12 | 12 | 1877 |
| BRT EB | | 93 | 185 | 9 | | | 9 | 9 | 9 | | | 1743 |
| BRT WB | | 170 | 339 | 17 | | | 17 | 15 | 17 | | | 670 |
| Shuttles | | 28 | 33 | 6 | 16 | 8 | | 7 | | | | 67 |
| Buses NB | | 42 | | 4 | 16 | 7 | 0 | | | 7 | 7 | 67 |
| Buses SB | | | 33 | | 16 | 8 | 9 | | 8 | 8 | 8 | 268 |
| Buses EB | | 8 | 14 | 4 | | | | 1 | 1 | | 0 | 0 |
| Buses WB | | 42 | 14 | 4 | | | | 0 | 12 | 12 | | 0 |
| Catchment | | 2652 | 3182 | 1315 | 1015 | 1925 | 141 | 2142 | 1468 | 8 | 754 | |

| | |
|-------|--|
| 2340 | TOTAL TRANSFERS |
| 2100 | TOTAL TRANSFERS IN THE FACILITY |
| 16942 | TOTAL TRANSIT BOARDINGS |
| 9975 | TOTAL NON-TRANSFER BOARDINGS IN THE FACILITY |
| 60 | TOTAL PARK-AND-RIDE BOARDINGS |
| 94 | TOTAL TRANSFERS TO FACILITY THAT START OUTSIDE OF FACILITY |

Assumptions:

Adjustments to some local bus routes, such as Route 292 (SamTrans) and Route 9, so that they are adjacent to the Caltrain platforms

- 1072 New Development to NB Caltrain
- 1877 NB Caltrain to New Development
- 1877 New Development to SB Caltrain
- 1072 SB Caltrain to New Development
- 938 New Development to T-Third NB
- 938 SB T-Third to New Development
- 67 New Development to Shuttles
- 67 Shuttles to New Development
- 268 New Development to NB Buses
- 268 NB Buses to New Development
- 67 New Development to SB Buses
- 67 SB Buses to New Development
- 670 New Development to EB Buses
- 670 EB Buses to New Development
- 1743 New Development to WB Buses
- 1743 WB Buses to New Development
- 0 Extra Development to Inbound BRT
- 0 Extra Development to Outbound BRT
- 0 Inbound BRT to Extra Development
- 0 Outbound BRT to Extra Development

PHASE 1 MEMO

Appendix E Public Meeting Summary

December 22, 2015

Appendix E PUBLIC MEETING SUMMARY

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ATTACHMENTS

Attachment A - Meeting Postcard
Attachment B - Meeting Notice
Attachment C - Meeting Flyer
Attachment D - Project Fact Sheet
Attachment E - Frequently Asked Questions
Attachment F - Display Boards
Attachment G - Feedback

OCTOBER 6, 2015 OPEN HOUSE SUMMARY

Summary
December 15, 2015

SUMMARY

The following provides a summary of the open house held on October 6, 2015 at the Visitacion Valley Library for the Bayshore Multi-Modal Facility Study. Additional details are provided in the attachments.

TIME AND LOCATION

The first community open house with businesses and residents in the Bayshore neighborhood was held on October 6, 2015 in the public meeting room at Visitacion Valley Library from 6:00 – 8:00pm. The purpose of the open house was to initiate public participation and discussion in the project and study process. Participants were asked for input on preferred elements at a multi-modal facility, potential locations to evaluate, and the methods used by the project team for evaluating.

ATTENDEES

Attendees from the project team included the following individuals:

- Jeremy Shaw, SF Planning
- Jacob Bintliff, SF Planning
- Pedro Peterson, SF Planning
- Frank Markowitz, SFMTA
- Daniel Sheeter, SFMTA
- Sarah Fine, SFCTA
- Paul Menaker, Stantec
- Cordelia Crockett, Stantec
- Lawrence McGuire, Circlepoint
- Casey Fromson, Caltrain
- Jill Gibson, Caltrain
- John Swiecki, City of Brisbane
- David Yeh, Interpreter

In addition to the project team, 18 community members signed in for the meeting. Approximately 30 community members participated at the event.

MEETING NOTIFICATION

The meeting was advertised through the distribution of a postcard announcement by SF Planning to 5,590 addresses of property owners and residents located within approximately 1,500



OCTOBER 6, 2015 OPEN HOUSE SUMMARY

Summary

December 15, 2015

feet of the project testing area. An email invitation and meeting notice was sent to SF neighborhood group contacts in Bayview, Crocker Amazon, Excelsior, Outer Mission and Visitacion Valley on September 17, 2015. An additional email invitation and meeting flyer was sent to the Technical Advisory Committee (TAC) on September 30, 2015. (See attachments at the end of this summary for a copy of the meeting postcard, notice and flyer).

MEETING FORMAT

Upon entering the public meeting room, attendees were offered a project fact sheet and frequently asked questions as they arrived and signed in. The public meeting room was set up with two (2) sets of display boards for attendees to review and provide comments on using colored post it notes and push pins. Additional comments were written on post-its and the individual boards. SF Planning, project consultants and agency staff from Caltrain, SFCTA and SFMTA were on hand to provide information and answer questions. Display boards included: What Is Most Important to Have in a Multi-Modal Facility; Facility Location Alternatives # 1 – 4; What Criteria Should We Use to Make This Decision. (See attachments at the end of this summary for copies of the project fact sheet, frequently asked questions and display boards).

In addition to information about the Bayshore Multi-Modal Facility Study, attendees could ask questions about the Caltrain Modernization Program and the Brisbane Baylands projects at staffed tables.



OCTOBER 6, 2015 OPEN HOUSE SUMMARY

Summary
December 15, 2015

FEEDBACK

More detailed feedback is provided in the attachment, but the bullets below highlight some of what we heard and what might be useful to incorporate into the Study moving forward:

- Some attendees had a history of engagement in studies in the area and came with pre-formed ideas about what the facility would entail and where it would be located. Those with this history generally came with the expectation that the facility would be co-located with a future Geneva Avenue Extension and be a relatively substantial structure.
- Some attendees expressed the belief that the study is not addressing the real problems in the study area, mainly automobile access to Highway 101 and congestion, pedestrian safety, and emergency vehicle access on Bayshore Boulevard.
- There was great interest in the future of Caltrain and high-speed rail in the study area.
- Some attendees did not understand that this meeting was for getting input to allow the City to make a better decision about an investment and not intended as a forum for gathering feedback on what is actually currently underway in the study area.
- There was recognition that the study area is going to undergo significant change in future years, with the expansion of Recology, the Schlage Lock development, and the Brisbane Baylands, and the recognition that the City has an obligation to be smart about planning for the growth in travel demand.
- The multi-modal facility was viewed as a future source of traffic congestion, and impacted people's preferences for the location of a facility.
- No changes are recommended to the evaluation criteria, although it should be noted that none of the options involve home displacements, and none are not expected to create significantly more overall bus, pedestrian, bicycle, or auto demand than what would exist without a facility (although it might concentrate it differently).
- There appeared to be interest in all of the facility location options except for the Status Quo/Tunnel Avenue Location (Option #1), so no changes are recommended to the facility location options.
- Some of the most sought after features of the multi-modal facility included real-time arrival information, protection from the sun and wind, and pedestrian access.

ATTACHMENT A



BAYSHORE MULTI-MODAL FACILITY STUDY

OPEN HOUSE

OCTOBER 6, 2015

Visitation Valley Library

201 Leland Ave @ Rutland



Learn about and give feedback on potential locations and elements of a multi-modal transportation facility in the Bayshore area. This is the first of two open houses.

San Francisco
Planning

the City of San Francisco invites you to an open house on the

BAYSHORE MULTI-MODAL FACILITY STUDY

Join the City & County of San Francisco to discuss the Bayshore Multi-Modal Facility Study. The Study will analyze alternatives, recommend a location and conceptual design, and provide an implementation plan for a multi-modal facility in the Bayshore area.

At the open house, staff will ask for your input on preferred elements at a multi-modal facility, potential locations to evaluate, and our method of evaluating. The City & County will host another event in 2016 to discuss a preferred location and conceptual drawings.

FIRST-CLASS MAIL
U.S. POSTAGE PAID
SAN FRANCISCO, CA
PERMIT NUMBER 4

JOIN US FOR A PUBLIC MEETING:



TUESDAY, OCTOBER 6, 2015 6:00PM-8:00PM

Visitation Valley Library (Public Meeting Room)
201 Leland Avenue (at Rutland)

FOR MORE INFORMATION, PLEASE VISIT:

<http://www.sf-planning.org/bayshore>

Información en español: 575-9010

Impormasyon sa Tagalog: 575-9121

中文詢問請電: 575-9010

ATTACHMENT B



Join the City of San Francisco for a public open house to discuss the Bayshore Multi-Modal Facility Study. The Study will analyze alternatives and recommend a location, conceptual design, and an implementation plan for a multi-modal facility in the Bayshore area.

At the open house, City staff will ask for input on your preferred elements to include at a multi-modal facility, potential locations to evaluate, and our method of evaluating. Based on your input, staff will host another event in 2016 to discuss a preferred location and conceptual drawings.

Multi-modal facilities link transportation services within a single location or area, providing better access and connectivity for people using a variety of transportation modes. A multi-modal facility can take a variety of forms. For more info visit www.sf-planning.org/bayshore

MEETING DATE, TIME & LOCATION:

Tuesday, October 6, 2015
6-8:00 PM

**Visitation Valley Library
Public Meeting Room
201 Leland Avenue
San Francisco, CA 94134**

LIGHT REFRESHMENTS WILL BE PROVIDED.



The Study focuses on the need for multi-modal transportation access in the bi-county area. It will address the needs of current and future residents and employees in Visitation Valley, Candlestick Point, Executive Park, and Hunters Point Shipyard.

FOR MORE INFO ON BAYSHORE MULTI-MODAL FACILITY LOCATION STUDY:

Visit <http://www.sf-planning.org/bayshore>
or contact Jeremy Shaw – (415) 575-9135

FOR LANGUAGE ASSISTANCE OR DISABILITY ACCOMMODATIONS:

Please contact Jeremy Shaw at jeremy.shaw@sfgov.org or
(415) 575-9135 at least three business days in advance.

中文詢問請電
(415) 575-9010

PARA INFORMACIÓN EN ESPAÑOL LLAMAR AL:
(415) 575-9010

ATTACHMENT C



BAYSHORE MULTI-MODAL FACILITY STUDY



Join the City of San Francisco at an Open House to discuss the Bayshore Multi-Modal Facility Study. The Study will analyze alternatives, recommend a location and conceptual design, and provide an implementation plan for a multi-modal facility in the Bayshore area.

There will not be a formal presentation, so participants can come anytime between 6 and 8pm.

Staff will ask for your input on preferred features at a multi-modal facility, potential locations to evaluate, and our evaluation method. The City will host another event in 2016 to discuss a preferred location and concept drawings.

What is Multi-Modal Facility? It is a facility which links transportation services within a single location, providing better access for people using transit, driving, biking, walking or transferring. Facilities can take many forms: including a special street design, a kiosk, station or platforms.

OPEN HOUSE INFO:
Tuesday, October 6, 2015
6:00 - 8:00 PM

Visitation Valley Library
Public Meeting Room
201 Leland Avenue
San Francisco, CA 94134

LIGHT REFRESHMENTS WILL BE PROVIDED.



ADA
ACCESSIBLE



FOR MORE INFO ON BAYSHORE MULTI-MODAL FACILITY STUDY

www.sf-planning.org/bayshore

or contact Jeremy Shaw jeremy.shaw@sfgov.org (415) 575-9135

FOR LANGUAGE ASSISTANCE OR DISABILITY ACCOMMODATIONS:

Please contact Jeremy Shaw at jeremy.shaw@sfgov.org or (415) 575-9135 at least three business days in advance.

中文詢問請電
(415) 575-9010

PARA INFORMACIÓN EN ESPAÑOL LLAMAR AL:
(415) 575-9010



San Francisco
Planning

ATTACHMENT D

BAYSHORE MULTI-MODAL FACILITY STUDY

FACT SHEET

PROJECT BACKGROUND

Extensive growth in the bi-county, Bayshore area is placing significant pressure on regional and local transportation systems. To meet both current neighborhood needs as well as the expected increase in travel and commuting demand, several transportation improvements have been identified for the bi-county area; including Muni Forward service enhancements, US-101/Candlestick Point interchange, Caltrain Modernization and Geneva-Harney Bus Rapid Transit.

A multi-modal facility is one significant way to better connect these improvements and serve future transportation demand in the bi-county area. A facility will also support regional priorities of coordinating land use and transportation planning, as well as reducing greenhouse gas (GHG) emissions.

The Bayshore Multi-Modal Facility Location Study will analyze alternatives and recommend a location, conceptual design, and an implementation plan for such a facility in the Bayshore area based on consultant analysis, public agency input and community feedback.

WHAT IS A MULTI-MODAL FACILITY?

Multi-modal facilities link transportation services and infrastructure within a single location or area, providing better access and connectivity for people using regional and rapid transit, local buses and shuttles, private vehicles (cars/trucks), cycling, and walking. Facilities can take many forms: including special street designs, a kiosk, shared platforms or even a station. For examples of elements which can be part of a facility, see the back of this fact sheet.

PUBLIC OUTREACH & EVENTS

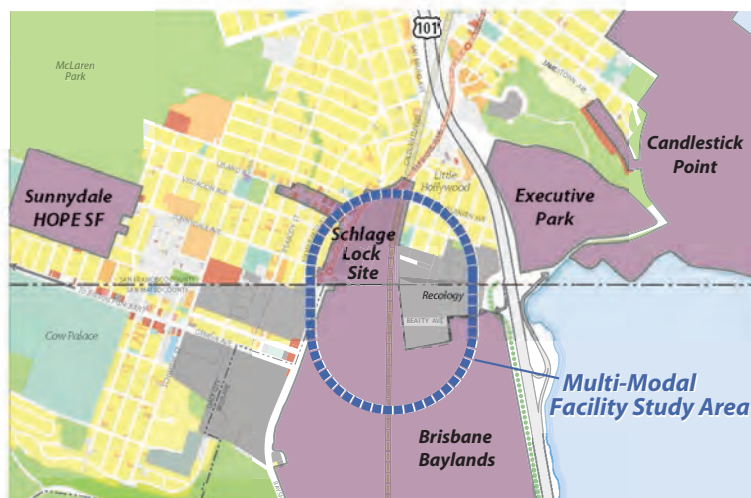
Tuesday, October 6, 2015 at 6pm

Visitation Valley Library - 201 Leland Ave - SF, CA

The City and County of San Francisco will host a public open house to initiate public participation in the project and study process. The first open house will display various facility options and locations for initial public feedback

Spring 2016

The preferred multi-modal facility location and conceptual drawings will be presented to the public for further comment and study.



FOR MORE INFORMATION

<http://sf-planning.org/bayshore>

Jeremy Shaw, Project Manager
San Francisco Planning Department
jeremy.shaw@sfgov.org | (415) 575-9135

Community participation will help determine the elements to include in a multi-modal facility in the Bayshore area.

DO YOU CONSIDER THE ELEMENTS LISTED BELOW
AS ESSENTIAL, PREFERRED, OR OPTIONAL?

非常必要 重要 有選擇性

WHAT ELSE IS
IMPORTANT TO YOU?

TELL US ON THE POSTERS
AROUND THE ROOM

Pedestrian Access
行人專用道



Retail
小型商舖



Bicycle Access
自行車專用道



Protection from the Sun and Wind
半封閉式候車站台



Shared Platform
多功能轉換站台



Bike Share
自行車短期租賃



Car Parking
停車場



Pedestrian/Bicycle Overpass/Underpass
行人及自行車專用天橋/地下通道



Carshare
汽車短期租賃



Off-Street Bus Exchange
全封閉交通轉換站



Shuttle Loading Area
巴士站



Public Art
大眾藝術



Community Space
社區活動中心



Public Plaza/Activity
公共廣場



Historic Building Reuse
歷史建築重用



Public Seating
公共休息區域



The City and County of San Francisco is independently conducting the study with a grant from the Metropolitan Transportation Commission (MTC). Throughout the Study, San Francisco Planning will coordinate with Caltrain, MTC, the City of Brisbane, SamTrans, and several San Francisco agencies including San Francisco County Transportation Authority (SFCTA), Municipal Transportation Agency (SFMTA), Office of Community Investment and Infrastructure (OCII), Office of Economic and Workforce Development (OEWD), and the Office of the Mayor.

ATTACHMENT E

BAYSHORE MULTI-MODAL FACILITY STUDY

Frequently Asked Questions

What is this study?

The Bayshore Multi-Modal Facility Study will analyze alternatives and recommend a location, conceptual design, and an implementation plan for a multi-modal transportation facility in the Bayshore area. It focuses on the current and future transportation access needs of Visitacion Valley, Candlestick Point, Executive Point, Hunters Point Shipyard, and the bi-county area.

What is a multi-modal facility?

Multi-modal facilities link transportation services and infrastructure within a single location or area, providing better access and transit connections for people using a variety of transportation modes. Transportation modes include regional and rapid transit, local buses and shuttles, cars and trucks, cycling, and walking. Multi-modal facilities can take a variety of forms. For example, they can include central features, such as informational kiosks, shared platforms, or even station buildings; others are special street designs or “transit malls,” while others are simply curb areas designated for transit access. If services are divided within a facility, specific lights, design, and signage will direct people between them.

What will this project do for transit service?

Multi-modal facilities are designed to make transit services more user-friendly, accessible, and efficient. Depending on the location, some bus routes may be redesigned to improve transfers. It is not anticipated that a Bayshore multi-modal facility will affect the number of Caltrain stops per day at the Bayshore Caltrain Station.

Will this move the Bayshore Caltrain Station?

The project does not require moving the Caltrain platforms at the Bayshore Station. However, some locations under the study could benefit from moving Caltrain platforms to the north or south. For example, the location on Blanken Avenue would benefit if Caltrain platforms were moved to the north. The location at Geneva Avenue would be improved if the Caltrain platforms were moved to the south. However, a multi-modal facility can still improve transit service without moving the Bayshore Caltrain Station.

What does this have to do with Geneva-Harney Bus Rapid Transit (BRT)?

The Geneva-Harney BRT project is analyzing bus rapid transit service along Geneva Avenue and Harney Way. The Bayshore Multi-Modal Facility Study is the first step to an individual facility that connects this BRT service to Muni (T-Third and local bus routes), Caltrain, express buses, shuttles, car share, and other modes so people can get where they need to go safely and efficiently.

Why can't this facility location study wait?

All of the location options require coordination with a nearby development. The sooner a facility location is established, the sooner public agencies can coordinate access and design to the site.

When will this multi-modal facility be in operation?

This has yet to be determined and will be further explored in Phase 2 of the study.

How will the facility be funded?

This has yet to be determined and will be further explored in Phase 2 of the study.

What are the next steps in the study?

Once the location of the facility has been selected in Phase I of this Study (Fall 2015), the consultant will assess different facility elements and configurations, propose a conceptual design, and create an implementation plan. It is anticipated that Phase 2 will be completed by September 2016.

Why is there another study after all those other studies?

This study builds on previous analysis and incorporates new predictions regarding land use in the area, bringing an intermodal facility one step closer to fruition. Prior studies assumed establishing a multi-modal facility in the long term, but development in the bi-county area is proceeding as such that a multi-modal facility would be beneficial much sooner. Below is a brief description of prior studies as they relate to a multi-modal facility:

- In 2012, the Bayshore Intermodal Access Study assumed that a multi-modal facility was needed to connect a future Bus Rapid Transit (BRT) route with the Bayshore Caltrain Station. It was expected to connect Caltrain, BRT, buses, T-Third light rail, cars, bikes and pedestrians, and include a plaza or landmark feature.
- In 2013, the Bi-County Transportation Study concluded that a project to re-configure the Bayshore Station could be funded through development fees, would benefit both counties, and could meet bi-County goals cost-effectively. It was included among a list of other transportation projects such as the Geneva-Harney BRT, US 101 / Candlestick Point Interchange Reconfiguration, Geneva Avenue Extension, T-Third Light Rail Extension, Bicycle-Pedestrian Connection Project, and Area-Wide Traffic Calming Program.
- In 2015, the Geneva-Harney BRT Feasibility Study confirmed two possible, near-term configurations for the Geneva-Harney BRT route in the Visitacion Valley area: (1) as a couplet using Blanken Avenue and Lathrop Avenue, or (2) along Tunnel to Beatty Avenue. These alternatives will all be further analyzed in the environmental review phase.

How were facility location alternatives selected?

The first location is a status quo option, in which a multi-modal facility is developed around the existing Caltrain Station. Locations #2 and #3 were identified within the overlapping areas of ¼-mile circles around Light Rail and future BRT stations, and a ½ mile radius around the Caltrain platforms. Location #4 is intended to represent the options explored in the Bayshore Intermodal Station Access Study (2012).







How does future land use affect the study?

This study is not intended to influence the land use within the Brisbane Baylands site or any other development planned for the area. The Study recognizes that proposed land uses on the Brisbane Baylands site have not been finalized. Therefore, the Study consultant chose four (4) land use options to account for a range of possible outcomes. Each option is based on land use alternatives shown in the 2015 Baylands Draft Environmental Impact Report (DEIR).

Why is San Francisco's Planning Department leading this study?

All agencies are closely coordinating and staffing this consultant-led study, including the individual planners on the Geneva Harney BRT project. As a matter of coordination, San Francisco Planning has several other public participation projects in the area, and is therefore a good fit to coordinate the project consultant. Agencies outside of San Francisco also meet regularly with the City and County of San Francisco as part of a technical advisory committee (TAC).

The following pictures illustrate different types of multi-modal facilities. The list is not exhaustive. These examples are representative of future concepts for the Bayshore area. But certain elements of any of them can be incorporated into Bayshore. Please consider these as a way to start a conversation.

| | |
|--|--|
| Single Level, Off-Street Multi-Modal Facility (Bellevue, WA) | Single Level, Off-Street Multi-Modal Facility (Shirlington, VA) |
|  |  |
| Multi-Level, On-Street Multi-Modal Facility (Rhode Island Avenue, Washington, DC) | Transit Mall Street (Long Beach, CA) |
|  |  |
| Small, Single Level On-Street Multi-Modal Facility (Presidio, San Francisco, CA) | Transit Mall Street (Portland, OR) |
|  |  |

What are examples of a multi-modal facility in the Bay Area?

| | |
|---|--|
| <p>Multi-level, Off-Street Multi-Modal Facility (Contra Costa Center BART Station, Pleasant Hill, CA)</p>  <p><i>The Contra Costa Transit Center Station brings together BART service, County Connection bus service, bicycle storage, a multi-use trail, carshare, kiss-and-ride, taxi service, shuttle service, automobile parking, a public plaza, retail, and an off-street bus exchange in a multi-level station with off-street bus stops.</i></p> | <p>Large Off-Street Bus Facility (Temporary Transbay Terminal)</p>  <p><i>The Temporary Transbay Terminal brings together Muni bus service, AC Transit bus service, SamTrans bus service, WestCAT bus services, and intercity bus service in a single-level station with off-street bus stops.</i></p> |
| <p>4th and King</p>  <p><i>The San Francisco 4th and King Station brings together Caltrain services, Muni bus services, Muni LRT services, bicycle share, bicycle parking, intercity bus service, shuttle service, and retail in a single-level station with on-street bus stops.</i></p> | <p>Alameda: Main Street Terminal</p>  <p><i>The Alameda Main Street Ferry Terminal brings together ferry service, AC Transit bus service, bicycle parking, a multi-use trail, kiss-and-ride, and park-and-ride in a single-level station with an on-street bus stop.</i></p> |

ATTACHMENT F

這個交通樞紐應該包括什麼？

OPEN HOUSE #1 | OCTOBER 6, 2015

這個交通樞紐應該包括什麼？

Multi-modal facilities consolidate transportation services and infrastructure in a general area or specific location to simplify transfers and improve access for local residents and employees. These types of facilities come in various forms and sizes. Given the needs of existing area residents and looking toward the future, what elements of a multi-modal facility are most important to you?

Please use stickers to tell us what elements are  essential,  preferred, or  optional

Protection from the Sun and Wind 半封閉式候車站台



Retail
小型商鋪

Public Art
大眾藝術

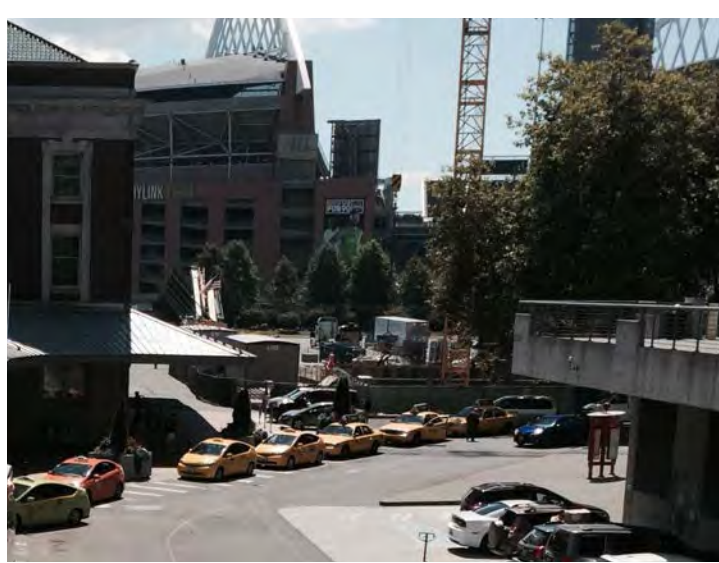
Community Space
社區活動中心



Other Suggestions?
其他建議?

[illegible]Public Plaza/Activity
公共廣場

Taxi Waiting Area
計程車等待區



Bicycle Parking
自行車存放處



Real-Time Arrival Information Signs 現時顯示屏



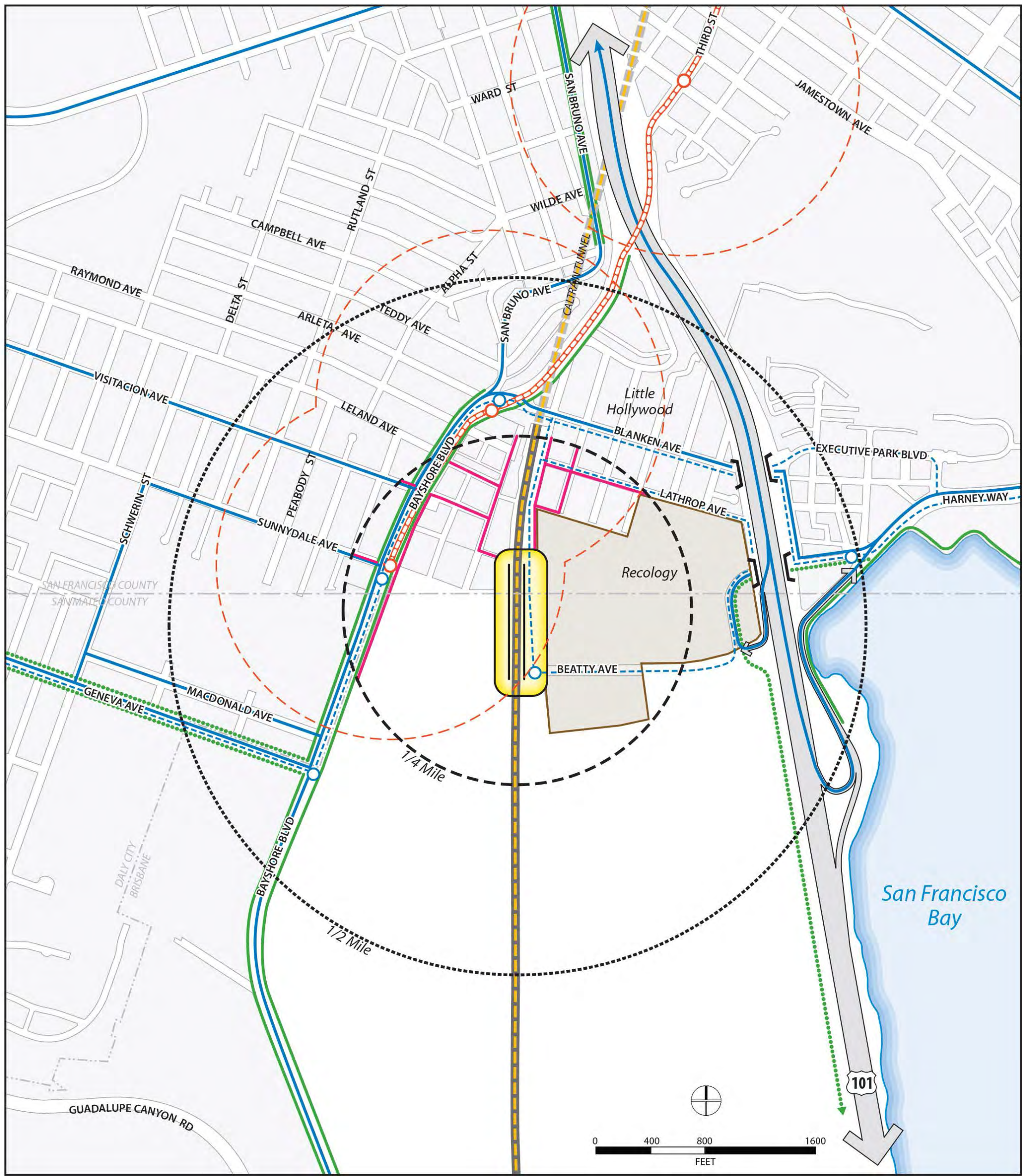
Historic Building Reuse
歷史建築重用



Ticket Vending Machine
自動售票機

Public Seating
公共休息區域

FACILITY LOCATION ALTERNATIVE #1



- Caltrain Rail
Caltrain 軌道
- Existing Caltrain Platforms
現有Caltrain 站台
- 1/2 Mile Radius from Center of Caltrain Platforms
方園0.5英里範圍
- Existing Recology Site
現有Recology 地點
- Potential Multi-Modal Facility Location
交通樞紐地點選項
- 1/4 Mile Radius from Center of Potential Multi-Modal Facility
方園0.25英里範圍
- Existing/Planned Bike Paths or Lanes
現有/計劃建設的自行車專用道
- Direct Walking Routes to Potential Multi-Modal Facility from Outside of 1/4 Mile Radius
便捷行人專用道
- Existing LRT Line
現有輕軌線
- 1/4 Mile Radius from Center of LRT Platform
方園0.25英里範圍
- Baseline Bus Service
現有公交線路
- Potential BRT Alignments and Station Locations in Study Area
快捷無障礙線/站的選項

PLEASE PROVIDE YOUR COMMENTS ON LOCATION #1 IN TERMS OF:

Serving Users from the Community

Making Transfers More Convenient

Allowing for Non-Motorized Access

Creating a Community Focal Point

Construction Impacts

BAYSHORE
MULTI-MODAL
FACILITY STUDY

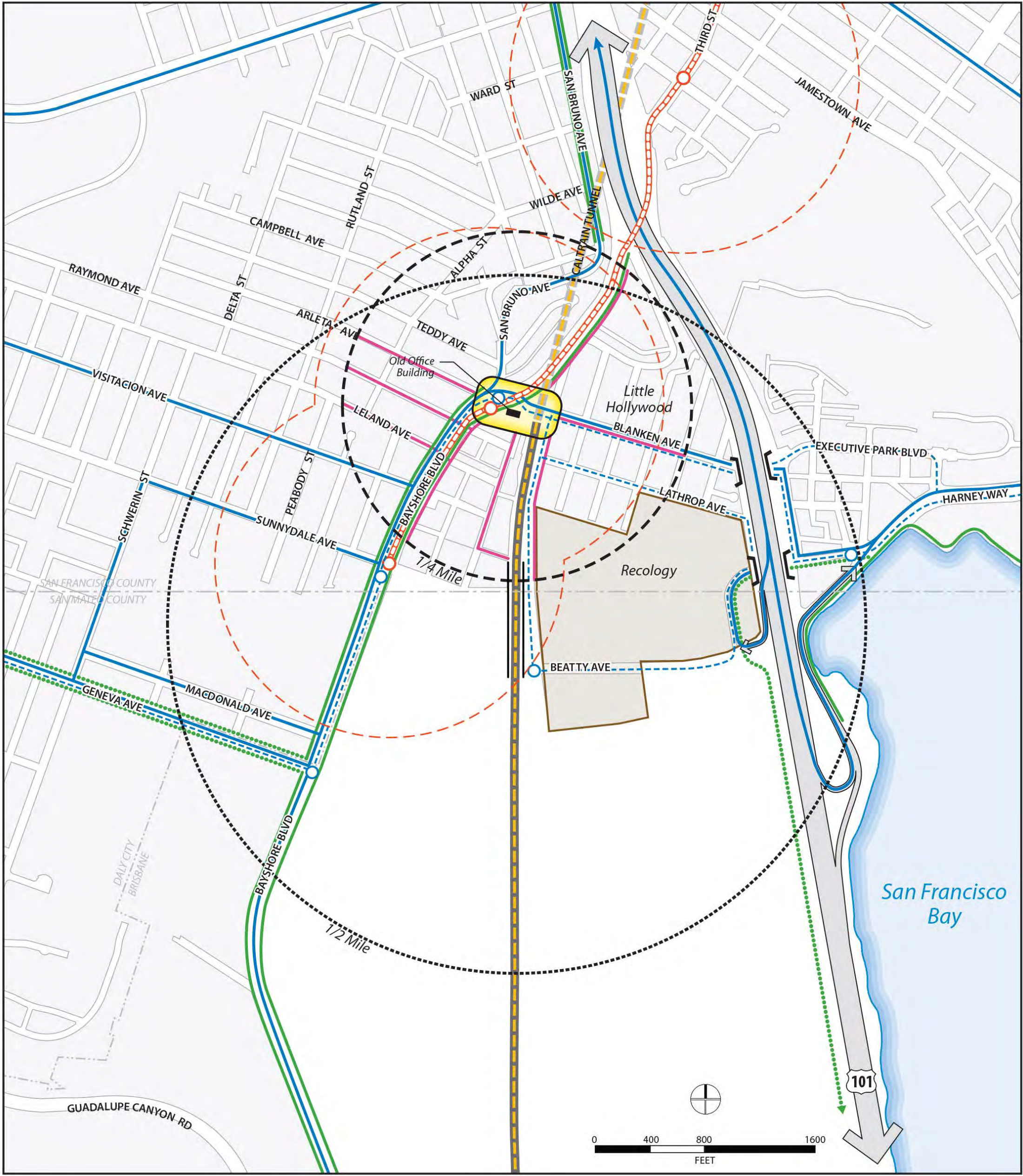
For more information visit:
<http://sf-planning.org/bayshore>

Stantec

DYETT & BHATIA
Urban and Regional Planners

circlepoint

FACILITY LOCATION ALTERNATIVE #2



- Caltrain Rail
Caltrain 軌道
- Existing Caltrain Platforms
現有Caltrain 站台
- 1/2 Mile Radius from Center of Caltrain Platforms
方園0.5英里範圍
- Existing Recology Site
現有Recology 地點
- Potential Multi-Modal Facility Location
交通樞紐地點選項
- 1/4 Mile Radius from Center of Potential Multi-Modal Facility
方園0.25英里範圍
- Existing/Planned Bike Paths or Lanes
現有/計劃建設的自行車專用道
- Direct Walking Routes to Potential Multi-Modal Facility from Outside of 1/4 Mile Radius
便捷行人專用道
- Existing LRT Line
現有輕軌線
- 1/4 Mile Radius from Center of LRT Platform
方園0.25英里範圍
- Baseline Bus Service
現有公交線路
- Potential BRT Alignments and Station Locations in Study Area
快捷無障礙線/站的選項

PLEASE PROVIDE YOUR COMMENTS ON LOCATION #2 IN TERMS OF:

Serving Users from the Community

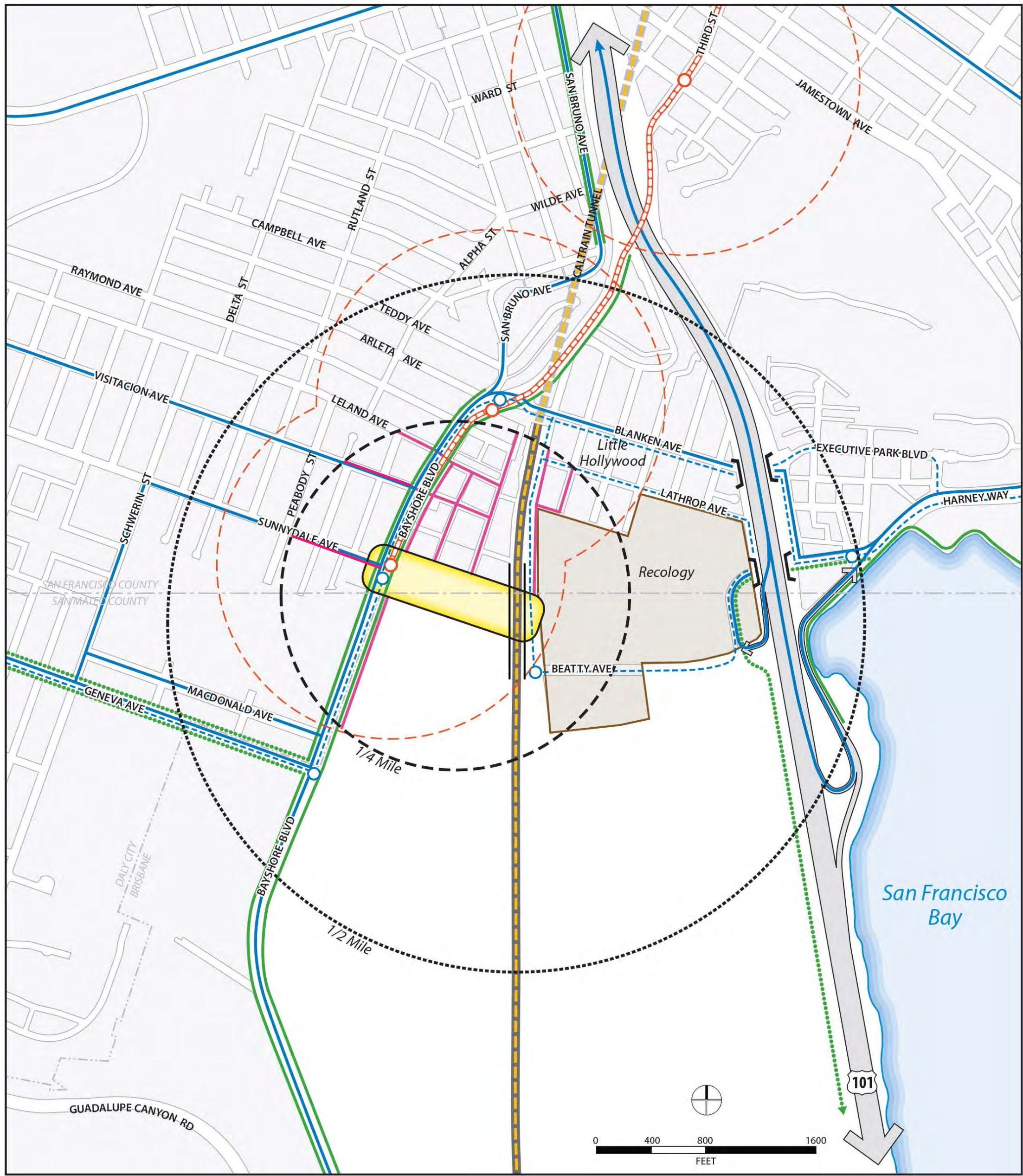
Making Transfers More Convenient

Allowing for Non-Motorized Access

Creating a Community Focal Point

Construction Impacts

FACILITY LOCATION ALTERNATIVE #3



- Caltrain Rail
Caltrain 軌道
- Existing Caltrain Platforms
現有Caltrain 站台
- 1/2 Mile Radius from Center of Caltrain Platforms
方園0.5英里範圍
- Existing Recology Site
現有Recology 地點
- Potential Multi-Modal Facility Location
交通樞紐地點選項
- 1/4 Mile Radius from Center of Potential Multi-Modal Facility
方園0.25英里範圍
- Existing/Planned Bike Paths or Lanes
現有/計劃建設的自行車專用道
- Direct Walking Routes to Potential Multi-Modal Facility from Outside of 1/4 Mile Radius
便捷行人專用道
- Existing LRT Line
現有輕軌線
- 1/4 Mile Radius from Center of LRT Platform
方園0.25英里範圍
- Baseline Bus Service
現有公交線路
- Potential BRT Alignments and Station Locations in Study Area
快捷無障礙線/站的選項

PLEASE PROVIDE YOUR COMMENTS ON LOCATION #3 IN TERMS OF:

Serving Users from the Community

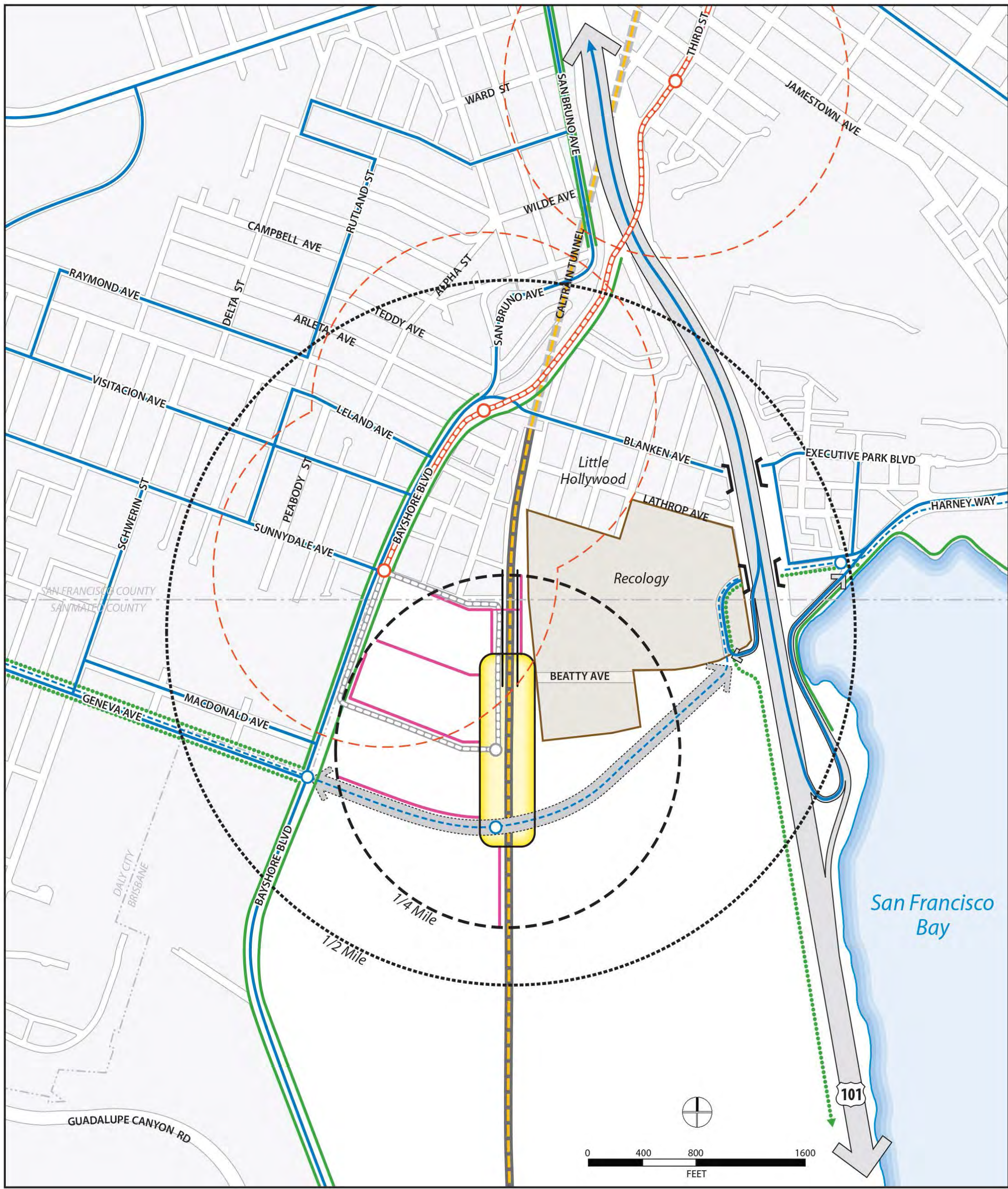
Making Transfers More Convenient

Allowing for Non-Motorized Access

Creating a Community Focal Point

Construction Impacts

FACILITY LOCATION ALTERNATIVE #4



- Caltrain Rail
Caltrain 軌道
- Existing Caltrain Platforms
現有Caltrain 站台
- 1/2 Mile Radius from Center of Caltrain Platforms
方圓0.5英里範圍
- Existing Recology Site
現有Recology 地點
- Potential Multi-Modal Facility Location
交通樞紐地點選項
- 1/4 Mile Radius from Center of Potential Multi-Modal Facility
方圓0.25英里範圍
- Existing/Planned Bike Paths or Lanes
現有/計劃建設的自行車專用道
- Direct Walking Routes to Potential Multi-Modal Facility from Outside of 1/4 Mile Radius
便捷行人專用道
- Existing LRT Line
現有輕軌線
- T-Third Extension – Long Term Transportation Element
輕軌延長線
- 1/4 Mile Radius from Center of LRT Platform
方圓0.25英里範圍
- Geneva Avenue Extension – Long Term Transportation Element
Geneva 街延長線
- Baseline Bus Service
現有公交線路
- Potential BRT Alignments and Station Locations in Study Area
快捷無障礙線/站的選項

PLEASE PROVIDE YOUR COMMENTS ON LOCATION #4 IN TERMS OF:

Serving Users from the Community

Making Transfers More Convenient

Allowing for Non-Motorized Access

Creating a Community Focal Point

Construction Impacts

BAYSHORE
MULTI-MODAL
FACILITY STUDY

For more information visit:
<http://sf-planning.org/bayshore>

Stantec **DYETT & BHATIA** **circlepoint**
Urban and Regional Planners

WHAT CRITERIA SHOULD WE USE TO MAKE THIS DECISION?

該交通樞紐的地點必須俱備哪些具體條件？

| CRITERIA | SPECIFIC MEASURES & CONSIDERATIONS |
|----------------------------|------------------------------------|
| PHYSICAL IMPLEMENT-ABILITY | Utility impacts |
| | Capital construction costs |
| | Engineering feasibility |
| | Footprint required |
| | <i>your ideas:</i> |

| CRITERIA | SPECIFIC MEASURES & CONSIDERATIONS |
|----------------------|------------------------------------|
| NON-MOTORIZED ACCESS | Directness of bicycle paths |
| | Directness of walking paths |
| | Amenities on access paths |
| | Safety on access paths |
| | <i>your ideas:</i> |

| CRITERIA | SPECIFIC MEASURES & CONSIDERATIONS |
|--------------------|---|
| TRANSIT OPERATIONS | Bus route diversions for Muni and Samtrans |
| | Impact on existing transit customers |
| | Truck/auto/pedestrian/bicycle conflicts with transit operations |
| | Bus speed and reliability during construction |
| | <i>your ideas:</i> |

| CRITERIA | SPECIFIC MEASURES & CONSIDERATIONS |
|-------------|---|
| PLACEMAKING | Density of jobs and housing around multi-modal facility |
| | Ability to support 24-hour activity |
| | Ability to support new landscape / streetscape features |
| | Pedestrian areas adjacent to facility |
| | Visibility of multi-modal facility |
| | <i>your ideas:</i> |

| CRITERIA | SPECIFIC MEASURES & CONSIDERATIONS |
|------------------------|--|
| RIDERSHIP MAXIMIZATION | Transfers <i>within</i> the multi-modal facility |
| | Users from the surrounding area |
| | <i>your ideas:</i> |

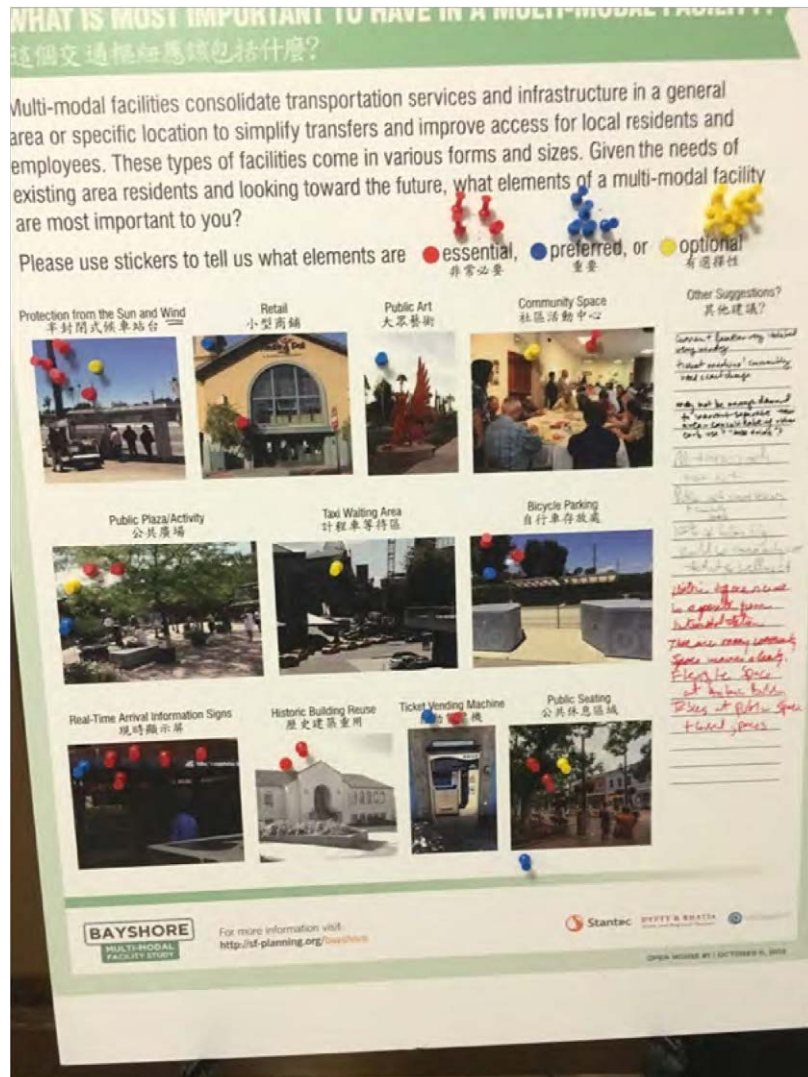
| CRITERIA | SPECIFIC MEASURES & CONSIDERATIONS |
|-------------------------|--|
| INTERMODAL CONNECTIVITY | Need for elevators, escalators or ramps when making a transfer |
| | Transfer walking distances |
| | Park and Ride capacity |
| | <i>your ideas:</i> |

ATTACHMENT G

Bayshore Multi-Modal Facility Study

Open House Feedback

Facility Elements



Essential

- Real-time Arrival Information Signs (5)
- Protection from the Sun and Wind (4)
- Bicycle Parking (2)
- Public Plaza/Activity (2)
- Historic Building Reuse (2)
- Public Seating (2)
- Community Space (1)
- Ticket Vending Machines (1)

Preferred

- Real-Time Arrival Information Signs (1)
- Public Art (1)
- Retail (1)
- Public Plaza/Activity (1)
- Bicycle Parking (1)
- Public Seating (1)
- Ticket Vending Machines (1)

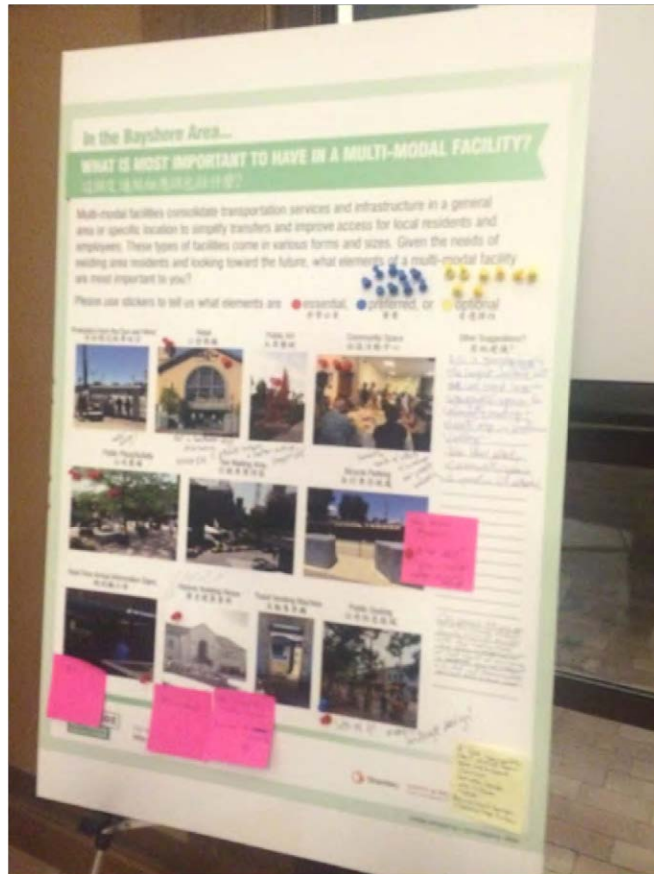
Optional

- Protection from the Sun and Wind (1)
- Community Space (1)
- Public Plaza/Activity (1)
- Taxi Waiting Area (1)
- Public Seating (1)

Facility Elements – Additional Comments

- Current location is very isolated and very windy
- Ticket vending machines! Currently need exact change
- May not be enough demand to warrant separate taxi area – consolidate with other curb uses, like kiss-and-ride?
- No trees – it gets too hot
- Public art and community space unnecessary
- 100% of historic Schlage Lock site should be community use and rented out for weddings, etc.
- Historic Building Reuse is separate from intermodal station
- There are many community space venues already
- Flexible space at the historic building
- Tables at public space and covered space

Facility Elements



Essential

Retail (2)

Public Art (1)

Community Space (3)

Public Plaza/Activity (3)

Bicycle Parking (1)

Real-Time Arrival Information Signs (1)

Historic Building Reuse (1)

Public Seating (1)

Facility Elements – Additional Comments

- D10 is geographically the largest district but we need larger and appropriate spaces for community meetings and events especially in Visitacion Valley
- We have plenty of community space in greater Visitacion Valley
- City planners 100 years ago never envisioned today's density – I am left with the feeling that the plans presented here all fall short of envisioning a regional transit hub that will accommodate current AND future needs.
- A True Transportation place should have: a quick ride to the airport, showers, hair salon/ barber, bike lockers, luggage, easy-to-read signage, sleeping/napping cubes

Image-specific notes:

- Protection from the Sun and Wind: better design!
- Retail: not in San Mateo style architecture. Modern! Attracts business and better active street life.
- Community Space: Community space with views and landscaping for people watching
- Real-Time Arrival Information Signs: 8x
- Historic Building Reuse: Not part of D4D – will cause unheralded congestion; ESL classes; enroute to Recology/Redemption; benches lead to loitering
- Public Seating: lots of it! Modern landscaping design!

Facility Elements

這個交通樞紐屬綠巴

Multi-modal facilities consolidate transportation services and infrastructure in a general area or specific location to simplify transfers and improve access for local residents and employees. These types of facilities come in various forms and sizes. Given the needs of existing area residents and looking toward the future, what elements of a multi-modal facility are most important to you?

Please use stickers to tell us what elements are ● essential, ● preferred, or ● optional
非常必要 重要 有選擇性

| Pedestrian Access 行人專用道 | Bicycle Access 自行車專用道 | Pedestrian/Bicycle Overpass/Underpass 行人及自行車專用天橋/地下通道 | Other Suggestions? 其他建議? |
|----------------------------|--------------------------|--|--|
| | | | <i>Need a bridge of some sort covered area lots of safety - all the way any ability to walk, bike I would love underpass bridge shelter etc</i> |
| | | | <i>WNT is awful!!! Buses and underpass to avoid street traffic impact Separate station + car these stations are what should be immediate concerns + infrastructure need to understand location around the station area car connections between modes Traffic light at 1.14125 road is over street at light below street is important Traffic light across Electronic digital signs for bus arrival times</i> |
| | | | |

BAYSHORE
MULTI-MODAL
FACILITY STUDY

For more information visit:
<http://sf-planning.org/bayshore>

Stantec DREW & BHATIA

OPEN HOUSE #1 | OCTOBER 8, 2015

Essential

- Pedestrian Access (4)
- Wayfinding/Information (3)
- Shared Platform (2)
- Off-Street Bus Exchange (2)
- Car Parking (1)
- Pedestrian/Bicycle Overpass/Underpass (1)
- Bicycle Access (1)

Preferred

- Bicycle Access (2)
- Wayfinding/Information (1)
- Shared Platform (1)
- Carshare (2)
- Shuttle Loading Area (1)

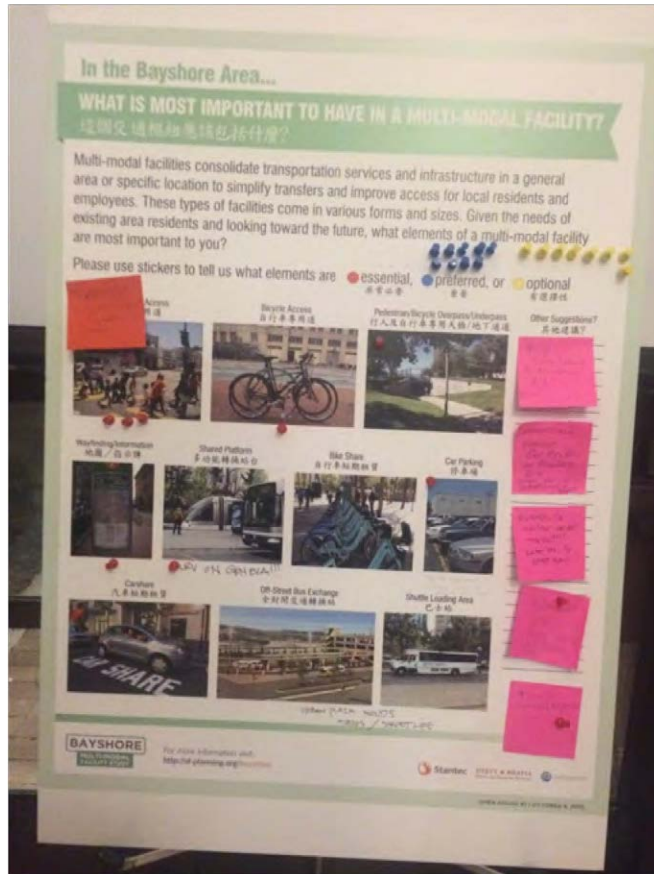
Optional

- Pedestrian/Bicycle Overpass/Underpass (1)
- Bike Share (1)
- Car Parking (1)
- Shuttle Loading Area (1)

Facility Elements – Additional Comments

- Need garages with new growth; it is crowded now
- Lots of hills, difficult for pedestrians, especially for the elderly or anyone with kids
- If more service, add new/more parking with the status quo
- BRT is awful!!! Please go underground to avoid street traffic impact!
- Separate shuttles and cars
- These choices are what should be baseline services and infrastructure
- Need for medical shuttles
- Need for SamTrans connections
- Super connections between modes
- Traffic light and Leland has visibility issues
- The sound at the light to cross the street is unpleasant
- Electronic digital signs for buses to indicate departure time

Facility Elements



Essential

Pedestrian Access (3)

Bicycle Access (1)

Wayfinding/Information (1)

Shared Platform (1)

Car Parking (1)

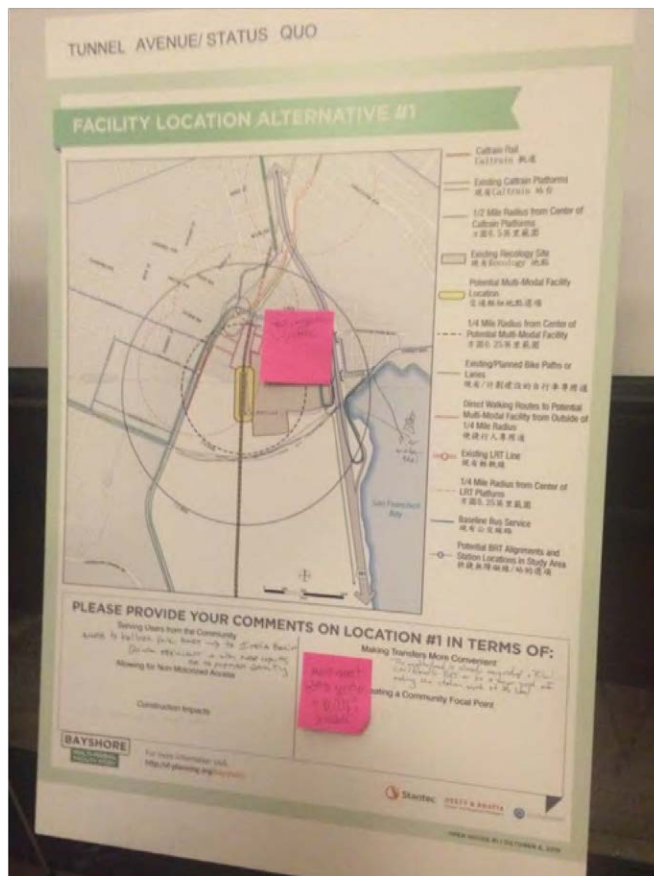
Pedestrian/Bicycle Overpass/Underpass (1)

Carshare (1)

Facility Elements – Additional Comments

- These should all be part of an intermodal station
- Reopen safety subway on Bayshore X2
- Essential: Reduce car traffic on Bayshore Blvd and make it safer for pedestrians and bikers
- Access to water-based transit, especially a water taxi to the East Bay
- T-Third line at Arleta and Bayshore
- LRV on Geneva!!!
- Urban Plaza needs shops and streetlife

Facility Location Option #1

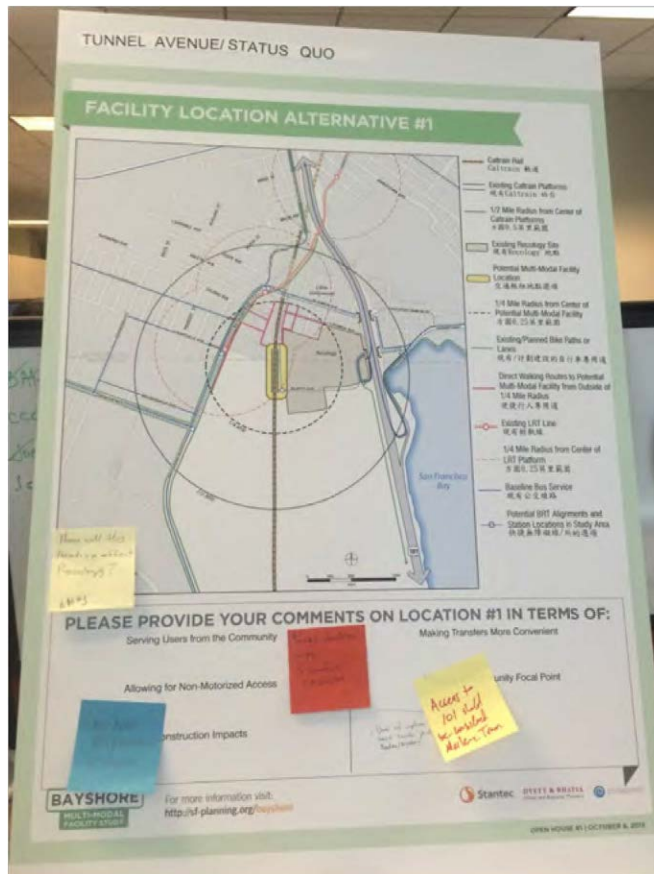


No displacement of current homes.

Access to Balboa Park BART and to India Basin should be quick and efficient and with high capacity.

The neighborhood is already congested and Blanken can't handle BRT or be a major part of making the station work its best.

Facility Location Option #1



How will this affect Recology?

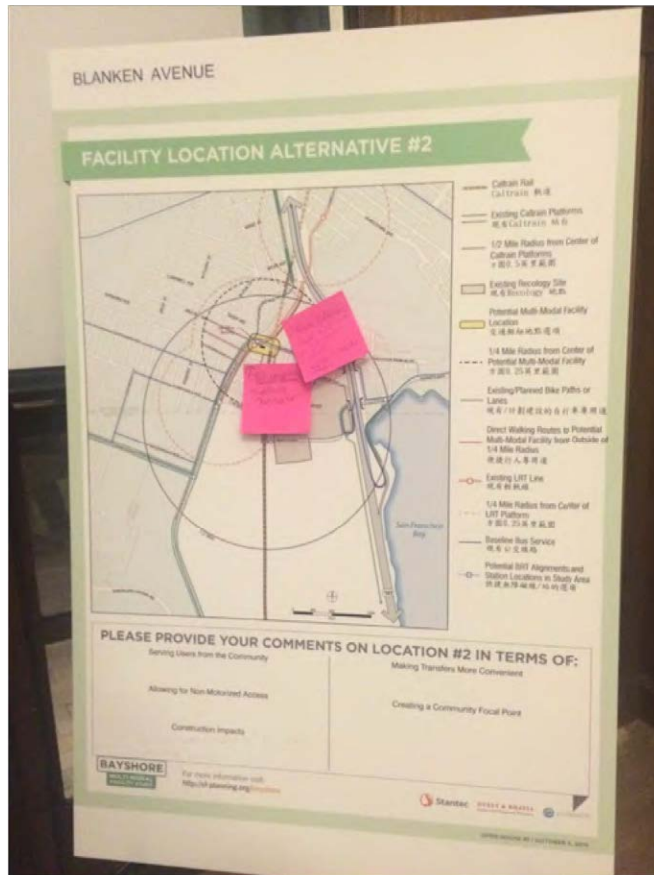
Good location for a transfer facility.

No home displacements or demolition.

Access to Highway 101 should be considered – Marlene Tran.

Does not capture transit transfer point at Blanken and Bayshore.

Facility Location Option #2



Too congested at this location.

Nonstarter: will not work or fit into D4D.

No displacement/demolition of current/existing homes.

Facility Location Option #2



Really like the centralized location, but this area is very congested.

No home displacement or demolition.

Not on Blanken, but please fix the crosswalk to be safer!

Close to Leland (Commercial Street).

Improve bus loading zone in front of 7-11. Pedestrians run to make their connections and the intersection needs to be safer. Would like to see ped scramble. Also, a flashing beacon lighting up when pedestrians cross.

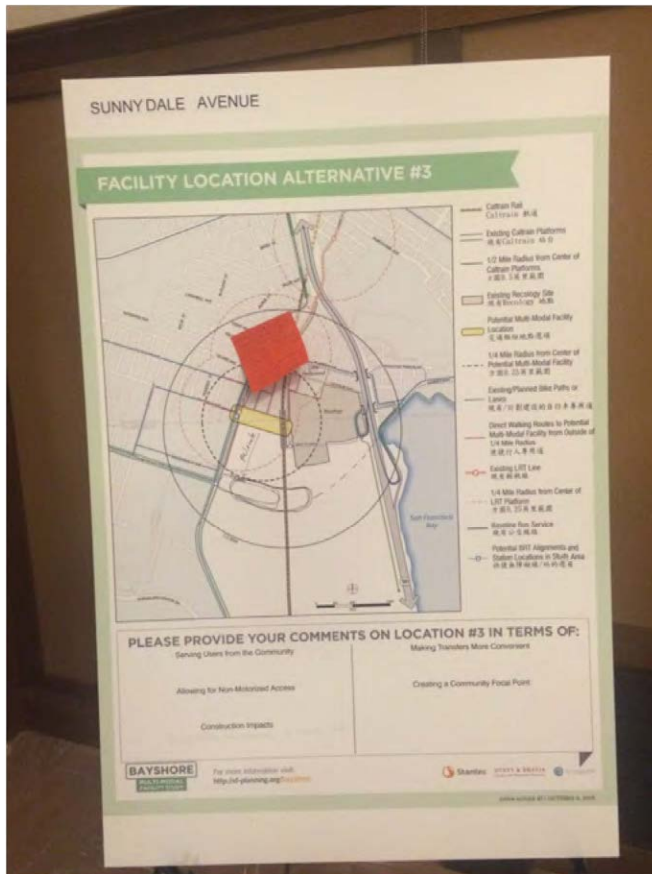
Makes sense to focus the transportation options in one location. This minimizes transfer distance. Move Caltrain as far north as possible.

Pedestrian connection to Caltrain is too far compared to the other two options.

Would like to see a real station that attracts users to the system. Would like a structure to protect users from the elements.

Focuses transportation impacts at the Blanken/Bayshore intersection. Traffic is already heavy here. Blanken Plaza creates a bottleneck in front of the historic building.

Facility Location Option #3



#1 choice; Me, too.

Get SamTrans to Co-Locate.

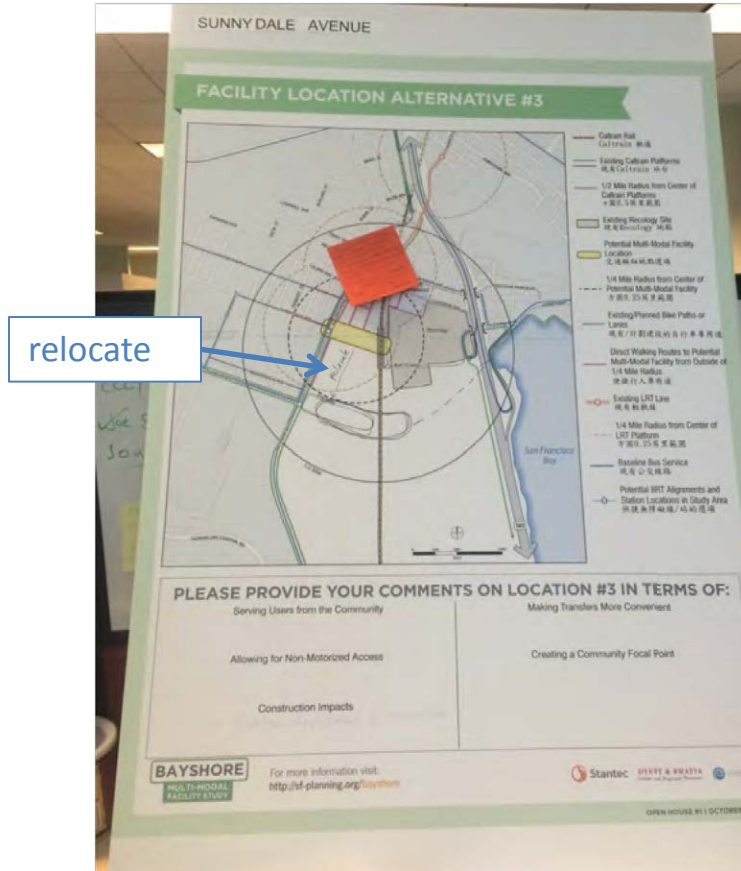
Least Construction costs in terms of transportation infrastructure.

Easier to expand to facilitate transfers.

BRT route along Beatty is preferred.

No homes displacement.

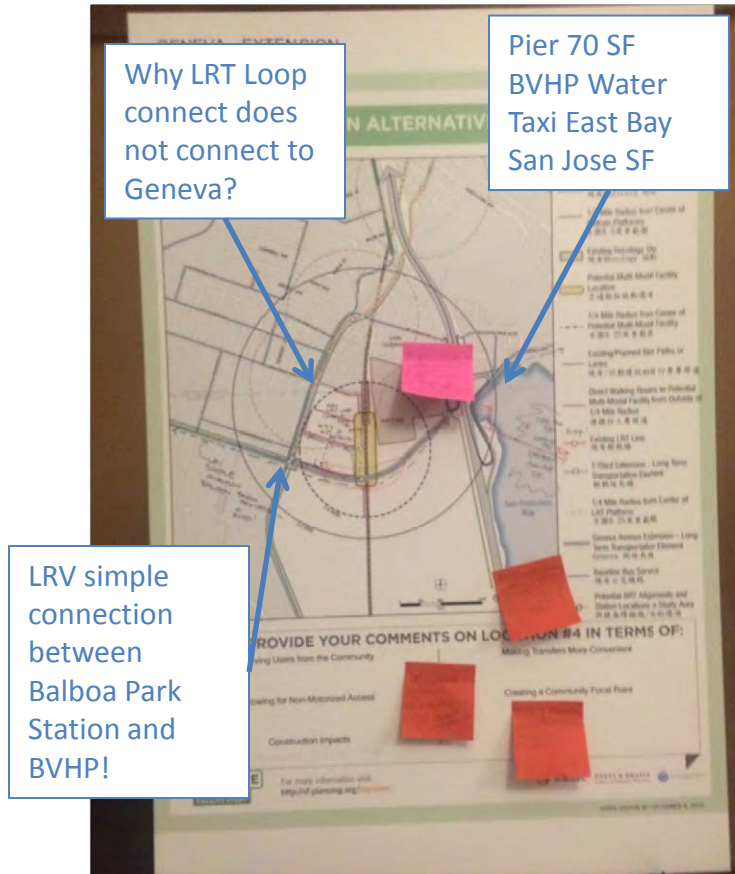
Facility Location Option #3



This alternative divides the two developments (Schlage and Baylands) and detrimentally impacts passage. Would be problematic if housing were provided on both sides of the intermodal station.

No demolition/displacement of current homes!

Facility Location Option #4



Prefer linear station parallel to Caltrain in Northern section of Baylands to serve high density housing in Vis Valley.

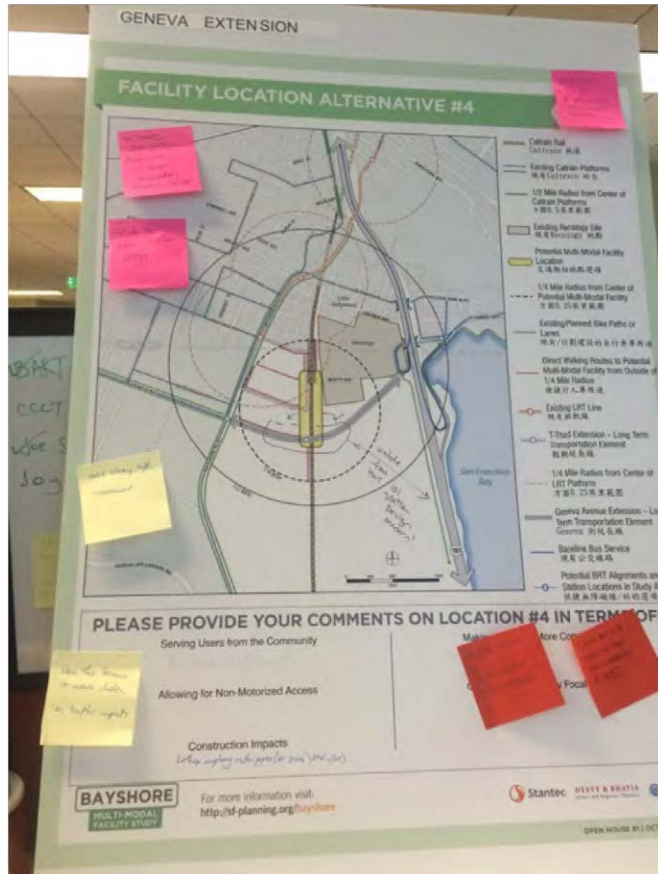
Must make Geneva Extension happen – preferably with view to additional Freeway access to South Bay.

Let Geneva Extension be a by-pass. Do not connect to intermodal.

Geneva Extension should be express portion for transit.

No demolition /displacement of current homes.

Facility Location Option #4



Millbrae overpass example is poor intermodal station design

Avoid blocking traffic movement

Like this option because it avoid clutter and will have less of an impact on traffic

No home displacements

Lathrop is having a water pipe replaced in 2016 by SF DPW

Definitely need Geneva Extension; Bayshore ramp is a mess already

Direct access to Candlestick mall (read: no transfer) is a must

Create a modern station design that is visible from Highway 101

Geneva Extension is a priority given traffic levels and planned development

Stick to modern station design

PHASE 1 MEMO

Appendix F Site Evaluation Memo

December 22, 2015

Appendix F SITE EVALUATION MEMO

Site Evaluation Memo

This memo describes the methodology used to evaluate the sixteen land use/facility location combinations and the results.



Prepared for:
The San Francisco Planning
Department and the San
Francisco Office of Community
Investment & Infrastructure

Prepared by:
Stantec

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SITE EVALUATION MEMO

INTRODUCTION

1.0 INTRODUCTION

The need for a multi-modal facility in the Bayshore area near Caltrain's existing Bayshore Station was identified in the Bi-County Transportation Study and in the land use plans for Visitation Valley/Schlage Lock and the preliminary land use plans for the Brisbane Baylands. The Bayshore Multi-Modal Facility Study (the Study) addresses this need by 1) identifying a location for this facility in Phase 1 of the Study, 2) developing concept plans, and 2) developing an implementation plan for this facility in Phase 2 of the Study.

This memo describes the site selection criteria and the process for identifying the preferred facility location for Phase 1. The criteria are organized according to criteria used in the Bayshore Intermodal Access Study, which were as follows:

- Ridership maximization
- Non-motorized access
- Intermodal connectivity
- Transit operations
- Place-making
- Implementation Ability

A few adjustments were made to these criteria for the purposes of the Study. The name of the Ridership Maximization criterion was changed to Ridership Capture. This reflects the finding that the facility location does not have a significant impact on the total transit ridership in the study area (compared to service changes), but rather, a large impact on how many of the transfers and boardings it captures. The Implementation Ability criterion was divided into two parts – one related to the physical implementation ability of a facility location and a second related to consistency with regional plans and policies. The specific measures related to consistency with regional plans and policies was not used in the assessment and comparison of the facility locations, but were assessed in order to verify that the land uses/facility location combinations could meet a minimum threshold for a transit investment.

Table 1 presents the full list of potential criteria as an overview. An attempt was made to incorporate roughly an equal number of specific measures into each criterion so that they will in essence be weighted equally. The primary evaluation ranked each of these specific measures equally, and Section 11 discusses how weighting capital costs more heavily would impact the overall evaluation.

SITE EVALUATION MEMO

INTRODUCTION

Table 1 – Evaluation Criteria and Specific Measures

| |
|---|
| Ridership Capture <ul style="list-style-type: none">• Daily Transfers to/from Caltrain• Daily Transfers to/from LRT• Daily Transfers to/from BRT• Daily Transfers to/from Other Buses• Daily Transfers within the Multi-Modal Facility• Daily Non-Transfer Boardings within Multi-Modal Facility• Daily Transit Boardings |
| Non-Motorized Access <ul style="list-style-type: none">• Directness of Pedestrian Routes to the Multi-Modal Facility• Safety and Comfort of Pedestrian Routes to the Multi-Modal Facility• Amenities on Pedestrian Routes to the Multi-Modal Facility• Directness of Bicycles Routes to the Multi-Modal Facility• Safety and Comfort of Bicycle Routes to the Multi-Modal Facility• Quality of Vertical Circulations within the Multi-Modal Facility• Directness of Pedestrian and Bicycle Paths to Transit Services During Construction of the Multi-Modal Facility |
| Intermodal Connectivity <ul style="list-style-type: none">• Share of Transfers Requiring a Grade Change• Transfer Walking Distance – Caltrain to Multi-Modal Facility• Transfer Walking Distance – LRT to Multi-Modal Facility• Transfer Walking Distance – BRT to Multi-Modal Facility• Transfer Walking Distance – Other Buses to Multi-Modal Facility• Availability of Park and Ride |
| Transit Operations <ul style="list-style-type: none">• Additional Muni Bus Operating Costs (Compared to a No Build Scenario)• Additional Muni Bus Capital Costs (Compared to a No Build Scenario)• Additional SamTrans Operating Costs• Ability to Attract Operating Funds from MTC• Ability to Accommodate Direct Muni Bus Service• Truck/Auto/Pedestrian/Bicycle Conflicts• Transit Service Speeds and Reliability During Construction of the Multi-Modal Facility |

SITE EVALUATION MEMO

INTRODUCTION

Place-Making

- Density Around Multi-Modal Facility
- Supportive of 24-hour Activity
- Supportive of New Landscaping and Streetscaping Features
- Pedestrian Areas Adjacent to the Multi-Modal Facility
- Multi-Modal Facility Visibility
- Potential for Joint Development
- Potential for Joint Use

Physical Implementation Ability

- Utility Impacts
- Capital Costs of Multi-Modal Facility Construction
- Engineering Feasibility
- Impact on Existing Transit Customers
- Footprint Required

Consistency with Regional Plans and Policies

- More than 7,500 jobs in the station area
- More than 35 dwelling units per acre for new housing
- FAR greater than 4.0
- Consistent with Land Use Plans
- Consistent with the Goals of the Bi-County Transportation Study

A Note About The Scoring System

Scoring of the measures was carried out using a three-level scale consisting of a "+," "o," and "-." These ratings are not intended to correlate to any specific quantities or elements, but rather, are intended show the relative ability of a facility location to satisfy a specific measure compared to the other facility locations within a given land use. "+" is intended to mean that a location does a relatively good job of satisfying the specific measure, while a "-" means that it does a relatively poor job of satisfying a specific measure. A "o" indicates that it performs somewhere in between. In the scoring, a "+" was translated into a +1, a "o" translated to a +0, and a "-" was translated into a -1. The use of this type of scoring was recommended by the Technical Advisory Committee because it was better suited for the evaluation being carried out in Phase 1, in which relative strengths of locations were more important than absolute strengths, and where there was limited confidence in some of the foundational assumptions about land use and the transportation network, given that so many components of the Bayshore area are still in a planning stage.

2.0 RIDERSHIP CAPTURE

For the purpose of the Study, the ridership impacts of the Bayshore Multi-Modal Facility were estimated in terms of total transfers to and from each of the primary modes, total transfers within the multi-modal facility, total users of the multi-modal facility originating from the area surrounding the facility, and total transit boardings in the study area. The inputs for these estimates came from a variety of sources, including:

- Estimates of residential units and jobs in the ¼ radius mile circles around all facility locations in each land use scenario
- 2020 Geneva-Harney BRT ridership estimates
- 2007 Muni ridership data
- Transit trip assignments from the Brisbane Baylands DEIR for two of the land use scenarios
- Caltrain boarding and alighting counts, including the results of a station access survey
- High level shuttle ridership estimates

The estimates relied on manual calculations rather than modeling, which presents benefits and disbenefits. The estimates were completed more quickly and with less effort than they would have had they been modeled, but they did not benefit from the dynamic interactions between modes that modeling offers. Developing the estimates required a number of steps, as follows:

- 1) Set up a transit transfer matrix based on existing conditions. This matrix was filled out starting with ridership/transfer estimates that are most reliable for 2014 conditions (Caltrain), and then filled in with the ridership/transfer estimates that may be less reliable or older (MUNI T-Third, MUNI bus, shuttle). See resulting matrix in Table 2. Note that this reflects the entire study area, including Bayshore Boulevard and Caltrain's Bayshore Station.

SITE EVALUATION MEMO

RIDERSHIP CAPTURE

Table 2 – Estimate of Existing Daily Transit Passenger Volumes by OD Pair

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 10 | | 0 | 0 | 21 | | 35 | 7 | 71 | 585 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 0 | 0 | 5 | | 2 | 2 | 2 | 26 |
| Caltrain NB | | 9 | | | 0 | 0 | 24 | 9 | | 9 | 9 | 141 |
| BRT EB | | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 |
| BRT WB | | 0 | 0 | 0 | | | 0 | 0 | 0 | | | 0 |
| Shuttles | | 21 | 25 | 5 | 0 | 0 | | 5 | | | | 20 |
| Buses NB | | 35 | | 3 | 0 | 0 | | | | 5 | 5 | 479 |
| Buses SB | | | 10 | | 0 | 0 | 7 | | 7 | 7 | 7 | 640 |
| Buses EB | | 7 | 10 | 3 | | | | 1 | 1 | | | 720 |
| Buses WB | | 35 | 10 | 3 | | | 0 | 0 | 10 | 10 | | 6 |
| Catchment | | 585 | 141 | 26 | 0 | 0 | 20 | 640 | 479 | 6 | 720 | |

| | |
|------|-------------------------------|
| 443 | TOTAL TRANSFERS |
| 3060 | TOTAL TRANSIT BOARDINGS |
| 49 | TOTAL PARK-AND-RIDE BOARDINGS |

- Set up a transit transfer matrix based on forecasted 2020 Conditions using outputs from the SF-CHAMP model for the Geneva-Harney BRT route. Assume that transfers in general grow at an annual rate of 1%, which is reasonable for a mature system like Muni's. See resulting matrix in Table 3. These estimates also reflect the assumption that the Schlage Lock site will be 30-50% developed and occupied by 2020, with major growth happening at Hunter Point Shipyard/Candlestick Point, as well.

Table 3 – Estimate of 2020 Daily Transit Passenger Volumes by OD Pair

| O/D | T-Third SB | T-Third NB | Caltrain SB | Caltrain NB | BRT EB | BRT WB | Shuttles | Buses NB | Buses SB | Buses EB | Buses WB | Catchment |
|-------------|------------|------------|-------------|-------------|--------|--------|----------|----------|----------|----------|----------|-----------|
| T-Third SB | | | 11 | | 184 | 97 | 22 | | 37 | 7 | 23 | 1056 |
| T-Third NB | | | | | | | | | | | | |
| Caltrain SB | | | | | 12 | 6 | 5 | | 2 | 2 | 2 | 119 |
| Caltrain NB | | 10 | | | 246 | 130 | 25 | 10 | | 10 | 10 | 643 |
| BRT EB | | 73 | 146 | 7 | | | 7 | 7 | 7 | | | 396 |
| BRT WB | | 134 | 268 | 13 | | | 13 | 13 | 13 | | | 750 |
| Shuttles | | 22 | 26 | 5 | 12 | 6 | | 5 | | | | 91 |
| Buses NB | | 37 | | 3 | 12 | 6 | 0 | | | 6 | 6 | 864 |
| Buses SB | | | 11 | | 12 | 6 | 7 | | 7 | 7 | 7 | 1155 |
| Buses EB | | 7 | 11 | 3 | | | | 1 | 1 | | | 656 |
| Buses WB | | 37 | 11 | 3 | | | 0 | 0 | 11 | 11 | | 7 |
| Catchment | | 1056 | 643 | 119 | 750 | 396 | 91 | 1155 | 864 | 7 | 656 | |

| | |
|------|---------------------------------|
| 1856 | TOTAL TRANSFERS IN AREA |
| 7592 | TOTAL TRANSIT BOARDINGS IN AREA |
| 52 | TOTAL PARK-AND-RIDE BOARDINGS |

SITE EVALUATION MEMO

RIDERSHIP CAPTURE

- 3) Create transit transfer matrices for the 16 land use scenario/station location combinations. "Background" transfers will be scaled up the equivalent of 20 years of growth from 2014. The number of transfers will also be increased by 10% if the transfer walking distance is reduced from today's conditions or the modeling assumptions, or if the transfers take place in the multi-modal facility. If both occur for a given transfer, then the 10% increase will be applied twice.

It is assumed that this model will reflect the full build-out of the land use scenarios and proposed transportation infrastructure. The trips generated by the Brisbane Baylands are taken from the DEIR (see Table 4) and added to the trips assumed to be coming from the Schlage Lock site (at full build out), other planned land uses, and existing land uses, with scaling being done as necessary for Land Use Scenarios #3 and #4. See Appendix D of the Phase 1 Report for the full results of the ridership estimation process. Note that these passenger volumes are presented to the one's digit, rather than rounded, to be consistent with how ridership forecasts from previous reports presented them. However, it should be emphasized that these are estimates and would be better shown if rounded to the hundred or thousand.

Table 4 – Daily Transit Trip Assignment by Transit Operator and Corridor

| Transit Operator and Corridor | Proposed Project Scenarios (Trips) | | | |
|--------------------------------|------------------------------------|---------------|---------------|---------------|
| | DSP | DSP-V | CPP | CPP-V |
| Caltrain (to/from south) | 3105 | 3023 | 3824 | 3677 |
| Caltrain (to/from south) | 2980 | 2902 | 6693 | 6435 |
| Muni (Geneva to/from BART) | 2856 | 2781 | 6215 | 5975 |
| Muni (T-Third to/from north) | 1614 | 1572 | 3346 | 3217 |
| Muni (San Bruno to/from North) | 497 | 484 | 956 | 919 |
| Muni (to/from Hunters Point) | 993 | 967 | 2390 | 2298 |
| Sam Trans | 124 | 121 | 239 | 230 |
| Alliance Shuttle | 248 | 242 | 239 | 230 |
| TOTAL | 12,417 | 12,092 | 23,902 | 22,981 |

Source: Brisbane Baylands DEIR

a) Daily Transfers to/from Caltrain

The daily transfers to/from Caltrain are assumed to be impacted by whether or not they take place within a designated facility or whether the transit network has been adjusted to shorten some of the transfers. The table below summarizes the estimates of Caltrain transfers, as well as other boardings that will come from trips originating in the Study area. Note that boardings from

SITE EVALUATION MEMO

RIDERSHIP CAPTURE

the catchment area are consistent within the Land Use Scenarios because the Caltrain platforms do not move.

Table 5 – Estimated Daily Caltrain Boardings

| | LU Scenario 1 (CPP-V) | | | |
|---------------------------------------|---------------------------------------|-----------------------------|--------------------------------|-------------------------------|
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnysdale Avenue | Location #4: Geneva Extension |
| Daily Caltrain Transfer Boardings | 709 | 597 | 657 | 655 |
| Daily Caltrain Non-Transfer Boardings | 5,592 | 5,592 | 5,592 | 5,592 |
| TOTAL CALTRAIN BOARDINGS | 6,302 | 6,190 | 6,249 | 6,247 |
| | LU Scenario 2 (DSP-V) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnysdale Avenue | Location #4: Geneva Extension |
| Daily Caltrain Transfer Boardings | 708 | 597 | 657 | 657 |
| Daily Caltrain Non-Transfer Boardings | 3,921 | 3,921 | 3,921 | 3,921 |
| TOTAL CALTRAIN BOARDINGS | 4,629 | 4,518 | 4,578 | 4,578 |
| | LU Scenario 3 (RE) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnysdale Avenue | Location #4: Geneva Extension |
| Daily Caltrain Transfer Boardings | 708 | 597 | 657 | 657 |
| Daily Caltrain Non-Transfer Boardings | 2,812 | 2,812 | 2,812 | 2,812 |
| TOTAL CALTRAIN BOARDINGS | 3,519 | 3,409 | 3,469 | 3,469 |
| | LU Scenario 4 (CPP/Industrial Hybrid) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnysdale Avenue | Location #4: Geneva Extension |
| Daily Caltrain Transfer Boardings | 708 | 597 | 657 | 676 |
| Daily Caltrain Non-Transfer Boardings | 4,497 | 4,497 | 4,497 | 4,497 |
| TOTAL CALTRAIN BOARDINGS | 5,204 | 5,094 | 5,154 | 5,173 |

The majority of the Caltrain boardings are expected to originate from the catchment area. The daily Caltrain transfer estimates led to the following evaluation results.

Table 6 – Evaluation Results: Daily Transfers to/from Caltrain

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|----------------------|----------------------|----------------------|----------------------|
| Location #1 | + | + | + | + |
| Location #2 | - | - | - | - |
| Location #3 | o | o | o | o |
| Location #4 | o | o | o | o |

Location #2 does not perform well because the Caltrain transfers do not take place in the facility and the transfer distance is long. Location #1 performs well because it is assumed that

SITE EVALUATION MEMO

RIDERSHIP CAPTURE

the future BRT route uses a Beatty Avenue alignment and can get closer to the Caltrain platforms than in the other location options, allowing the Caltrain-BRT transfers to be contained in the facility and shorter than assumed in the modeling.

b) Daily Transfers to/from LRT

The daily transfers to/from LRT are assumed to be impacted by whether or not they take place within a designated facility or whether the transit network has been adjusted to shorten some of the transfers. Note that the daily boardings originating from the catchment area are consistent among the locations within each land use, apart from Location #4. Location #4 involves the extension of the T-Third line and the addition of an LRT station. This creates additional catchment area ridership with Land Use Scenarios #1 and #2, but has no impact within Land Use Scenarios #3 and #4 which would produce few new riders for an LRT station located at an extension of Geneva Avenue.

Table 7 – Estimated Daily LRT Boardings

| | LU Scenario 1 (CPP-V) | | | |
|----------------------------------|---------------------------------------|-----------------------------|-------------------------------|-------------------------------|
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Daily LRT Transfer Boardings | 367 | 406 | 403 | 400 |
| Daily LRT Non-Transfer Boardings | 2,518 | 2,518 | 2,518 | 3,322 |
| TOTAL LRT BOARDINGS | 2,885 | 2,924 | 2,921 | 3,723 |
| | LU Scenario 2 (DSP-V) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Daily LRT Transfer Boardings | 367 | 406 | 385 | 395 |
| Daily LRT Non-Transfer Boardings | 2,107 | 2,107 | 2,107 | 2,500 |
| TOTAL LRT BOARDINGS | 2,474 | 2,513 | 2,491 | 2,895 |
| | LU Scenario 3 (RE) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Daily LRT Transfer Boardings | 367 | 406 | 385 | 395 |
| Daily LRT Non-Transfer Boardings | 2,116 | 2,116 | 2,116 | 2,116 |
| TOTAL LRT BOARDINGS | 2,483 | 2,522 | 2,500 | 2,511 |
| | LU Scenario 4 (CPP/Industrial Hybrid) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Daily LRT Transfer Boardings | 367 | 406 | 385 | 395 |
| Daily LRT Non-Transfer Boardings | 2,652 | 2,652 | 2,652 | 2,652 |
| TOTAL LRT BOARDINGS | 3,020 | 3,058 | 3,037 | 3,047 |

These results were translated into the following evaluation results.

SITE EVALUATION MEMO

RIDERSHIP CAPTURE

Table 8 – Evaluation Results: Daily Transfers to/from LRT

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | o | o | o | o |
| Location #2 | o | o | o | o |
| Location #3 | o | o | o | o |
| Location #4 | o | o | o | o |

The transfer volumes do not vary significantly among the locations within each land use scenario. This is in large part because LRT transfers are mostly to/from eastbound and westbound buses, and these transfer distances are not affected by routing changes.

c) Daily Transfers to/from BRT

The daily transfers to/from BRT are assumed to be impacted by whether or not they take place within a designated facility or whether the transit network has been adjusted to shorten some of the transfers. It is assumed that there are BRT stations at Arleta and Sunnydale Avenues for Locations #2 and #1, and BRT stations at Arleta, Sunnydale, and Beatty Avenue for Location #3. Location #4 is assumed to have only one station – above the Caltrain tracks and along the future Geneva Extension.

SITE EVALUATION MEMO

RIDERSHIP CAPTURE

Table 9 – Estimated Daily BRT Boardings

| | LU Scenario 1 (CPP-V) | | | |
|----------------------------------|---------------------------------------|-----------------------------|--------------------------------|-------------------------------|
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnysdale Avenue | Location #4: Geneva Extension |
| Daily BRT Transfer Boardings | 942 | 882 | 926 | 924 |
| Daily BRT Non-Transfer Boardings | 3,586 | 3,385 | 3,385 | 4,663 |
| TOTAL BRT BOARDINGS | 4,528 | 4,267 | 4,311 | 5,587 |
| | LU Scenario 2 (DSP-V) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnysdale Avenue | Location #4: Geneva Extension |
| Daily BRT Transfer Boardings | 942 | 882 | 903 | 926 |
| Daily BRT Non-Transfer Boardings | 2,434 | 2,254 | 2,254 | 2,401 |
| TOTAL BRT BOARDINGS | 3,375 | 3,135 | 3,157 | 3,327 |
| | LU Scenario 3 (RE) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnysdale Avenue | Location #4: Geneva Extension |
| Daily BRT Transfer Boardings | 894 | 882 | 924 | 926 |
| Daily BRT Non-Transfer Boardings | 2,437 | 2,351 | 2,351 | 1,561 |
| TOTAL BRT BOARDINGS | 3,331 | 3,233 | 3,275 | 2,487 |
| | LU Scenario 4 (CPP/Industrial Hybrid) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnysdale Avenue | Location #4: Geneva Extension |
| Daily BRT Transfer Boardings | 942 | 882 | 924 | 925 |
| Daily BRT Non-Transfer Boardings | 3,816 | 3,730 | 3,730 | 2,940 |
| TOTAL BRT BOARDINGS | 4,758 | 4,611 | 4,654 | 3,865 |

Location #1 receives a boost in catchment area ridership because it has an additional BRT station at Beatty Avenue, and this also boosts transfer volumes due to the closer proximity of the BRT to Caltrain services. All of the locations contain a BRT station. The catchment area boardings are higher for Location #4 than other locations in Land Use Scenarios #1 and #2 but drop in relation to Locations #1 and #2 in Land Use Scenarios #3 and #4, reflecting the dominance of the Schlage Lock development with respect to the Brisbane Baylands development in Land Use Scenarios #3 and #4. These results were translated into the following evaluation results.

SITE EVALUATION MEMO

RIDERSHIP CAPTURE

Table 10 – Evaluation Results: Daily BRT Boardings

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | o | o | o | o |
| Location #2 | o | o | o | o |
| Location #3 | o | o | o | o |
| Location #4 | o | o | o | o |

The transfer volumes do not vary significantly among the locations within each land use scenario, as they all receive a boost for being in the facility.

d) Daily Transfers to/from Other Buses

The daily transfers to/from non-BRT buses are assumed to be impacted by whether or not they take place within a designated facility or whether the transit network has been adjusted to shorten some of the transfers. It is assumed that there are some non-BRT bus routing adjustments for Locations #1 and #4.

Table 11 – Estimated Daily Non-BRT Bus Boardings

| | LU Scenario 1 (CPP-V) | | | |
|--|--|--------------------------------|----------------------------------|----------------------------------|
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Daily Other Bus Transfer Boardings | 231 | 231 | 244 | 233 |
| Daily Other Bus Non-Transfer Boardings | 4,612 | 4,612 | 4,612 | 4,612 |
| TOTAL OTHER BUS BOARDINGS | 4,842 | 4,843 | 4,856 | 4,845 |
| | LU Scenario 2 (DSP-V) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Daily Other Bus Transfer Boardings | 221 | 229 | 233 | 250 |
| Daily Other Bus Non-Transfer Boardings | 4,612 | 4,340 | 4,340 | 4,340 |
| TOTAL OTHER BUS BOARDINGS | 4,833 | 4,569 | 4,573 | 4,590 |
| | LU Scenario 3 (RE) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Daily Other Bus Transfer Boardings | 228 | 235 | 239 | 262 |
| Daily Other Bus Non-Transfer Boardings | 4,181 | 4,181 | 4,181 | 4,181 |
| TOTAL OTHER BUS BOARDINGS | 4,409 | 4,416 | 4,420 | 4,443 |
| | LU Scenario 4 (CPP/Industrial Hybrid) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Daily Other Bus Transfer Boardings | 240 | 249 | 231 | 242 |
| Daily Other Bus Non-Transfer Boardings | 4,372 | 4,372 | 4,372 | 4,372 |
| TOTAL OTHER BUS BOARDINGS | 4,613 | 4,621 | 4,603 | 4,615 |

SITE EVALUATION MEMO

RIDERSHIP CAPTURE

The above results were translated into the evaluation results below.

Table 12 – Evaluation Results: Daily Transfers to/from Other Buses

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | o | o | o | o |
| Location #2 | o | o | o | o |
| Location #3 | o | o | o | o |
| Location #4 | o | o | o | o |

e) Daily Transfers within Multi-Modal Facility

This specific measure is intended to measure overall activity within the facility created by transfers. The following table shows the estimate of these sources of passenger activity in the facilities – transfers made within the facility, transfers made to the facility from an alighting area outside of the facility, and boardings originating in the catchment area.

SITE EVALUATION MEMO

RIDERSHIP CAPTURE

Table 13 – Estimated Daily Transit Boardings within the Multi-Modal Facility

| | LU Scenario 1 (CPP-V) | | | |
|---|---------------------------------------|-----------------------------|-------------------------------|-------------------------------|
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Daily Transfer Boardings That Start and End in the Multi-Modal Facility | 1,202 | 864 | 1,704 | 2,064 |
| Daily Transfer Boardings That Only End in the Multi-Modal Facility | 187 | 457 | 4 | 87 |
| Daily Boardings in the Multi-Modal Facility That Are Not Transfers | 8,028 | 5,920 | 11,127 | 12,719 |
| TOTAL TRANSIT BOARDINGS IN THE MULTI-MODAL FACILITY | 9,416 | 7,241 | 12,835 | 14,870 |
| | LU Scenario 2 (DSP-V) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Daily Transfer Boardings That Start and End in the Multi-Modal Facility | 1,332 | 836 | 1,558 | 2,076 |
| Daily Transfer Boardings That Only End in the Multi-Modal Facility | 185 | 457 | 4 | 75 |
| Daily Boardings in the Multi-Modal Facility That Are Not Transfers | 6,086 | 4,632 | 9,285 | 9,532 |
| TOTAL TRANSIT BOARDINGS IN THE MULTI-MODAL FACILITY | 7,603 | 5,925 | 10,847 | 11,684 |
| | LU Scenario 3 (RE) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Daily Transfer Boardings That Start and End in the Multi-Modal Facility | 1,300 | 821 | 1,546 | 1,975 |
| Daily Transfer Boardings That Only End in the Multi-Modal Facility | 185 | 457 | 4 | 75 |
| Daily Boardings in the Multi-Modal Facility That Are Not Transfers | 5,548 | 4,538 | 7,350 | 4,497 |
| TOTAL TRANSIT BOARDINGS IN THE MULTI-MODAL FACILITY | 7,033 | 5,816 | 8,900 | 6,547 |
| | LU Scenario 4 (CPP/Industrial Hybrid) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Daily Transfer Boardings That Start and End in the Multi-Modal Facility | 1,338 | 816 | 1,691 | 2,100 |
| Daily Transfer Boardings That Only End in the Multi-Modal Facility | 185 | 457 | 4 | 94 |
| Daily Boardings in the Multi-Modal Facility That Are Not Transfers | 7,827 | 5,630 | 10,480 | 9,975 |
| TOTAL TRANSIT BOARDINGS IN THE MULTI-MODAL FACILITY | 9,350 | 6,902 | 12,174 | 12,170 |

SITE EVALUATION MEMO

RIDERSHIP CAPTURE

The above results were translated into the evaluation results below.

Table 14 – Evaluation Results: Daily Transfer Boardings Within the Multi-Modal Facility

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | o | o | o | o |
| Location #2 | - | - | - | - |
| Location #3 | + | o | o | + |
| Location #4 | + | + | + | + |

Location #2 fails to capture some transferring passengers who would transfer to/from LRT or BRT at the Sunnydale stops to shorten their travel time or secure a seat.

Location #4 consistently performs well because it involves a change in the transit network such that there is only one place to transfer to/from the BRT in the study area and so it is able to capture the most transfers in all land use scenarios.

f) Daily Non-Transfer Boardings within Multi-Modal Facility

Daily Passengers from Catchment Area refers to the number of people who will access transit services at the multi-modal facility by walking, biking, driving alone, driving as a carpool, or by being dropped off in the long-term planning horizon. Table 13 was translated into the evaluation results below.

Table 15 – Evaluation Results: Daily Non-Transfer Boardings Within the Multi-Modal Facility

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | o | o | o | o |
| Location #2 | - | - | - | - |
| Location #3 | + | + | + | + |
| Location #4 | + | + | - | + |

Location #2 fails to capture non-transfer (i.e., walk-up, bike or drop-off) boardings in large part because it does not include the Caltrain platforms. Location #4 does not perform well in this specific measure in Land Use Scenario #3 because of the small scale of development in the immediate facility area. Location #3 performs better than Location #1 because it pulls the center of the multi-modal facility closer to the center of the development, which increases its attractiveness.

SITE EVALUATION MEMO

RIDERSHIP CAPTURE

g) Daily Transit Boardings

This specific measure refers to the estimated daily number of boardings at the following transit stops in the study area:

- Muni's existing Sunnydale LRT Station
- Muni's existing Arleta LRT Station
- Caltrain's existing Bayshore Station
- Muni and SamTrans' existing bus stop at Sunnydale and Bayshore Boulevard
- Muni's future BRT station at Sunnydale Avenue and Bayshore Boulevard
- Muni and SamTrans' bus stop at Blanken Avenue and Bayshore Boulevard
- Muni's future BRT station at Blanken Avenue and Bayshore Boulevard
- Muni's potential BRT station at Tunnel Avenue and Beatty Avenue
- Muni's potential Geneva LRT Station
- Muni and SamTrans' potential bus stops adjacent to the Caltrain platforms

Table 16 – Estimated Daily Transit Boardings in the Study Area

| | LU Scenario 1 (CPP-V) | | | |
|---------------------------------------|---------------------------------------|-----------------------------|-------------------------------|-------------------------------|
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| TOTAL TRANSIT BOARDINGS IN STUDY AREA | 18,937 | 18,605 | 18,719 | 20,692 |
| | LU Scenario 2 (DSP-V) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| TOTAL TRANSIT BOARDINGS IN STUDY AREA | 15,423 | 15,122 | 15,182 | 15,662 |
| | LU Scenario 3 (RE) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| TOTAL TRANSIT BOARDINGS IN STUDY AREA | 14,059 | 13,897 | 13,979 | 13,114 |
| | LU Scenario 4 (CPP/Industrial Hybrid) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| TOTAL TRANSIT BOARDINGS IN STUDY AREA | 17,949 | 17,742 | 17,801 | 16,942 |

The above results were translated into the results below.

SITE EVALUATION MEMO

RIDERSHIP CAPTURE

Table 17 – Evaluation Results: Daily Transit Boardings Within the Multi-Modal Facility

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | o | o | o | o |
| Location #2 | o | o | o | o |
| Location #3 | o | o | o | o |
| Location #4 | + | o | - | o |

Within each Land Use Scenario, the total values are essentially the same, although some variations are generated by Location #4. In Land Use Scenario #1, this location gets a large boost because the facility is now in the central part of an employment-rich area, and so could attract a larger number of transit passengers. In contrast, with Land Use Scenario #3, Location #4 is removed from the central employment area, and so does not perform well with respect to generating transit trips.

3.0 NON-MOTORIZED ACCESS

a) Directness of Pedestrian Routes to the Multi-Modal Facility

Directness of Pedestrian Routes refers to the ability to walk to and from the multi-modal facility without having to backtrack or travel away from the facility at any point. Given existing conditions, there is a lack of a direct connection to the Caltrain platforms due to the lack of a roadway grid on the west side, and to some extent the east side, of the Caltrain tracks. All of the future land use scenarios include a roadway grid on the west side of the Caltrain tracks, and so pedestrian connections from the west will greatly improve with the planned development.

However, issues of pedestrian directness could continue to be an issue for passengers traveling to the multi-modal facility from Executive Park or the southeast portion of the Brisbane Baylands development. Direct walking paths from Executive Park are compromised by Recology and a lack of connections under/over US-101. As noted in the Bayshore Intermodal Station Access Study, the possibility of an elevated BRT alignment along Geneva Avenue and the use of ramps to connect to the at-grade Caltrain platforms could create an indirect route for pedestrians wishing to access the BRT service from the southeast.

Table 18 – Evaluation Results: Directness of Pedestrian Routes to the Multi-Modal Facility

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|----------------------|----------------------|----------------------|----------------------|
| Location #1 | o | o | o | o |
| Location #2 | + | + | + | + |
| Location #3 | o | o | o | o |
| Location #4 | + | + | o | o |

Location #2 performs well in all Land Use Scenarios. The ability of Location #4 to provide direct pedestrian routes depends on the roadway network in the Brisbane Baylands. This roadway network is assumed to be better for direct pedestrian routes with Land Use Scenarios #1 and #2 than with Land Use Scenarios #3 and #4. Locations #1 and #3 cannot provide very direct pedestrian connections to potentially walkable destinations like Executive Park because of Recology.

Another factor is the roadway network in the Brisbane Baylands site. Location #2 provides the most direct access to Executive Park. This also assumes that the roadway network will be the most built out in Land Use Scenarios #1 and #2.

b) Safety and Comfort of Pedestrian Routes to the Multi-Modal Facility

Given existing conditions, the safety and comfort of pedestrian routes to the Caltrain platforms are poor due to the lack of street-level retail or artwork on Tunnel Avenue and Blanken Avenue.

SITE EVALUATION MEMO

Non-Motorized Access

However, activity levels along Bayshore Boulevard, where many transfers currently and in the future will take place, are better (on the west side, at least) and contribute to the safety and comfort of pedestrian routes.

Future conditions on the pedestrian routes to the multi-modal facility are likely good due to the design guidelines set out on the Baylands Specific Plan for orientation of buildings, driveway configurations, and more.

Table 19 – Evaluation Results: Safety and Comfort on Pedestrian Routes to the Multi-Modal Facility

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|----------------------|----------------------|----------------------|----------------------|
| Location #1 | o | o | o | o |
| Location #2 | o | o | o | o |
| Location #3 | + | + | + | + |
| Location #4 | - | + | - | - |

Location #3 performs well under each of the land use scenarios. Location #4 does not perform well because the Geneva Extension is not expected to provide a particularly comfortable walking environment, particularly if it provides direct access to and from Highway 101. The exception is in Land Use Scenario #2, where entertainment or civic uses could be coordinated to provide safety and comfort on pedestrian routes to the multi-modal facility. Locations #1 and #2 are assumed to be the same within each Land Use Scenario.

c) Amenities on Pedestrian Routes to the Multi-Modal Facility

This specific measure assumes that any mixed use development improves the route. Residential mixed-use could provide amenities useful to transit users such as food stores, dry cleaners, salons, and daycare facilities.

Table 20 – Evaluation Results: Amenities on Pedestrian Routes to the Multi-Modal Facility

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|----------------------|----------------------|----------------------|----------------------|
| Location #1 | o | o | o | o |
| Location #2 | o | o | o | o |
| Location #3 | o | o | o | o |
| Location #4 | o | + | - | o |

SITE EVALUATION MEMO

Non-Motorized Access

The evaluation for Location #4 depends on the Land Use Scenario, and it performs well in conjunction with Land Use Scenario #4, poorly in Land Use Scenario #3, and somewhere in between with Land Use Scenarios #3 and #4.

d) Directness of Bicycle Routes to the Multi-Modal Facility

There is currently a lack of direct connections to the Caltrain platforms, due to the lack of a roadway grid on the west side of the Caltrain tracks and few connections to the east across US-101. The directness of bicycle routes to the multi-modal facility will depend in large part on the location of the facility. A facility to the north will likely have direct connections to the east-west bicycle path on Blanken Avenue, and a facility to the south will likely have direct connections to the planned east-west bicycle path using Geneva Avenue. However, a facility in the center will likely have indirect connections to the east due to the Recology site.

No direct bicycle routes have been designated to/from the Bay Trail, but there have been talks of bringing it further west to link in with a future facility.

Bicycle trips will tend to be to/from Executive Park, southern parts of the Bayshore Brisbane site, Visitation Valley, and up the hill on San Bruno Avenue. These points are outside of a comfortable walking range.

Table 21 – Evaluation Results: Directness of Bicycle Routes to the Multi-Modal Facility

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | o | o | o | o |
| Location #2 | + | + | + | + |
| Location #3 | + | + | + | + |
| Location #4 | o | o | o | o |

Locations #3 and #2 perform the best, despite Location #3 being cut off on the east and #2 being on a hill. Location #1 would require indirect bicycle pathways from several directions, and Location #4 will create a lot of indirect bicycle pathways due to its separation from Bayshore Boulevard.

e) Safety and Comfort of Bicycle Routes to the Multi-Modal Facility

Given existing conditions, the safety and comfort of bicycle routes to the Caltrain platforms are poor due to the lack of Class I bicycle facilities and the lack of separation from heavy vehicles. Future conditions on the bicycle routes to the multi-modal facility will depend in large part on the type of bicycle facilities that are built in conjunction with the roadway networks build in conjunction with Schalge Lock and Brisbane Baylands.

SITE EVALUATION MEMO

Non-Motorized Access

Table 22 – Evaluation Results: Safety and Comfort of Bicycle Routes to the Multi-Modal Facility

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|----------------------|----------------------|----------------------|----------------------|
| Location #1 | o | o | o | o |
| Location #2 | o | o | o | o |
| Location #3 | + | + | + | + |
| Location #4 | o | o | o | o |

Location #3 does well because it is not located on a hill and creates the most opportunities for connections to or integration with a Class III bicycle facility.

f) Quality of Vertical Circulation within the Multi-Modal Facility

High quality vertical circulation would provide the same path of travel for pedestrians, cyclists, and people in wheelchairs or other mobility devices. The evaluation assumes that some underpasses will be built underneath the Caltrain tracks and/or Bayshore Boulevard.

Table 23 – Evaluation Results: Quality of Vertical Circulation within the Multi-Modal Facility

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|----------------------|----------------------|----------------------|----------------------|
| Location #1 | + | + | + | + |
| Location #2 | + | + | + | + |
| Location #3 | + | + | + | + |
| Location #4 | o | o | o | o |

Locations #1, #2, and #3 can accommodate the most transfers at grade or via an underpass. Location #4 will require ramps and/or elevators per the Bayshore Intermodal Access Study.

g) Non-motorized Access during Construction

It is assumed that non-motorized access to BRT platforms, Caltrain platforms, and bus stops will be maintained during construction equally well for all land use scenario/facility location combinations.

SITE EVALUATION MEMO

Non-Motorized Access

Table 24 – Evaluation Results: Non-Motorized Access During Construction

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | + | + | + | + |
| Location #2 | o | o | o | o |
| Location #3 | + | + | + | + |
| Location #4 | + | + | + | + |

Location #2 is in a location where there is already a lot of transit-related pedestrian activity. Others are built away from existing activity, so it their construction would cause relatively few access issues.

SITE EVALUATION MEMO

Intermodal Connectivity

4.0 INTERMODAL CONNECTIVITY

a) Share of Transfers Requiring a Grade Change

This was calculated in conjunction with the ridership estimates.

Table 25 – Estimated Percentage of Transfers Requiring a Grade Change

| | LU Scenario 1 (CPP-V) | | | |
|--|---------------------------------------|-----------------------------|-------------------------------|-------------------------------|
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| PERCENTAGE OF TRANSFERS REQUIRING A GRADE CHANGE | 25% | 30% | 30% | 83% |
| | LU Scenario 2 (DSP-V) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| PERCENTAGE OF TRANSFERS REQUIRING A GRADE CHANGE | 25% | 30% | 31% | 83% |
| | LU Scenario 3 (RE) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| PERCENTAGE OF TRANSFERS REQUIRING A GRADE CHANGE | 26% | 30% | 30% | 83% |
| | LU Scenario 4 (CPP/Industrial Hybrid) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| PERCENTAGE OF TRANSFERS REQUIRING A GRADE CHANGE | 25% | 30% | 30% | 82% |

These were translated into the evaluation results below.

Table 26 – Evaluation Results: Share of Transfers Requiring a Grade Change

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|----------------------|----------------------|----------------------|----------------------|
| Location #1 | + | + | + | + |
| Location #2 | o | o | o | o |
| Location #3 | o | o | o | o |
| Location #4 | - | - | - | - |

Location #1 performs well in large part because of the assumed diversion of the BRT route to Beatty Avenue, where transfers will not require a walk along Tunnel Avenue, which is on a grade or the use of the overpass to get to the other side of the tracks when going to or coming from

SITE EVALUATION MEMO

Intermodal Connectivity

the northbound Caltrain platforms. Location #4 does not perform well because the majority of transfers would require a grade change.

b) Transfer Walking Distance – Caltrain to the Multi-Modal Facility

This specific measure refers to the distance from the Caltrain platforms to the center of the multi-modal facility.

Table 27 – Evaluation Results: Transfer Walking Distance – Caltrain to the Multi-Modal Facility

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|----------------------|----------------------|----------------------|----------------------|
| Location #1 | + | + | + | + |
| Location #2 | - | - | - | - |
| Location #3 | o | o | o | o |
| Location #4 | + | + | + | + |

The Caltrain platforms are in the central part of the multi-modal facility for Locations #1 and #4. They are at the periphery of more spread out multi-modal facilities in Locations #3 and 4.

c) Transfer Walking Distance – LRT to the Multi-Modal Facility

This specific measure refers to the distance from the LRT platforms to the center of the multi-modal facility.

Table 28 – Evaluation Results: Transfer Walking Distance – LRT to the Multi-Modal Facility

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|----------------------|----------------------|----------------------|----------------------|
| Location #1 | - | - | - | - |
| Location #2 | + | + | + | + |
| Location #3 | o | o | o | o |
| Location #4 | + | + | + | + |

The LRT platforms are in the central part of the multi-modal facility for Locations #2 and #4. They are at the periphery of a spread out multi-modal facility in Location #3, and they are not in Location #1.

d) Transfer Walking Distance – BRT to the Multi-Modal Facility

This specific measure refers to the distance from the BRT platforms to the center of the multi-modal facility.

SITE EVALUATION MEMO

Intermodal Connectivity

Table 29 – Evaluation Results: Transfer Walking Distance – BRT to the Multi-Modal Facility

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | + | + | + | + |
| Location #2 | + | + | + | + |
| Location #3 | o | o | o | o |
| Location #4 | + | + | + | + |

The BRT platforms are in the central part of the multi-modal facility for Locations #1, #2, and #4. They are at the periphery of a spread out multi-modal facility in Location #3.

e) Transfer Walking Distance – Other Buses to the Multi-Modal Facility

This specific measure refers to the distance from the non-BRT bus stops to the center of the multi-modal facility.

Table 30 – Evaluation Results: Transfer Walking Distance – Other Buses to the Multi-Modal Facility

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | o | o | o | o |
| Location #2 | + | + | + | + |
| Location #3 | o | o | o | o |
| Location #4 | o | o | o | o |

Other bus stops are central to Location #2. They are at the periphery of Location #3. A few would be in Locations #1 and #4.

f) Availability of Park and Ride

This specific measure refers to the likelihood of a location being able to accommodate park-and-ride as a means of access.

Table 31 – Evaluation Results: Availability of Park and Ride

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | + | + | + | + |
| Location #2 | - | - | - | - |
| Location #3 | + | + | + | + |
| Location #4 | + | + | + | + |

SITE EVALUATION MEMO

Intermodal Connectivity

It is assumed that park and ride facilities could be a significant means of access for Locations #1, #3, and #4, but that it would be difficult to provide significant capacity for parking in Location #2.

SITE EVALUATION MEMO

Transit Operations

5.0 TRANSIT OPERATIONS

a) Additional Muni Bus Operating Costs

It was assumed that Route 9R would be terminated at the multi-modal facility for Location #1. This does not affect operating costs significantly, since the 9R has to do a loop to turn around, anyway. The 8AX may have its terminal moved to the Caltrain platforms, too. For Locations #2 and #3, the Muni bus routes will not have to change. The changes in Location #4 will be the greatest because of the greater distance to the south. These do not vary by land use scenario.

Table 32 – Evaluation Results: Additional Muni Bus Operating Costs

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | o | o | o | o |
| Location #2 | o | o | o | o |
| Location #3 | o | o | o | o |
| Location #4 | - | - | - | - |

Location #4 would have greater requirements in terms of revenue hours and revenue miles and therefore have greater operating cost impacts.

b) Additional Muni Bus Capital Costs

This specific measure is tied to the additional operations.

Table 33 – Evaluation Results: Additional Muni Bus Capital Costs

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | o | o | o | o |
| Location #2 | o | o | o | o |
| Location #3 | o | o | o | o |
| Location #4 | - | - | - | - |

Location #4 would have greater requirements in terms of operating cost impacts, and so this would translate into greater bus capital costs.

c) Additional SamTrans Operating Costs

It was assumed that at least one SamTrans route would connect to the multi-modal facility.

SITE EVALUATION MEMO

Transit Operations

Table 34 – Evaluation Results: Additional SamTrans Operating Costs

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | - | - | - | - |
| Location #2 | o | o | o | o |
| Location #3 | o | o | o | o |
| Location #4 | + | + | + | + |

For Location #1, assume that a downtown-bound route has to make a diversion to get to the multi-modal facility. No diversion would be expected for Locations #2 and #3. It is assumed that SamTrans routes would terminate at Location #4, thus saving operating costs.

d) Ability to Attract Operating Funds from MTC

This specific measure refers to the ability of a location to increase ridership while reducing operating costs.

Table 35 – Evaluation Results: Ability to Attract Operating Funds from MTC

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | o | o | o | o |
| Location #2 | o | o | o | o |
| Location #3 | o | o | o | o |
| Location #4 | o | o | o | o |

None of the location options appear to be able to significantly increase ridership or reduce operating costs, so all ratings are "o".

e) Ability to Accommodate Direct Muni Services

It is assumed that direct Muni bus access would be possible with all of the location options. In Locations #1 and #4, Muni buses would likely access the site via Sunnydale Avenue, while the routes would remain as is for Locations #2 and #3.

Table 36 – Evaluation Results: Ability to Accommodate Direct Muni Services

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | + | + | + | + |
| Location #2 | + | + | + | + |
| Location #3 | + | + | + | + |
| Location #4 | + | + | + | + |

SITE EVALUATION MEMO

Transit Operations

All locations received a "+" rating.

f) Truck/Auto/Pedestrian/Bike Conflicts

It is assumed that through good design, conflicts between transit and other modes will be avoided.

Table 37 – Evaluation Results: Truck/Auto/Pedestrian/Bike Conflicts

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | o | o | o | o |
| Location #2 | o | o | o | o |
| Location #3 | o | o | o | o |
| Location #4 | o | o | o | o |

All locations received a "o" rating.

h) Transit Service Speeds and Reliability During Construction of the Multi-Modal Facility

For this specific measure, it was assumed that maintaining transit speeds would be an issue for Location #2 due to a likely rehabilitation of an underpass and/or the plaza area where passengers currently wait for buses.

Table 38 – Evaluation Results: Transit Service Speeds and Reliability During Construction of the Multi-Modal Facility

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | o | o | o | o |
| Location #2 | - | - | - | - |
| Location #3 | o | o | o | o |
| Location #4 | o | o | o | o |

Location #2 does not perform well with respect to the other Locations for this specific measure.

6.0 PLACE-MAKING

a) Density Concentrated around Multi-Modal Facility

The land use scenario/facility location combinations were assessed in terms of the density of transit-supportive uses in the ¼ mile radius circles around the facilities. This density was measured in terms of residential units and jobs per square mile within the ¼ mile circle.

The density will be assumed for the full build out of the land uses, although it is acknowledged that it might take some years for the density to come, particular to Location #4.

The ¼ mile radius circle will be drawn around the midpoint of the multi-modal facility. The specific data is as follows. Residential units and jobs were added together for a generic measure of density.

Table 39 – Estimated Density Around Facilities

| | LU Scenario 1 (CPP-V) | | | |
|-------------------|---------------------------------------|-----------------------------|-------------------------------|-------------------------------|
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Residential Units | 1,859 | 2,738 | 2,159 | 169 |
| Jobs | 3,568 | 425 | 4,161 | 5,703 |
| TOTAL | 5,427 | 3,162 | 6,320 | 5,872 |
| | LU Scenario 2 (DSP-V) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Residential Units | 3,540 | 2,738 | 4,027 | 2,936 |
| Jobs | 726 | 434 | 925 | 3,501 |
| TOTAL | 4,266 | 3,172 | 4,952 | 6,437 |
| | LU Scenario 3 (RE) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Residential Units | 1,859 | 2,738 | 2,159 | 169 |
| Jobs | 949 | 425 | 1,294 | 1,086 |
| TOTAL | 2,809 | 3,162 | 3,453 | 1,255 |
| | LU Scenario 4 (CPP/Industrial Hybrid) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Residential Units | 1,859 | 2,738 | 2,159 | 169 |
| Jobs | 3,606 | 434 | 4,158 | 5,602 |
| TOTAL | 5,465 | 3,172 | 6,317 | 5,771 |

SITE EVALUATION MEMO

Place-Making

These values were translated into the following evaluation results.

Table 40 – Evaluation Results: Density Concentrated Around Multi-Modal Facility

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | + | o | o | + |
| Location #2 | o | o | o | o |
| Location #3 | + | o | o | + |
| Location #4 | + | + | - | + |

Location #2 misses out on density from growth, while Locations #1, #3, and #4, to varying degrees, rely on land use. Location #4 with Land Use Scenario #3 results in the lowest density in facility area of all of the combinations.

b) Supportive of 24-hour Activity

The question here is whether the facility location will be close to land uses that will have 24-hour activity and whether the services at the facility will be useful for supporting 24-hour activity. Factors will be the presence and location of entertainment areas, recreational land uses, residential land uses, and employment land uses.

Table 41 – Evaluation Results: Supportive of 24-hour Activity

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | o | o | o | o |
| Location #2 | o | o | o | o |
| Location #3 | o | o | o | o |
| Location #4 | + | + | - | o |

The result of the evaluation is that Location #4 could be successful at supporting 24-hour activity in Land Use Scenarios #1 and #2. This is because the facility would be surrounded by commercial, residential, and entertainment land uses. This combination does not occur at any of the other land use/facility combinations. Location #4 would be a poor choice with Land Use #4 given that there is little variety in the land use in this scenario. Land Use Scenario #4 does not include the entertainment features of Land Use Scenarios #1 and #2, so it scores the same as the other land use/facility combinations which just have commercial and residential land uses.

SITE EVALUATION MEMO

Place-Making

c) Supportive of New Landscaping and Streetscaping Features

The evaluation for this specific measure depended on whether the location option would be provide additional greenery or streetscaping opportunities to the existing plans because such investments would needed for the facility to function properly. Locations #2 and #3 scored well because, by their nature, they require landscaping and streetscaping investments to function properly. Location #2 needs to make the sidewalk area on Blanken Avenue function well for people waiting for transit services and for transferring between them. It is also on a designated Greenway. Location #3 requires that Sunnydale Avenue be designed in such a way to accommodate people transferring between transit services on Bayshore Boulevard and the Caltrain platforms along a high quality pedestrian path. Location #1 could do moderately well in with Land Use Scenarios #1, #2, and #4 that include development in the Brisbane Baylands site, as there will be a need to build pathways to points south, including a potential civic/entertainment center. Location #4 does not lend itself to new landscaping or streetscaping features to the extent of Locations #2 and #3, as landscaping may be difficult in a station that is partially elevated.

Table 42 – Evaluation Results: Supportive of New Landscaping and Streetscaping Features

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|----------------------|----------------------|----------------------|----------------------|
| Location #1 | 0 | 0 | - | 0 |
| Location #2 | + | + | + | + |
| Location #3 | + | + | + | + |
| Location #4 | - | - | - | - |

d) Pedestrian Areas Adjacent to Multi-Modal Facility

The evaluation for this specific measure assumes that a public meeting space would be an asset to the community for farmers' markets, outdoor fairs, and general recreation. It is assumed that the plaza on Blanken Avenue at Bayshore Boulevard is too small for some desirable uses. It also assumes that with Land Use Scenario #2, a public plaza would be built in conjunction with an entertainment use at Location #4.

SITE EVALUATION MEMO

Place-Making

Table 43 – Evaluation Results: Pedestrian Areas Adjacent to Multi-Modal Facility

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | + | + | + | + |
| Location #2 | o | o | o | o |
| Location #3 | + | + | + | + |
| Location #4 | o | + | o | o |

e) Visibility of Multi-Modal Facility

The evaluation per this specific measure assumes that visibility is helpful for advertising transit services and wayfinding. As such, particular value is placed on visibility from Bayshore Boulevard and US-101 where people are driving, and from Caltrain, where people are arriving by transit.

Table 44 – Evaluation Results: Visibility of Multi-Modal Facility

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | - | - | - | - |
| Location #2 | o | o | o | o |
| Location #3 | + | + | + | + |
| Location #4 | + | + | + | + |

Location #3 will be visible from the Caltrain platforms, LRT platforms, and Bayshore Boulevard, while Location #4 will be visible from the Caltrain platforms, LRT platforms, and US-101, since it is elevated. Location #1 would only be visible from Caltrain, while Location #2 would only be visible from Bayshore Boulevard and the LRT platforms.

b) Potential for Joint Development

The only location in the Study area that has been identified as having the potential for joint development is the Schlage Lock headquarters building. This joint development would likely only be possible if a northern facility location (Location #2) was ultimately selected. It would require major upgrades to serve as a transit facility, such as accessibility and visibility enhancements.

SITE EVALUATION MEMO

Place-Making

Table 45 – Evaluation Results: Potential for Joint Development

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|----------------------|----------------------|----------------------|----------------------|
| Location #1 | o | o | o | o |
| Location #2 | + | + | + | + |
| Location #3 | o | o | o | o |
| Location #4 | o | o | o | o |

Location #2 scores positively across all land use scenarios.

b) Potential for Joint Use

There is potential for joint use development if there is particular value to a private partner to pay for part of a public facility. Concepts consistent with MTC TOD guidelines could include housing or office placed immediately adjacent to, or vertically above, the multimodal facility. An existing model of this type of joint development is the Del Mar Station on the Metro Gold Line in Pasadena. Several apartment and condominium developments (including Archstone and Avalon) are located immediately adjacent to, and directly over, the station (see **Figure 1**).



Figure 1: Metro's Gold Line Del Mar Station is an example of joint use with residential (and ground floor retail) adjacent to, and above, a rail station. Source: Metro.

There is potential for joint use of parking facilities at some of the locations where there is space for construction. Location #1 likely has no opportunity for coordinating development with a private developer, except if the high-intensity Land Use Scenario #2 is built out. Nor does Location #2, as the Schalge Lock plans have already been approved. However, there is likely the potential for some private investments in transit facilities for Locations #3 and #4, except in in the low-intensity Land Use Scenario #3.

SITE EVALUATION MEMO

Place-Making

Table 46 – Evaluation Results: Potential for Joint Use

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | o | + | o | o |
| Location #2 | o | o | o | o |
| Location #3 | + | + | o | + |
| Location #4 | + | + | o | o |

SITE EVALUATION MEMO

Physical Implementation Ability

7.0 PHYSICAL IMPLEMENTATION ABILITY

a) Utility Impacts

This specific measure refers to the need to move utilities, such as communication lines, water/wastewater lines, and electric lines, due to a project.

Table 47 – Evaluation Results: Utility Impacts

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | o | o | o | o |
| Location #2 | o | o | o | o |
| Location #3 | o | o | o | o |
| Location #4 | o | o | o | o |

Given available information, utility impacts will not distinguish between the different land use scenario/facility location combinations.

b) Capital Costs of Multi-Modal Facility Construction

Input from the Intermodal Access Study was used as a starting point. A facility similar to the Geneva Extension option would be expected to cost approximately \$300 million, although this took into consideration the cost of the LRT extension and the Geneva Extension, which potentially have benefits beyond supporting a multi-modal facility. Therefore, costs that were just for the multi-modal facility were extracted. A rough estimate of capital costs was based on the following unit costs:

- Each elevator = \$10 million
- Each escalator = \$5 million
- Each new rail platform = \$5 million
- Each new roof = \$5 million
- Each new underpass or overpass = \$10 million
- Each new bus/shuttle terminal = \$10 million

It is assumed that BRT platforms would be built with the Geneva-Harney BRT Project and that the existing overpass above the Caltrain tracks will remain in place.

SITE EVALUATION MEMO

Physical Implementation Ability

Table 48 – Major Cost Elements of Multi-Modal Facilities

| Location Option | Elevator | Escalator | New Roof | New Overpass or Underpass | New Bus/Shuttle Terminal | Conceptual Cost |
|-----------------|----------|-----------|----------|---------------------------|--------------------------|-----------------|
| Location #1 | No | No | No | Yes | Yes | \$20 mil |
| Location #2 | Yes | No | No | Yes | No | \$20 mil |
| Location #3 | No | No | Yes | Yes | Yes | \$25 mil |
| Location #4 | Yes x2 | No | Yes | Yes | Yes | \$45 mil |

This was translated into the following evaluation.

Table 49 – Evaluation Results: Capital Costs of Multi-Modal Facility

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|----------------------|----------------------|----------------------|----------------------|
| Location #1 | + | + | + | + |
| Location #2 | + | + | + | + |
| Location #3 | o | o | o | o |
| Location #4 | - | - | - | - |

Location #4 is the most expensive of the options, especially considering that it requires other major investments to happen to be feasible.

c) Engineering Feasibility

This refers to soil conditions, coordination with other construction projects, track geometry, standards compliance, spatial needs, and other physical characteristics of a location that create challenges for building a multi-modal facility.

Table 50 – Evaluation Results: Engineering Feasibility

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|----------------------|----------------------|----------------------|----------------------|
| Location #1 | + | + | + | + |
| Location #2 | + | + | + | + |
| Location #3 | + | + | + | + |
| Location #4 | + | + | + | + |

At the current time, all of the options appear to be feasible from an engineering perspective.

SITE EVALUATION MEMO

Physical Implementation Ability

d) Impact on Existing Transit Customers

All of the locations will have a positive impact on existing transit customers, mainly due to the fact that access to the Caltrain platforms will be much more direct with the development on Schlage Lock. Otherwise, the buses and LRT routes will operate much the same way as they do today for passengers, and there will be the improvements similar to all of them (Muni Forward, Geneva-Harney BRT).

Table 51 – Evaluation Results: Impact on Existing Transit Customers

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | o | o | o | o |
| Location #2 | + | + | + | + |
| Location #3 | + | + | + | + |
| Location #4 | + | + | + | + |

Location #4 will not impact existing transit riders, although it will impact future BRT riders.

e) Footprint Required

For Location #, it is assumed that some land will be required on the west side of the tracks to allow for bus loading and unloading, bicycle share, a public plaza, and drop-offs. For Location #, it is assumed that no land will be required in this option, and that all of the components of the multi-modal facility will fit into existing right of way. For Location #3, it is assumed that some land will be required in this option, although it may come from land that UPC would turn into public streets, anyway. For Location #4, it is assumed that some land will be required for this option, although it may come from land that UPC would turn into public streets, anyway.

This translates into the following evaluation.

Table 52 – Evaluation Results: Footprint Required

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | o | o | o | o |
| Location #2 | + | + | + | + |
| Location #3 | o | o | o | o |
| Location #4 | o | o | o | o |

SITE EVALUATION MEMO

Consistency with Regional Plans and Policies

8.0 CONSISTENCY WITH REGIONAL PLANS AND POLICIES

a) MTC Station Area Planning Manual/Plan Bay Area

MTC's Station Area Planning Manual describes seven place types around transit stations and describes planning principles that are applicable to each. The future Bayshore Multi-Modal Facility likely fits into the category of Suburban Transit Center. Expectations for this type of facility are as follows:

- Mid-rise, low-rise, some high-rise and townhomes in the housing mix
- 2,500 to 10,000 housing units in the station area
- 35-100 dwellings per acre of new housing
- 7,500 to 50,000 jobs in the station area
- 4.0 FAR for new employment development

Comparing these standards with the figures shown in Table 39 results in the following evaluation.

Table 53 – Evaluation Results: MTC Station Area Planning Manual / Plan Bay Area

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|----------------------|----------------------|----------------------|----------------------|
| Location #1 | + | - | - | + |
| Location #2 | - | - | - | - |
| Location #3 | + | - | - | + |
| Location #4 | - | + | - | - |

Land Use Scenario #1 offers high levels of housing and employment at Location #1 and #3, but low employment around Location #2 and low levels of housing around Location #4. Land Use Scenario #2 does not provide sufficient employment with Locations #1, #2, and #3, but the housing/job balance is achieved at Location #4. The levels of housing and employment generated in Land Use Scenario #3 are not sufficient to meeting MTC's station area guidelines.

b) Local Land Use Plans

Existing land use plans have generally shown a future multi-modal facility at the location of the current Caltrain platforms or south of there. Therefore, options that are consistent with these two concepts scored well, while those that are new were scored poorly.

SITE EVALUATION MEMO

Consistency with Regional Plans and Policies

Table 54 – Evaluation Results: Local Land Use Plans

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | + | + | + | + |
| Location #2 | o | o | o | o |
| Location #3 | o | o | o | o |
| Location #4 | + | + | + | + |

Locations #2 and #3 are deviations from the multi-modal facility concepts that the public has seen to date, and therefore they are ranked lower than Locations #1 and #2.

c) Bi-County Transportation Study

The Bi-County Transportation Study presented the three following thresholds for including a project in the program.

- Nexus with developments (it was estimated that about half of future boardings at Bayshore Station would be associated with Bi-County land developments).
- Benefits to San Francisco and San Mateo Counties (it was estimated that 70% of development related boardings at Bayshore Station would be from San Mateo developments, while 30% would be from San Francisco developments).
- Effectiveness toward Bi-County goals (provide transit connections in the Bi-County area).

Table 55 – Evaluation Results: Bi-County Transportation Study

| | Land Use Scenario #1 | Land Use Scenario #2 | Land Use Scenario #3 | Land Use Scenario #4 |
|-------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Location #1 | o | o | o | o |
| Location #2 | o | o | o | o |
| Location #3 | o | o | o | o |
| Location #4 | + | + | - | o |

Location #1 has little nexus with development. Location #2 does not provide benefits to San Mateo County. Location #3 does not provide a significant number of new transit connections. Location #4 scores well with Land Use Scenarios #1 and #2 given the nexus with land use developments, and poorly with Land Use Scenario #3, as this would not have a nexus with land use developments.

SITE EVALUATION MEMO

Overall Evaluation

9.0 OVERALL EVALUATION

The overall results are shown in the table below. The full Evaluation Matrix can be found in Appendix G of the Phase 1 Memo.

Table 56 – Overall Evaluation of the Land Use / Facility Location Combinations

| | Land Use Scenario 1 (CPP-V) | | | |
|---------------------------------|---|-----------------------------|-------------------------------|-------------------------------|
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Ridership Capture | 1 | -3 | 2 | 3 |
| Non-Motorized Access | 2 | 3 | 5 | 1 |
| Intermodal Connectivity | 3 | 1 | 1 | 3 |
| Transit Operations | 0 | 0 | 1 | 0 |
| Place-Making | 1 | 2 | 5 | 3 |
| Physical Implementation Ability | 3 | 5 | 3 | 2 |
| TOTAL | 10 | 8 | 17 | 12 |
| | Land Use Scenario 2 (DSP-V) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Ridership Capture | 1 | -3 | 0 | 2 |
| Non-Motorized Access | 2 | 3 | 5 | 4 |
| Intermodal Connectivity | 3 | 1 | 1 | 3 |
| Transit Operations | 0 | 0 | 1 | 0 |
| Place-Making | 1 | 2 | 4 | 4 |
| Physical Implementation Ability | 3 | 5 | 3 | 2 |
| TOTAL | 10 | 8 | 14 | 15 |
| | Land Use Scenario 3 (RE) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Ridership Capture | 0 | -3 | 0 | -1 |
| Non-Motorized Access | 2 | 3 | 5 | -1 |
| Intermodal Connectivity | 3 | 1 | 1 | 3 |
| Transit Operations | 0 | 0 | 1 | 0 |
| Place-Making | -1 | 2 | 3 | -2 |
| Physical Implementation Ability | 3 | 5 | 3 | 2 |
| TOTAL | 7 | 8 | 13 | 1 |
| | Land Use Scenario 4 (CPP/Industrial Hybrid) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| Ridership Capture | 1 | -3 | 1 | 2 |
| Non-Motorized Access | 2 | 3 | 5 | 0 |
| Intermodal Connectivity | 3 | 1 | 1 | 3 |
| Transit Operations | 0 | 0 | 1 | 0 |
| Place-Making | 1 | 2 | 5 | 1 |
| Physical Implementation Ability | 3 | 5 | 3 | 2 |
| TOTAL | 10 | 8 | 16 | 8 |

SITE EVALUATION MEMO

Overall Evaluation

Table 56 summarizes the results of the evaluation described in Chapters 2 to 7. In this evaluation, a "-" was valued at -1, a "o" was valued at 0, and a "+" was valued at +1. Location #3 had the most points for Land Use Scenarios #1, #3, and #4. It had the second most number of points for Land Use Scenarios #2. Location #4 performed the best with Land Use Scenario #2. Location #3 consistently succeeded in the criteria of Non-Motorized Access, Transit Operations, and Place-Making.

10.0 ADJUSTMENTS FOR RAIL

One of the challenges of the Study was the large number of unknowns, ranging from the land uses, BRT routings, and timeframes for investments. To keep things relatively simple, it was decided that the Caltrain platforms would remain fixed in all location options. The LRT stations were also held consistent, except for Location #4, which was not considered feasible unless there was an LRT extension.

To test the sensitivity of the analysis summarized in Chapter 9, rail investment variations to Locations #1, #2, and #3 were developed.

Figure 2 shows an adjustment to Location #1 in which the LRT would be extended from its current terminal on Bayshore Boulevard and a new terminal would be built adjacent to the existing Caltrain platforms. This extension would loop around Sunnydale Avenue and a new street in the Brisbane Baylands site.

Figure 2 – Rail Adjustment for Location #1



Revisiting the evaluation results in the following scoring.

SITE EVALUATION MEMO

Adjustments for Rail

Table 57 – Scores of Location #1 and Rail Adjustments

| | Land Use Scenario 1 (CPP-V) | |
|---------------------------------|---|------------------------------|
| | Location #1: Tunnel Avenue/Status Quo | Location #1: Rail Adjustment |
| Ridership Capture | 1 | 1 |
| Non-Motorized Access | 2 | -1 |
| Intermodal Connectivity | 3 | 4 |
| Transit Operations | 0 | -4 |
| Place-Making | 1 | 1 |
| Physical Implementation Ability | 3 | -1 |
| TOTAL | 10 | 0 |
| | Land Use Scenario 2 (DSP-V) | |
| | Location #1: Tunnel Avenue/Status Quo | Location #1: Rail Adjustment |
| Ridership Capture | 1 | 1 |
| Non-Motorized Access | 2 | -1 |
| Intermodal Connectivity | 3 | 4 |
| Transit Operations | 0 | -4 |
| Place-Making | 1 | 1 |
| Physical Implementation Ability | 3 | -1 |
| TOTAL | 10 | 0 |
| | Land Use Scenario 3 (RE) | |
| | Location #1: Tunnel Avenue/Status Quo | Location #1: Rail Adjustment |
| Ridership Capture | 0 | 0 |
| Non-Motorized Access | 2 | -1 |
| Intermodal Connectivity | 3 | 5 |
| Transit Operations | 0 | -4 |
| Place-Making | -1 | -1 |
| Physical Implementation Ability | 3 | -1 |
| TOTAL | 7 | -2 |
| | Land Use Scenario 4 (CPP/Industrial Hybrid) | |
| | Location #1: Tunnel Avenue/Status Quo | Location #1: Rail Adjustment |
| Ridership Capture | 1 | 1 |
| Non-Motorized Access | 2 | -1 |
| Intermodal Connectivity | 3 | 4 |
| Transit Operations | 0 | -4 |
| Place-Making | 1 | 1 |
| Physical Implementation Ability | 3 | -1 |
| TOTAL | 10 | 0 |

SITE EVALUATION MEMO

Adjustments for Rail

The extension of the LRT line appears to degrade the performance of Location #1 in all land use scenarios.

Figure 3 shown an adjustment to Location #2 in which the Caltrain platforms would be brought as far north as feasible. In addition, or perhaps in place of (if the northward movement was deemed infeasible), the connection between the Old Office Building and the Caltrain platforms would be improved through vertical circulation treatments.

Figure 3 – Rail Adjustment for Location #2



Revisiting the evaluation resulted in the following scoring.

SITE EVALUATION MEMO

Adjustments for Rail

Table 58 – Scores of Location #2 and Rail Adjustments

| | Land Use Scenario 1 (CPP-V) | |
|---------------------------------|---|------------------------------|
| | Location #2: Blanken Avenue | Location #2: Rail Adjustment |
| Ridership Capture | -3 | -3 |
| Non-Motorized Access | 3 | 3 |
| Intermodal Connectivity | 1 | 2 |
| Transit Operations | 0 | 0 |
| Place-Making | 2 | 2 |
| Physical Implementation Ability | 5 | -2 |
| TOTAL | 8 | 2 |
| | Land Use Scenario 2 (DSP-V) | |
| | Location #2: Blanken Avenue | Location #2: Rail Adjustment |
| Ridership Capture | -3 | -3 |
| Non-Motorized Access | 3 | 3 |
| Intermodal Connectivity | 1 | 2 |
| Transit Operations | 0 | 0 |
| Place-Making | 2 | 2 |
| Physical Implementation Ability | 5 | -1 |
| TOTAL | 8 | 3 |
| | Land Use Scenario 3 (RE) | |
| | Location #2: Blanken Avenue | Location #2: Rail Adjustment |
| Ridership Capture | -3 | -3 |
| Non-Motorized Access | 3 | 3 |
| Intermodal Connectivity | 1 | 2 |
| Transit Operations | 0 | 0 |
| Place-Making | 2 | 2 |
| Physical Implementation Ability | 5 | -1 |
| TOTAL | 8 | 3 |
| | Land Use Scenario 4 (CPP/Industrial Hybrid) | |
| | Location #2: Blanken Avenue | Location #2: Rail Adjustment |
| Ridership Capture | -3 | -3 |
| Non-Motorized Access | 3 | 3 |
| Intermodal Connectivity | 1 | 2 |
| Transit Operations | 0 | 0 |
| Place-Making | 2 | 2 |
| Physical Implementation Ability | 5 | -1 |
| TOTAL | 8 | 3 |

The movement of the Caltrain platform and the vertical circulation treatments south of the Old Office Building appear to degrade the performance of Location #2 in all land use scenarios.

SITE EVALUATION MEMO

Adjustments for Rail

Figure 4 shows adjustments to Location #3 in which the LRT platforms on Bayshore Boulevard would be relocated to Sunnydale Avenue between Bayshore Boulevard and the Caltrain platforms.

Figure 4 – Rail Adjustment for Location #3



Revisiting the evaluation results in the following scoring.

SITE EVALUATION MEMO

Adjustments for Rail

Table 59 – Scores of Location #3 and Rail Adjustments

| | Land Use Scenario 1 (CPP-V) | |
|---------------------------------|---|---------------------------------|
| | Location #3: Sunnydale Avenue | Location #3: Rail Adjustment |
| Ridership Capture | 2 | 2 |
| Non-Motorized Access | 5 | 5 |
| Intermodal Connectivity | 1 | 2 |
| Transit Operations | 1 | -3 |
| Place-Making | 5 | 5 |
| Physical Implementation Ability | 3 | -3 |
| TOTAL | 17 | 8 |
| | Land Use Scenario 2 (DSP-V) | |
| | Location #3: Sunnydale Avenue | Location #3: Rail Adjustment |
| Ridership Capture | 0 | 1 |
| Non-Motorized Access | 5 | 5 |
| Intermodal Connectivity | 1 | 2 |
| Transit Operations | 1 | -3 |
| Place-Making | 4 | 4 |
| Physical Implementation Ability | 3 | -3 |
| TOTAL | 14 | 6 |
| | Land Use Scenario 3 (RE) | |
| | Location #3: Sunnydale Avenue | Location #3: Rail Adjustment |
| Ridership Capture | 0 | 1 |
| Non-Motorized Access | 5 | 5 |
| Intermodal Connectivity | 1 | 2 |
| Transit Operations | 1 | -3 |
| Place-Making | 3 | 3 |
| Physical Implementation Ability | 3 | -3 |
| TOTAL | 13 | 5 |
| | Land Use Scenario 4 (CPP/Industrial Hybrid) | |
| | Location #3: Sunnydale Avenue | Location #3: Rail Adjustment |
| Ridership Capture | 1 | 2 |
| Non-Motorized Access | 5 | 5 |
| Intermodal Connectivity | 1 | 2 |
| Transit Operations | 1 | -3 |
| Place-Making | 5 | 5 |
| Physical Implementation Ability | 3 | -3 |
| TOTAL | 16 | 8 |

The relocation of the LRT platforms onto Sunnydale Avenue appears to degrade the performance of Location #3 in all land use scenarios.

SITE EVALUATION MEMO

Adjustments for Cost

11.0 ADJUSTMENTS FOR COST

There was a concern expressed that capital costs were not given sufficient attention in the evaluation process, given that it is embedded as a specific measure within the physical implementation ability criterion. This exercise involved testing the results of the evaluation in the event that capital costs were weighted by a factor of three instead of a factor of one. The results are shown in Table 60.

Table 60 – Scores with Cost Adjustments

| | Land Use Scenario 1 (CPP-V) | | | |
|--------------------------|---|-----------------------------|-------------------------------|-------------------------------|
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| TOTAL - UNWEIGHTED | 10 | 8 | 17 | 12 |
| TOTAL - COST WEIGHTED X3 | 12 | 10 | 17 | 10 |
| | Land Use Scenario 2 (DSP-V) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| TOTAL - UNWEIGHTED | 10 | 8 | 14 | 15 |
| TOTAL - COST WEIGHTED X3 | 12 | 10 | 14 | 13 |
| | Land Use Scenario 3 (RE) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| TOTAL - UNWEIGHTED | 7 | 8 | 13 | 1 |
| TOTAL - COST WEIGHTED X3 | 9 | 10 | 13 | -1 |
| | Land Use Scenario 4 (CPP/Industrial Hybrid) | | | |
| | Location #1: Tunnel Avenue/Status Quo | Location #2: Blanken Avenue | Location #3: Sunnydale Avenue | Location #4: Geneva Extension |
| TOTAL - UNWEIGHTED | 10 | 8 | 16 | 8 |
| TOTAL - COST WEIGHTED X3 | 12 | 10 | 16 | 6 |

This weighting results in Location #3 performing the best in all land use scenarios, as this weighting is enough to make Location #4 less attractive with Land Use Scenario #2.

SITE EVALUATION MEMO

Dropped Specific Measures

12.0 DROPPED SPECIFIC MEASURES

Over the course of Phase 1, many considerations for the facility location were discussed. Listing all of these items in the evaluation would have made it less focused. Below is a list of some of the items that are considered important to the evaluation of a location for the Bayshore Multi-Modal Facility, but which for various reasons, were not included in the Evaluation Framework as discrete items.

Affords Phasing Advantages

This specific measure may be adjusted when the plans for the Geneva-Harney BRT Feasibility Study are better understood, but given current assumptions, the BRT route will operate along Blanken and Tunnel Avenue in the short term and along the Geneva Avenue Extension and/or Beatty Avenue in the long term. This creates an issue for timing because it would likely be difficult and expensive to adjust the station location in response to the BRT moving. However, some station locations may be able to serve a BRT route in both its short term and long-term configurations.

Requires T-Third Extension

Given the large number of capital demands for transit services in San Francisco, it would be in the interest of the City not to have to extend T-Third to a future Bayshore Station.

Demolition of Homes

None of the options will require the demolition of housing, and so this was not viewed as a distinguishing feature between the location options.

Transfers to/from Shuttle Services

Shuttle boardings are relatively small compared to other types of transit boarding projected to occur in the Bayshore area, so this item was removed from the evaluation. In addition, these transfers were considered fairly constant among all options because they depended primarily on Caltrain service.

Use of Park and Ride Facilities

Park and ride facility use has both its benefits and disbenefits. While it encourages transit use for some, it is also expensive to provide, lessens opportunities for station-area development, and discourages use of local transit services or non-motorized modes. Because high usage of park and ride facilities would not necessarily be a good thing for a multi-modal facility, it was removed from the evaluation.

SITE EVALUATION MEMO

Dropped Specific Measures

Ability to Extend Caltrain Platforms

This is design requirement given that Caltrain may someday be operating longer trains. It also became a moot evaluation point because none of the location options required the movement of the Caltrain platforms from their existing location, which are assumed to be able to accommodate an extension.

Supportive of Balancing Transit Flows

This concept referred to the ability of the multi-modal facility to direct transit trips to parts of the transportation network that had excess capacity. It was decided that this was more of a function of the land use than the facility location, so this was removed from the evaluation.

Supportive of a Mix of Housing Types

It is assumed that where there is housing planned, there will be a variety of housing types. However, since the Study is not a Land Use Study, this was not considered a viable specific measure for a facility location. In general, transit availability supports a mix of housing types.

Supportive of a Mix of Employment Types

It is assumed that where there is employment planned, there will be a variety of employment types. However, since the Study is not a Land Use Study, this was not considered a viable specific measure for a facility location. In general, transit availability supports a mix of employment types.

Consistent with Measure K Requirements (San Francisco County)

The inclusion of this measure was initially included to provide a measure of how much funding a facility in a particular location could get. It was felt that this should not be measure when so many other funding sources could be available.

Consistent with Measure A Requirements (San Mateo County)

The inclusion of this measure was initially included to provide a measure of how much funding a facility in a particular location could get. Measure A funding requires that a given project be located in San Mateo County. It was felt that this should not be measure when so many other funding sources could be available.

PHASE 1 MEMO

Appendix G Site Evaluation Matrix

December 22, 2015

Appendix G SITE EVALUATION MATRIX

Evaluation Matrix
Bayshore Multi-Modal Facility Study

| Criteria | Specific Measure | Baylands - Community Variant (Commercial) | | | | | | | Baylands - Community Variant (Commercial) | | | | | | | Baylands - Community Variant (Commercial) | | | | | | | Baylands - Community Variant (Commercial) | | | | | | |
|--|---|---|------------------------|-------------|--------------------------|---------------|-----------------------|-------------------------------|---|------------------------|-------------|--------------------------|---------------|-----------------------|-------------------------------|---|------------------------|-------------|--------------------------|---------------|-----------------------|-------------------------------|---|------------------------|-------------|--------------------------|---------------|-----------------------|-------------------------------|
| | | 1 - Status Quo | 1 - Status Quo + T-3rd | 2 - Blanken | 2 - Blanken + Move North | 3 - Sunnydale | 3-SunnyD + T-3rd ext. | Loc. 4 - Geneva Ext + LRT ext | 1 - Status Quo | 1 - Status Quo + T-3rd | 2 - Blanken | 2 - Blanken + Move North | 3 - Sunnydale | 3-SunnyD + T-3rd ext. | Loc. 4 - Geneva Ext + LRT ext | 1 - Status Quo | 1 - Status Quo + T-3rd | 2 - Blanken | 2 - Blanken + Move North | 3 - Sunnydale | 3-SunnyD + T-3rd ext. | Loc. 4 - Geneva Ext + LRT ext | 1 - Status Quo | 1 - Status Quo + T-3rd | 2 - Blanken | 2 - Blanken + Move North | 3 - Sunnydale | 3-SunnyD + T-3rd ext. | Loc. 4 - Geneva Ext + LRT ext |
| (1) RIDERSHIP CAPTURE | Daily Transfers to/from Caltrain | + | + | - | - | 0 | 0 | 0 | + | + | - | - | 0 | 0 | 0 | 0 | 0 | - | - | 0 | 0 | 0 | + | + | - | - | 0 | 0 | 0 |
| | Daily Transfers to/from LRT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Daily Transfers to/from BRT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Daily Transfers to/from Other Buses | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Daily Transfers within MM Facility | 0 | 0 | 0 | 0 | + | + | + | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | + | + | + |
| | Daily Non-Transfer Boardings within MM Facility | 0 | 0 | 0 | 0 | + | + | + | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 | 0 | 0 | 0 | + | - | 0 | 0 | 0 | 0 | + | + | + |
| | Daily Transit Boardings | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL FOR CRITERIA | | 1 | 1 | -1 | -1 | 2 | 2 | 3 | 1 | 1 | -1 | -1 | 0 | 1 | 2 | 0 | 0 | -1 | -1 | 0 | 1 | -1 | 1 | 1 | -1 | -1 | 1 | 2 | 2 |
| (2) NON-MOTORIZED ACCESS | Directness of Pedestrian Routes to MM Facility | 0 | 0 | + | + | 0 | 0 | + | 0 | 0 | + | + | 0 | 0 | + | 0 | 0 | + | + | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 | 0 |
| | Safety and Comfort of Pedestrian Routes to MM Facility | 0 | - | + | + | + | + | - | 0 | - | 0 | + | + | + | + | 0 | - | + | + | + | + | - | 0 | - | + | + | + | + | - |
| | Amenities on Pedestrian Routes to MM Facility | 0 | 0 | + | + | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 | + | 0 | 0 | + | + | 0 | 0 | - | 0 | 0 | + | + | 0 | 0 | 0 |
| | Directness of Bicycle Routes to MM Facility | 0 | 0 | + | + | + | + | 0 | 0 | 0 | + | + | + | + | 0 | 0 | 0 | + | + | + | + | 0 | 0 | 0 | + | + | + | + | 0 |
| | Safety and Comfort of Bicycle Routes to MM Facility | 0 | - | + | + | + | + | 0 | 0 | - | 0 | 0 | + | + | 0 | 0 | - | 0 | 0 | + | + | 0 | 0 | - | 0 | 0 | + | + | 0 |
| | Quality of Vertical Circulation within MM Facility | + | + | - | - | + | + | 0 | + | + | - | - | + | + | 0 | + | + | - | - | + | + | 0 | + | + | - | - | + | + | 0 |
| | Directness of Pedestrian and Bicycle Paths to Transit Services During Construction of MM Facility | + | 0 | + | 0 | + | + | + | + | 0 | 0 | 0 | + | + | + | + | 0 | 0 | 0 | + | + | + | + | 0 | 0 | + | + | + | + |
| TOTAL FOR CRITERIA | | 2 | -1 | 5 | 4 | 5 | 5 | 1 | 2 | -1 | 1 | 3 | 5 | 5 | 4 | 2 | 5 | 2 | 3 | 5 | 5 | -1 | 2 | -1 | 3 | 3 | 5 | 5 | 0 |
| (3) INTERMODAL CONNECTIVITY | Share of Transfers Requiring a Grade Change | + | 0 | 0 | 0 | 0 | 0 | - | + | 0 | 0 | 0 | 0 | 0 | - | + | + | 0 | 0 | 0 | 0 | - | + | 0 | 0 | 0 | 0 | 0 | - |
| | Transfer Walking Distance - Caltrain to MM Facility | 0 | + | 0 | + | 0 | + | + | 0 | + | 0 | + | 0 | + | + | 0 | + | 0 | + | 0 | + | + | 0 | + | 0 | + | 0 | + | + |
| | Transfer Walking Distance - LRT to MM Facility | - | + | + | + | - | + | + | - | + | + | + | - | + | + | - | + | + | + | - | + | + | - | + | + | + | - | + | + |
| | Transfer Walking Distance - BRT to MM Facility | + | + | + | + | 0 | 0 | + | + | + | + | + | 0 | 0 | + | + | + | + | + | 0 | 0 | + | + | + | + | 0 | 0 | + | + |
| | Transfer Walking Distance - Other Buses to MM Facility | 0 | 0 | + | + | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 | 0 |
| | Availability of Park and Ride | + | + | - | - | + | + | + | + | + | - | - | + | + | + | + | + | - | - | + | + | + | + | + | - | - | + | + | + |
| TOTAL FOR CRITERIA | | 2 | 4 | 2 | 3 | 0 | 3 | 3 | 2 | 4 | 2 | 3 | 0 | 3 | 3 | 2 | 5 | 2 | 3 | 5 | 5 | 3 | 2 | 4 | 2 | 3 | 5 | 3 | 3 |
| (4) TRANSIT OPERATIONS | Additional Muni Bus Operating Costs (compared to no build scenario) | 0 | - | 0 | 0 | 0 | - | - | 0 | - | 0 | 0 | 0 | - | - | 0 | - | 0 | 0 | 0 | - | - | 0 | - | 0 | 0 | 0 | - | - |
| | Additional Muni Bus Capital Costs (compared to no build scenario) | 0 | - | 0 | 0 | 0 | - | - | 0 | - | 0 | 0 | 0 | - | - | 0 | - | 0 | 0 | 0 | - | - | 0 | - | 0 | 0 | 0 | - | - |
| | Additional SamTrans Operating Costs (compared to no build scenario) | - | - | 0 | 0 | 0 | 0 | + | - | - | 0 | 0 | 0 | 0 | + | - | - | 0 | 0 | 0 | 0 | + | - | - | 0 | 0 | 0 | + | + |
| | Ability to Attract Operating Funds from MTC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 |
| | Ability to Accommodate Direct Muni Bus Service | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | Truck/Auto/Pedestrian/Bicycle Conflicts | 0 | - | 0 | 0 | 0 | - | 0 | 0 | - | 0 | 0 | 0 | - | 0 | 0 | - | 0 | 0 | 0 | - | 0 | 0 | - | 0 | 0 | - | 0 | 0 |
| | Transit Service Speeds and Reliability During Construction of MM Facility | 0 | - | - | - | 0 | - | 0 | 0 | - | - | - | 0 | - | 0 | 0 | - | - | - | 0 | - | 0 | 0 | - | - | 0 | - | 0 | 0 |
| TOTAL FOR CRITERIA | | 0 | -4 | 0 | 0 | 1 | -3 | 0 | 0 | -4 | 0 | 0 | 1 | -3 | 0 | 0 | -4 | 0 | 0 | 1 | -3 | 0 | 0 | -4 | 0 | 0 | 1 | -3 | 0 |
| (5) PLACE-MAKING | Density Concentrated Around MM Facility | 0 | 0 | + | + | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | + | + | 0 | 0 | - | 0 | 0 | + | + | 0 | 0 | - |
| | Supportive of 24-hour Activity | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Supportive of New Landscape/Streetscape Features | 0 | 0 | + | + | + | + | - | 0 | 0 | + | + | + | + | - | 0 | - | + | + | + | + | - | 0 | 0 | + | + | + | + | - |
| | Pedestrian Areas Adjacent to MM Facility | + | + | + | + | + | + | 0 | + | + | + | + | + | + | + | + | + | + | + | + | + | - | + | + | + | + | + | 0 | 0 |
| | MM Facility Visibility | - | - | + | + | + | + | + | - | - | + | + | + | + | + | - | - | + | + | + | + | 0 | - | - | + | + | + | + | + |
| | Potential for Joint Development | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Potential for Joint Use | 0 | 0 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | - | 0 | 0 | + | + | + | 0 | 0 |
| TOTAL FOR CRITERIA | | 0 | 0 | 5 | 5 | 4 | 4 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | -1 | -1 | 5 | 5 | 3 | 3 | -6 | 3 | 0 | 2 | 0 | 4 | 4 | -1 |
| (6) PHYSICAL IMPLEMENTATION ABILITY | Utility Impacts | + | - | + | - | + | - | + | + | - | + | - | + | - | + | + | - | + | - | + | - | + | + | - | + | - | + | - | + |
| | Capital Costs of MM Facility Construction | + | 0 | + | 0 | + | 0 | - | + | 0 | + | 0 | + | 0 | - | + | 0 | + | 0 | + | 0 | - | + | 0 | + | 0 | + | 0 | - |
| | Engineering Feasibility | + | 0 | 0 | 0 | + | 0 | + | + | 0 | 0 | 0 | + | 0 | + | + | 0 | 0 | 0 | + | 0 | 0 | + | 0 | 0 | 0 | + | 0 | + |
| | Impact on Existing Transit Customers | 0 | + | + | 0 | + | - | + | 0 | + | + | + | + | - | + | 0 | + | + | + | + | - | + | 0 | + | + | + | - | + | + |
| | Footprint Required | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 |
| TOTAL FOR CRITERIA | | 3 | 0 | 2 | -1 | 4 | -2 | 2 | 3 | 0 | 2 | 0 | 4 | -2 | 2 | 3 | 0 | 2 | 0 | 4 | -2 | 1 | 3 | 0 | 2 | 0 | 4 | -2 | 2 |
| (7) CONSISTENCY WITH REGIONAL PLANS AND POLICIES | MTC Station Area Planning Manual / Plan Bay Area | + | + | - | - | + | + | - | - | - | - | - | - | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | -More than 7,500 jobs in the facility area | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | -More than 35 dwelling units per acre of new housing | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | -FAR greater than 4.0 for new employment development | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Local Land Use Plans | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (7) CONSISTENCY WITH REGIONAL PLANS AND POLICIES | -Schlage Lock/Vis Valley | 0 | 0 | + | + | + | + | + | 0 | 0 | + | + | + | + | + | 0 | 0 | + | + | + | + | - | 0 | 0 | + | + | + | + | + |
| | -Brisbane Baylands | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | -Hunters Point Shipyard | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | -Recology | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | -Candlestick Point | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (7) CONSISTENCY WITH REGIONAL PLANS AND POLICIES | Bi-County Transportation Study | 0 | 0 | + | + | + | + | 0 | 0 | 0 | + | + | + | + | + | 0 | 0 | + | + | 0 | 0 | - | 0 | 0 | + | + | 0 | 0 | - |
| | -Investments have a nexus with land developments | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | -Investments service both SF & San Mateo Counties | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | -Investments are effective | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL FOR CRITERIA | | 1 | 1 | 1 | 1 | 3 | 3 | 0 | -1 | -1 | 1 | 1 | 1 | 1 | 3 | -1 | -1 | 1 | 1 | 0 | 0 | -3 | 1 | 1 | 1 | 1 | 2 | 2 | -1 |
| TOTAL | | 8 | 0 | 13 | 10 | 16 | 9 | 10 | 9 | 1 | 8 | 9 | 14 | 8 | 15 | 6 | -1 | 11 | 10 | 13 | 7 | -4 | 8 | 0 | 11 | 10 | 15 | 9 | 6 |