

# Mission Creek Bikeway Bay Trail Connector Study

PREPARED BY:  
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FUNDED BY: ASSOCIATION OF BAY AREA GOVERNMENTS BAY TRAIL PROJECT  
THROUGH THE CALIFORNIA COASTAL CONSERVANCY



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## LIST OF ATTACHMENTS

- A. City of San Francisco Resolution 474-01
- B. City of San Francisco Resolution 456-02
- C. City of San Francisco, Department of Parking & Traffic Striping Drawings – Division Street

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# Introduction

The Mission Creek Bikeway (“MCB”) is envisioned as an improved bicycle and pedestrian route along a former Southern Pacific Railroad right-of-way, abandoned in 1991. The route, which parallels Division Street and the once-navigable Mission Creek (now underground), would provide an attractive and safe connection from the Mission District to Mission Bay and the eastern waterfront, including the 4<sup>th</sup> Street Caltrain station and SBC Park. The southeast quadrant of San Francisco is undergoing rapid change and development, evolving into a mix of high-density residential and commercial mixed use with light industrial. The MCB corridor provides an important opportunity to improve bicycle and pedestrian access through this corridor to the Bay and other major destination points, as the major street grids of South of Market, the Mission and Potrero Hill all intersect here, with a half dozen major thoroughfares meeting Division Street.

The Mission Bay development adjacent to the proposed MCB includes a new research campus for UCSF, as well as a private Corporate, Science & Technology campus near the intersection of 16<sup>th</sup> and 6<sup>th</sup> Streets. This development, which is already under construction, will generate significant added traffic to the area. The bike and pedestrian improvements proposed in this Study will ease the congestion and provide tenants of these facilities with safer non-motorized alternatives to driving.

Rails-to-Trails Conservancy joined in partnership with the City of San Francisco, Madrina Group, and the San Francisco Bicycle Coalition to develop the Mission Creek Bikeway and Greenbelt Concept Plan (“Concept Plan”) in 2002 to describe opportunities for establishing the route. The improved route would include a combination of streetscape and sidewalk improvements, traffic calming, bike lanes, bike paths and interpretive and way-finding signage. The San Francisco Board of Supervisors passed resolutions 474-01 and 456-02 in support of the Mission Creek Bikeway Project urging city agencies to review and pursue opportunities for furthering the project. (Attachments A, B) Pursuant to that directive, Rails-to-Trails Conservancy entered into an agreement with the San Francisco Bay Trail Project to produce this Study.

## BACKGROUND

### Purpose of Study

The San Francisco Bay Trail Project, administered by the Association of Bay Area Governments (ABAG), is working to create a continuous 500-mile network of shoreline bicycling and hiking trails that will encircle San Francisco and San Pablo Bays, linking the nine Bay Area counties and 47 cities. The Bay Trail provides active recreational opportunities for hikers, joggers, bicyclists and skaters; passive wildlife viewing and environmental education; and increases public appreciation for the Bay. The Bay Trail also serves as a transportation alternative, primarily for cyclists, as it connects to numerous public transportation facilities (including ferry terminals, light-rail lines, bus stops and Caltrain, Amtrak, and BART stations).

The Bay Trail Plan identifies that Bay Trail “connectors” are an important part of the overall system. Connector trails link the Bay Trail to inland recreation sites, residential neighborhoods and employment centers, or provide restricted access to environmentally sensitive areas. Some connector trails link the Bay Trail and the Ridge Trail, another regional trail network, which travels inland, mostly along the ridges of the Bay Area’s hills. The MCB

is conceived as a Bay Trail Connector, providing access from the Mission District and South of Market neighborhoods to the eastern shoreline of San Francisco and the main Bay Trail alignment.

The Bay Trail Project funded this Study to provide information to help the City and stakeholders determine the costs, opportunities and constraints associated with implementation of the MCB between the intersection of Division/Bryant/11<sup>th</sup>/13<sup>th</sup> and the intersection of Division/9<sup>th</sup>/San Bruno (the “Study Area”), as described in the Concept Plan. The section along Division between Bryant and San Bruno was selected for this study because, according to the Concept Plan, it includes the “most hostile present conditions for both bicyclists and pedestrians along the analyzed route” (p. 19). The primary strategy described by the Concept Plan in this area is to expand the public ROW to establish an off-street, Class I bikeway (p. 38). This Study evaluates the MCB as originally conceived along the former railroad right-of-way, as well as alternative alignments, and aims to identify and quantify the precise amount of land required for establishing such a bikeway and policy options that would be required to proceed with such expansion of the public right-of-way. A determination of how to proceed in the Study Area will further efforts to develop and design the bikeway to the west and east of this section.

With the information from this Study, the City and stakeholders may choose to proceed with the MCB along the ROW alignment, pursue alternative bicycle/pedestrian improvements along the recommended alternative alignment, and/or identify alternate methods to meet the goals of creating safer bicycle and pedestrian connections from the Mission District and South of Market neighborhoods to the waterfront.

## **Previous Planning Efforts**

In 2001–02, Rails-to-Trails Conservancy, the San Francisco Bicycle Coalition, Madrina Group and the San Francisco Department of Parking and Traffic convened a planning process with funding from the Metropolitan Transportation Commission’s Transportation for Livable Communities (TLC) program.<sup>1</sup> The purpose of that process was to generate a vision and concept for the project through extensive community outreach. The Mission Creek Bikeway and Greenbelt Concept Plan describes the result of the outreach process and identifies preferred and alternative alignments. Key issues identified for additional analysis included expanding the Right-of-Way between Bryant Street and San Bruno Avenue and completing additional engineering analysis at key problematic intersections, especially at Bryant and Division Street, and Potrero Avenue and Division Street.

## **Project Area — Existing Land Uses**

Existing land uses along the project corridor (Division Street from Bryant Street to San Bruno Avenue) include industrial, light industrial and commercial. The majority of land owners in the project vicinity operate manufacturing, light manufacturing, research and development, and discount retail. The majority of existing land uses require on-site parking and circulation for employees, clients, customers, and delivery and loading. Specific land ownership and use patterns are addressed below under Land Ownership.

## **SUMMARY OF FINDINGS**

Our research for the Study revealed significant costs and land ownership obstacles at present in the Study Area route as originally envisioned along the ROW. Therefore, in order to achieve many of the goals of the MCB in the near future, such as safer bicycle and pedestrian

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<sup>1</sup> “Mission Creek Bikeway and Greenbelt Concept Plan”, Rails-to-Trails Conservancy, Madrina Group, San Francisco Bicycle Coalition, San Francisco Department of Parking and Traffic, June 1, 2002

circulation, improved waterfront access, an enhanced streetscape environment, and the opportunity for environmental and historical education and interpretation elements related to the former Mission Creek, several alternatives to the off-street pathway concept were also evaluated as part of this project.

This Study recommends an alternative alignment comprised of a combination of Class I and Class II bikeways and pedestrian improvements along Division Street to improve safety and access to the Bay Trail in the short term (described in Recommendations and Next Steps at the conclusion of this Study). In the longer term, the original Class I MCB remains a desirable option and commands strong support in the community. The current land uses and priorities in this dynamic area of San Francisco may shift in the future and make the original alignment along the Southern Pacific ROW more feasible.

## Process

Throughout the research and preparation for this Study, the project team maintained contact through meetings and phone conversations with the San Francisco Bay Trail Project, the San Francisco Department of Parking and Traffic, and the San Francisco Planning Department. The San Francisco Bicycle Coalition and the Madrina Group provided comments on a draft of the final Study. RTC and Bay Trail met with the San Francisco Parking and Transportation Department and Planning Department on October 1, 2004 to review the scope of the MCB project. RTC and Alta Planning + Design discussed lease agreements with Caltrans on January 7, 2005. In order to review the final stages of this project, RTC and Alta had an additional meeting with the San Francisco Planning Department on January 21, 2005.

## Plan Consistency

This section addresses the consistency of the proposed Mission Creek Bikeway with existing adopted plans and policies.

### SAN FRANCISCO GENERAL PLAN

#### General Plan Land Use Designations

The San Francisco Planning Department does not regard existing General Plan Land Use Designations for this area as a relevant data source for analysis of project consistency. (January 21, meeting). This data source is not frequently updated, and is only field checked and modified when a large-scale proposed project or planning effort so requires.

The majority of the parcels adjacent to the project site for the Mission Creek Bikeway are shown in the City's current GIS database as either Open Space or Vacant land uses.

#### Zoning Designation

The project area is zoned entirely M-1 Light Industrial District. According to the San Francisco Planning Code these districts provide land for industrial development. In general, the M-1 Districts are more suitable for smaller industries dependent upon truck transportation while the M-2 Districts are more suitable for larger industries served by rail and water transportation and by large utility lines. In M-1 Districts, most industries are permitted, with



large or noxious ones excluded. The permitted industries have certain requirements regarding enclosure, screening and minimum distance from residential districts.

In 2001 the San Francisco City Planning Commission adopted Resolution 16202 establishing policies and procedures for development proposals in industrial zoning districts. These policies were initially developed in response to the rapid residential and office conversion that took place in the late 1990s. These policies created both “Industrial Protection” zones and “Housing Zones” to encourage preservation of some industrial areas and to encourage planned mixed use development in other industrial areas. These policies also were intended to protect existing businesses and to avoid further displacement of industrial tenants. While these policies do not have a direct impact on proposed open space and bikeway projects, they should be considered in all future planning work related to the Mission Creek Bikeway project. Any potential negative impacts to industrial land uses in the area should be mitigated as discussed below.

### **Open Space Plans**

The City’s Recreation and Open Space Element of the General Plan is the guiding document for the City’s open space policies. Policy statements in the Recreation and Open Space Element of the General Plan identify areas of the city that have been prioritized for acquisition based upon the City’s criteria defining desirable open space acquisition, e.g. access to the eastern waterfront, addressing neighborhoods with greatest deficiency of park space and equal distribution of open space throughout the city. According to the Neighborhood Recreation & Open Space Improvement Plan (Map 9 of the Recreation and Open Space Element) the MCB site is not designated as a high priority for open space acquisition at this time. The decision maker for open space acquisition is the Park, Recreation and Open Space Advisory Committee (PROSAC). According to the City’s Planning staff, “When considering potential open space funding for the Mission Creek Bikeway, the project would be competing for very limited funds against other very attractive open space options” (March 1, 2005 letter from AnMarie Rodgers, Area Plan Co-Manager).

## **SAN FRANCISCO BICYCLE MASTER PLAN**

### **Policy Document Support for Mission Creek Bikeway**

The San Francisco Board of Supervisors adopted an update to the San Francisco Bicycle Plan on June 10, 2005. The San Francisco Bicycle Plan: Policy Framework 2005 addresses the bicycle network in Chapter 2. The following Goals and Objectives from Chapter 2 are relevant to the proposed Mission Creek Bikeway:

#### **Goal:**

Refine and Expand the Existing Bicycle Network.

#### **Objectives:**

- Provide safe space for bicyclists through a comprehensive network of bikeways that are appropriately signed, marked, and/or traffic-calmed. Ideally, the facilities would include on-street routes, marked bicycle lanes, and off-street bicycle paths;
- Utilize innovative designs, where appropriate, to improve bicycle usage and safety; and
- Ensure the Bicycle Network:

- allows bicycle access within a quarter mile of major commercial and residential areas;
- provides access to all San Francisco Municipal Railway (Muni) metros, Bay Area Rapid Transit (BART), and Caltrain stations; and ferry terminals and other major transit hubs; and is well signed.

## **Existing Bicycle Network**

The existing San Francisco bicycle route network in the project vicinity includes the following streets:

- 11<sup>th</sup> Street (Market Street to Bryant Street)
- Division Street (Bryant Street to Townsend Street)
- 7<sup>th</sup> and 8<sup>th</sup> Streets (Market Street to Townsend Street)
- Townsend Street (Division Street to Embarcadero)
- Henry Adams (Division Street to 16<sup>th</sup> Street)
- 16<sup>th</sup> Street (Henry Adams to Illinois Street)
- 4<sup>th</sup> Street (Townsend Street to Third Street)

The existing bicycle network in the vicinity of the proposed project area for the Mission Creek Bikeway is shown in Figure 1 below (Existing Bikeways).

The Bicycle Network chapter of the Bicycle Plan Policy Framework identifies a list of recommended improvements to the existing bicycle route network and study areas. The recommended improvements could include bike lanes, shared lane arrow marking, traffic signal improvements and path resurfacing. The Mission Creek Bikeway from 16<sup>th</sup> to 4<sup>th</sup> Street, as well as Division Street from King to 11<sup>th</sup> Street, are both listed in Table 2-3 of the Framework as Recommended Improvements and Study Areas for the Existing Bicycle Route Network.

## **Network Improvement Document Support for Mission Creek Bikeway**

A related document, the Network Improvement Document, provides more detail as to specific improvements and their proposed timeline. The Document identifies a list of high priority projects for short-term implementation, which was developed via extensive community input and agency technical review, followed by preliminary engineering. Short-term projects in the vicinity of the proposed Mission Creek Bikeway that were selected and studied include: Townsend, and the 16<sup>th</sup> Street/17<sup>th</sup> Street corridor. Design concepts developed for Townsend Street achieved sufficient support from the members of the Technical Advisory Committee to the Bicycle Plan such that the City is pursuing Proposition K funds to further develop the project in the near term. The 16<sup>th</sup> Street/17<sup>th</sup> Street corridor, while regarded as an important route for bicycle circulation between Market Street, South of Market, and Mission Bay has far more complex traffic and transit operations. The Technical Advisory Committee to the Bicycle Plan agreed that this project should be further studied to address all transportation modes prior to implementation of a bicycle facility.

Another set of projects is listed for mid-term implementation, as the Department of Parking and Traffic's Proposition K Five-year Prioritization Program under Category C.5.B Bicycle Circulation/Safety, which was approved by Transportation Authority Board in May 2005. This Five-Year list includes on-street improvement for Division Street with a reference to the potential benefits for the Mission Creek Bikeway.

On-street route connections between the Market Street corridor and Mission Bay area include the following:

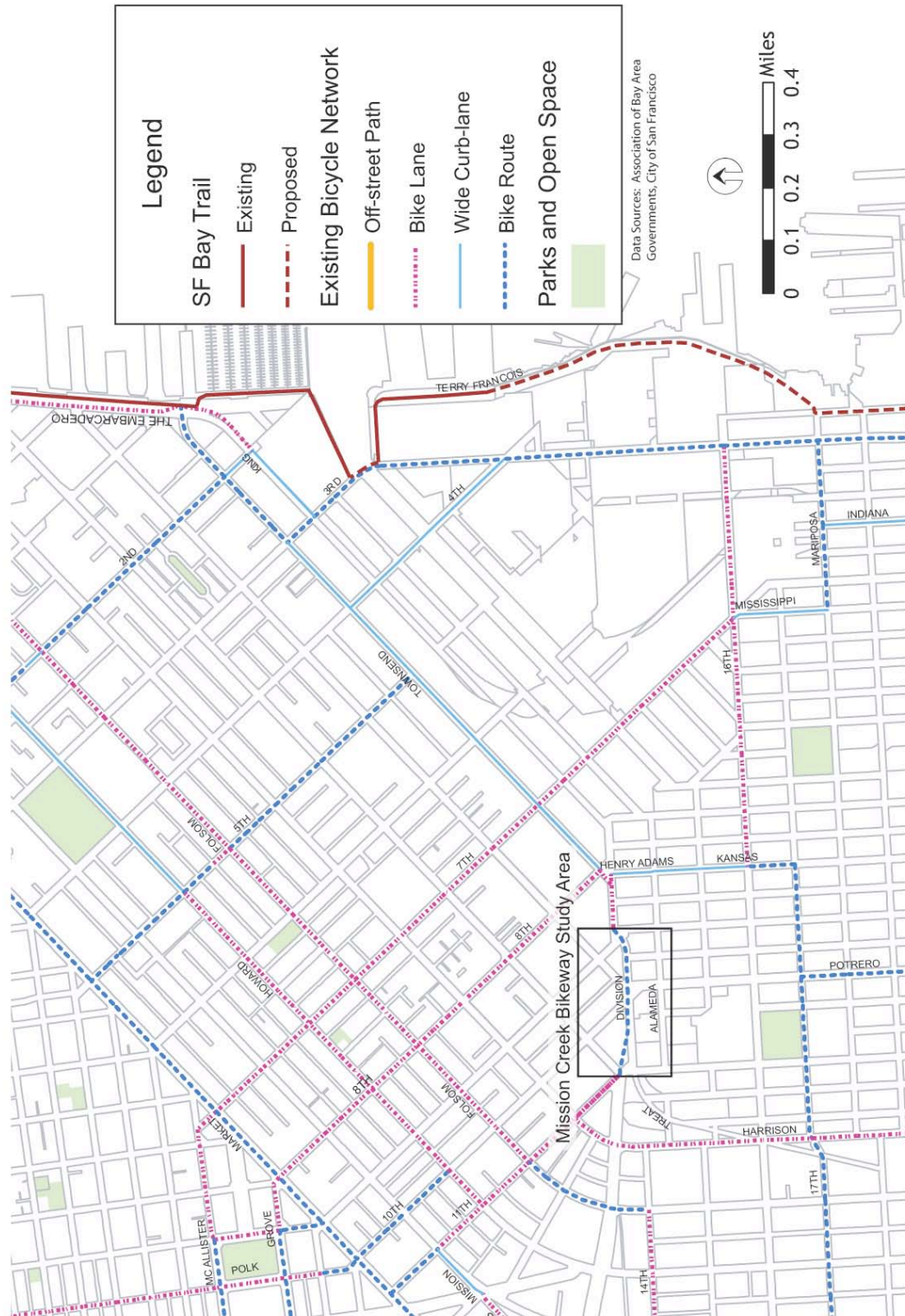
- Market Street (Route 23); 11<sup>th</sup> Street (Route 25); Division Street (Route 36); Henry Adams (Route 123); 16<sup>th</sup> Street (Route 40)
- Market Street (Route 23); Henry Adams (Route 30); 16<sup>th</sup> Street (Route 40)
- Market Street(Route 23); 7<sup>th</sup> Street (Route 23); 16<sup>th</sup> Street (Route 40)
- Market Street (Route 23); 5<sup>th</sup> Street (Route 19); Townsend Street (Route 36); 4<sup>th</sup> Street (Route 19)

There are additional variations of existing routes that can be used to make this connection; however, the routes listed above comprise the most direct use of existing bicycle lanes and signed routes.

Possible improvements to these existing on-street routes are addressed below.

### **Figure 1: Existing Bikeways**

### Figure 1: Existing Bikeways





## PARKING REQUIREMENTS

The establishment of the MCB preferred alignment would require removal or redesign of some existing parking lots. The City has guidelines for the number, dimension, and arrangement of required off-street parking and freight loading spaces based on the use or activity of individual buildings or lots, which are detailed in Sections 151-155 of the San Francisco Planning Code. Most of the parcels in the vicinity of the proposed Mission Creek Bikeway would be subject to parking and freight loading requirements based on building size and use.

Planning Code Section 155 notes that every required off-street parking or loading space must be on the same lot as the use it serves, and must be located entirely within the lot lines of private property (this applies to required off-street parking and loading spaces, but not necessarily to spaces provided in excess of those required by the Planning Code). Exceptions to this requirement are provided in Planning Code Sections 159, 160, and 161, which are detailed below.

Planning Code Section 159 states that required off-street parking spaces for all uses other than dwellings must be located on the same lot as the use they serve, as an accessory use; or within a walking distance of 800 feet, as either a principle or conditional use, depending on the use provisions for the district in which the parking is located. To meet this requirement, the off-street parking spaces not located on the same lot as the use served must be available for the lifetime of the structure or use served (assurance of this must be filed with the Planning Department — either by ownership or lease of the and on which the parking is to be located).

Planning Code Section 160 states that collective provision of off-street parking spaces in one location to meet requirements for two or more separate structures or uses may be permitted, where the total quantity of spaces provided is at least equal to the total required when calculated individually. As with Planning Code Section 159, the parking must be available



*Parking on both Caltrans owned and privately owned parcels is configured around existing freeway deck support columns, in order to maximize the number of possible stalls provided.*

for the lifetime of the structures or uses served, and assurance of this must be filed with the Planning Department.

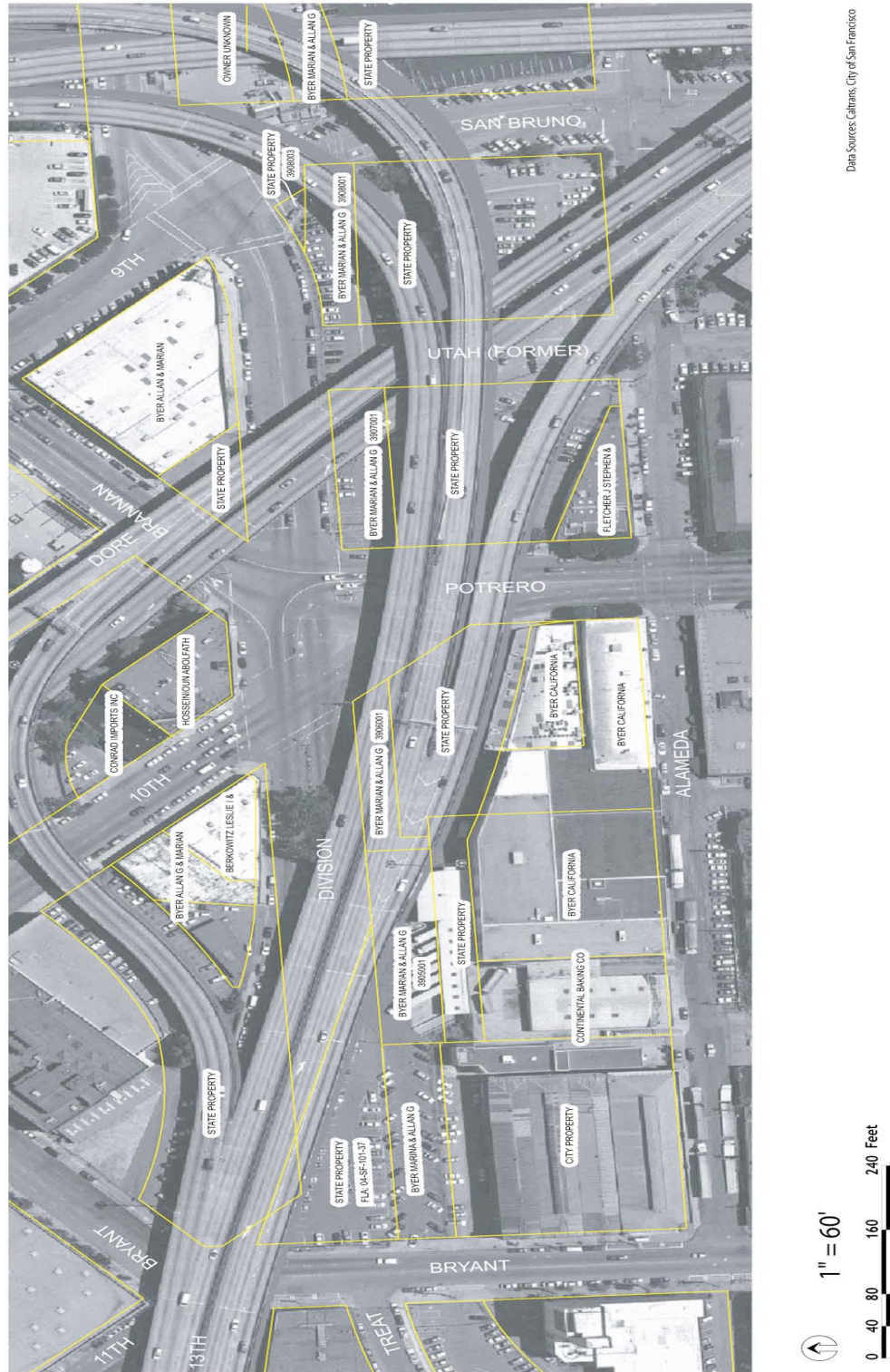
Currently available data from the San Francisco Planning Department does not appear to accurately reflect the size of buildings on lots in the proposed project area. In order to accurately assess the parking and freight loading requirements in the proposed project vicinity, detailed information regarding the type and size of building uses would be required. Such an assessment must consider not only buildings located on parcels immediately adjacent to the proposed pathway, but also any buildings that use such parcels for the purposes of parking or freight loading. An assessment of parking and freight loading requirements in the proposed project vicinity must also consider the requirements of Planning Code Sections 159 and 160.

## Land Ownership

The following sections describe current land ownerships within the proposed project area for the Mission Creek Bikeway; this information is graphically presented in **Figure 2: Land Ownership**.

**Figure 2: Land Ownership**

Figure 2: Land Ownership





## PRIVATELY-OWNED LAND

Approximately 75% of the required land area for the Mission Creek Bikeway is currently in private ownership (see Figure 2). Parcels 390 5001, 390 6001, 390 7001, and 390 8001 are owned by the Byer Corporation, a San Francisco-based clothing manufacturer and distributor.

The predominant use of these parcels is for private parking and vehicle circulation. Users include Byer employees, Byer staff operating trucks and other moving equipment, and employees and patrons of the Gold's Gym facility located on Division Street and 9<sup>th</sup> Street.

## CITY-OWNED LAND

### Street Right of Way

#### Division Street

The proposed Mission Creek Bikeway parallels Division Street for the length of the project site defined in this study, from Bryant Street to San Bruno Avenue. This segment of Division Street is comprised of two distinct cross-sections: Bryant Street to Potrero Avenue, which has two travel lanes in each direction, a center median, on-street parking, and sidewalks on both sides of the street; and Potrero Avenue to San Bruno Avenue, which has one travel lane in each direction, on-street parking, and sidewalks on both sides. The predominant curb-to-curb width of Division Street between Bryant Street and Potrero Avenue is approximately 75 feet, and the predominant curb-to-curb width of Division Street between Potrero Avenue and San Bruno Avenue is approximately 64 feet, though the street narrows to approximately 61 feet immediately east of Potrero Avenue. From Bryant Street to Potrero Avenue, 10' travel lanes and 22.5' outside travel/parking lanes exist in both directions. From Potrero Avenue to San Bruno Avenue, 32' shared travel/parking lanes exist in both directions.

Sidewalk widths vary considerably along this segment of Division Street. Between Bryant Street and Potrero Avenue, the predominant sidewalk width on the north side of Division Street is 6 feet or more, though the usable sidewalk width is much less in some locations where freeway columns exist. The south sidewalk on Division Street in this same area has significant variations in width, and the exact southern boundary of the right-of-way is not clear in the field. Exact location of this boundary will require a site survey. Generally, the sidewalk ranges in width from 5 feet to 12 feet, and is obstructed by freeway columns in several locations, as show in the picture to the right. From Potrero to San Bruno, the sidewalk is 9 feet wide along the north side of the street, and 7 feet wide along the south side; freeway columns reduce the usable width of the sidewalk in a few locations.



*Sidewalk widths on Division Street vary from 5 feet to 12 feet. In several locations the sidewalks are obstructed by freeway columns.*

San Francisco Department of Parking and Traffic striping drawings (with dimensions) for this segment of Division Street are included in this report as Attachment C.



## **Utah Street**

Utah Street appears to have been vacated by the City of San Francisco. The area formerly occupied by Utah Street is currently being used for off-street parking; the precise ownership status of this public right-of-way remains to be determined by the City of San Francisco Planning Department.

## **San Bruno Avenue**

San Bruno Avenue extends from Division Street in the north to 20<sup>th</sup> Street in the south. The blocks extending from Division Street to 15<sup>th</sup> Street are comprised of one travel lane in each direction, a concrete median that varies from 5 to 18 feet wide, and diagonal striped parking. A total of 113 on-street parking spaces exist along this portion of San Bruno Avenue. The current configuration of this segment of San Bruno Avenue affords potential for redesign to accommodate more parking by converting existing diagonal parking spaces to perpendicular parking spaces, which may require the removal of part of the concrete median.

This additional parking could serve as mitigation for the parking loss impacts associated with the Mission Creek Bikeway proposal. This relationship is described in greater detail below under Reconfiguration of San Bruno Avenue.

Any modification to the configuration of this roadway requires planning and design through the Department of Parking and Traffic and Department of Public Works. Vehicular traffic circulation plans for this area have not been researched.

## **Street Closure**

The Concept Plan recommends abandoning San Bruno Avenue between Alameda Street and Division Street (p. 29) to replace off-street parking removed to accommodate the bikeway. The City has two mechanisms for closing a street to through traffic: 1) Street Vacation (Abandonment) and, 2) Major Encroachments.<sup>2</sup>

Vacating a street requires rigorous review and several levels of approvals. Although the Department of Real Estate will ultimately negotiate the easement, several steps must be met for an abandonment to be approved. The Department of Public Works (DPW) must review the proposal and may issue a favorable or unfavorable recommendation. In order to initiate a review by DPW, a petition letter must be sent to DPW with confirming letters from all adjoining property owners. All adjoining property owners to a proposed street vacation must be in agreement. Furthermore, the Planning Department must determine that the proposed street vacation is in conformity with the General Plan and consistent with the Eight Priority Policies of Planning Code Section 101.1. Other agencies, such as the Department of Telecommunications, MUNI, Pacific Bell, the SF Fire Department, the SF Water Department, PG&E, Bureau of Light, Heat and Power, and the Interdepartmental Staff Committee on Traffic and Transportation (ISCOTT), and others, would also be sent a copy of the proposal for review. Finally, per City policy, “The vacation of the public’s interest in a dedicated street...requires legislative approval by the Board of Supervisors.” (Department of Public Works, Street Vacation (Abandonment)/Easement Vacation (Abandonment))

Applying for a major encroachment permit is another mechanism to close a portion of a street to through traffic. A revocable encroachment permit is also granted by a Resolution of the

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<sup>2</sup> “Street Vacation (Abandonment)/Easement Vacation (Abandonment)”, Department of Public Works, Office of the Director, handout; “Information and Requirements for Major Encroachment”, Department of Public Works, Bureau of Street-Use and Mapping

Board of Supervisors (Department of Public Works, Information and Requirements for Major Encroachment). DPW makes referrals to ISCOTT, the Planning Department and other agencies it considers relevant to the requested permit. The City's General Plan states that where the release of street areas is warranted, it shall be permitted "only in the least extensive and least permanent manner appropriate to each case."

## **CALTRANS-OWNED LAND**

The Caltrans property within the Bikeway project area consists of space beneath the Central freeway. Caltrans considers this active right-of-way and therefore it cannot be declared excess and sold to a third party. (Per conversation with Caltrans, January 7, 2005). Caltrans does, however, have an Airspace Policy that allows for transportation compatible uses within the airspace defined as "any property within right of way limits of an existing highway...that is capable of other development without undue interference with the operation and foreseeable future expansion of the transportation corridor" and includes "surface rights under a viaduct structure". (Caltrans Right-of-Way Manual, Section 15.01.01.01) Caltrans policies provide guidelines on leasing airspace sites to maximize the use of their landholdings. (Section 15.01.01.02)

Caltrans establishes Fair Market Lease Rates (FMLR) based on square footage. The estimated amount of Caltrans land required for the MCB is estimated to be between 6,200 and 8,340 square feet. Current lease rates for Caltrans lots in the project area range from \$3,000 to \$9,000 per month (February 18, letter). Existing leases in the project vicinity are granted for two years through a competitive process and include 90-day termination clauses. Byer Properties is the largest leaseholder in the area.

## **Caltrans Airspace Lease Policies**

If the City decides to pursue use of Caltrans property to establish the MCB site, two options are available for airspace lease agreements with Caltrans. The first option is available to public agencies -- they can go into direct negotiations with Caltrans for a long-term lease request as long as the lease is at or above FMLR. Long-term lease negotiations require review by the District Airspace Review Committee (DARC) but do not require Airspace Advisory Committee (AAC) consent or CTC approval. The City would initiate this process with Caltrans by proposing a long-term development lease that specifically establishes the proposed use and terms of the MCB site, including improvements and access requirements.

The second option is the Marler-Johnson Park Agreement (Section 15.04.01.05), which allows for a local agency to request use of Caltrans airspace for park or recreational purposes. The District Airspace Review Committee would review the proposal and a Fair Market Lease Rate (FMLR) would be established minus maintenance and security costs. Marler-Johnson agreements may be offered for a period of ten years with five year extensions.

According to Caltrans staff, right-of-way access and airspace lease agreements are most frequently used for parking spaces. Marler-Johnson Park Agreements have rarely been negotiated because the nature of the right-of-way directly located under freeways is not typically desirable as park space. In the case of the MCB site, the City would most likely be advised to enter into direct negotiations with Caltrans for a long-term lease agreement.

## **RIGHT-OF-WAY REQUIREMENTS**

In order to construct a Class I path to accommodate bicyclists and pedestrians and provide a vegetated buffer from the existing Division Street right-of-way, approximately 16 feet of obstruction-free width would be required. A sidewalk of varying width exists along the south

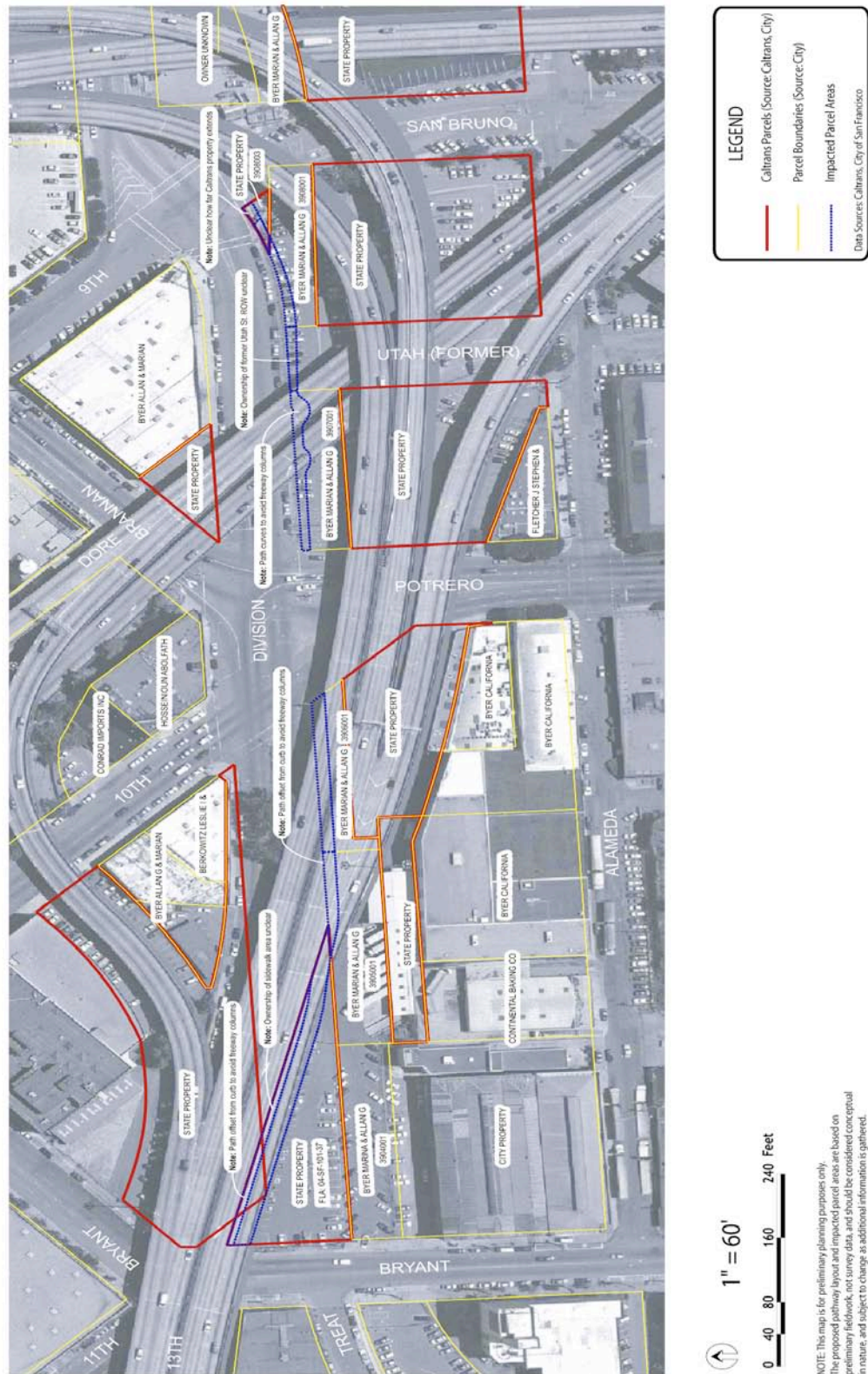
side of Division Street from Bryant Street to San Bruno Avenue, but it is obstructed in several locations by freeway support columns and footings. The primary use of parcels immediately adjacent to the existing sidewalk is for parking and loading; these uses are separated from the public right-of-way with chain link fencing along the existing sidewalk.]

To accommodate the proposed path, approximately 13,500-15,600 square feet of property would be impacted. Of this amount, approximately 6,600 square feet of privately-owned property and 6,200-8,300 square feet of Caltrans-owned property would be impacted, in addition to approximately 700 square feet of City-owned property (NOTE: This City-owned property refers to the former Utah Street right-of-way; discussed above).

Impacted parcels are shown in **Figure 3: Proposed Pathway Alignment – Impacted Parcels**. In addition to the property required, fencing along the entire project length would need to be relocated, and eight light posts would also need to be moved. Several loading entrance points would need to be reconfigured or reconstructed. Off-street parking that currently occupies most of the impacted land area would need to be removed, relocated, or reconfigured. An estimated 92 off-street parking spaces would be impacted. These parking spaces would need to be replaced, as detailed in the Parking Requirements section of this report.

**Figure 3: Proposed Pathway Alignment – Impacted Parcels**

Figure 3: Proposed Pathway Alignment - Impacted Parcels





## **Constraints**

### **Freeway Columns**

Although the proposed path alignment would abut the existing curb along the south of Division Street wherever possible, it would be required to deviate from the curb in several locations to avoid freeway support columns and footings. Freeway columns also limit the options for reconfiguring or relocating parking while maintaining vehicle circulation lanes on existing parcels in some locations.

### **Operational Characteristics of Sidepaths**

The term “sidepath” is frequently used to describe a multi-use pathway located immediately adjacent and parallel to an existing roadway with limited or no separation. The proposed MCB falls into this general categorization. According to the AASHTO Guide for the Development of Bicycle Facilities<sup>3</sup> when two-way shared use paths are located immediately adjacent to a roadway, some operational problems are likely to occur. Some problems with paths located immediately adjacent to roadways are as follows:

1. Unless separated, they require one direction of bicycle traffic to ride against motor vehicle traffic, contrary to normal rules of the road.
2. When the path ends, bicyclists going against traffic will tend to continue to travel on the wrong side of the street. Likewise, bicyclists approaching a shared use path often travel on the wrong side of the street in getting to the path. Counter-flow travel by bicyclists can be dangerous and is, in most cases, not advised. Before using this technique, the situation should be carefully analyzed.
3. At intersections, motorists entering or crossing the roadway often will not notice bicyclists approaching from their right, as they are not expecting contra-flow vehicles. Motorists turning to exit the roadway may likewise fail to notice the bicyclist. Even bicyclists coming from the left often go unnoticed, especially when sight distances are limited.
4. Signs posted for roadway users are backwards for contra-flow bike traffic; therefore these cyclists are unable to read the information without stopping and turning around.
5. When the available right-of-way is too narrow to accommodate all highway and shared use path features, it may be prudent to consider a reduction of the existing or proposed widths of the various highway (and bikeway) cross-sectional elements (i.e., lane and shoulder widths, etc.). However, any reduction to less than AASHTO Green Book (or other applicable) design criteria must be supported by a documented engineering analysis.
6. Many bicyclists will use the roadway instead of the shared use path. Bicyclists using the roadway may be harassed by some motorists who feel that in all cases bicyclists should be on the adjacent path.

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<sup>3</sup> American Association of State Highway and Transportation Officials, Task Force on Geometric Design. Guide for the Development of Bicycle Facilities. Washington, D.C. 1999.

7. Although the shared use path should be given the same priority through intersections as the parallel highway, motorists falsely expect bicyclists to stop or yield at all cross-streets and driveways. Efforts to require or encourage bicyclists to yield or stop at each cross-street and driveway are inappropriate and frequently ignored by bicyclists.

8. Stopped cross-street motor vehicle traffic or vehicles exiting side streets or driveways may block the path crossing.

9. Because of the proximity of motor vehicle traffic to opposing bicycle traffic, barriers are often necessary to keep motor vehicles out of shared use paths and bicyclists out of traffic lanes. These barriers can represent an obstruction to bicyclists and motorists, can complicate maintenance of the facility, and can cause other problems as well.

The above generalized statements are taken directly from the AASHTO manual and are supported by other professional publications. Points 2, 3, 7, 8 and 9 are directly relevant to the MCB. The short segments of multi-use trail that can be created through acquisition and lease of Byer and Caltrans property are in fact the more straightforward and easily completed components of the MCB, leaving several complex intersections to address.

### **Path and Roadway Intersections**

The proposed path alignment would cross three complex intersections. The intersections at Bryant Street and Potrero Avenue are both five-legged intersections with significant traffic volumes.

The proposed path would begin in the west at the corner of Bryant and Division Streets. Enhanced crossing treatments would be required to accommodate bicyclists and pedestrians wishing to access the path from nearby Treat Avenue, which is the proposed alignment of the Mission Creek Bikeway to the west of Bryant Street. Given the proximity of Treat Avenue to the signalized intersection of Bryant and Division Streets, a mid-block crossing at Treat Avenue would present significant safety concerns. This concern is principally due to the low visibility of pedestrians and bicyclists to approaching right turning motorists from Division Street onto Bryant Street. Left turns from Treat Avenue onto Bryant Street are currently prohibited. The preferred alternative would be to route bicyclists and pedestrians along the west side of Bryant Street to the existing crosswalk at Bryant and Division Streets, requiring signage and possible reconfiguration of this sidewalk. Due to the location of this intersection under a freeway structure, lighting should also be considered for any improved crossing.

The largest street crossing within the proposed alignment occurs at Potrero Avenue, with a curb-to-curb width of approximately 170 feet. This five-legged intersection carries significant traffic volumes from multiple directions. Two pedestrian refuge islands exist at the southern crossing of Potrero Avenue, but would need to be redesigned to accommodate bicycle traffic. Signal timing changes, signage, and enhanced crosswalk markings are some options that may improve this crossing for bicyclists and pedestrians.

The proposed path alignment would transition to an on-street bicycle facility at the intersection with San Bruno Avenue. Bicycle lanes currently exist on Division Street east of San Bruno Avenue. Signage and enhanced crossing treatments would be required at this intersection, both for eastbound bicycle traffic transitioning to the on-street bicycle lanes and

for westbound bicycle traffic transitioning from the on-street bicycle lanes onto the proposed path.

## **Parking**

On-street parking would not be impacted along the segment of the project addressed in this Study. In order to provide continuous bicycle facilities east of San Bruno Avenue (which is beyond the Study Project Area), approximately three on-street parking spaces would potentially need to be removed to extend the existing eastbound Division Street bicycle lane westward to the intersection with San Bruno Avenue.

As previously mentioned, most of the impacted lane area is used for off-street parking. An estimated 92 off-street parking spaces would need to be removed, relocated, or reconfigured to accommodate the proposed path alignment. Approximately 26 of these spaces are located on Caltrans-owned property that is leased to private entities. Approximately 9 of these spaces are located on the former Utah Street ROW (the status of this area is as yet undetermined), and the remaining 57 spaces are located on privately-owned land.

## **RECONFIGURATION OF SAN BRUNO AVENUE**

The Concept Plan proposed that the segment of San Bruno Avenue between Division and Alameda Streets be abandoned and reconfigured to accommodate a greater number of parking spaces. A preliminary analysis of this concept shows that approximately 16 parking spaces could be gained by converting the existing diagonal parking stalls into perpendicular stalls. However, this conversion may require the removal of a portion of the concrete median to maintain adequate width for vehicular circulation.

## **PRIVATE PROPERTY ACQUISITION**

According to comments provided by the San Francisco Planning Department, use of City of San Francisco open space acquisition funding for acquisition of Byer property, necessary for implementation of the MCB concept, would receive a low priority rating in comparison to other open space land acquisition opportunities in this neighborhood (see Open Space Plans discussion, above). Given limited open space acquisition funding options and the high cost of the MCB relative to the amount of usable open space gained, Planning staff currently prioritizes pocket parks or other open air lot acquisitions in closer proximity to residential blocks as more important for the Mission Bay, Potrero Hill and the Central Waterfront. However, these priorities could change based on strong community support. Alternative acquisition sources not relying on City of San Francisco general fund or grant sources have not been researched for this Study.

## **CALTRANS PROPERTY ACQUISITION**

The MCB concept depends to a greater degree on acquisition of private property, approximately 75% of the designated project area, meaning that there is limited benefit to pursuing a City of San Francisco lease of Caltrans parcels until the private property access is established. Caltrans parcels are located at opposite ends of the project site. No source of lease funds has been identified as a part of this Study.

# Alternative Alignments

Many of the goals of the Mission Creek Bikeway are independent of any specific pathway alignment, including safer bicycle and pedestrian circulation, improved waterfront access, an enhanced streetscape environment, and the provision of environmental and historical education and interpretation opportunities related to the former Mission Creek. Several alternatives to the off-street pathway concept were evaluated as part of this project.

## ALAMEDA STREET

Alameda Street, located one block south of Division Street, is one potential option for an on-street bicycle facility. Alameda Street serves multiple shipping and industrial building with frequent loading bays. While some planned City of San Francisco Bicycle Network routes are located on industrial streets, such as Illinois Street and Oakdale Avenue, these streets provide greater right-of-way width, allowing for more safe shared use of the street by bicyclists and freight traffic. Alameda Street is narrow and is frequently blocked by double-parked tractor-trailer rigs, and is frequently crossed by fork lift traffic. In addition, the Alameda Street intersection with Potrero Avenue is un-signalized and offer bicyclists limited visibility eastbound on Alameda when entering the intersection. Alameda is not recommended as an alternative for bicyclists or pedestrians.

## DIVISION STREET

Despite the lack of existing on-street bicycle facilities, Division Street remains a popular route with bicyclists. Field observations indicate that more experienced/skilled cyclists ride on-street, sharing the outside travel lane with motor vehicles. Less experienced/skilled cyclists sometimes ride on the sidewalk, where they must navigate around frequent freeway columns blocking their path.

The cross-section of Division Street varies between Bryant Street and San Bruno Avenue. On-street parking is permitted on both sides of Division Street between Bryant Street and San Bruno Avenue. While sidewalks on both sides of the street exist along this segment of Division Street, the presence of freeway columns makes the usable sidewalk area narrow in some locations.

Bicycle lanes exist on Division Street east of the intersection with 9<sup>th</sup> Street and San Bruno Avenue, just east of the project area. Providing continuous eastbound bicycle lanes may require the removal of approximately three parking spaces east of this intersection. At the western end of the project area, a bicycle connection would be needed from the intersection of Treat Avenue and Bryant Street to the intersection of Bryant and Division Streets. Left turns are currently prohibited from Treat Avenue onto Bryant Street, and this location is not ideal for a midblock crossing given its proximity to the busy intersection of 11<sup>th</sup>/13<sup>th</sup>/Bryant/Division Streets.

### **Division Street between Bryant Street and Potrero Avenue**

Along the south side of Division Street from Bryant Street to 280 feet easterly, the sidewalk should be widened by 6 to 8 feet to provide a more accessible pedestrian walkway around the freeway columns. This area is currently unimproved, as shown in the picture below. Sidewalk widening in this area would not require property acquisition or narrowing the traveled roadway. In order to provide a significantly wider sidewalk around freeway



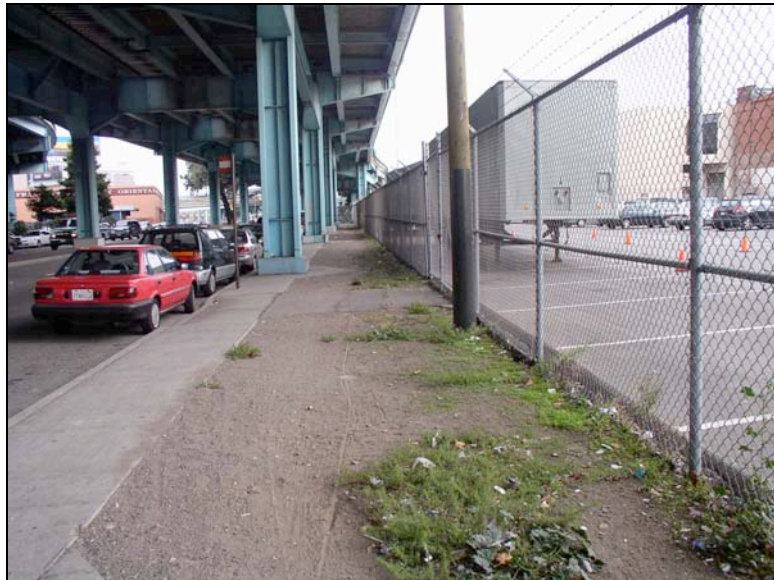
columns along the north side of this portion of Division Street, it is likely that Caltrans property would need to be obtained.

Between Bryant Street and Potrero Avenue, bicycle lanes could be striped along Division Street by converting the outside parking/travel lane, as depicted in **Figure 4** below. This reconfiguration would not require the removal of any on-street parking.

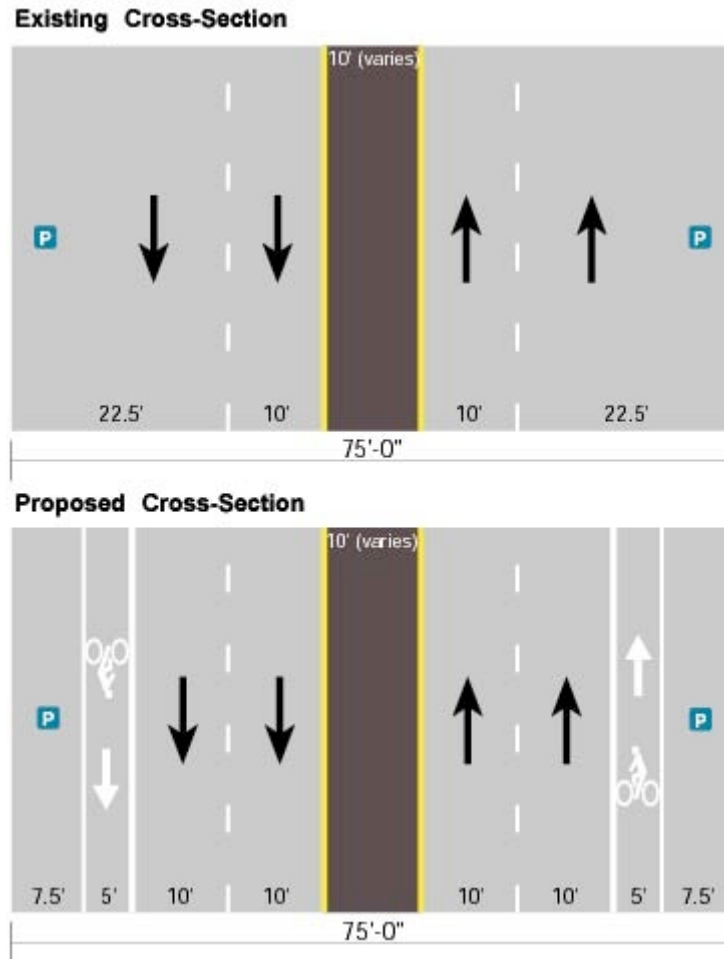
### **Division Street between Potrero and San Bruno**

Between Potrero and San Bruno Avenues, bicycle lanes could be striped along Division Street as depicted in Figures 5 and 6 below. For most of this segment, on-street parking would not be impacted, as shown in Figure 5.

However, this reconfiguration would require the removal of approximately 100 feet of on-street parking (approximately 6 spaces) to accommodate a westbound curbside bicycle lane approaching the intersection of Division Street and Potrero Avenue, where Division Street narrows to 61 feet, as shown in Figure 6.

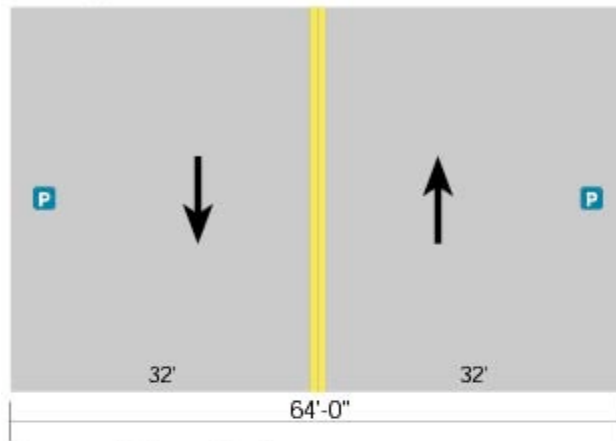


*The existing north side Division Street sidewalk and undeveloped portion of the right-of-way allows for sidewalk enhancement for the block between Bryant Street and Potrero Avenue.*

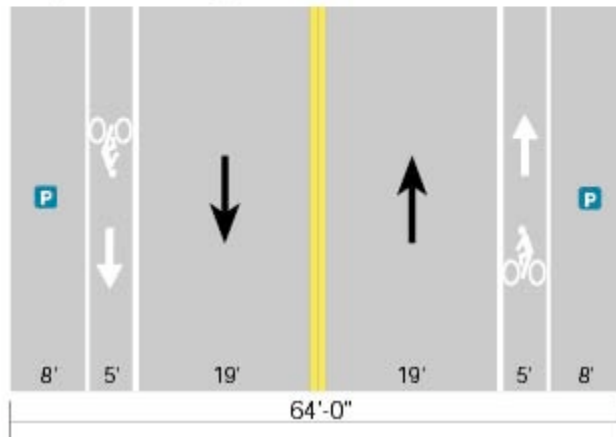


**Figure 4: Division between Bryant and Potrero –  
Proposed Bicycle Improvements**

**Existing Cross-Section**

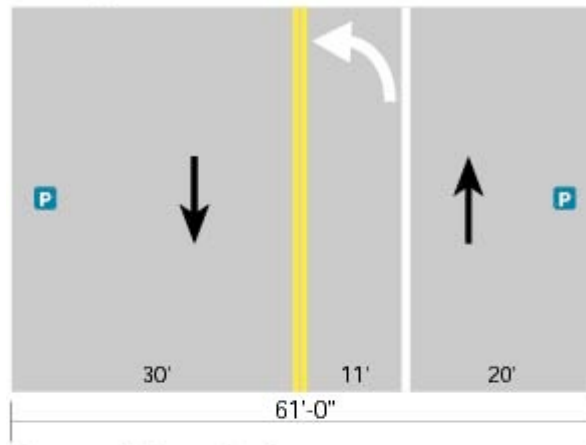


**Proposed Cross-Section**

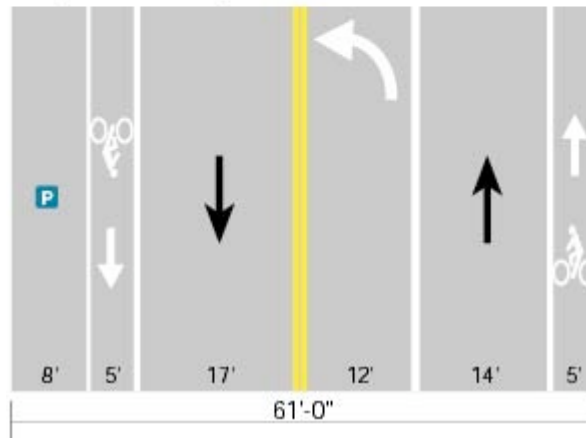


**FIGURE 5: DIVISION BETWEEN POTRERO AND SAN BRUNO —  
PROPOSED BICYCLE IMPROVEMENTS**

**Existing Cross-Section**



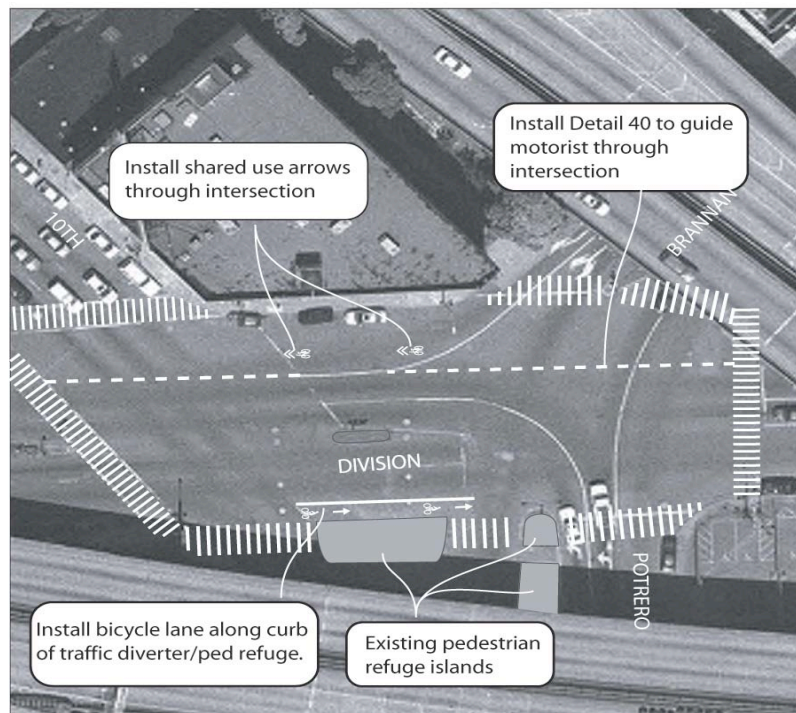
**Proposed Cross-Section**



**FIGURE 6: DIVISION STREET EAST OF POTRERO —  
PROPOSED BICYCLE IMPROVEMENTS**

## Intersection of Division with 10<sup>th</sup>/Brannan/Potrero

Although the intersection of Division Street with 10<sup>th</sup>, Brannan, and Potrero is large, the presence of sidewalks within the intersection provides pedestrians with a refuge, allowing them to cross in two separate movements, and the presence of curbs provides a refuge for bicyclists who enter the intersection late within Division Street's green signal phase. Several design measures may help improve this intersection for pedestrians and bicyclists, as shown in Figure 7 below. The installation of high-visibility crosswalks on all intersection legs will help alert vehicles (especially turning vehicles) to expect pedestrians. The installation of a curbside bicycle lane for eastbound bicyclists and shared-use arrows for westbound bicyclists will help bicyclists position themselves in the intersection and also alert motorists to their presence.



**FIGURE 7: INTERSECTION OF DIVISION WITH 10<sup>TH</sup>/BRANNAN/POTRERO**

# Recommendations and Next Steps

## MCB CLASS I CONCEPT

The MCB Class I Concept remains a desirable goal, and there is strong community support for a continuous Class I facility. It is also listed in the San Francisco Bicycle Plan: Policy Framework as approved by the San Francisco Board of Supervisors in June 2005. This alignment faces some significant physical constraints in the short term, as addressed in this Study, most notably:

- The need for acquisition of a significant amount of private land currently in use for required parking for local businesses;
- The Caltrans-owned land needed for the project is not available for purchase as it is considered active ROW; therefore the City would need to obtain a lease from Caltrans.

However, land uses and priorities in this rapidly changing area of San Francisco may shift in the future and make the original alignment along the Southern Pacific ROW more feasible. If that happens, a Class I facility could complement the alternative near-term improvements recommended below.

## RECOMMENDED SHORT-TERM IMPROVEMENTS

An alternative alignment comprised of short-term bicycle improvements on Division Street and mid-term sidewalk improvements is recommended at this time to achieve safer bicycle and pedestrian circulation, improved waterfront access, an enhanced streetscape environment, and the opportunity for environmental and historical education and interpretation elements related to the former Mission Creek.

The schematic bicycle recommendations presented above as Figures 4 thru 7 should be discussed with the Department of Parking and Traffic Bicycle Program Staff and San Francisco County Transportation Authority staff in order to conduct the required project analysis. Following detailed analysis of the project and assuming that the recommended striping can be implemented without significant negative impacts to traffic flow or transit operations, these recommendations should be scheduled for implementation in conjunction with the current agency priorities.

Mid-term pedestrian improvements should be considered between Bryant and Potrero. The basic design concept to be pursued should include use of undeveloped City-owned right of way, and unused portions of Caltrans owned properties to create a wider sidewalk facility with a 6-8 foot clear passage way. Appropriate short-term improvements for the pedestrian facility include increased frequency of removal of stolen and illegally dumped property in conjunction with regular sidewalk sweeping.

Another improvement, as recommended in the MCB Concept Plan, would shorten the crossing distance for pedestrians on Bryant by providing a curb bulb-out at the southwest corner of Bryant and Division and moving the bus stop south to the other side of Treat. The complexity of this intersection would warrant further study of the geometry of the site.

## **LEAD AGENCIES FOR NEXT STEPS**

Lead agency for the MCB project will vary depending on the project element under consideration.

### **On-Street Bicycle Improvements**

The Department of Parking and Traffic Bicycle Program is the appropriate lead agency for this component. Assistance from the San Francisco County Transportation Authority is appropriate in the prioritization and funding of the proposed improvements.

### **Sidewalk Improvements**

Short-term sidewalk improvements including debris removal and sidewalk sweeping must be programmed into street maintenance through the Department of Parking and Traffic and Department of Public Works. Mid-term sidewalk widening and enhancement should be coordinated through the Department of Parking and Traffic Pedestrian Safety Program and through the Planning Department.

In the long term, the Departments of Parking and Traffic, Public Works and Planning, along with the Transportation Authority, should coordinate efforts to establish the MCB Class I facility should land uses change in the area, and should be vigilant to assure that no permits are given for permanent encroachments that would prohibit eventual development of a Class I facility in the future.

###