



# **DRAFT ENVIRONMENTAL IMPACT REPORT**

## **Better Market Street Project EIR APPENDIX 2: INITIAL STUDY**

PLANNING DEPARTMENT  
CASE NO. 2014.0012E

STATE CLEARINGHOUSE NO. 2015012027



**SAN FRANCISCO  
PLANNING  
DEPARTMENT**

	Draft EIR Publication Date:	February 27, 2019
	Draft EIR Public Hearing Date:	April 4, 2019
	Draft EIR Public Comment Period:	February 28, 2019 – April 15, 2019

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## **APPENDIX 2: INITIAL STUDY**



# SAN FRANCISCO PLANNING DEPARTMENT

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## Notice of Availability of Initial Study

*Date:* March 30, 2016  
*Case No.:* **2014.0012E**  
*Project Title:* **Better Market Street Project**  
*Zoning:* Various - Market Street between Octavia Boulevard and The Embarcadero  
Mission Street between Valencia Street and The Embarcadero, Valencia  
Street between Market and McCoppin streets and 10<sup>th</sup> Street between  
Market and Mission streets  
*Block/Lot:* Various  
*Project Sponsor:* San Francisco Public Works  
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This notice is to inform you of the availability of the environmental review document concerning the proposed project as described below. The document is an Initial Study, containing information about the possible environmental effects of the proposed project. The Initial Study documents the determination of the Planning Department that the proposed project may have a significant effect on the environment, and an Environmental Impact Report (EIR) is required. Preparation of an Initial Study does not indicate a decision by the City to carry out or not to carry out the proposed project. This Notice of Availability is available to download in English, Spanish, and Chinese language for public review web page (<http://www.sf-planning.org/sfceqadocs>). To request that a copy of the document be mailed to you in either Spanish or Chinese, please contact our automated voicemail system for Spanish and Chinese:

中文詢問請電: (415) 575-9010

Para información en Español llamar al: (415) 575-9010

**Project Description:** The Project Sponsor, San Francisco Public Works (Public Works), in coordination with the Citywide Planning Division of the San Francisco Planning Department and the San Francisco Municipal Transportation Agency (SFMTA), proposes to implement the Better Market Street Project. The Initial Study analyzes three possible alternatives and two design options for the Proposed Project. Alternatives 1 and 2 would redesign and provide various transportation and streetscape improvements to a 2.2-mile-long corridor generally encompassing Market and Mission Streets between The Embarcadero, Octavia Boulevard, and McCoppin and Valencia streets, including Hallidie and United Nations Plaza, and Charles J. Brenham Place (the Project corridor). Alternatives 1 and 2 each have two design options for bicycle facilities on Market Street. Alternative 3 would redesign and provide improvements to the 2.3-mile segment of McCoppin, Otis, and Mission streets between Valencia Street and The Embarcadero, as well as 10th Street between Market and Mission streets (Mission Street), in addition to providing the Alternative 1 improvements to Market Street. Each alternative consists of both transportation and streetscape improvements, including changes to roadway configuration and private vehicle access; traffic signals; surface transit, including transit-only lanes, stop spacing, service, stop location, stop characteristics and infrastructure; bicycle facilities; pedestrian facilities; streetscapes; commercial and passenger loading; vehicular parking; plazas; and utilities.

The analysis provides an evaluation of the environmental effects of each alternative and design option. Based on the Initial Study, EIR, and other analysis and comment, one of the alternatives and design

options, or some combination of these alternatives and design options, will be proposed for consideration and approval.

- *Alternative 1:* Market Street (Complete Street and Transit Priority Improvements)
- *Alternative 2:* Market Street – Moderate Alternative (Complete Street and Moderate Transit Priority Improvements)
- *Alternative 3:* Market Street + Mission Street (Complete Street and Transit Priority Improvements on Market plus Bicycle Facility Improvements on Mission)

The key differences between Alternatives 1 and 2 relate to private vehicle access and commercial and passenger loading. Alternative 1 would restrict private vehicles on Market Street between Steuart Street and Van Ness Avenue in the westbound direction and between 10<sup>th</sup> and Main streets in the eastbound direction. Alternative 1 also would not allow commercial or passenger loading on Market Street, with the exception of paratransit users. Loading zones would be relocated from the existing bays along Market Street to on-street zones along adjacent side streets or parallel alleys. Alternative 2 would place fewer restrictions on private vehicles traveling on Market Street, with private vehicles allowed on more sections of Market Street than Alternative 1. In addition, fewer loading zones would be removed from Market Street under Alternative 2.

Alternatives 1 and 2 also include two design options for the bicycle facilities on Market Street, Design Option A and Design Option B. Under Alternatives 1 and 2, Design Option A, an enhanced version of the existing shared vehicle and bicycle lane along with painted sharrows (shared lane pavement markings) would be provided at locations where a dedicated bicycle facility is not already present. Under Alternatives 1 and 2, Design Option B, a new raised cycle track (i.e., a bicycle facility that is vertically separated from motor vehicle traffic and is for the exclusive or primary use of bicycles) would be provided the entire length of Market Street, except at locations where BART/Muni entrances or other obstructions do not allow it. Alternatives 1 and 2, Design Option B also would add a new protected cycle track on Valencia Street between Market and McCoppin streets.

Alternative 3 would provide the same modifications to Market Street as described under Alternative 1, Design Option A. However, Alternative 3 also would include modifications to Mission Street; Mission Street would be reconfigured to include one travel lane in each direction (with right-turn pockets where feasible), as well as a new protected cycle track in each direction. A new protected cycle track on McCoppin Street and a new contra-flow bicycle lane on Otis Street in the eastbound direction also would be provided to connect the bicycle network between Valencia and Mission streets. A new protected cycle track connection on 10<sup>th</sup> Street also would be added to connect facilities on Market and Mission streets. Alternative 3 also would relocate all existing transit service provided by Muni, Golden Gate Bridge Highway and Transportation District (Golden Gate Transit), and the San Mateo County Transit District (SamTrans) on Mission Street west of the new Transbay Transit Center to Market Street.

The Initial Study is available to view or download from the Planning Department's Negative Declarations and EIRs web page (<http://www.sf-planning.org/sfceqadocs>). Paper copies are also available at the Planning Information Center (PIC) counter on the ground floor of 1660 Mission Street, San Francisco. If you have questions concerning environmental review of the proposed project, contact the Planning Department staff contact listed above. Information about the Better Market Street Project may also be found at the following Web page, <http://www.bettermarketstreetsf.org/>. Any person may review the Initial Study. Public comments on the Initial Study and the Draft EIR will be accepted upon release of the Draft EIR. Written comments should be addressed to Sarah B. Jones, Environmental Review Officer, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103, or emailed to [sarah.b.jones@sfgov.org](mailto:sarah.b.jones@sfgov.org).

# Better Market Street Project

## Initial Study

Planning Department Case No. 2014.0012E

State Clearinghouse No. 2015012027

March 30, 2016

*City and County of San Francisco*

*Planning Department*



**SAN FRANCISCO**  
**PLANNING DEPARTMENT**

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*Written comments should be sent to Sarah B. Jones, Environmental Review Officer, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103 or [Sarah.B.Jones@sfgov.org](mailto:Sarah.B.Jones@sfgov.org).*

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## Glossary

Included as an attachment



# Acronyms and Abbreviations

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2010 Clean Air Plan	Bay Area 2010 Clean Air Plan
AB	Assembly Bill
AB 939	California Integrated Waste Management Act of 1989
ABAG	Association for Bay Area Government
ADA	Americans with Disabilities Act
ADL	aerially deposited lead
ADMP	Asbestos Dust Mitigation Plan
APE	area of potential effect
AQTR	Air Quality Technical Report
ARB	California Air Resources Board
ASA	Archaeological Sensitivity Assessment
AWSS	auxiliary water supply system
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
Blue Book	San Francisco's Regulations for Working in San Francisco Streets – 8th Edition
BMPs	Best Management Practices
BRT	Bus Rapid Transit
Building Code	San Francisco Building Code
CAC	Community Advisory Committee
Cal/OSHA	California Occupational Safety and Health Administration
CalRecycle	California Department of Resources Recycling and Recovery
CAP	Climate Action Plan
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CGS	California Geological Survey
CH <sub>4</sub>	methane
City	City and County of San Francisco
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> E	carbon dioxide-equivalent
Cortese	Hazardous Waste and Substances Sites
CRHR	California Register of Historic Resources
DOE	San Francisco Department of Environment
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EO	Executive Order
FARR	Final Archeological Resources Report

FEMA	Federal Emergency Management Agency
FIRMs	Flood Insurance Rate Maps
g	gravity
General Plan	San Francisco General Plan
GHG Reduction Strategy	Strategies to Address Greenhouse Gas Emissions
GHGs	greenhouse gases
Golden Gate Transit	Golden Gate Bridge Highway and Transportation District
HRE	Historic Resource Evaluation
LUST	Leaking Underground Storage Tank
Market Street	The 2.2 miles of Market Street between Octavia Boulevard and Steuart Street, as well as Valencia Street between Market and McCoppin streets, McAllister Street between Market Street and Charles J. Brenham Place, Charles J. Brenham Place between Market and McAllister streets, and several adjacent streets intersecting both north and south of Market Street, including Gough Street, Page Street, 12 <sup>th</sup> Street, Fell Street, Hayes Street, 9 <sup>th</sup> Street, Grove Street, Hyde Street, 8 <sup>th</sup> Street, 7 <sup>th</sup> Street, Jones Street, Golden Gate Avenue, Taylor Street, 6 <sup>th</sup> Street, Turk Street, Mason Street, 5 <sup>th</sup> Street, Ellis Street, 4 <sup>th</sup> Street, Stockton Street, O'Farrell Street, Kearney Street, Montgomery Street, 2 <sup>nd</sup> Street, Sutter Street, Battery Street, Bush Street, 1 <sup>st</sup> Street, Beale Street, Main Street, Drumm Street, Spear Street, and Steuart Street, north and south of Market Street.
MBTA	Migratory Bird Treaty Act
Mission Street	The 2.3 miles of McCoppin, Otis, and Mission streets between Valencia Street and The Embarcadero, as well as 10 <sup>th</sup> Street between Market and Mission streets.
mph	miles per hour
MRZ-4	Mineral Resource Zone 4
MSW	municipal solid waste
MTCO <sub>2</sub> E	million metric tons of carbon dioxide equivalent
MWh	megawatt-hours
N <sub>2</sub> O	nitrous oxide
NFIP	National Flood Insurance Program
NOA	Notice of Availability
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NWIC	Northwest Information Center
Planning Code	San Francisco Planning Code
Planning Department	San Francisco Planning Department
POP	Proof of Payment
Project	Better Market Street Project

Proposed Project or Project	Better Market Street Project
Public Works	San Francisco Public Works
RCRA	Resource Conservation and Recovery Act of 1976
RPD	San Francisco Recreation and Park Department
RPS	Renewables Portfolio Standard
SamTrans	San Mateo County Transit District
SB	Senate Bill
SFCTA	San Francisco County Transportation Authority
SFDPH	San Francisco Department of Public Health
SFFD	San Francisco Fire Department
SFgo	San Francisco County Transportation Authority's Congestion Management Program, and Advanced Technology/Information Systems Transit Signal Priority
SFHA	special flood hazard area
SFMTA	San Francisco Municipal Transportation Agency
SFPD	San Francisco Police Department
SFPUC	San Francisco Public Utilities Commission
SFUSD	San Francisco Unified School District
SMP	site-specific mitigation report
SoMa	South of Market
SVP	Society of Vertebrate Paleontology
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TASC	Transportation Advisory Staff Committee
TIS	Transportation Impact Study
UN Plaza	United Nations Plaza
USGS	United States Geological Survey
UST	Underground Storage Tanks

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**Initial Study**  
**Better Market Street Project**  
**Planning Department Case No. 2014.0012E**  
**State Clearinghouse No. 2015012027**

## **A. PROJECT DESCRIPTION**

### **A.1. Introduction**

The Project Sponsor, San Francisco Public Works (Public Works), in coordination with the Citywide Planning Division of the San Francisco Planning Department (Planning Department) and the San Francisco Municipal Transportation Agency (SFMTA), proposes to implement the Better Market Street Project (Proposed Project or Project). The Initial Study analyzes three possible alternatives for the Proposed Project. Based on the Initial Study, subsequent environmental review, and other analysis and comment, a project proposal within the range of these alternatives will be proposed for consideration and approval.

Alternatives 1 and 2 would redesign and provide various transportation and streetscape improvements to a 2.2-mile-long corridor generally encompassing Market and Mission Streets between The Embarcadero, Octavia Boulevard, and McCoppin and Valencia Streets, including Hallidie and United Nations Plaza, and Charles J. Brenham Place (the Project corridor). For a more complete description of the Project location, please refer to the *Project Description*. Alternatives 1 and 2 each have two design options for bicycle facilities on Market Street. Alternative 3 would redesign and provide improvements to the 2.3-mile segment of McCoppin, Otis, and Mission streets between Valencia Street and The Embarcadero, as well as 10<sup>th</sup> Street between Market and Mission streets (Mission Street), in addition to providing the Alternative 1 improvements to Market Street. Each alternative consists of both transportation and streetscape improvements, including changes to roadway configuration and private vehicle access; traffic signals; surface transit, including transit-only lanes, stop spacing, service, stop location, stop characteristics and infrastructure; bicycle facilities; pedestrian facilities; streetscapes; commercial and passenger loading; vehicular parking; plazas; and utilities. The three alternatives and design options are described more fully under A.4. Alternatives and Design Options.

### **Project Background**

The Proposed Project has been developed through careful consideration of integrated design drivers and priorities within the City, as well as an extensive public outreach process in defining such priorities. The Proposed Project was first considered in the early 2000's under the San Francisco County Transportation Authority (SFCTA), focusing on a series of near-term, low-cost improvements to Market Street to improve the user experience for transit users, bicyclists, and

pedestrians while still accommodating necessary motor vehicle traffic.<sup>1</sup> The Proposed Project then progressed into a “complete streets” project with the goals of decreasing transit travel time, improving pedestrian circulation and safety, creating a safer and more inviting bicycle route, and accommodating necessary motor vehicle trips. Public Works, SFMTA, and the Planning Department also became involved during this conceptual, preliminary phase. As the Proposed Project development process further progressed and initial public comments were heard, the agencies determined that the Proposed Project should address the long-term needs of the Project corridor, in addition to the near-term improvements needed, to enhance the safety and accessibility of all users of the roadway. In consideration of the existing operation of the Project corridor and the public outreach process, several key design drivers were identified in December 2011, including improving mobility, enhancing access and the public realm experience, reducing conflict and friction between travel modes, establishing a unique identity, and integrating actions with form, street, and function. These initial design drivers formed the basis for the conceptual designs considered as part of the Proposed Project.<sup>2</sup>

### **Phase I**

Formal public outreach for the Proposed Project’s conceptual design began in early 2011 as part of Phase I. Phase I involved a public visioning process and conceptual planning and design phase. People from both the immediately adjacent neighborhoods and all over the City provided broad input through a series of coordinated workshops, online comments, social media, and other outreach venues. Three rounds of public outreach workshops and webinars were conducted from May 2011 to July 2013. Public notices for the workshops and webinars were distributed throughout the City. The public notices included, but were not limited to, press releases; postcards and flyers (in several languages) published as posters and bus cards; public service announcement videos aired on SF Gov TV; over 1,000 postcards hand-distributed; multi-language bus posters placed in bus shelters on Market Street; Better Market Street email newsletter blasts distributed to over 5,000 people per round; hand-written notices sent to property owners along Market Street; workshop announcements posted via social media; and announcements and updates provided on the Better Market Street website at [www.bettermarketstreetsf.org](http://www.bettermarketstreetsf.org).

The first round of public outreach included a series of public workshops and webinars, as well as public participation surveys and focused on building momentum for the Proposed Project, soliciting input on perceptions of Market Street, and discussing the vision and goals and how the public can effectively engage in the development process. A second round of public workshops and webinars were held in July 2012 to showcase the proposed improvements along Market Street and collect public feedback. The purpose of the second round was to continue to engage the public, present updated information, present improvements suggested for the design options,

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<sup>1</sup> San Francisco County Transportation Authority. *Market Street Action Plan*. February 24, 2004. Available at <http://www.sfcta.org/transportation-planning-and-studies/current-research-and-other-projectsstudies/market-street-studies>. Accessed June 1, 2015.

<sup>2</sup> Perkins+Will Consultant Team. *Integrated Findings & Design Drivers, Better Market Street Existing Conditions & Best Practices*. December 7, 2011. This document is on file and available for public review as part of Case File No. 2014.0012E.

and outline specific impacts and trade-offs for themes. Major themes included concepts for bicycle facilities, public space, and efficient management of public and private transportation. Major concerns included safety along Market Street for pedestrians and bicyclists and an overall sense of security along the corridor. A third round of workshops were held in July 2013, with the objective of discussing the conceptual design proposals, highlighting conceptual designs that came directly from public feedback in the prior two rounds, and demonstrating the trade-off decisions to be considered in the conceptual design. The Mission Street option also was introduced during the third round of public workshops (in the fall of 2012) to address constraints associated with providing adequate space for all users of Market Street.

A Community Advisory Committee (CAC) was established during Phase I outreach to provide feedback between the Project team (i.e., Public Works, SFMTA, and the Planning Department) and local residents, business owners, and community representatives. An expanded CAC has been selected for Phase II outreach (discussed further below) and generally meets once a month.

Through the community outreach process, several design priorities were established in coordination with the Proposed Project's goals and publicly-identified design drivers. Based on the design priorities and design drivers, such as improving pedestrian and bicyclist mobility and safety, and improving transit speed, reliability, and capacity, 17 potential Project corridor design concepts were identified for consideration. The 17 design concepts were evaluated by the interagency team at that time (Public Works, SFMTA, Planning Department, San Francisco County Transportation Authority, and San Francisco Public Utilities Commission [SFPUC]) based on their consistency with the Proposed Project goals and compatibility with community-identified design priorities. Of the 17 design concepts evaluated, three were selected to move forward in the design process. The remaining 14 design concepts substantially conflicted with the Proposed Project goals and design priorities and were removed from further consideration.

## **Phase II**

Phase II is currently under way and involves the environmental review phase and preliminary engineering. Using the three design concepts identified under Phase I, the Project team developed three alternatives for the Proposed Project for evaluation under Phase II. The three alternatives for the Proposed Project (discussed in more detail under the *Project Characteristics* section below) were informed by the design priorities and developed to meet the following objectives.

- Provide faster and more reliable surface public transit for all users along Market Street between Octavia Boulevard and The Embarcadero.
- Maximize surface public transit system capacity in the Project corridor to support planned housing and job growth in the Project corridor consistent with adopted land use plans.
- Improve pedestrian safety, comfort, and mobility along and across Market Street from Octavia Boulevard to The Embarcadero.
- Maintain appropriate pedestrian capacity along and across Market Street from Octavia Boulevard to The Embarcadero.



- Improve safety, comfort, and mobility of bicyclists along the length of the Project corridor.
- Increase bicycle traffic capacity along the length of the Project corridor.
- Reduce friction and conflicts between transit, taxis, commercial vehicles, private vehicles, bicyclists, and pedestrians.
- Maintain access for taxis and paratransit and accommodate commercial deliveries.
- Enhance the public realm experience and stimulate economic development by increasing the liveliness, comfort, and attractiveness of the pedestrian experience along Market Street from Octavia Boulevard to The Embarcadero.
- Increase the diversity of activities by introducing more opportunities for social and public engagement on the sidewalk and in the plazas along Market Street from Octavia Boulevard to The Embarcadero.
- Create an integrated design, based on universal design principles, that enhances the accessibility for all users including pedestrians, cyclists, and transit riders along the Project corridor.
- Celebrate Market Street's historic role as a corridor for mobility, growth, and change on a civic scale.

A Notice of Preparation (NOP) of an Environmental Impact Report (EIR) and Notice of Public Scoping Meeting for the Proposed Project were published on January 14, 2015. The notices were circulated to each Responsible and Trustee Agency to indicate the Environmental Planning Division of the Planning Department's intention to prepare an EIR for the Proposed Project. The notices also were published in accordance with Chapter 31 of the San Francisco Administrative Code, with notices published in the newspaper, circulated to owners of all real property, and to the extent practicable, the residential occupants within 300 feet of all exterior boundaries of the Project corridor, as well as the Planning Department's neighborhood organization list and individuals having requested notification. The Notice of Availability of the NOP was distributed to over 6,500 addresses and copies of the NOP were placed in the Main Library in the San Francisco Public Library system.

Pursuant to State of California Public Resources Code Section 21083.9 and California Environmental Quality Act (CEQA) Guidelines Section 15206, a public scoping meeting was conducted on Wednesday, February 4, 2015 at 5:30 p.m. at 1455 Market Street. Oral and written comments concerning the scope of the EIR were accepted at this meeting. Written comments also were sent to the San Francisco Planning Department and were accepted through February 13, 2015. Twenty-two people attended the scoping meeting. Eight written comment letters were submitted, identifying concerns relative to roadway configuration, private vehicle access, traffic signals, surface transit, pedestrian/bicycle facilities, and commercial and passenger loading impacts.

The Phase II scoping process will inform affected agencies and the public about the Proposed Project, identify a reasonable range of alternatives to be evaluated, identify potentially significant environmental impact areas that should be studied, and may expand on the existing mailing list of agencies and individuals interested in the future actions related to the Proposed Project and environmental studies.

## Overview of Analysis

This Initial Study has been prepared in accordance with CEQA Guidelines Section 15063, which provides for preparation of an Initial Study to determine if a project may have a significant effect on the environment. The Initial Study analyzes three possible alternatives and two design options for the Proposed Project at an equal level of detail. Based on the Initial Study, subsequent environmental review and other analysis and comment, a project proposal consisting of one of the alternatives and design options, or some combination of the alternatives and design options, will be proposed for consideration and approval. The analysis in this Initial Study discusses the direct and indirect environmental effects of the three alternatives and two design options for the Proposed Project, including both construction-related and long-term operational impacts. The three alternatives and two design options are described more fully under *Project Characteristics*.

In accordance with CEQA Guidelines Section 15130, this Initial Study also evaluates the cumulative effects of the Proposed Project in combination with other past, present, and reasonably foreseeable future projects that are anticipated to occur through 2040, the horizon year for the analysis.

The analysis is intended to disclose the environmental effects of the three alternatives and two design options for the Proposed Project. This Initial Study also provides the basis for preparation of the future Project EIR. The Initial Study assists in the preparation of the EIR by focusing only on the effects determined to be potentially significant, identifying the environmental effects determined not to be significant, and explaining the reasons for determining that potential effects would not be significant.

## Relationship to Other Projects

The Proposed Project contains a specific set of transportation and streetscape improvements that aim to achieve the project objectives mentioned above. The project sponsor is also pursuing other separate projects and programs that would support some of these project objectives as well. These include major capital initiatives such as the construction of the Central Subway; state of good repair investments; operational improvements such as improved speed, reliability, and accessibility for Muni routes and enforcement of transit-only lanes; safety improvements; traffic signal priority network enhancements for transit; and land use planning.

Major capital initiatives intersecting the Project corridor include Central Subway, Van Ness Bus Rapid Transit (BRT), Geary Corridor BRT, the 2<sup>nd</sup> Street Improvement Project, the 6<sup>th</sup> Street Improvement Project, and streetscape improvements to Polk Street.

The Central Subway Project, approved in 2008, will extend the existing Muni Metro T Line from the 4<sup>th</sup> and King streets Caltrain station to Chinatown and provide stations in the SoMa Area, Union Square, and Chinatown. The new Muni Metro line will be located on 4<sup>th</sup> Street, crossing under both Market and Mission streets within the Better Market Street Project limits. Construction began in 2010 and is expected to continue through 2018. The Central Subway's estimated opening date is in 2019.

The Van Ness Avenue BRT Project will introduce transit improvements at the Market Street and Van Ness Avenue intersection, including new high-quality bus stations and shelters and transit

signal priority for buses crossing Market Street. Construction of the Van Ness Avenue BRT Project is anticipated to begin in 2016 and end in 2019.

The Geary Corridor BRT Project includes enhanced bus service and street conditions on Geary Boulevard from Market Street to 35<sup>th</sup> Avenue, including improvements similar to those proposed under the Van Ness BRT Project. Construction of the Geary Corridor BRT Project is anticipated to begin in 2017 and end in 2019.

The streetscape improvements on 2<sup>nd</sup>, 6<sup>th</sup>, and Polk streets are intended to enhance the pedestrian experience, improve bicycle and transit mobility, and support commercial activity. The 2<sup>nd</sup> Street Improvement Project extends from Market Street to King Street, the 6<sup>th</sup> Street Improvement Project extends from Market Street to Harrison Street, and the Polk Street improvements extend from McAllister Street to Union. Streetscape improvements to Polk Street are anticipated to begin in 2016 and end in 2018. These streetscape improvements also support the City's Vision Zero program (described below), which seeks to eliminate all traffic deaths in the City by 2024. Circulation changes on Eddy and Ellis streets include new two-way street conversions and turning movement restrictions. The Better Market Street Project will integrate the designs from these major capital initiatives to ensure consistency.

State of good repair investments within the Project corridor include replacing aging traffic signals on Market Street and the Transit Signal Priority program. The Transit Signal Priority program is an ongoing effort to reduce transit travel time and improve transit reliability. The MTA currently has transit signal priority at 150 intersections and is working to expand transit signal priority to 600 intersections by 2016. Other ongoing maintenance improvements include replacing the aging communication infrastructure and enhancing transit operations and maintenance, which is part of several Muni-related programs to keep vehicles in a state of good repair and enhance transit operations. These operational improvement investments were anticipated to begin in 2015 and end in 2019.

SFMTA has a number of planned and funded operational improvements, including the Muni Forward program (formerly known as the Transit Effectiveness Project) and increased enforcement. The Muni Forward program is a citywide project that is intended to improve speed, reliability, and accessibility for Muni routes through capital investments, service changes, and increased preventative maintenance. The Muni Forward program addresses service improvements, such as the creation of new routes, changes in the alignment of existing routes, the elimination of underused routes or route segments, headway and service hour changes, and changes to the mix of local/limited/express service on several routes. Service-related capital improvements include the Transfer and Terminal Point Improvements (i.e., new overhead wiring and poles, bypass rails, expansion of transit zones, and sidewalk modifications to accommodate passenger interchanges), overhead wire expansions, and the installation of new accessible platforms to improve system accessibility. The Muni Forward program also includes upgraded transit passenger information and communication systems that provide real-time arrival displays at major bus stops, along with shelters and streetlight upgrades. Roadway designs that prioritize transit also would be implemented. The Muni Forward program elements will be implemented on Market Street and the Better Market Street Project design will integrate with the planned improvements.

Several safety projects also are under way within the Better Market Street Project vicinity, including Vision Zero. The City's Vision Zero program seeks to eliminate all traffic deaths in the City by 2024. Approximately 40 projects, inclusive of those noted above and the Safer Market Street Project, have been identified to represent the type of work that will be completed to support Vision Zero on prioritized high-injury corridors throughout the City, and it is anticipated that at least 24 projects will be completed in the next two years. The Safer Market Street project includes improvements designed to increase the safety of pedestrians and bicyclists on Market Street between 3<sup>rd</sup> and 8<sup>th</sup> streets, such as turn restrictions to and from Market Street, new transit-only lanes, and new painted safety zones. The Vision Zero projects could create an expanded network of safety and streetscape improvements that connect with the Project corridor.

The City's 2011 \$248 million Road Repaving and Street Safety Bond Program also involves improving City infrastructure, such as repaving streets, pedestrian and bicycle safety improvements, traffic flow improvements, and ADA upgrades. Streets intersecting the Project corridor are part of the bond program.

Land use plans in the vicinity of the Project corridor include the Transbay Center District Plan, the Civic Center Public Realm Plan, Eastern Neighborhoods Area Plan, Market and Octavia Neighborhood Plan, Western South of Market (SoMa) Community Plan, and the Central SoMa Community Plan. The Transbay Center District Plan is a land use and urban design plan for the new Transbay Transit Center on Mission Street and surrounding land south of Market Street to Folsom Street, between Steuart Street and 3<sup>rd</sup> Street. The Civic Center Public Realm Plan, which is roughly bounded by Franklin Street, Golden Gate Avenue and Market Street, is an interdepartmental project which will create a comprehensive, long-term vision for improvements to the streets and public spaces in the San Francisco Civic Center, including Civic Center Plaza and United Nations Plaza. The Eastern Neighborhoods Area Plan encompasses the Mission, Central Waterfront, East South of Market and Showplace Square/Potrero Hill neighborhoods and includes transitioning a portion of the existing industrial areas in these four neighborhoods to mixed use zones that encourage new housing, as well as maintaining key nodes for Production, Distribution, and Repair districts. The land use changes in the Eastern South of Market neighborhood within the Plan area would intersect with the Project corridor near Mission Street. The Market and Octavia Neighborhood Plan considers the general area within a short walking distance of Market Street between Van Ness Avenue and Church Street, intersecting the western portion of the Project corridor. The Market and Octavia Neighborhood Plan focuses infill development to enhance the established land use pattern and character and concentrates new uses where access to transit and services best enable people to be less reliant on automobiles. The Western SoMa Community Plan, located between Mission and Townsend streets and 4<sup>th</sup> and 13<sup>th</sup> streets, includes new planning policies and controls for land use, urban form, building height and design, street network, and open space to maintain the mixed-use character of the Plan area and preserve existing housing, while encouraging new residential and resident-serving uses. Similarly, the Central SoMa Plan provides a community vision that includes changes to zoning, height limits, and streets and open space for the southern portion of the Central Subway rail corridor, between Market and Townsend streets and 2<sup>nd</sup> and 6<sup>th</sup> streets.

Each of the aforementioned land use plans' environmental analyses contained future projections of employment and residential population growth. These projections are taken into account in the cumulative analysis. However, the land use plans would not by themselves result in physical land use changes. Rather, projects that implement the plans would result in changes on

individual sites within the plan areas, including changes in the use of existing buildings, additions, new construction, and demolition. Some individual land use projects in these plan areas are reasonably foreseeable. In addition to these land use projects in these plan areas, there are other individual projects in the vicinity of the Proposed Project that are reasonably foreseeable. **Table 1** summarizes land use projects within the vicinity of the Project corridor that were known (i.e., filed development applications) to the Planning Department as of October 2015.

**TABLE 1. REASONABLY FORESEEABLE LAND USE PROJECTS IN THE PROJECT CORRIDOR VICINITY**

Case Number	Address	Project Summary
2005.1101E_3	2 New Montgomery Street	Convert 25 hotel rooms to residential use and construct new 17-story addition (to 680-foot-tall) with 125 dwelling units.
2006.1523E_5	50 1 <sup>st</sup> Street	New 61-story, 850-foot-tall building with 34 stories of office and a potential 5-story street-level urban room or atrium below 22 stories containing 124 dwelling units.
2007.0604E	1145 Mission Street	New 6-story building with 25 dwelling units and ground-floor retail.
2009.0159E_3	1540 Market Street	Demolition of existing 4-story building and construction of 37-story, 435-foot-tall building with 180 dwelling units.
2011.0409E	925 Mission Street (5M)	Substantial development of office, retail, residential, cultural, educational, and open space uses in the southwest quadrant of 5 <sup>th</sup> and Mission Streets, including buildings 50 to 470 feet in height.
2012.0673E	119 7 <sup>th</sup> Street	New 8-story, 85-foot-tall building with 39 dwelling units and ground-floor retail.
2012.0678E	19-25 Mason Street & 2-16 Turk Street	Replacement of existing parking lot with 12-story, 120-foot-tall building with 155 dwelling units and ground-floor retail.
2012.0877E-5	1546-1564 Market Street	Demolition of three existing buildings and construction of 12-story, 120-foot-tall building with approximately 109 dwelling units and 5,010 square feet of ground-floor retail.
2012.1531E	361 Turk Street and 145 Leavenworth Street	Construction of two 8-story, 80-foot-tall, group housing buildings with 234 group housing rooms.
2013.0154E	Moscone Center Expansion	Increase in size of Moscone Center from about 945,200 gross square feet to 1,156,300 gross square feet.
2013.0276E_3	350 Mission Street	New 30-story, 455-foot-tall building resulting in 420,000 square feet of office space, plus retail and parking.
2013.0511E	1125 Market Street	New 12-story, 120-foot-tall building with 164 dwelling units, ground-floor retail, and parking.
2013.1005E	22 Franklin Street	Demolition of existing auto body shop and construction of 8-story, 85-foot-tall mixed-use building with 24 dwelling units and ground-floor retail along Franklin.
2013.1049E	950 Market Street	Demolition of five structures and construction of 180-foot-tall mixed-use building with 316 residential units, a 310-room hotel with banquet, meeting, and sky lounge facilities, 24,000 square feet of convention office space, and 15,000 square feet of ground floor retail space.
2013.1179E	1700 Market Street	Construction of 8-story, 85-foot-tall residential building with 48 dwelling units and ground-floor commercial.

Case Number	Address	Project Summary
2013.1690E	1075 Market Street	Demolition of existing commercial building and construction of 8-story, 90-foot-tall mixed-use building with 99 units and 7,500 square feet of retail space.
2013.1753E	1066 Market Street	Replacement of 2-story building and parking lot with 14-story, 120-foot-tall building containing up to 330 dwelling units and about 1,885 square feet of retail space on Market Street.
2014.0241E	1028 Market Street	Replacement of 2-story commercial building with 13-story, 120-foot-tall mixed-use building with 186 dwelling units and ground-floor retail.
2014.0408E	1053 - 1055 Market Street	Replacement of existing commercial building with 10-story, 90-foot-tall, 155-room tourist hotel.
2014.0409E	1740 Market Street	Replacement of existing commercial building with 9-story, 85-foot-tall building with 110 dwelling units and ground-floor retail on Market Street.
2014.0484E	1699 Market Street	Replacement of 2-story industrial/commercial building with 9-story, 85-foot-tall building with 160 dwelling units and 4,500 square feet of ground-floor retail.
2014.0926ENV	1270 Mission Street	Replacement of single-story commercial building and surface parking lot with 13-story, 120-foot-tall mixed-use building with 199 dwelling units.
2014.1121ENV	1601 Mission Street	Replacement of gas station and car wash with 11-story, 120-foot-tall mixed-use building with 200 dwelling units and 10,400 square feet of retail space.
2014-000362ENV	1500 – 1580 Mission St	Partial demo of two commercial buildings and construction of a 380-foot-tall, 550-unit residential building with approximately 550 units and a 260-foot-tall tower with approximately 463,300 square feet of office/permit center space for City and County of San Francisco.
2015.004568ENV	10 South Van Ness Avenue	Replacement of an auto dealership with 40-story, 400-foot-tall building with 767 dwelling units and 20,600 gross square feet of retail/commercial space.

These area plans and individual projects will variously add residents, office and retail space, and employees and visitors throughout the Project corridor.

## A.2. Project Location

The Project corridor is located along the boundary of or within several northeast quadrant neighborhoods of the City and County of San Francisco, specifically, the Western Addition, Mission, Downtown/Civic Center, South of Market, and Financial District neighborhoods.<sup>3</sup>

<sup>3</sup> This document references neighborhoods as defined by Planning Department neighborhood groups map: <http://www.sf-planning.org/index.aspx?page=1654>. These neighborhood names are not exhaustive and some sub-areas within these neighborhoods have additional names, including Hayes Valley, Union Square, and the Tenderloin.

**Figure 1** illustrates the Proposed Project location and neighborhood boundaries. The Project corridor consists of two segments.

- **Market Street:** The 2.2 miles of Market Street between Octavia Boulevard and Steuart Street, as well as Valencia Street between Market and McCoppin streets, McAllister Street between Market Street and Charles J. Brenham Place, Charles J. Brenham Place between Market and McAllister streets, and several adjacent streets intersecting both north and south of Market Street, including Gough Street, Page Street, 12<sup>th</sup> Street, Fell Street, Hayes Street, 9<sup>th</sup> Street, Grove Street, Hyde Street, 8<sup>th</sup> Street, 7<sup>th</sup> Street, Jones Street, Golden Gate Avenue, Taylor Street, 6<sup>th</sup> Street, Turk Street, Mason Street, 5<sup>th</sup> Street, Ellis Street, 4<sup>th</sup> Street, Stockton Street, O'Farrell Street, Kearney Street, Montgomery Street, 2<sup>nd</sup> Street, Sutter Street, Battery Street, Bush Street, 1<sup>st</sup> Street, Beale Street, Main Street, Drumm Street, Spear Street, and Steuart Street.
- **Mission Street:** The 2.3 miles of McCoppin, Otis, and Mission streets between Valencia Street and The Embarcadero, as well as 10<sup>th</sup> Street between Market and Mission streets.

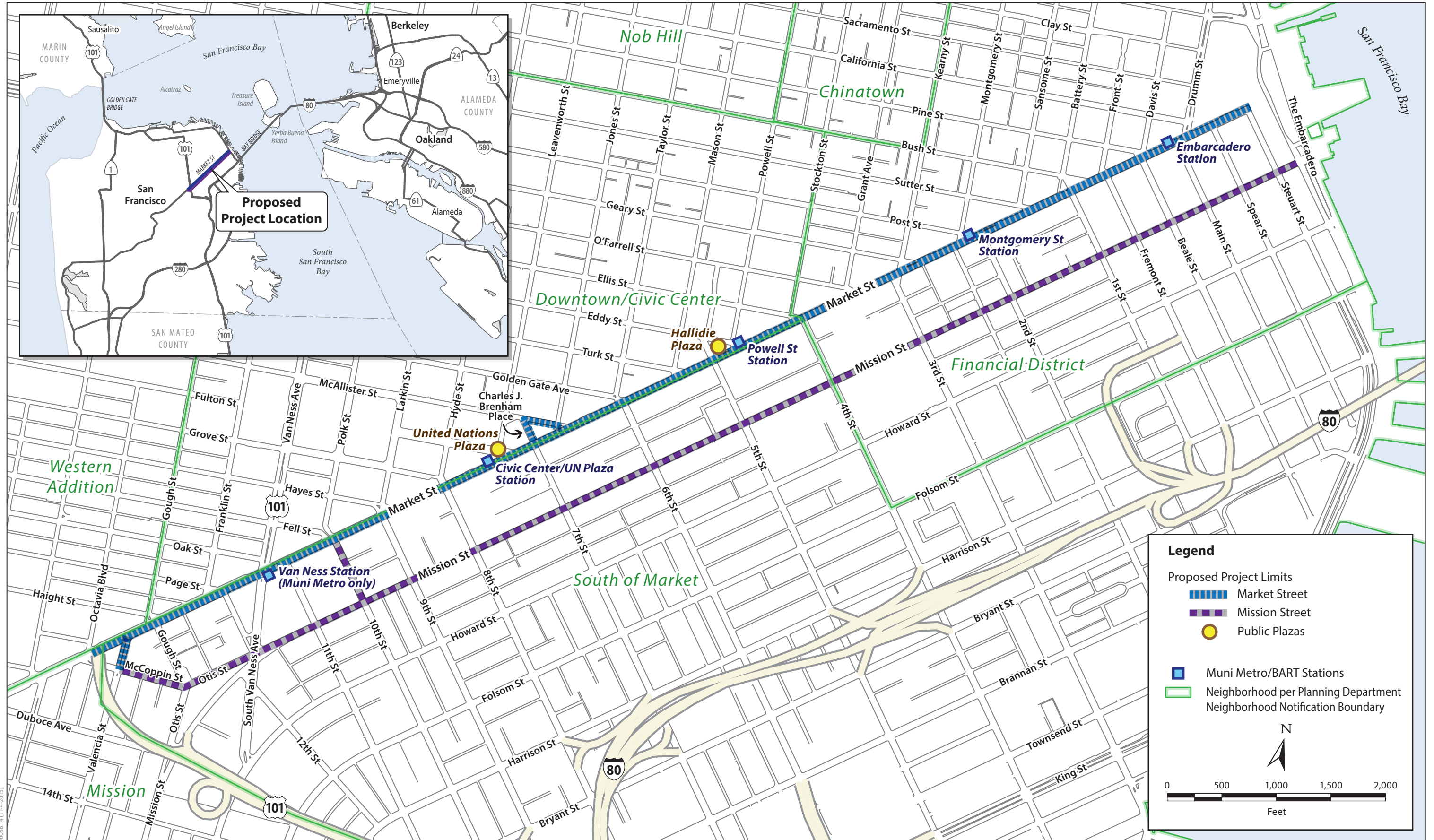
All of the various Proposed Project elements would be implemented on public land and a majority of the various Proposed Project elements would be implemented within the operational public right-of-way, which is largely under the jurisdiction of Public Works and SFMTA. Public Works maintains authority over excavation in the right-of-way, street design, and the official grade of streets within San Francisco. Section 8A.102 of the San Francisco Charter grants SFMTA the exclusive authority to adopt regulations that control the flow and direction of motor vehicle, bicycle, and pedestrian traffic and to design, select, locate, install, operate, maintain, and remove all official traffic control devices, signs, roadway features and pavement markings that control the flow of traffic on streets and highways within City jurisdiction. Other Proposed Project elements would be implemented on public land under the jurisdiction of other public agencies (i.e., City and County of San Francisco Department of Real Estate – portions of Hallidie Plaza; Van Ness Avenue – California Department of Transportation). Refer to Section B, *Project Setting*, for more information regarding existing conditions.

### **A.3. Project Overview**

The Project Sponsor, Public Works, in coordination with the Citywide Planning Division of the Planning Department and SFMTA, proposes to redesign and provide various transportation and streetscape improvements to Market Street and, potentially, to Mission Street. All proposed changes would be implemented on public land and the majority of the various Proposed Project elements would be implemented within the operational public right-of-way and existing transportation corridor. These elements of the Proposed Project are discussed under Alternatives and Design Options below. A detailed environmental review of these elements follows in Section D and E.

Refer to the *Glossary* for definitions of terms.





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#### A.4. Alternatives and Design Options

The Initial Study and EIR analyze three alternatives and two design options. The analysis provides an evaluation of the environmental effects of each alternative and design option. Based on the Initial Study, EIR, and other analysis and comment, one of the alternatives and design options, or some combination of these alternatives and design options, will be proposed for consideration and approval.

- *Alternative 1:* Market Street (Complete Street and Transit Priority Improvements)
- *Alternative 2:* Market Street – Moderate Alternative (Complete Street and Moderate Transit Priority Improvements)
- *Alternative 3:* Market Street + Mission Street (Complete Street and Transit Priority Improvements on Market plus Bicycle Facility Improvements on Mission)

The key differences between Alternatives 1 and 2 relate to private vehicle access and commercial and passenger loading. Alternative 1 would restrict private vehicles on Market Street between Steuart Street and Van Ness Avenue in the westbound direction and between 10<sup>th</sup> and Main streets in the eastbound direction. Alternative 1 also would not allow commercial or passenger loading on Market Street, with the exception of paratransit users. Loading zones would be relocated from the existing bays along Market Street to on-street zones along adjacent side streets or parallel alleys. Alternative 2 would place fewer restrictions on private vehicles traveling on Market Street, with private vehicles allowed on more sections of Market Street than Alternative 1. In addition, fewer loading zones would be removed from Market Street under Alternative 2.

Alternatives 1 and 2 also include two design options for the bicycle facilities on Market Street, Design Option A and Design Option B. Under Alternatives 1 and 2, Design Option A, an enhanced version of the existing shared vehicle and bicycle lane along with painted sharrows (shared lane pavement markings) would be provided at locations where a dedicated bicycle facility is not already present. Under Alternatives 1 and 2, Design Option B, a new raised cycle track (i.e., a bicycle facility that is vertically separated from motor vehicle traffic and is for the exclusive or primary use of bicycles) would be provided the entire length of Market Street, except at locations where BART/Muni entrances or other obstructions do not allow it. Alternatives 1 and 2, Design Option B also would add a new protected cycle track on Valencia Street between Market and McCoppin streets.

Alternative 3 would provide the same modifications to Market Street as described under Alternative 1, Design Option A. However, Alternative 3 also would include modifications to Mission Street; Mission Street would be reconfigured to include one travel lane in each direction (with right-turn pockets where feasible), as well as a new protected cycle track in each direction. A new protected cycle track on McCoppin Street and a new contra-flow bicycle lane on Otis Street in the eastbound direction also would be provided to connect the bicycle network between Valencia and Mission streets. A new protected cycle track connection on 10<sup>th</sup> Street also would be added to connect facilities on Market and Mission streets. Alternative 3 also would relocate all existing transit service provided by SFMTA Golden Gate Bridge Highway and Transportation District (Golden Gate Transit), and the San Mateo County Transit District (SamTrans) on Mission Street west of the new Transbay Transit Center to Market Street.

**Table 2** summarizes the elements of the three alternatives and the two design options, specifically, changes to the roadway configuration; private vehicle access; traffic controls; surface transit including transit-only lanes, stop spacing, service, stop locations, stop characteristics, and infrastructure; bicycle facilities; pedestrian facilities; streetscapes; commercial and passenger loading; vehicular parking; plazas; and utilities. **Figure 2** illustrates the conceptual cross section designs for each alternative and design option.

## **Alternative 1**

### **Roadway Configuration**

In general, Alternative 1 would continue to provide four travel lanes on Market Street (two center lanes and two curb lanes between Franklin and Main streets). More than four lanes west of Franklin Street and only two or three lanes east of Main Street would be provided. Alternative 1 could include a reconfiguration of some intersections, including the addition of new curb bulbouts.

With Design Option A, the existing separated bicycle facility on Market Street would remain in place. Along the rest of Market Street in the Project area, the existing shared lane painted with sharrows would be widened, except where not feasible because of obstructions such as BART portals.

With Design Option B, a new one-way raised cycle track for bicycles would be constructed between the curb lanes and sidewalks on each side of Market Street, except where not feasible because of obstructions such as BART portals. A new protected cycle track also would be constructed on Valencia Street between Market and McCoppin streets.

### **Private Vehicle Access**

#### *Market Street*

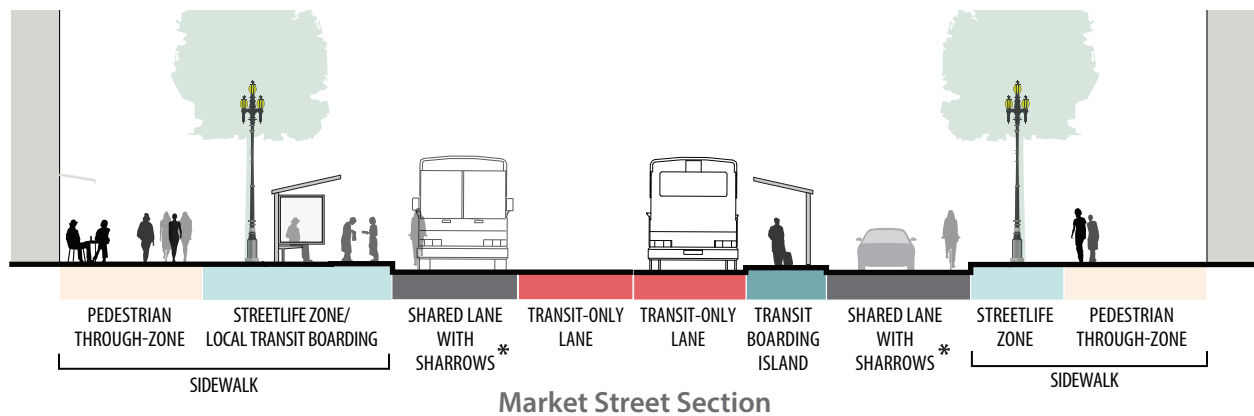
Public transit vehicles would be permitted on the entire length of Market Street within the Project corridor. In addition to the public transit vehicles, only commercial vehicles, taxis, emergency vehicles, paratransit vehicles, and bicycles would be permitted on Market Street between 10<sup>th</sup> and Main streets in the eastbound direction and between Steuart Street and Van Ness Avenue in the westbound direction. Drivers of other private vehicles (i.e., all private vehicles except commercial vehicles, emergency vehicles, taxis, paratransit vehicles, and bicycles) would be diverted to other streets in the area. These restrictions would be in place 24 hours per day, 7 days per week. Therefore, the curb lanes in these segments would generally be shared by transit vehicles, taxis, bicycles, and other permitted vehicles.

Drivers would be alerted to the vehicle restrictions through a variety of means, including education, wayfinding (e.g., signage), and enforcement. Existing required private vehicle right-turn regulations on Market Street would remain.

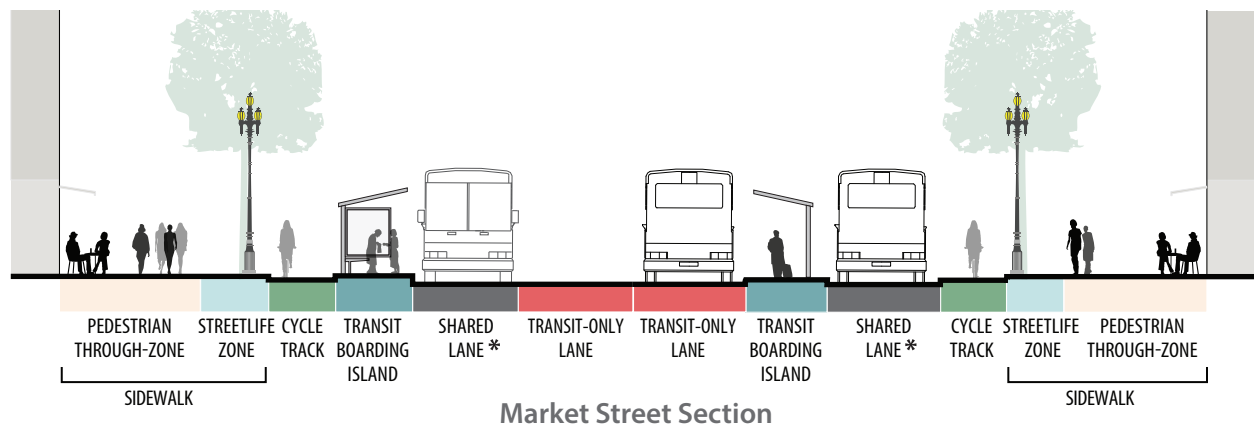
**Alternative 1:** Market Street (Complete Street and Transit Priority Improvements)

**Alternative 2:** Market Street - Moderate Alternative (Complete Street and Moderate Transit Priority Improvements)

**Design Option A**

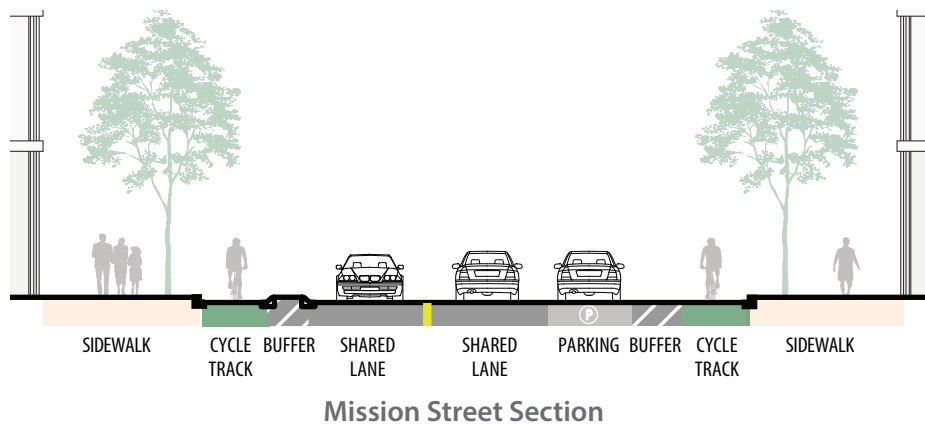


**Design Option B**



\* Under Alternative 1, the shared lane would include transit, taxis, paratransit vehicles, and commercial vehicles.  
Under Alternative 2, the shared lane would also allow other private vehicles for the portions of Market Street without new vehicular restrictions.

**Alternative 3:** Alternative 3: Market Street + Mission Street (Complete Street and Transit Priority Improvements on Market plus Bicycle Facility Improvements on Mission)\*\*



\*\* Alternative 3 includes the same improvements to Market Street as Alternative 1, Design Option A.

Source: San Francisco Public Works, 2014.

Not to Scale

**TABLE 2. SUMMARY OF THE THREE ALTERNATIVES FOR THE PROPOSED PROJECT<sup>1</sup>**

<b>Proposed Project Element</b>	<b>Alternative 1: Market Street Complete Street and Transit Priority Improvements)</b>		<b>Alternative 2: Market Street - Moderate Alternative (Complete Street and Moderate Transit Priority Improvements)</b>		<b>Alternative 3: Market Street + Mission Street (Complete Street and Transit Priority Improvements on Market plus Bicycle Facility Improvements on Mission) (Note: This column describes only Mission Street improvements. Market Street improvements would be the same as under Alternative 1, Design Option A.)</b>
	<b>Design Option A</b>	<b>Design Option B</b>	<b>Design Option A</b>	<b>Design Option B</b>	
Roadway Configuration	Generally, two center lanes and two curb lanes between Franklin and Main streets. More than four lanes west of Franklin Street and only three lanes east of Main Street.	Same as Design Option A except new one-way raised cycle tracks in each direction on Market Street between the curb side lanes and sidewalks, and a new protected cycle track on Valencia Street between Market and McCoppin streets.	Same as Alternative 1, Design Option A.	Same as Alternative 1, Design Option B.	Generally, two vehicle travel lanes with right-turn pockets at intersections. Separated bicycle facility in both directions (and a protected cycle track on 10 <sup>th</sup> Street between Mission and Market streets) and a floating parking lane (located between travel lane and new protected cycle track) on one side of the street.

Proposed Project Element	Alternative 1: Market Street Complete Street and Transit Priority Improvements)		Alternative 2: Market Street - Moderate Alternative (Complete Street and Moderate Transit Priority Improvements)		Alternative 3: Market Street + Mission Street (Complete Street and Transit Priority Improvements on Market plus Bicycle Facility Improvements on Mission) (Note: This column describes only Mission Street improvements. Market Street improvements would be the same as under Alternative 1, Design Option A.)
	Design Option A	Design Option B	Design Option A	Design Option B	
Private Vehicle Access	<p>Full private vehicle restrictions: Public transit, taxis, emergency vehicles, commercial vehicles, paratransit vehicles, and bicycles would have full access to curb lanes but other private vehicles would be prohibited between Steuart Street and Van Ness Avenue westbound and between 10<sup>th</sup> and Main streets eastbound. Existing required right-turn regulations on Market Street would also remain.</p> <p>Circulation changes would be made to McAllister Street between Market Street and Charles J. Brenham Place, Charles J. Brenham Place between Market and McAllister streets, and several adjacent streets intersecting both north and south of Market Street, including Gough Street, Page Street, 12<sup>th</sup> Street, Fell Street, Hayes Street, 9<sup>th</sup> Street, Grove Street, Hyde Street, 8<sup>th</sup> Street, 7<sup>th</sup> Street, Jones Street, Golden Gate Avenue, Taylor Street, 6<sup>th</sup> Street, Turk Street, Mason Street, 5<sup>th</sup> Street, Ellis Street, 4<sup>th</sup> Street, Stockton Street, O'Farrell Street, Kearney Street, Montgomery Street, 2<sup>nd</sup> Street, Sutter Street, Battery Street, Bush Street, 1<sup>st</sup> Street, Beale Street, Main Street, Drumm Street, Spear Street, and Steuart Street.</p>		<p>Moderate private vehicle restrictions: All private vehicles would continue to be allowed on the majority of the length of Market Street. A Transportation Impact Study will determine if new turn restrictions and required right-turn regulations should be added to the existing required right-turns at 6<sup>th</sup> and 10<sup>th</sup> streets.</p> <p>Circulation changes would be made to McAllister Street between Market Street and Charles J. Brenham Place, Charles J. Brenham Place between Market and McAllister streets, and several adjacent streets intersecting both north and south of Market Street, including Gough Street, Page Street, 12<sup>th</sup> Street, Fell Street, Hayes Street, 9<sup>th</sup> Street, Grove Street, Hyde Street, 8<sup>th</sup> Street, 7<sup>th</sup> Street, Jones Street, Golden Gate Avenue, Taylor Street, 6<sup>th</sup> Street, Turk Street, Mason Street, 5<sup>th</sup> Street, Ellis Street, 4<sup>th</sup> Street, Stockton Street, O'Farrell Street, Kearney Street, Montgomery Street, 2<sup>nd</sup> Street, Sutter Street, Battery Street, Bush Street, 1<sup>st</sup> Street, Beale Street, Main Street, Drumm Street, Spear Street, and Steuart Street.</p>		<p>Private vehicle restrictions for eastbound private vehicles on Mission Street between 1<sup>st</sup> and Beale streets. Southbound left-turn movements from 1<sup>st</sup> Street onto Mission Street and northbound right-turn movements from Fremont Street onto Mission Street would be prohibited for private vehicles.</p>



Proposed Project Element	Alternative 1: Market Street Complete Street and Transit Priority Improvements		Alternative 2: Market Street - Moderate Alternative (Complete Street and Moderate Transit Priority Improvements)		Alternative 3: Market Street + Mission Street (Complete Street and Transit Priority Improvements on Market plus Bicycle Facility Improvements on Mission) (Note: This column describes only Mission Street improvements. Market Street improvements would be the same as under Alternative 1, Design Option A.)
	Design Option A	Design Option B	Design Option A	Design Option B	
Traffic Controls	Signal timing and control modifications and relocations, which could include replacement traffic signals, new turn signals, stop signs, and bicycle signals.				Signal timing modifications, which could include new turn signals and bicycle signals.
Surface Transit (Muni-Only Lanes)	Transit-only lanes would be extended between 12 <sup>th</sup> and Davis streets in the westbound (outbound) direction and between 12 <sup>th</sup> and Main streets in the eastbound (inbound) direction. Only transit and emergency vehicles would be allowed to use transit-only lanes.				Eastbound transit-only lane between 1 <sup>st</sup> and Beale streets on Mission Street. The remaining existing transit-only lanes on Mission Street would be removed.
Surface Transit (Stop Spacing and Service)	Modified transit stop spacing and new stop locations to provide both Rapid service with the Rapid and express bus routes (i.e., 5R, 9R, 7R, 7X, 38R as well as the F Line), and to provide local service through the local bus routes (i.e., 2, 5, 6, 7, 9, 19, 21, 31, 38, L Owl, N Owl). In addition, bus routes 14, 14R, and 14X would continue to have drop-off only stops at Market Street and Steuart Street, and bus routes 81X, 10 and 11 (proposed to replace portions of route 12 in Muni Forward route changes) would continue to run on Market Street but would not stop. AC Transit bus routes 800 and 822 would also continue to stop on Market Street.  Changes to F Line service on Market Street as a result on the new F Line track loop on McAllister Street and Charles J. Brenham Place.				All Muni, Golden Gate Bridge Highway and Transportation District, and San Mateo County Transit District transit service west of the new Transbay Transit Center would be moved to Market Street (except during Market Street event days and during unexpected events that close Market Street).
Surface Transit (Stop Location)	New, relocated and modified stops consisting of 16 curbside stops (7 inbound, 9 outbound) and 12 center boarding island stops (7 inbound and 5 outbound – see Figure 3).				Remove existing bus stops west of the new Transbay Transit Center; provide temporary bus stops for transit service rerouted to Mission Street during Market Street event days and during unexpected Market Street closures.

Proposed Project Element	Alternative 1: Market Street Complete Street and Transit Priority Improvements		Alternative 2: Market Street - Moderate Alternative (Complete Street and Moderate Transit Priority Improvements)		Alternative 3: Market Street + Mission Street (Complete Street and Transit Priority Improvements on Market plus Bicycle Facility Improvements on Mission) (Note: This column describes only Mission Street improvements. Market Street improvements would be the same as under Alternative 1, Design Option A.)
	Design Option A	Design Option B	Design Option A	Design Option B	
Surface Transit (Stop Characteristics)	Transit boarding island enhancements and expansion (length and width). Curbside stops would be located along the curb.	Transit boarding island enhancements and expansion (length and width). The new raised cycle track would be constructed between the curbside <i>island</i> stops and the sidewalk.	Same as Alternative 1, Design Option A.	Same as Alternative 1, Design Option B.	Remove existing bus stops; provide temporary bus stops for transit service rerouted to Mission Street during Market Street events and during unexpected Market Street closures.
Surface Transit (Infrastructure)	Full replacement of existing Muni streetcar rail tracks to maintain state of good repair; minor adjustment to location of existing streetcar rail tracks at limited locations; replacement of traction power system and Overhead Contact System (i.e., overhead wires) to maintain state of good repair and provide additional capacity; construction of Muni F Line track loop running one-way westbound along McAllister Street between Market Street and Charles J. Brenham Place and one-way southbound along Charles J. Brenham Place between McAllister and Market streets.				Maintenance and adjustment of Overhead Contact System on Mission Street to allow use during Market Street event days and during unexpected Market Street closures.

Proposed Project Element	Alternative 1: Market Street Complete Street and Transit Priority Improvements		Alternative 2: Market Street - Moderate Alternative (Complete Street and Moderate Transit Priority Improvements)		Alternative 3: Market Street + Mission Street (Complete Street and Transit Priority Improvements on Market plus Bicycle Facility Improvements on Mission) <i>(Note: This column describes only Mission Street improvements. Market Street improvements would be the same as under Alternative 1, Design Option A.)</i>
	Design Option A	Design Option B	Design Option A	Design Option B	
Bicycle Facilities	Widened shared lane where possible and painted with sharrows (i.e., bicycles share widened curb lanes with vehicular traffic) except at locations where existing separated bicycle facilities already exist (i.e., existing cycle track with buffer [posts] and bicycle lanes would remain).	New raised cycle track on Market Street. Bicycles would be vertically separated from vehicular traffic (i.e., the new raised cycle track would be slightly higher than the vehicle traffic road bed).  New protected cycle track connection on Valencia Street between Market and McCoppin streets.	Same as Alternative 1, Design Option A.	Same as Alternative 1, Design Option B.	New protected cycle track on Mission Street: Bicycles would be horizontally separated from vehicular traffic by a painted or physical buffer.  New protected cycle track on McCoppin Street and new contra-flow bicycle lane on Otis Street in the eastbound direction to provide bicycle network connection between Valencia and Mission streets.  New protected cycle track connection on 10 <sup>th</sup> streets to connect Market and Mission streets facilities.

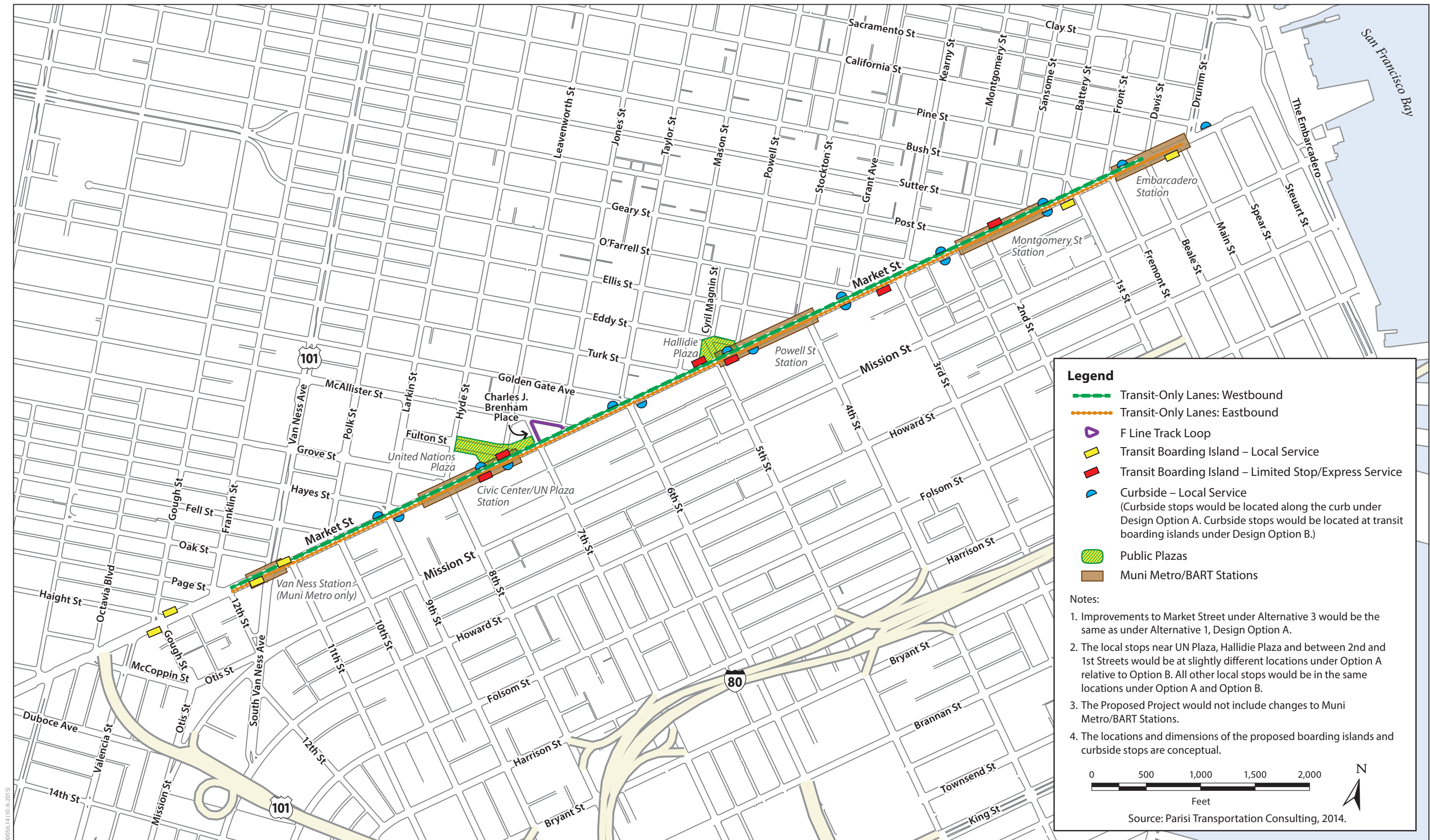
Proposed Project Element	Alternative 1: Market Street Complete Street and Transit Priority Improvements)		Alternative 2: Market Street - Moderate Alternative (Complete Street and Moderate Transit Priority Improvements)		Alternative 3: Market Street + Mission Street (Complete Street and Transit Priority Improvements on Market plus Bicycle Facility Improvements on Mission) (Note: This column describes only Mission Street improvements. Market Street improvements would be the same as under Alternative 1, Design Option A.)
	Design Option A	Design Option B	Design Option A	Design Option B	
Pedestrian Facilities (Sidewalk Width)	Generally maintain existing sidewalk widths, except where the sidewalks would be narrowed (i.e., move existing curb) at locations to allow for wider center transit boarding islands or a wider shared lane; widened sidewalk including bulbouts to shorten crossing distances at some locations.	Narrow sidewalks (i.e., move existing curb) as needed to accommodate new raised cycle track and wider center transit boarding islands; widened sidewalk including bulbouts to shorten crossing distances at some locations.	Same as Alternative 1, Design Option A.	Same as Alternative 1, Design Option B.	Limited narrowing of sidewalk widths, except between 5 <sup>th</sup> and 3 <sup>rd</sup> streets where widening may occur.
Streetscapes (Elements)	Generally 15- to 20-foot-wide through zones for pedestrians on sidewalks (except for 10-foot-wide through zones west of Van Ness Avenue); new paving throughout (i.e., complete replacement of bricks with new paving types); additional seating, planting, pedestrian wayfinding signs, public art, and other elements along curb within Streetlife Zones and Streetlife Hubs.				Limited changes to streetscape, except installation of new bicycle racks.

Proposed Project Element	Alternative 1: Market Street Complete Street and Transit Priority Improvements		Alternative 2: Market Street - Moderate Alternative (Complete Street and Moderate Transit Priority Improvements)		Alternative 3: Market Street + Mission Street (Complete Street and Transit Priority Improvements on Market plus Bicycle Facility Improvements on Mission) <i>(Note: This column describes only Mission Street improvements. Market Street improvements would be the same as under Alternative 1, Design Option A.)</i>
	Design Option A	Design Option B	Design Option A	Design Option B	
Streetscapes (Trees)	Removal or relocation of trees limited to locations where sidewalk would be narrowed to accommodate wider center transit boarding islands. May also include removal of trees deemed unhealthy, hazardous or in conflict with design.	Removal or relocation of trees throughout where sidewalk would be narrowed to accommodate wider center transit boarding islands and the new raised cycle track. May also include removal of trees deemed unhealthy, hazardous or in conflict with design.	Same as Alternative 1, Design Option A.	Same as Alternative 1, Design Option B.	Healthy street trees would remain while unhealthy street trees would be replaced. Planting new street trees in locations where there are existing empty tree wells and gaps.

Proposed Project Element	Alternative 1: Market Street Complete Street and Transit Priority Improvements)		Alternative 2: Market Street - Moderate Alternative (Complete Street and Moderate Transit Priority Improvements)		Alternative 3: Market Street + Mission Street (Complete Street and Transit Priority Improvements on Market plus Bicycle Facility Improvements on Mission) (Note: This column describes only Mission Street improvements. Market Street improvements would be the same as under Alternative 1, Design Option A.)
	Design Option A	Design Option B	Design Option A	Design Option B	
Streetscapes (Path of Gold Light Standards)	Relocation of light standards in limited locations where sidewalk would be narrowed to accommodate new transit boarding islands.  Removal of one light standard due to the elimination of one island at the intersection of Turk Street and Mason Street.	Relocation of light standards throughout where sidewalk would be narrowed to accommodate new transit boarding islands and the new raised cycle track.  Removal of one light standard due to the elimination of one island at the intersection of Turk Street and Mason Street.	Same as Alternative 1, Design Option A.	Same as Alternative 1, Design Option B.	Not applicable.
Commercial and Passenger Loading	No loading would be allowed on Market Street with the exception of paratransit users. All loading zones on Market Street would be removed, and new commercial and passenger loading zones would be created on adjacent cross streets or on parallel alleys or streets.		Limited loading would be allowed on Market Street. Some loading zones on Market Street would remain, and some commercial and passenger active loading zones would be created on adjacent cross streets or on parallel alleys or streets. Paratransit loading would continue to be allowed.		Limited loading allowed on one side of Mission Street in the floating parking lane (located between travel lane and new protected cycle track). Some new commercial and passenger active loading zones created on adjacent cross streets and alleys.

Proposed Project Element	Alternative 1: Market Street Complete Street and Transit Priority Improvements)		Alternative 2: Market Street - Moderate Alternative (Complete Street and Moderate Transit Priority Improvements)		Alternative 3: Market Street + Mission Street (Complete Street and Transit Priority Improvements on Market plus Bicycle Facility Improvements on Mission) (Note: This column describes only Mission Street improvements. Market Street improvements would be the same as under Alternative 1, Design Option A.)
	Design Option A	Design Option B	Design Option A	Design Option B	
Vehicular Parking	No parking allowed on Market Street (i.e., existing parking spaces west of Franklin Street and east of Spear Street would be removed); removal of some parking spaces part-time or all day on cross streets and alleys to accommodate relocated loading zones.	Same as Design Option A on Market Street. Valencia Street between Market and McCoppin streets would have some parking removed to accommodate the new protected cycle track.	Same as Alternative 1, Design Option A.	Same as Alternative 1, Design Option B.	One floating parking lane (located between travel lane and new protected cycle track, alternating between the north and south side of the street depending on the block) on most blocks of Mission Street. McCoppin, Otis, and 10 <sup>th</sup> streets would have some parking removed to accommodate the new bicycle facilities.
Utilities	Replacement of existing wastewater lines beneath Market Street; targeted replacement of water lines and auxiliary water supply system lines as required to maintain state of good repair; targeted replacement of electrical and other utility infrastructure to maintain state of good repair.				No change to existing utilities.
Source: Public Works, Citywide Planning Division of the San Francisco Planning Department, SFMTA. 2015.					
1 The table summarizes the three alternatives and their design options. Please refer to the subsequent text and <b>Figure 2</b> for a more detailed description of changes and definitions of terms.					





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### *Intersecting Streets*

Changes to circulation could include converting portions of streets that intersect Market Street from one-way to two-way, changing the direction of one-way streets and partial street closure. Changes also would be made to left- and right-turn movements by private vehicles from the intersecting streets onto Market Street.

### **Traffic Controls**

Under either design option, Alternative 1 would include signal timing and control modifications and relocations at Market Street intersections. Modifications would include adjustments to traffic signal timing for Market Street and could include new right-turn signals and bicycle signals. In addition to new traffic signal poles along Market Street, the relocation of traffic signal poles would also be required. New traffic signals could be added at intersections where existing traffic signals do not currently exist (i.e., 11<sup>th</sup> Street and Steuart Street). Northbound 12<sup>th</sup> Street at Market Street would become stop-sign controlled.

### **Surface Transit**

Under either design option, Alternative 1 would include multiple changes to surface transit on Market Street in order to further prioritize transit. The transit-only center lanes on Market Street would be extended (as indicated in the Muni-Only Lanes discussion below); these lanes would be reserved for Muni and emergency vehicles only. Descriptions of transit-only lanes, stop spacing and service, stop location, stop characteristics, and infrastructure are provided below.

- **Muni-Only Lanes:** Under either design option, Alternative 1 would extend the existing transit-only center lanes between Davis and 12<sup>th</sup> streets in the westbound (outbound) direction and between 12<sup>th</sup> and Main streets in the eastbound (inbound) direction. **Figure 3** illustrates the location of the transit-only center lanes. The existing and extended transit-only lanes would be reserved for Muni and emergency vehicles only. Taxis would not be permitted in Muni-only lanes along Market Street.
- **Stop Spacing and Service:** Under either design option, Alternative 1 would modify existing transit stops on Market Street. A new system of transit stop spacing and locations would be instituted to create a set of rapid stops in the center transit-only lanes and a set of local stops in the curbside lanes. The rapid stops would be used by express bus routes 5R, 9R, 7R, 7X, and 38R and the F Line; the local stops would be used by the local bus routes 2, 5, 6, 7, 9, 19, 21, 31, and 38. In addition, bus routes 14, 14R, and 14X would continue to have drop-off only stops at Market Street and Steuart Street, and bus routes 81X, 10 and 11 (proposed to replace portions of route 12 in Muni Forward route changes) would continue to run on Market Street but would not stop. The rapid services would stop only at new transit boarding islands located near existing Muni Metro and BART stations on Market Street between Van Ness Avenue and 1st Street. Local routes would stop more frequently than the rapid routes. These changes would also affect late-night bus service provided by Muni's N and L Owl routes and AC Transit 800 and 822. Implementation of the new counter-clockwise F Line track loop on McAllister Street, and Charles J. Brenham Place would result in F Line service changes, because F Line trains would have the ability to switch from running westbound to running eastbound using the new loop. The F Line loop is further discussed under *Infrastructure*.

- **Stop Location:** Under either design option, transit routes would serve at least one of the new, relocated or modified stops along Market Street: 16 curbside stops (7 inbound, 9 outbound) or 12 center boarding island stops (7 inbound, 5 outbound). **Figure 3** shows the locations of the proposed surface transit stop locations.
- **Stop Characteristics:** Under either design option, Alternative 1 would increase the length and width of the relocated or replaced center transit boarding islands along Market Street to meet Americans with Disabilities Act (ADA) accessibility standards. Wheelchair-accessible ramps would be constructed to serve the F Line. Alternative 1 also would add amenities such as bus shelters to the center boarding islands.

Under Alternative 1, Design Option A, the curbside stops would be located along the curb. Under Alternative 1, Design Option B, the curbside stops would be at the same locations as Design Option A, but would be curbside transit boarding *islands* because the new raised cycle track would be constructed between the new curbside islands and the sidewalk.

- **Infrastructure:** Under either design option, Alternative 1 would change the surface transit infrastructure. Changes would consist of replacement or upgrade of the existing streetcar rail tracks, the traction power system, and the Overhead Contact System on Market Street to maintain state of good repair and provide additional capacity. Replacement of the traction power system and Overhead Contact System would involve replacing and upgrading all substation equipment, conduits and transformers, and power circuits.

In addition, the Proposed Project would construct a new F Line track loop running one-way westbound along McAllister Street between Market Street and Charles J. Brenham Place and one-way southbound along Charles J. Brenham Place between McAllister and Market streets.

None of the three alternatives for the Proposed Project would make changes to BART or Muni Metro lines in the subway beneath Market Street.

### **Bicycle Facilities**

Under Alternative 1, Design Option A, the existing dedicated bicycle facility would remain on Market Street. At locations where a dedicated facility does not currently exist, the existing shared lane painted with sharrows would be widened to 15 feet where feasible.

Under Alternative 1, Design Option B, a new, approximately 5- to 9-foot-wide raised cycle track would be constructed on Market Street in each direction between the curb lanes and sidewalk. The new raised cycle track would be slightly raised above the adjacent curb lanes and could have different paving patterns or material to help identify the designated space for bicycles. At curbside transit stops, the new raised cycle track would be placed between a curbside transit boarding island and the sidewalk. A new protected cycle track also would be constructed on Valencia Street between Market and McCoppin streets.

Under either design option, Alternative 1 would include new bicycle racks installed on the sidewalks along Market Street within the Streetlife Zone areas, described in the *Streetscapes*

section. Covered bicycle parking or bicycle storage also could be installed in areas with wider sidewalks, such as at the Streetlife Hubs (also discussed in the *Streetscapes* section).

### **Pedestrian Facilities**

- **Sidewalk Width:** Alternative 1 would provide several changes to Market Street sidewalks. Design Option A would retain the majority of the existing sidewalk widths along Market Street, with limited sidewalk narrowing to allow for the construction of wider transit boarding islands and widened shared lanes adjacent to curbside bus stops. Design Option B would narrow the sidewalk on Market Street to allow for the construction of wider transit boarding islands and the new raised cycle track.

ADA-compliant curb ramps would be added. Numerous pedestrian bulbouts at intersections along and adjacent to Market Street would be added to shorten pedestrian crossing distances and improve pedestrian visibility. Alternative 1 would also add, relocate, or remove certain crosswalks at appropriate locations.

### **Streetscapes**

- **Elements:** Under either design option, Alternative 1 would design the sidewalks east of Van Ness Avenue to generally provide a 15-foot-wide through (i.e., walking) zone for pedestrians, wherever possible. In some sidewalk locations (e.g., the blocks between 5<sup>th</sup> Street and Grant Avenue), this through zone could be up to 20 feet wide. West of Van Ness Avenue, the sidewalk through zone would be approximately 10 feet wide.

The curbside portion of the sidewalk would be designed as Streetlife Zones. Streetlife Zones would be located along the entire length of Market Street between the through zone and the curb. The width of the Streetlife Zones would vary based on the sidewalk width, the pedestrian volumes, and other criteria. Streetlife Zones would concentrate the objects (i.e., street furniture, trees, bicycle racks, wayfinding signs, and lighting) on the sidewalk into a zone adjacent to the curb, leaving the space adjacent to the buildings as a pedestrian through zone. Streetlife Hubs would be located within the Streetlife Zones in areas where the sidewalk is wider and in which more prominent streetscape elements (e.g., kiosks, cafés, public art, or interactive installations) could be featured.

Local environmental conditions including wind and shadow would also be a factor in the location of the individual streetscape elements such as benches and the Streetlife Hubs. Some sections of Market Street can be quite windy and, in San Francisco's climate, the most pleasant spaces for the public to enjoy social interaction and community life along Market Street are sunny and sheltered. The Proposed Project's streetscape elements would be located to take advantage of the local environmental conditions and, where possible, to help ameliorate windy conditions by adding street-level "roughness" that disperses stronger winds.

Market Street's existing brick sidewalks would be replaced with new paving material or materials.

- **Trees:** Under Alternative 1, Design Option A, trees would be removed or relocated in limited areas where the sidewalk would be narrowed to allow for the construction of wider transit boarding islands and widened shared lanes adjacent to curbside bus stops.

Under Alternative 1, Design Option B, trees would be removed or relocated where the sidewalk would be narrowed to allow for construction of the wider center transit boarding islands and the new raised cycle track. Under either design option, trees deemed unhealthy, hazardous, or in conflict with Proposed Project design would be removed and replaced, if feasible. Therefore, the Proposed Project could result in the removal of all trees along Market Street between Octavia and Steuart streets under either design option. Any tree that is removed would be replaced, if feasible.

- **Path of Gold Light Standards:** The Path of Gold Light Standards is a designated historic landmark consisting of 327 33-foot-high lampposts along both sides of Market Street from the Ferry Building to Octavia Boulevard. Under Alternative 1, Design Option A, the Path of Gold Light Standards would be relocated near existing light standard locations on the sidewalk in limited areas where the sidewalk would be narrowed to allow for the construction of wider transit boarding islands and widened shared lanes adjacent to curbside bus stops. Under Alternative 1, Design Option B, the Path of Gold Light Standards would be relocated where the sidewalk would be narrowed to allow for the construction of the wider center transit boarding islands and the new raised cycle track.

### **Commercial and Passenger Loading**

Under either design option, Alternative 1 would prohibit commercial and passenger loading on Market Street. Where possible, commercial and passenger loading zones would be established on the first half-block of the cross streets north and south of Market Street or on parallel alleys or streets that provide loading access at the rear of properties. These new zones would be designated for active loading only (i.e., a vehicle may be stopped in the loading zone only during active loading or unloading of commercial goods or passengers). Paratransit vehicles would be able to pick up and drop off passengers on Market Street. Depending on location, a loading bay on Market Street would be considered for buildings without rear street or alley access or without an entry point within 250 feet of a cross street loading zone.

### **Vehicular Parking**

Under either design option, Alternative 1 would remove the existing on-street parking on Market Street (i.e., existing parking spaces west of Franklin Street and east of Spear Street). The additional loading zones on cross streets and on rear alleys and streets described in the *Commercial and Passenger Loading* section could result in part-time (i.e., time-of-day restricted) or all-day removal of parking spaces. Under Design Option B, some on-street parking on Valencia Street would be removed in order to provide room for new protected cycle track between Market and McCoppin streets.

### **Utilities**

Under either design option, Alternative 1 would include the replacement and relocation of approximately one-third of the existing sewer lines beneath Market Street. Alternative 1 also would include targeted replacement or relocation of water lines, fire hydrants, and auxiliary water supply system (AWSS) lines, including AWSS fire hydrants, along Market Street, and electrical and other utility infrastructure to maintain state of good repair or to match proposed movement of the curb. The new, replacement utility lines would be the same size as the existing

lines and no additional capacity would be provided. Alternative 1 also would relocate other subsurface utilities to make way for the various improvements.

## **Alternative 2**

Changes to roadway configuration, traffic controls, surface transit, bicycle facilities, pedestrian facilities, streetscapes, vehicular parking, and utilities on Market Street would have the same characteristics as described under Alternative 1. Changes to private vehicle access and commercial and passenger loading under Alternative 2 are described below.

### **Private Vehicle Access**

#### *Market Street*

Alternative 2 would have fewer restrictions on private vehicles traveling on Market Street than Alternative 1 would have. Surface public transit access would remain along the entirety of Market Street. All private vehicles would continue to be allowed on portions of the length of Market Street except at locations where required right-turn regulations are proposed or where existing required right-turn regulations are present (e.g., 6<sup>th</sup> and 10<sup>th</sup> streets). At these locations, all public transit, commercial, paratransit and emergency vehicle traffic could continue traveling on Market Street, while all private vehicular traffic would be diverted from Market Street.

#### *Intersecting Streets*

Similar to Alternative 1, changes to circulation under Alternative 2 could include converting portions of streets that intersect Market Street from one-way to two-way, changing the direction of one-way streets and partial street closure. Changes also would be made to permit left- and right-turn movements by private vehicles from the intersecting streets onto Market Street.

### **Commercial and Passenger Loading**

Under Alternative 2, a limited number of commercial and passenger active loading zones on Market Street would remain. Alternative 2 would include the same additional loading zones on the cross streets and rear alleys and streets that Alternative 1 would provide. The same exceptions described under Alternative 1 related to vehicles providing paratransit services would apply. Depending on location, a loading bay on Market Street would be considered for buildings without rear alley or street access or without an entry point within 250 feet of a cross street loading zone.

## **Alternative 3**

Changes to roadway configuration, private vehicle access, traffic controls, surface transit, bicycle facilities, pedestrian facilities, streetscapes, commercial and passenger loading, vehicular parking, plazas, and utilities on Market Street would have the same characteristics as described under Alternative 1, Design Option A. Changes to Mission Street under Alternative 3 are described below.

### **Roadway Configuration**

Mission Street would be reconfigured to include a travel lane in each direction with right-turn pockets at intersections, where applicable. In addition, a new protected cycle track in each

direction on Mission Street and a protected cycle track on 10<sup>th</sup> Street between Mission and Market streets would be constructed. One floating parking lane would be striped on one side of the street per block (i.e., the parking lane would be located between the travel lane and new protected cycle track), alternating between the north and south sides of the street as appropriate. Otis Street between South Van Ness Avenue and Gough Street would have two westbound traffic lanes, a westbound transit-only lane, the existing westbound bicycle lane, and a new contra-flow, parking-protected cycle track in the eastbound direction. Contra-flow refers to a configuration in which bicycles travel in the opposite direction of vehicles. McCoppin Street would have a travel lane in each direction, and a new parking-protected one-way cycle track in each direction. Four travel lanes would remain on 10<sup>th</sup> Street between Market and Mission streets and a new protected cycle track connection on each side of the street (one southbound and one contra-flow northbound) also would be added to connect the Market and Mission streets facilities. **Figure 2** illustrates the typical roadway configuration for Alternative 3 on Mission Street.

### **Private Vehicle Access**

A transit-only lane would be located on Mission Street in the eastbound direction between 1<sup>st</sup> and Beale streets. Only transit vehicles and bicycles would be permitted to travel eastbound on this segment of Mission Street. Eastbound private vehicles would be required to turn right onto 1<sup>st</sup> Street from Mission Street. Southbound left-turn movements from 1<sup>st</sup> Street onto Mission Street and northbound right-turn movements from Fremont Street onto Mission Street would be prohibited.

### **Traffic Controls**

Alternative 3 would add new turn lanes from Mission Street at certain intersections. New turn signals would be installed to support the new turn lanes and existing turn lanes from Mission Street, and to separate bicycle traffic from turning vehicles. Alternative 3 would also include traffic signal timing modifications for bicycles on the new protected cycle track along Mission Street and could include new bicycle signals and turn signals.

### **Surface Transit**

- **Transit-Only Lanes:** A transit-only lane would be located on Mission Street in the eastbound direction between 1<sup>st</sup> and Beale streets. The remaining existing transit-only lanes would be removed from Mission Street.
- **Stop Spacing and Service:** Alternative 3 would relocate all existing transit service provided by Muni, Golden Gate Transit, and SamTrans on Mission Street west of the new Transbay Transit Center to Market Street. Some Market Street transit routes may use Mission Street as a layover or turnaround. When Market Street is closed to vehicular traffic (such as when portions of Market Street are closed for special or unexpected events), transit routes would operate along Mission Street. Examples of annual special events that close Market Street are New Year's Eve, Gay Pride Parade, Chinese New Year Parade, and Bay to Breakers. These annual events plus periodic protests and marches such as Walk for Life and May Day March and Rally close Market Street on approximately 10 days during an average year.



- **Stop Location:** All existing bus stops on Mission Street west of the new Transbay Transit Center would be removed. Temporary bus stops would be provided when transit service is rerouted from Market Street to Mission Street when Market Street is closed for special and unexpected events.
- **Stop Characteristics:** As described above, all existing bus stops on Mission Street would be removed west of the new Transbay Transit Center. Temporary bus stops would be provided when transit service is rerouted from Market Street to Mission Street when Market Street is closed for special and unexpected events.
- **Infrastructure:** Maintenance and adjustment of the Overhead Contact System on Mission Street would be performed to accommodate transit use when Market Street is closed for special and unexpected events.

### **Bicycle Facilities**

Alternative 3 would provide a new protected cycle track in each direction on Mission Street. The new protected cycle track would be separated from adjacent travel lanes or the floating parking lane by a buffer consisting of a painted median, concrete median, or other treatments. On one side of the street, the new buffer would separate the new protected cycle track from a new floating parking lane and would provide space for vehicle doors to open and persons to enter and exit the parked vehicle. On the other side of the street, a new buffer would be created between the new protected cycle track and travel lane. New bicycle facilities on McCoppin and Otis streets (in addition to the existing westbound bicycle lane along Otis Street) would provide a new bicycle network connection to and from Valencia and Market streets. On McCoppin Street, the new bicycle facility would consist of a parking-protected one-way cycle track in each direction. On Otis Street, the new bicycle facility would consist of a contra-flow protected cycle track in the eastbound direction between Gough Street and Van Ness Avenue. As explained in the *Roadway Configuration* section above, contra-flow refers to a configuration in which bicycles travel in the opposite direction of vehicles (e.g., Polk Street contra-flow bicycle lane between Market and Grove streets). On 10<sup>th</sup> Street, the new bicycle facility would consist of a southbound one-way protected cycle track and a northbound contra-flow protected cycle track between Market and Mission streets to connect the bicycle facilities. **Figure 2** shows the bicycle facility on Mission Street (including on McCoppin, Otis, and 10<sup>th</sup> streets) under Alternative 3.

Bicycle racks could also be installed on the sidewalk along Mission Street.

### **Pedestrian Facilities**

The sidewalk on Mission Street between 5<sup>th</sup> and 3<sup>rd</sup> streets could be widened, and the planted center median between 4<sup>th</sup> and 3<sup>rd</sup> streets could be removed. Alternative 3 could also add a mid-block signalized crosswalk to the block between Yerba Buena Lane and 3<sup>rd</sup> Street on Mission Street.

### **Streetscapes**

- **Elements:** New bicycle racks would be installed in limited locations along Mission Street.
- **Trees:** The trees on Mission Street would be assessed for health; healthy street trees would remain while unhealthy street trees would be replaced. The Proposed Project also would add trees in locations where there are existing tree wells and gaps.

### **Commercial and Passenger Loading**

Alternative 3 would reduce the amount of commercial and passenger loading zones along Mission, Otis, McCoppin, and 10<sup>th</sup> streets to accommodate the new protected cycle track. Some existing designated loading spaces that would be removed could be relocated to the floating parking lane, as described in the *Vehicular Parking* section. Some new commercial and passenger loading zones could be created on adjacent cross streets and alleys.

### **Vehicular Parking**

Under Alternative 3, the existing metered on-street parking on Mission Street would be reduced from two parking lanes to one floating parking lane to accommodate the new protected cycle track. The single floating parking lane would be located between the vehicular travel lane and the new protected cycle track and would alternate between the north and south sides of Mission Street as appropriate. On-street parking on McCoppin Street between Valencia and Gough streets and on 10<sup>th</sup> Street between Market and Mission streets would be removed to accommodate the new protected cycle track connections. **Figure 2** illustrates the proposed parking configuration on Mission Street under Alternative 3.

### **Utilities**

No changes to existing utilities on Mission Street are proposed.

### **Plaza Components**

In addition to these three alternatives, modifications to UN and Hallidie plazas discussed below have been analyzed in this document at a conceptual level, based on the design information available as of the date this document was prepared. The design concepts may be further developed once funding mechanisms for the redesign and rebuilding of the plazas are identified, and Public Works, in coordination with the Planning Department, will determine if additional environmental review is warranted.

The conceptual plans for UN Plaza envision filling in the existing fountain and creating a new outdoor pavilion with a new seating area with tables and benches, as well as new trees and other streetscape elements. Minor excavation activities are assumed to be required to support the new outdoor pavilion and new trees. If new lighting elements are included as part of the redesign of UN Plaza, such lighting would be consistent with the type of pedestrian streetscape lighting utilized at public spaces around San Francisco. This lighting would consist of downward facing light fixtures that would be selected to efficiently direct light to pedestrian pathways and active uses within the plaza area. **Figure 4** illustrates the conceptual design for UN Plaza.



Source: San Francisco Public Works, 2015.

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**Figure 4**  
**UN Plaza Conceptual Illustration**

The conceptual plans for Hallidie Plaza envision redesigning and rebuilding the entire area by decking over the sunken portion to create a street-level plaza, repaving the entire plaza and adding a new outdoor pavilion with new seating areas and new kiosks. A new structure would replace the existing uses in the plaza area, assumed to be used as a tourist information center, as well as other streetscape elements. The area beneath the new decked Hallidie Plaza would continue to provide access to the Powell Street Station for the underground Muni Metro and BART transit services. An elevator would be located near the new structure to provide access to the Powell Street Station transit services. Improvements to the escalators would also be included with the plaza modifications. As with UN Plaza, if new lighting elements are included as part of the redesign of Hallidie Plaza, such lighting would be consistent with the type of pedestrian streetscape lighting utilized at public spaces around San Francisco. This lighting would consist of downward facing light fixtures that would be selected to efficiently direct light to pedestrian pathways and active uses within the plaza area. **Figure 5** illustrates the conceptual design for Hallidie Plaza.

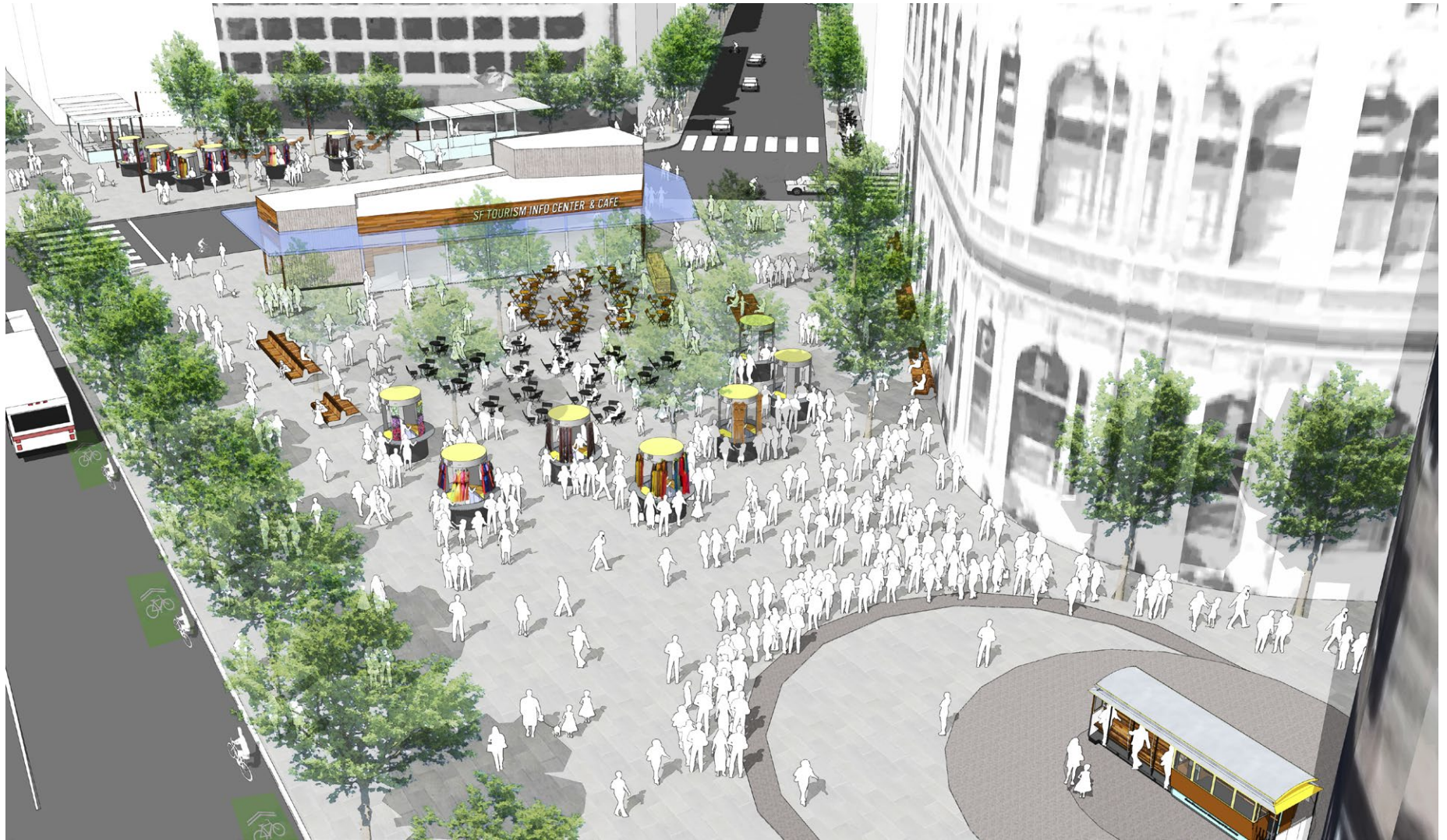
No changes to plazas adjacent to Mission Street are proposed as part of this Project.

### **A.5. Project Construction and Phasing**

The Proposed Project would include construction within the operational public right-of-way to accommodate the various transportation, streetscape, plaza, and utility improvements. Construction activities are anticipated to commence in 2018 pending the completion of environmental review and acquisition of funding sources. Under Alternatives 1 and 2, construction along Market Street is anticipated to occur in four or five geographic phases over a 3- to 5-year period. Under Alternative 3, construction along Mission Street is anticipated to occur over a shorter period (1 to 2 years) than on Market Street because of fewer construction activities. Mission Street construction would occur after construction along Market Street is completed. Construction of the Proposed Project could occur simultaneously with other projects and programs being pursued by the City at locations within the Project corridor (see Relationship to Other Projects above).

Each geographic phase would consist of multiple blocks along the length of Market Street between Octavia Boulevard and The Embarcadero, with construction activities scheduled to minimize disruption to businesses, residents, visitors, and the transportation system. Each geographic phase would be divided into three construction sub-phases. The first sub-phase would involve the closure of the curbside lanes to allow for the relocation and reconstruction of the curb along with the accompanying removal, relocation and/or replacement of trees, and relocation of fire hydrants, light poles, catch basins, and other utilities. This sub-phase would also allow the construction of the new center transit boarding islands and the demolition of some of the existing transit islands. The center lanes would remain open to public transit while the curbside lane work is completed. Once the curbside lanes are completed, the second sub-phase would involve closing the center lanes for the rail track and sewer line replacements. During this second sub-phase, the new curbside lanes would remain open to public transit. Lastly, during the third sub-phase, the sidewalks would be closed for reconstruction, with the curbside lanes available for pedestrian detours and the center lanes available to serve public transit. Private





Source: San Francisco Public Works, 2015.

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**Figure 5**  
**Hallidie Plaza Conceptual Illustration**

vehicles and bicycles would be rerouted from Market Street during construction. Funding for the plaza improvements has not been identified at this time; plaza improvements could be constructed at a future point in time or concurrently with construction on Market and Mission streets.

The Project sponsor will prepare a construction management plan that addresses issues of circulation (traffic, pedestrians, and bicycle), safety, parking, and other project construction in the area. The construction management plan will be reviewed by the City's Transportation Advisory Staff Committee (TASC), which consists of representatives from SFMTA, Public Works, and the Fire, Police, and Planning Departments.

Construction of the Proposed Project would require the temporary closure of sidewalks to allow for their reconstruction. These temporary closures would be subject to review and approval by the TASC. TASC review would also take into consideration other construction projects in the vicinity.

During construction on Market and Mission streets, access would be maintained to all buildings and businesses. There would be open and responsive communication between Public Works construction managers. Public Works would provide periodic updates to community members, and property and business owners and would address concerns on a case-by-case basis to minimize disruptions. This would require meetings between the local community and businesses and the City and the general contractor. Public Works construction managers would work with the general contractor to ensure coordination with the City and the local community and businesses regarding anticipated traffic disruptions, delivery schedules, customer and residential parking, and access.

Construction protocols for sidewalk closures would follow the City's *Regulations for Working in San Francisco Streets – 8th Edition* (also known as the "Blue Book"), including minimizing disruptions by monitoring the following restrictions and conditions.

- General job site safety and housekeeping by contractors.
- Safe path of travel.
- Parking restrictions (permitted/non-permitted).
- Dust controls.
- Construction staging and storage of materials and equipment.
- Night noise permits – noise levels (day and night).
- General traffic flow.
- General construction blight.

Holiday restrictions apply to the Project area on both Market and Mission streets. No work would be allowed during the holiday moratorium, from the day after Thanksgiving to January 1, inclusive of these days. All openings in the street and in the sidewalk must be closed by backfilling and paving or by plating over, to provide safe and adequate passage for bicyclists, motorists, and pedestrians.

Construction of Alternatives 1, 2, and 3 would generally require excavation to a depth of 12 to 18 inches for streetscape, sidewalk, and travel lane construction. New light signals would require excavation to a depth of 12 feet, curb cuts would require excavation to a depth of 3 feet, new or replacement tree wells would require excavation to a depth of 4 feet, and the replacement of water and the AWSS would require excavation to a depth of 5 feet or deeper if there are conflicts with other utilities or the rail track. Alternatives 1 and 2 would also include the replacement of sewer lines along a portion of Market Street which would require excavation to a depth of 12 to 15 feet, the relocation of light standards which would require excavation to a depth of 12 feet, and the replacement of the rail tracks which would require excavation to a depth of two feet, and the replacement of signal conduit and water lines would require excavation to a depth of 3.5 feet. Rebuilding UN and Hallidie plazas would require excavation for foundations to a depth of up to 80 feet below street level at UN Plaza and 110 feet below street level at Hallidie Plaza.

## A.6. Project Approvals

Proposed Project implementation would require numerous federal, state, and local reviews, permits, and approvals. **Table 3** lists the anticipated environmental-related permits and approvals that will be needed in advance of certifying the Proposed Project's CEQA document. **Table 4** lists the anticipated recommendations that may take place prior to or after the CEQA document certification process.

**TABLE 3. ANTICIPATED PERMIT AND APPROVALS NECESSARY FOR CERTIFICATION OF THE CEQA DOCUMENT**

Agency	Approval or Permit
San Francisco Board of Supervisors	Approval of the Preferred Project Approval of Sidewalk Legislation Approval of Encroachment Permit Program to facilitate streetlife zone activity
San Francisco Public Works	Recommended approval of Preferred Project Approval of tree removal and replanting in public right-of-way Approval of construction period encroachment permits Approval of nighttime construction work, as needed
San Francisco Municipal Transportation Agency	Recommended approval of Preferred Project Approval of changes to each transit route and stop location Approval of certain parking and traffic measures in accordance with the San Francisco Transportation Code Special Traffic Permit for instances where work would not comply with Blue Book regulations or traffic routing specifications in a City Contract
San Francisco Planning Commission or Planning Department	Approval of General Plan Referral

<b>Agency</b>	<b>Approval or Permit</b>
San Francisco Public Utilities Commission	<p>Approval of stormwater control plan</p> <p>Approval of erosion and sediment control plan</p> <p>Approval of construction runoff permit application</p> <p>A batch discharge permit is required by the SFPUC (per the 2009 Keep it on Site Guide) for release of any construction wastewater, including groundwater, into the City's combined sewer system.</p> <p>Permit from the Wastewater Enterprise Collection System Division for discharges to the combined sewer system</p> <p>National Pollutant Discharge Elimination System (NPDES) Permit for construction activities will be required and is issued by the SFPUC. This includes contractor's preparation of a Stormwater Pollution Prevention Plan (SWPPP)</p>
San Francisco County Transportation Authority Board	Approval of some funding sources
San Francisco Historic Preservation Commission or Planning Department	Approval of Certificates of Appropriateness, if applicable, regarding work to Planning Code designated districts or landmarks.
California Department of Transportation	<p>Temporary Encroachment Permit for construction activities</p> <p>Permanent Encroachment Permit for modifications within the Van Ness Avenue and Central Freeway rights-of-way</p>

**TABLE 4. ANTICIPATED RECOMMENDATIONS THAT MAY PROCEED PRIOR TO OR AFTER CERTIFICATION OF THE CEQA DOCUMENT**

<b>Committee/Commission</b>	<b>Recommendation or Approval</b>
San Francisco Capital Planning Committee	Recommendation to Board of Supervisors regarding and prior to the issuance of any long term financing for the Proposed Project
San Francisco Arts Commission	Approve the designs of public structures and the design and location of works of art
San Francisco Transportation Advisory Staff Committee	Review of construction management plans and review of temporary lane and sidewalk closures
Federal Transit Administration	Funding approvals and completion of National Environmental Policy Act documentation, as applicable
Metropolitan Transportation Commission	Approval of Air Quality Conformity Determination for National Environmental Policy Act documentation, as applicable



## B. PROJECT SETTING

### General Context

The existing functional and physical characteristics of the Project corridor, including land use, transportation and circulation, and streetscape elements, were thoroughly described in the *Better Market Street Existing Conditions & Best Practices* documents prepared for the Proposed Project in 2011<sup>4</sup> and are briefly summarized as follows. As indicated by **Figure 6**, the Project corridor crosses and is adjacent to several distinct districts and neighborhoods. As discussed below, Market Street and Mission Street share certain functional and physical characteristics in some areas, and differ in others.

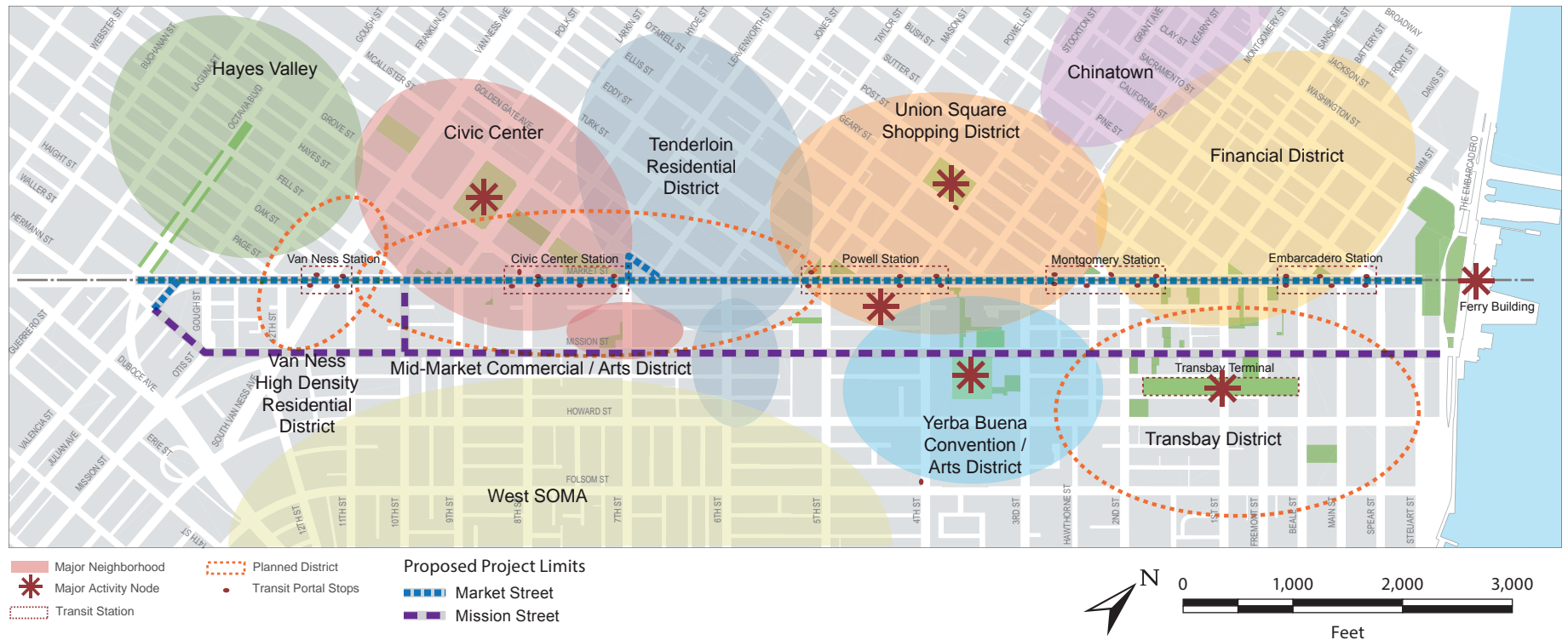
### Market Street

Market Street is a major city street and a significant regional destination, functioning as the backbone of San Francisco's public, and BART's regional, transportation systems, a significant bicyclist commute route, and a major retail portal, serving a population both within and outside the city. Market Street may be divided into five key districts from Steuart Street to Octavia Boulevard, with distinct land uses, transportation and circulation characteristics, and physical form: the Financial District (from Drumm Street to Kearny Street); the Union Square Shopping District (Montgomery Street to Taylor Street); the Tenderloin District (from Mason Street to Larkin Street); the Civic Center District (from Jones Street to Franklin Street); and the Hayes Valley (from Van Ness Avenue to Buchanan Street)).

Currently, land use distribution along Market Street is primarily commercial, with few residential uses in many of the districts. The majority of Muni and BART riders travel either to the Civic Center or the Financial District, areas that have the highest concentration of employment density in the city. Although Market Street is predominantly a transit- and pedestrian-oriented street, it also has considerable cross-traffic and, at its eastern end, is affected by peak flows of automobiles traveling to and from the Bay Bridge. The contrasting grid layout and block structure east and west of Market Street complicate traffic patterns and pedestrian movements.

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<sup>4</sup> San Francisco Department of Public Works et al. *Better Market Street Existing Conditions & Best Practices*. December 7, 2011. These documents are on file and available for public review as part of Case File No. 2014.0012E.



Source: San Francisco Public Works, 2011.

## **Mission Street**

The easternmost part of Mission Street, passing through the southern portion of the Financial District, aligns with the character of Market Street one block to the north. Of the varying sections of Mission Street in the Project area, the easternmost part of Mission Street has the highest density of weekday daytime use and is characterized by high-rise office towers, hotels, and condominium projects. The largest project in this area, the Transbay Terminal Center between 1<sup>st</sup> and 2<sup>nd</sup> streets, will substantially increase the number of trips in the immediate area. To the west along Mission Street is the Yerba Buena District that includes the Metreon, the Yerba Buena Center for the Arts, SF Museum of Modern Art, Moscone Center, the Children's Creativity Museum, and several other retail, arts and cultural institutions. The Yerba Buena District and the adjacent Retail District on Market Street compose the most active area within the Project corridor on weekends. Farther west is the West SOMA neighborhood, where Mission Street is adjacent to the Mid-Market/Tenderloin and Civic Center Districts on Market Street.

## **Roadway Configuration and Private Vehicle Access**

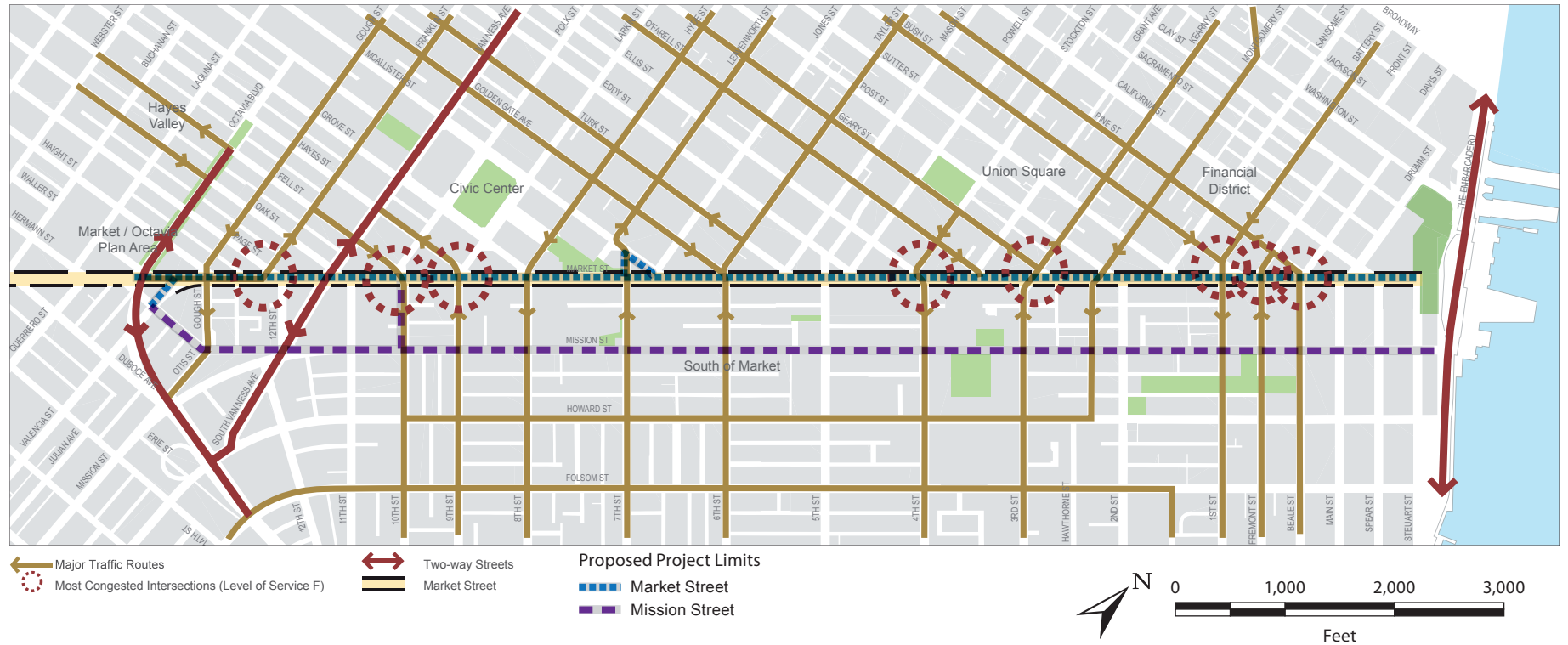
**Figure 7** shows the major traffic routes through the Project corridor. Because of the historic street structure in San Francisco, the streets north and south of Market Street are configured as offset street grids, whereby the streets south of Market Street do not directly align with the streets north of Market Street. In the South of Market area, streets that run in the northwest/southeast direction (e.g., 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> streets) are generally considered north-south streets, whereas streets that run in the southwest/northeast direction (e.g., Market and Mission streets) are generally considered east-west streets.

## **Market Street**

In general, four travel lanes exist on Market Street between Van Ness Avenue and Main Street. The blocks between Main and Steuart streets have three travel lanes. West of Van Ness Avenue, Market Street widens to as many as seven travel lanes to allow for left turn lanes north onto Franklin Street and south onto Valencia Street. Valencia Street between Market and Mission streets has two travel lanes and one parking lane in each direction.

Private vehicles travelling eastbound on Market Street are required to turn right at 10<sup>th</sup> and 6<sup>th</sup> streets. Except for the transit-only lanes (see the *Surface Transit* section below for more detail), private vehicles are currently allowed to travel on Market Street. Left turn movements from Market Street are prohibited for private vehicles, except at Valencia Street in the westbound direction and Franklin and Drumm streets in the eastbound direction.

Existing bicycle facilities on Market Street consist of dedicated lanes or shared lanes marked with sharrows, depending upon location (see the *Bicycle Facilities* section below for more detail). Valencia Street has an existing bicycle lane in each direction between Market and McCoppin streets.



Source: San Francisco Public Works, 2011.

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**Figure 7**  
**Major Traffic Routes**

### **Mission Street**

McCoppin Street has two travel lanes and two parking lanes. Otis Street has four travel lanes and two parking lanes. Between Market and Mission streets, 10<sup>th</sup> Street has four travel lanes (one-way southbound) and one parking lane. In general, four travel lanes and two parking lanes exist on Mission Street. Except for in the transit-only lanes (see the *Surface Transit* section below for more detail), private vehicles are currently allowed to travel on Mission Street. Left turn movements from Mission Street are prohibited for private vehicles except at Steuart, Spear, Main, and Beale streets.

Existing bicycle facilities on Mission Street consist of a shared lane marked with sharrows in some locations (see the *Bicycle Facilities* section below for more detail). McCoppin and Otis streets have an existing bicycle lane in the westbound direction. 10<sup>th</sup> Street between Market and Mission streets has a shared lane marked with sharrows in the southbound direction.

### **Traffic Controls**

Market and Mission streets have traffic signals at most intersections.

### **Surface Transit**

#### **Market Street**

Transit-only center lanes for surface public transit, taxis, and emergency vehicles exist between 8<sup>th</sup> Street and Van Ness Avenue in the westbound (outbound) direction and between 12<sup>th</sup> and 5<sup>th</sup> streets in the eastbound (inbound) direction. The transit-only lanes operate 24 hours a day, 7 days a week. Streetcar rail tracks exist in both directions on Market Street, serving the center lanes between Octavia Boulevard and Steuart Street.

Muni operates 20 bus routes and one streetcar line (F Line) along the surface of Market Street during the evening peak hour within the Project area (note: some bus routes travel upon, but do not stop on, Market Street). Most of these surface transit routes and the single streetcar line serve at least one of 17 curbside stops (8 inbound, 9 outbound) and 23 center boarding island stops (12 inbound, 11 outbound) within the Project area. In addition to the 20 evening peak hour bus routes, Muni operates two late night bus routes on Market Street.

#### **Mission Street**

Transit-only lanes are generally in the curb lane in both directions on Mission Street, but transit-only lane operations vary by location and time of day. Parking on the portions of Mission Street with transit-only lanes is prohibited during specified peak hours. During nonpeak hours, transit vehicles share the two outside lanes with private vehicles and parking at the curb is generally allowed.

Muni operates three bus routes (14, 14R, and 14X) along Mission Street between San Jose Avenue and Steuart Street. In addition, Golden Gate Transit operates four routes and SamTrans operates three routes along Mission Street within the Project area. Each of these transit routes serves at least one of the 23 curbside stops (11 inbound, 12 outbound) within the Project area.

## **Bicycle Facilities**

### **Market Street**

Market Street has dedicated bicycle facilities, which vary from a protected cycle track with safe hit posts to a bicycle lane, between Gough Street and half-way between 9<sup>th</sup> and 8<sup>th</sup> streets in the eastbound direction and between 8<sup>th</sup> Street and Octavia Boulevard in the westbound direction. Sharrows are painted in the curb lanes at all other locations on Market Street to indicate that bicycles and vehicles share these lanes. Valencia Street has an existing bicycle lane in each direction between Market and McCoppin streets. Nine Bay Area Bike Share pods are located along Market Street. Bicycle racks are also located at a number of locations along Market Street.

### **Mission Street**

McCoppin and Otis streets have an existing bicycle lane in the westbound direction. 10<sup>th</sup> Street between Market and Mission streets has a shared lane marked with sharrows in the southbound direction. Mission Street has painted sharrows between 11<sup>th</sup> Street and South Van Ness Avenue and between The Embarcadero and Steuart Street in the westbound direction. Bicycle racks are located at numerous locations along Mission Street.

## **Pedestrian Facilities and Streetscapes**

### **Market Street**

Existing sidewalks on Market Street are generally wider (between 25 feet and 35 feet) east of Van Ness Avenue and narrower (closer to 15 feet) west of Van Ness Avenue. Market Street sidewalks are constructed of red bricks and generally have an 18-inch wide granite curb separating them from the roadway. Many sidewalk crossings do not contain ADA-compliant curb ramps.

A number of objects are located on the existing sidewalks, including trees, signage, newspaper kiosks and boxes, flower stands, public art, bicycle racks, self-cleaning bathrooms, advertising signs, bollards with chains at several intersection crossings, AWSS hydrants, and the Path of Gold Light Standards. The Path of Gold Light Standards consists of decorative light poles with a three-part top, each of which contains a light globe. The Path of Gold Light Standards is a designated historic landmark identified under Article 10 of the Planning Code (Landmark No. 200) and is located between 1 Market Street and 2490 Market Street.

### **Mission Street**

Existing sidewalks on Mission Street are narrower than on Market Street (approximately 9 to 15 feet wide within the Project area) and are generally constructed of poured-in-place concrete slabs.

## **Commercial and Passenger Loading**

### **Market Street**

Market Street has a limited number of designated on-street commercial and passenger loading bays. A limited number of curb cuts exist on Market Street, allowing access to off-street parking and loading facilities.

### **Mission Street**

Mission Street has time-of-day designated on-street commercial and passenger loading zones. Some curb cuts currently exist along Mission Street, allowing access to off-street parking or loading facilities.

### **Vehicular Parking**

Existing on-street metered parking is limited to a few locations on Market Street and is available on most blocks along Mission Street.

### **Utilities**

Existing utilities along Market Street include a brick sewer line beneath Market Street, electrical components for the streetcar Overhead Contact System, electrical conduits for the Path of Gold Light Standards and traffic signals, and other subsurface utilities beneath the Market Street right-of-way. Fire hydrants, including large fire hydrants that are part of the AWSS installed following the 1906 earthquake, also are located within the Project corridor.

### **Plazas**

Two existing public plazas are located adjacent to the north side of Market Street right-of-way: UN Plaza is located between Hyde Street and Charles J. Brenham Place; Hallidie Plaza is located between Mason and Powell streets.

## **C. COMPATIBILITY WITH EXISTING ZONING AND PLANS**

	<i>Applicable</i>	<i>Not Applicable</i>
Discuss any variances, special authorizations, or changes proposed to the Planning Code or Zoning Map, if applicable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Discuss any conflicts with any adopted plans and goals of the City or Region, if applicable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Discuss any approvals and/or permits from City departments other than the Planning Department or the Department of Building Inspection, or from Regional, State, or Federal Agencies.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### **San Francisco Planning Code and Zoning Map**

Section 203 of the San Francisco Planning Code (Planning Code) states that the Planning Code shall not limit the construction, installation or operations by any public agency of any street or transportation line, or of incidental appurtenances to any of the foregoing when located in a street, alley, or other right-of-way. The modifications proposed for the streets and sidewalks within the Project corridor, as well as portions of UN and Hallidie plazas, would occur within the existing operational public right-of-way and would therefore not be subject to the Planning Code and require variances, special authorizations, or changes to the Planning Code or Zoning Map. Modifications on those portions of UN and Hallidie plazas that are owned by the City (and not in the operational public right-of-way) are zoned as Public and are subject to the Planning Code and

Zoning Map. However, because the proposed uses at UN and Hallidie plazas would continue the current land uses at these locations and other changes would generally be consistent with the Public designation, modifications to the plazas are not anticipated to require variances, special authorizations, or changes to the Planning Code or Zoning Map.

### **Plans and Policies**

#### *San Francisco General Plan*

The San Francisco General Plan (General Plan), which provides general policies and objectives to guide land use decisions, contains some policies that relate to physical environmental issues. The General Plan contains 10 elements (Commerce and Industry, Recreation and Open Space, Housing, Community Facilities, Urban Design, Environmental Protection, Transportation, Air Quality, Community Safety, and Arts) that set forth goals, policies and objectives for the physical development of the City. Any conflict between the Proposed Project and policies that relate to physical environmental issues are discussed in Section E below. The compatibility of the Proposed Project with General Plan policies that do not relate to physical environmental issues will be considered by decision-makers as part of their decision whether to approve or disapprove the Proposed Project.

#### *Proposition M – The Accountable Planning Initiative*

In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which added Section 101.1 to the Planning Code to establish eight Priority Policies. These policies, and the topics of the Evaluation of Environmental Effects addressing the environmental issues associated with the policies, are: (1) preservation and enhancement of neighborhood-serving retail uses; (2) protection of neighborhood character (Question 1c, Land Use); (3) preservation and enhancement of affordable housing (Question 3b, Population and Housing, with regard to housing supply and displacement issues); (4) discouragement of commuter automobiles (Questions 5a, b, f, and g, Transportation and Circulation); (5) protection of industrial and service land uses from commercial office development and enhancement of resident employment and business ownership (Question 1c, Land Use); (6) maximization of earthquake preparedness (Questions 14 a-d, Geology, Soils, and Seismicity); (7) landmark and historic building preservation (Question 4a, Cultural Resources); and (8) protection of open space (Questions 9a and b, Wind and Shadow, and Questions 10a and c, Recreation).

Prior to issuing a permit for any project that requires an Initial Study under the California Environmental Quality Act (CEQA), and prior to issuing a permit for any demolition, conversion, or change of use, and prior to taking any action that requires a finding of consistency with the General Plan, the City is required to find that the project or legislation would be consistent with the Priority Policies.

The compatibility of the Proposed Project with Proposition M objectives and policies that do not relate to physical environmental issues will be considered by decision-makers as part of their decision whether to approve or disapprove the Proposed Project. Any potential conflicts identified as part of the process would not alter the physical environmental effects of the Proposed Project.



### *Additional City Plans and Policies*

Additional City policies, plans, and programs that encompass parts of the Project area or are applicable to the Proposed Project include the San Francisco Bicycle Plan, Better Streets Plan, Complete Streets Policy (Public Works Code Section 2.4.13), Vision Zero SF (the City's road safety policy), Transit First Policy (Charter Section 8A.115), Climate Action Plan For San Francisco, San Francisco County Transportation Authority's Congestion Management Program, and Advanced Technology/Information Systems Transit Signal Priority (SFgo). The compatibility of the Proposed Project with the above policies, plans and programs that do not relate to physical environmental issues will be considered by decision-makers as part of their decision whether to approve or disapprove the Proposed Project. Any potential conflicts identified as part of the process would not alter the physical environmental effects of the Proposed Project.

### *Regional Plans and Policies*

The five principal regional planning agencies and their over-arching policy-plans to guide planning in the nine-county bay area include the Association for Bay Area Governments' (ABAG's) Projections 2013, the Bay Area Air Quality Management District's (BAAQMD's) Bay Area 2010 Clean Air Plan (2010 Clean Air Plan), the Metropolitan Transportation Commission's Regional Transportation Plan – Transportation 2035, the San Francisco Regional Water Quality Control Board's San Francisco Basin Plan, and the San Francisco Bay Conservation and Development Commission's San Francisco Bay Plan. Many of these plans and policies include programs and policies related to the implementation of projects and improvements intended to better manage and improve various transportation modes within the existing City right-of-way. Because of the constraints of the existing public right-of-way, the City balances the needs of all transportation modes that share the right-of-way including bicycles, pedestrians, transit, and vehicles. Conflicts between plans that focus on a particular mode within the City right-of-way may arise. However, many of the plans and policies include language that indicates that implementation of programs or capital improvements would be coordinated with Public Works improvements, including the Proposed Project.

### **Approvals and Permits**

See **Table 3** and **Table 4** in Section A.6 for a list of the anticipated environment-related permits and approvals.

## D. SUMMARY OF ENVIRONMENTAL EFFECTS

The Proposed Project could potentially affect the environmental factor(s) checked below. The following pages present a more detailed checklist and discussion of each environmental factor.

<input type="checkbox"/> Land Use	<input checked="" type="checkbox"/> Air Quality	<input type="checkbox"/> Biological Resources
<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Geology and Soils
<input type="checkbox"/> Population and Housing	<input checked="" type="checkbox"/> Wind and Shadow	<input type="checkbox"/> Hydrology and Water Quality
<input checked="" type="checkbox"/> Cultural Resources	<input type="checkbox"/> Recreation	<input type="checkbox"/> Hazards/Hazardous Materials
<input checked="" type="checkbox"/> Transportation and Circulation	<input type="checkbox"/> Utilities and Service Systems	<input type="checkbox"/> Mineral/Energy Resources
<input checked="" type="checkbox"/> Noise	<input type="checkbox"/> Public Services	<input type="checkbox"/> Agricultural and Forest Resources
		<input checked="" type="checkbox"/> Mandatory Findings of Significance

This Initial Study examines the Proposed Project to identify potential effects on the environment. For each item on the Initial Study checklist, the evaluation has considered the impacts of the Proposed Project both individually and cumulatively. All items on the Initial Study Checklist that have been checked "Potentially Significant Impacts" indicate that the Proposed Project could result in significant impact. All items on the Initial Study Checklist that have been checked a "Less than Significant Impact with Mitigation Incorporated," "Less than Significant Impact," "No Impact" or "Not Applicable," indicate that, upon evaluation, staff has determined that the Proposed Project could not have a significant adverse environmental effect relating to that issue. A discussion is included for those issues checked "Less than Significant Impact with Mitigation Incorporated" and "Less than Significant Impact" and for most items checked with "No Impact" or "Not Applicable." For all of the items checked "No Impact" or "Not Applicable" without discussion, the conclusions regarding potential significant adverse environmental effects are based upon field observation, staff experience and expertise on similar projects, and/or standard reference material available within the Planning Department's Environmental Planning Division. For each checklist item, the evaluation has considered the impacts of the Proposed Project both individually and cumulatively. The items checked above have been determined to result in "Potential Significant Impacts" and checklist questions within those items will be discussed in the EIR.

### **Assembly Bill 52 and Public Resources Code Sections 21080.3.1 and 21080.3.2**

On September 25, 2014, Governor Brown signed Assembly Bill 52 (AB 52) formally establishing a new requirement under CEQA for lead agencies to offer Native American tribes with an interest in tribal cultural resources located within its jurisdiction the opportunity to consult on CEQA documents. Tribal cultural resources are those resources that meet the definitions in Public Resources Code Section 21074. Tribal cultural resources are defined as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are also either (a) included or determined to be eligible for inclusion in the

California Register of Historical Resources or (b) included in a local register of historical resources as defined in Public Resources Code Section 5020.1(k). AB 52 applies to projects for which a lead agency has issued a Notice of Intent to adopt a Negative Declaration or a NOP of an EIR on or after its effective date of July 1, 2015. The NOP for the proposed project was issued on January 14, 2015. Therefore, the proposed project is not subject to the requirements of PRC Sections 21080.3.1 and 21080.3.2.

## **E. EVALUATION OF ENVIRONMENTAL EFFECTS**

Alternatives 1, 2, and 3 would include the construction and operation of similar transportation, infrastructure, and utility improvements. The footprint for Alternatives 1 and 2 consists primarily of Market Street. The footprint for Alternative 3 is larger, because it includes both Market and Mission streets. However, for many of the environmental topics discussed below, the environmental impacts under Alternative 3 would be the same as those impacts for Alternatives 1 and 2 because the impact discussion is not dependent upon location and footprint. Therefore, unless otherwise stated, the impact discussions apply to Alternatives 1, 2, and 3.

On the other hand, there are some environmental topics described below where the location and/or footprint under Alternative 3 could result in greater impacts compared with Alternatives 1 and 2. In these cases, the difference is stated at the outset of the analysis and the impact discussions analyze how environmental impacts would vary among Alternatives 1, 2, and 3.

The modifications to UN and Hallidie plazas are analyzed in this document at a conceptual level based on the design information available as of the date this document was prepared. The design concepts may be further developed once funding mechanisms for the redesign and rebuilding of the plazas are identified, and Public Works, in coordination with the Planning Department, will determine if additional environmental review is warranted.

## E.1. Land Use

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>1. LAND USE AND LAND USE PLANNING— Would the project:</b>					
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial impact upon the existing character of the vicinity?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### **Impact LU-1: The Proposed Project would not physically divide an established community. (Less than Significant)**

Construction of the Proposed Project may temporarily hinder access to local business, but not to a level that would physically divide an established community. As described in Section A.5, construction along Market Street is anticipated to occur in four or five geographic phases over a 3- to 5-year period under Alternatives 1 and 2. Under Alternative 3, construction along Mission Street is anticipated to occur over a 1- to 2-year period. Construction within each geographic phase would be scheduled to minimize disruption to businesses, residents, visitors and the transportation system. Access to all buildings and businesses would be maintained throughout construction, however as described in Section A.5, the temporary closures of the center and curbside lanes and the sidewalk during construction could result in detours to access buildings. Although construction may result in detours, those detours would be temporary and construction phasing would limit locations where detours are necessary.

The Proposed Project is intended to redesign and provide various transportation and streetscape improvements to Market Street and potentially Mission Street (under Alternative 3), as well as the redesign and rebuilding of UN and Hallidie Plazas. A majority of the various Proposed Project elements would be implemented within the City's existing street grid and existing operational public right-of-way. The Proposed Project consists of both transportation and streetscape improvements to provide faster and more reliable surface public transit; improve pedestrian and bicyclists' safety, comfort, and mobility; and includes the redesign and rebuilding of UN and Hallidie plazas. Implementation of any of the alternatives and design options would represent a continuation of the existing land uses in the Project corridor. Operation of the Proposed Project would not alter the established street grid, create new streets, or demolish existing buildings. The Proposed Project would not permanently close any streets or sidewalks, and the redesign and rebuilding of UN and Hallidie Plazas would not result in substantial changes to pedestrian circulation or access through these areas.

While circulation changes would be made to streets intersecting Market Street, access to, from, and across Market Street would be maintained within the Project area. Consequently, the Proposed Project does not include any elements that would indirectly result in the physical division of an existing neighborhood. Therefore, for each alternative and design option, the Proposed Project would have no impact on the physical division of an established community.

This topic will not be analyzed further in the EIR.

**Impact LU-2: The Proposed Project would not conflict with applicable land use plans, policies, or regulations of an agency with jurisdiction over the project (including but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. (Less than Significant)**

All of the various Proposed Project elements would be implemented on public land and a majority of the various Proposed Project elements would be implemented within the operational public right-of-way, which is largely under the jurisdiction of Public Works and SFMTA. The Proposed Project would not substantially conflict with any applicable land use plan, policy, or regulation such that an adverse physical change would result (see Section C, Compatibility with Existing Zoning and Plans). Environmental plans and policies are those, like the Bay Area Air Quality Management District *2010 Clean Air Plan*, which directly address environmental issues and/or contain targets or standards, which must be met in order to preserve or improve characteristics of the City's physical environment.

The conceptual plans for UN Plaza envision filling in the existing fountain and creating a new outdoor pavilion with a new seating area with tables and benches, as well as new trees and other streetscape elements. UN Plaza is located within the Civic Center Historic District, which is listed under Article 10 of the Planning Code. The proposed modifications to UN Plaza may be considered a Major Modification as defined in Article 10 and therefore would require Certificates of Appropriateness prior to approval and construction (see Section 7. Additional Provisions for Certificates of Appropriateness and Section 8. Significance of Individual Buildings to the Historic District, Part 3. Noncontributory). Certificates of Appropriateness require the Planning Department to report and recommend findings to the Historic Preservation Commission (HPC). The HPC will approve, disapprove, or approve with modifications Certificates of Appropriateness within the Civic Center Historic District [Article 10, Section 1006.4 (d)].

The conceptual plans for Hallidie Plaza envision redesigning and rebuilding the entire area by decking over the sunken portion to create a street-level plaza, repaving the entire plaza and adding a new outdoor pavilion with new seating areas and new kiosks. Hallidie Plaza is located within the Kearny-Market-Mason-Sutter Conservation District, which is listed under Article 11 of the Planning Code. The proposed modifications to Hallidie Plaza may be considered a Major Modification as defined in Article 11 (see Section 1111.1. Determination of Minor and Major Alterations and Section 7. Standards and Guidelines for Review of New Constructions and Certain Alterations of the Planning Code).

Refer to Section 4, *Cultural Resources*, for a discussion regarding the evaluation of historic architectural resource impacts to be included in the EIR. Modifications to UN Plaza and Hallidie Plaza described above would not constitute new uses and, therefore, would not conflict with any applicable land use plans, policies or regulations.

Furthermore, the Proposed Project would not conflict with the General Plan policies that relate to physical environmental issues. Therefore, for each alternative, including the redesign and rebuilding of UN and Hallidie Plazas, the Proposed Project would not conflict with applicable land use plans, policies, or regulations of an agency with jurisdiction over the project and adopted for the purpose of avoiding or mitigating environmental effect and impacts would be less than significant.

This topic will not be analyzed further in the EIR.

**Impact LU-3: The Proposed Project would not have a substantial impact on the existing character of the vicinity. (Less than Significant)**

All of the various Proposed Project elements would be implemented on public land and a majority of the various Proposed Project elements would be implemented within the operational public right-of-way, which is largely under the jurisdiction of Public Works and SFMTA. The Proposed Project would not introduce any new land uses. Rather, Proposed Project elements consist of both transportation and streetscape improvements, including changes to roadway configuration and private vehicle access; traffic controls; surface transit, including transit-only lanes, stop spacing, service, stop location, stop characteristics and infrastructure; bicycle facilities; pedestrian facilities; streetscapes; commercial and passenger loading; vehicular parking; plazas; and utilities. Many of these elements currently exist (e.g., transit stops, transit boarding islands, bicycle facilities, etc.) and are some of the many components that contribute to the creation of neighborhood character. The Proposed Project's changes to these elements would be relatively minor in the overall scheme of San Francisco's transportation system and the many other physical elements that define a neighborhood's character (e.g., size and architectural style of buildings, type of land uses). While changes in surface transit and the associated infrastructure as a result of the Proposed Project could affect how users perceive the Project corridor, these changes would not substantially affect the existing character of the Project corridor and would ultimately result in character enhancements via improved streetscapes and decreased traffic congestion. Furthermore, redesign and rebuilding of UN and Hallidie plazas would result in a continuation of the existing land uses in these areas. Therefore, for each alternative, including redesign and rebuilding of UN and Hallidie plazas, the Proposed Project would have a less-than-significant impact on the existing character of the vicinity of the Project corridor. Impacts related to character-defining features of cultural resources are described in Topic 4, *Cultural Resources*. As described under *Impact CP-1* in Topic 4, *Cultural Resources*, the potential cultural resource impacts of the Proposed Project, including how alterations to historic resources might affect a scenic public setting, will be analyzed in the EIR.

This topic will not be analyzed further in the EIR.

## **Cumulative Impacts**

**Impact C-LU-1: The Proposed Project, in combination with past, present, or reasonably foreseeable projects in the vicinity of the Project corridor, would not considerably contribute to cumulative impacts related to land use or land use planning. (Less than Significant)**

Cumulative impacts occur when impacts from a project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. The geographic context for cumulative land use impacts is any proposed development that is within the Project

corridor. The Proposed Project would be implemented in this larger context that includes the construction of new buildings throughout much of the Project corridor, some of which would replace existing structures with new residential, commercial, retail, and hotel uses. Proposed building projects along and near the Project corridor are listed in **Table 1** in Section A.1. The character of the Project corridor will change in the future as development occurs in accordance with the General Plan and under the area plans discussed in Section A.1. Some of these projects would require modifications, variances, or exceptions to Planning Code requirements or General Plan land use designations. In regards to impacts on local businesses, construction of the reasonably foreseeable projects listed in **Table 1** may periodically and locally hinder access within a given project's vicinity. As described in Section A.5, temporary travel, parking lane, or sidewalk closures are coordinated with the City in order to minimize the impacts on local traffic and businesses. In general, lane and sidewalk closures are subject to review and approval by the TASC, an interdepartmental committee, including representatives of the Police, Public Works, Planning, and Fire Departments and SFMTA Muni Operations. Project sponsors must prepare a construction management plan that addresses issues of circulation (traffic, pedestrians, and bicycle), safety, parking, and other project construction in the area. The construction management plan is reviewed by the TASC. Construction-related trucks are required to use designated freight traffic routes to access project sites.

The Project Sponsor would be required to prepare a construction management plan addressing, to the maximum extent feasible, issues of congestion and access. Although the cumulative effect of multiple construction projects in the Project corridor could result in occasional conflicts with vehicles, transit, pedestrians and bicyclists using the surrounding streets and hinder access to local businesses, such effects would be temporary and localized, and would not result in a significant cumulative impact.

In a broader land use context, the Proposed Project objectives include maximizing surface public transit system capacity and improving the safety and comfort of pedestrians and bicyclists in the Project corridor, all of which would support planned housing and job growth consistent with adopted land use plans. As stated above, the Proposed Project would not result in significant land use and planning impacts because the Proposed Project, including the redesign and rebuilding of UN and Hallidie plazas, would not physically divide an establish community, it would not introduce any new land uses, and it would not conflict with any applicable land use plan, policy, or regulation that would result in an environmental impact. Therefore, the Proposed Project, in combination with other past, present, and reasonably foreseeable projects, would not result in a cumulatively considerable land use impact.

This topic will not be analyzed further in the EIR.

## E.2. Aesthetics

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>2. AESTHETICS—Would the project:</b>					
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and other features of the built or natural environment which contribute to a scenic public setting?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area or which would substantially impact other people or properties?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Design and aesthetics are, by definition, subjective and open to interpretation by decision makers and members of the public. In determining whether an impact is significant under CEQA, the question is whether a project would affect the environment of persons in general, not whether a project would affect particular persons. Therefore, a project would be considered to have a significant adverse effect on visual quality under CEQA only if it would cause a substantial and demonstrable negative change in the physical environment that affects the public in one or more ways.

The focus of this analysis is on impacts caused by alterations to the physical environment that would result from the Proposed Project. The Proposed Project elements that would result directly in physical changes pertinent to aesthetics involve construction of above-grade transportation infrastructure elements, including traffic controls; surface transit stop infrastructure (e.g., bus shelters and signage); bicycle facilities; pedestrian facilities; streetscapes; and utilities.

### **Impact AE-1: The Proposed Project would not have a substantial adverse effect on a scenic vista. (Less than Significant Impact)**

Distant street-level scenic vistas in densely developed San Francisco are typically defined, directed, and framed along view corridors created by streets. The City's General Plan identifies the importance of protecting major views in the City with particular attention to views of open space and water. The Urban Design Element of the General Plan includes a map titled "Street Areas Important to Urban Design and Views" which identifies particular street segments throughout the City possessing street views of important buildings, streets that define the City



form, or streets that extend the effect of public open space.<sup>5</sup> The map identifies Market Street as having “Street View of Important Building” and as one of the “Streets that Define the City Form.” Proposed turn signals, stop signs, bicycle signals, bus shelters, and ADA-accessible ramps could result in minor obstructions of views. All other physical improvements constructed as part of the Proposed Project would be at- or below-grade and would not affect views. As such, the Proposed Project would result in less-than-significant impacts on street views from Market Street as well as from surrounding street views.

The Proposed Project would be located within an existing transportation corridor and UN and Hallidie plazas. All construction and staging would occur within the operational public right-of-way. Construction activities would be temporary and relatively short-term in duration. The permanent elements of the alternatives and design options that are being considered would be consistent with the existing urban environment and with the type and scale of the existing transportation facilities within the Project corridor. Therefore, construction and implementation of the Proposed Project would not have the potential to result in significant aesthetic impacts to a scenic vista.

At the state level, the California Scenic Highway Program identifies highways of outstanding natural beauty. No highways in San Francisco are designated under this program. Therefore, this topic is not applicable to the Proposed Project.

This topic will not be analyzed further in the EIR.

**Impact AE-2: The Proposed Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and other features of the built or natural environment which contribute to a scenic public setting. (Less than Significant)**

Scenic resources are the visible physical features on a landscape (e.g., land, water, vegetation, animals, structures, or other features) which contribute to a scenic public setting. All of the various Proposed Project elements would be implemented on public land and a majority of the various Proposed Project elements would be implemented within the operational public right-of-way. The operational public right-of-way does not include scenic resources which contribute to a scenic public setting. The operational public right-of-way does include street trees and other vegetation that are sparsely interspersed amongst the other features of this highly urban transportation corridor.

Under Alternatives 1 and 2, some existing street trees on Market Street would be relocated in locations where sidewalks would be narrowed. In addition, Alternatives 1 and 2 would include the replacement and/or removal of some trees deemed unhealthy, hazardous or in conflict with design. Therefore, the Proposed Project could result in the removal of all trees along Market Street between Octavia and Steuart streets under either design option. Any tree that is removed would be replaced, if feasible. Under Alternative 3, healthy street trees on Mission Street would

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<sup>5</sup> San Francisco Planning Department Map. n.d.. Street Areas Important to Urban Design and Views. Available on the Planning Department's Web site at [http://www.sf-planning.org/ftp/General\\_Plan/images/I5.urban\\_design/urb\\_street\\_areas\\_important\\_to\\_perception\\_of\\_city.pdf](http://www.sf-planning.org/ftp/General_Plan/images/I5.urban_design/urb_street_areas_important_to_perception_of_city.pdf). Accessed on August 21, 2015.

remain while unhealthy street trees would be replaced and new street trees would be planted in locations where there are existing empty tree wells and gaps. Redesign and rebuilding of UN and Hallidie Plazas would include the addition of trees to those public spaces. Overall, the Proposed Project would result in fewer street trees relative to the existing condition. As described under *Impact BI-4* in Topic 13, *Biological Resources*, the Planning Department, Department of Building Inspection, and Public Works have established guidelines to ensure that the Urban Forestry Ordinance governing the protection of trees is implemented. This ordinance aims to optimize the public benefits of trees on the City's streets and public places, including enhancement of the visual environment, by recognizing that trees are an essential part of the City's aesthetic environment and that the removal of important trees should be addressed through appropriate public participation and dialogue. The ordinance also includes uniform criteria for the designation of landmark trees, which included consideration of the age, size, shape, species, location, historical association, visual quality, and other contribution to the City's character. There are no landmark trees along the Proposed Project corridor.<sup>6</sup> Although the Proposed Project would result in a net decrease in the number of street trees in the Project corridor, compliance with the established guidelines would ensure that the goal of optimizing the public benefits of the trees would be achieved and impacts would be less than significant.

As described under *Impact CP-1* in Topic 4, *Cultural Resources*, the potential cultural resource impacts of the Proposed Project, including how alterations to historic resources might affect a scenic public setting, will be analyzed in the EIR.

This topic will not be analyzed further in the EIR.

**Impact AE-3: The Proposed Project would not substantially degrade the existing visual character or quality of the site and its surroundings. (Less than Significant)**

The character and visual quality of the public realm in the densely developed Project area is primarily defined by varied land uses and the visual character and quality of the buildings that bound and visually enclose the streets. The Proposed Project, including the redesign and rebuilding of UN and Hallidie plazas, would not result in the construction of any buildings or structures that could have a substantial adverse effect on existing visual character or quality of the public realm (e.g., an office tower that could block views or be architecturally different in character than existing development). Proposed Project elements, with the exception of the redesign and rebuilding of UN and Hallidie plazas, consist of both transportation and streetscape improvements. Elements of the surface transportation network (e.g., cycle track and Muni vehicles) are not typically considered prominent visual features within the streetscape compared to a fixed feature (e.g., an architecturally significant building). In addition, in an urban setting, the surface transportation network elements are typically considered unobtrusive and utilitarian features that contribute to the visual character and quality of the public realm, which would be the case in the Project area.

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<sup>6</sup> San Francisco Public Works. n.d. "Services A-Z, Trees, Significant and Landmark Trees." Available at: <http://www.sfdpw.org/index.aspx?page=663>. Accessed on March 24, 2015.

Although construction of the Proposed Project elements may affect the existing visual character or quality of areas while they are under construction, such effects would be temporary and would not substantially degrade the visual environment in any permanent or long-term sense.

Modifications to UN Plaza would result in the addition of a new above ground outdoor pavilion with a new seating area with tables and benches, as well as new trees and other streetscape elements. As discussed under *Impact AE-2*, these changes are consistent with current uses of this space, and would result in minimal visual intrusions into the existing landscape relative to the surrounding environment. Similarly, the conceptual plans for Hallidie Plaza envision redesigning and rebuilding the entire area by decking over the sunken portion to create a street-level plaza, repaving the entire plaza and adding a new outdoor pavilion with new seating areas and new kiosks. A new structure also would be added to the plaza area, assumed to be used as a tourist information center, as well as other streetscape elements. These changes are consistent with current uses of the space and would result in minimal visual intrusions into the existing landscape relative to the surrounding environment.

The Proposed Project would not fundamentally change any of the physical components of the transportation network in a way that would substantially degrade the visual character of the associated streets and neighborhoods. Rather, typical of existing physical features of the surface transit network, the Proposed Project elements would be visually unobtrusive and similar to existing transportation and streetscape features that currently exist within the Project corridor. These changes would consist of familiar and accepted visual features in the Project area's dense and varied visual environment. For each alternative and design option, the Proposed Project elements would not degrade the visual quality of an existing neighborhood.

While implementation of the Proposed Project would alter the location and pattern of surface transit (including bicycle flow and private vehicle access) within the Project corridor, these changes would not have a significant impact on the visual character of the Project area under CEQA. Therefore, such changes to surface transit and private vehicle access would not be considered a significant impact related to aesthetics under CEQA.

The Path of Gold Light Standards are a defining visual character of Market Street, as viewed from the street-level perspective as well as from higher-elevation landscape perspectives from such viewpoints as Twin Peaks and Corona Heights Park. Each alternative would result in the need to relocate some of the Path of Gold Light Standards in limited locations along Market Street where sidewalks would be narrowed, shifting them north or south of their current locations. These shifts in location would range from a few feet to up to fifteen feet. Where the standards would be shifted by more than a few feet, adjacent standards would also be shifted a few feet in the same direction with the objective of diminishing the visual effect of the relocation of any individual standard. In addition, one standard at Turk Street and Mason Street would be removed entirely as a result of the island being eliminated.

As viewed from a street level perspective, particularly at night when the standards are lit, the Path of Gold Light Standards provide a linear visual sight line along Market Street. Although the standards are a linear visual resource, the sight line from any individual street-level perspective is interrupted by numerous obstacles along every block of Market Street including street trees, traffic signals and sign posts, overhead wiring and poles, streetlights (other than the standards), kiosks, and other street fixtures. This visual landscape renders it difficult to view the standards in

a straight line for more than one or two blocks, negating the visual effect of the relocation of any individual light standard. With respect to the removal of the standard at Turk Street and Mason Street, there are currently intermittent gaps in the standards where major street crossings exist. The removal of this one light standard would be consistent with other major street crossings without a standard, such as at the intersection of Geary Street and Kearney Street at Market Street. From a street-level perspective, the Proposed Project would not substantially degrade the visual quality of the Path of Gold Light Standards.

From the viewpoints of Twin Peaks (approximately 10,500 feet to the west of the Project corridor) and Corona Heights Park (approximately 6,500 feet to the west), the Path of Gold appears as a brilliant linear pathway heading east when lit at night. From Corona Heights Park, the perspective of the Path of Gold is also slightly skewed, limiting the view to about a third of the overall length of Market Street due to the intrusion of tall buildings. At a distance of 6,500 feet or 10,500 feet, a shift of several adjacent standards north or south of their current location or the removal of any individual light standard would not be perceptible. Therefore, from a landscape perspective, the Proposed Project would not substantially degrade the visual quality of the Path of Gold Light Standards.

Based on the analysis above, for each alternative and design option, the Proposed Project, including redesign and rebuilding of UN and Hallidie plazas, would have a less-than-significant impact on the existing visual character or quality of the site and its surroundings.

This topic will not be analyzed further in the EIR.

**Impact AE-4: The Proposed Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area or which would substantially impact other people or properties. (Less than Significant)**

A majority of the various Proposed Project elements would be implemented within the operational public right-of-way, which is lit by an existing system of street lights that is maintained by the SFPUC. Each alternative would include new signals as well as signal timing and control modifications and relocations, which could create a new or relocated source of light. Traffic signals would be installed pursuant to specifications in the California Manual on Uniform Traffic Control Devices. However, the signals would be installed at roadway intersections and would not be visually obtrusive in the context of existing urban street lights and therefore they would not substantially interfere with day or nighttime views.

Outdoor lighting sources such as floodlights, spot lights, and/or headlights associated with construction equipment and hauling trucks typically accompany nighttime construction activities. Increased nighttime lighting effects would occur throughout the duration of construction of the Proposed Project. Construction lighting would be focused on the particular area undergoing work and would be limited to the duration of construction activities. Light and glare impacts resulting from construction of the Proposed Project would be less than significant.

As discussed above, each alternative would include the relocation of The Path of Gold Light Standards in limited locations along Market Street where sidewalks would be narrowed. However, as each alternative would relocate The Path of Gold Light Standards rather than construct new light standards, this Proposed Project element would not create a new source of light. Furthermore, street lights are a typical element of the urban streetscape. The limited

relocation of the Path of Gold light standards would not increase the potential for light and glare and therefore would not degrade day or nighttime views.

Each alternative would include transit boarding island enhancements and expansion (length and width), as well as amenities such as bus shelters to the center boarding islands. However, these Proposed Project elements would replace existing transportation features. While the location of some of these elements, such as bus shelters, would be slightly different relative to the existing condition, these would not be new additions to the Project corridor, therefore the Proposed Project would not increase the potential for light and glare and therefore would not degrade day or nighttime views.

The redesign and rebuilding of UN and Hallidie plazas may include the addition of new lighting elements to these areas. If new lighting elements are included as part of the redesign of either plaza, such lighting would be consistent with the type of pedestrian streetscape lighting utilized at public spaces around the City of San Francisco. This lighting would consist of downward facing light fixtures that would be selected to efficiently direct light to pedestrian pathways and active uses within the plaza area. Such lighting would be designed to minimize the potential to introduce new sources of light and glare; therefore the redesign and rebuilding of UN and Hallidie plazas would not substantially interfere with day or nighttime views.

Therefore, for each alternative and design option, the Proposed Project, including redesign and rebuilding of UN and Hallidie plazas, would have a less-than-significant impact related to light and glare.

This topic will not be analyzed further in the EIR.

## **Cumulative Impacts**

**Impact C-AE-1: The Proposed Project, in combination with past, present, or reasonably foreseeable projects in the vicinity of the Project corridor, would not considerably contribute to cumulative impacts related to aesthetics. (Less than Significant)**

The geographic context for cumulative aesthetic impacts is any proposed development that is within the Project corridor. The Proposed Project would occur in this larger context that includes other projects and the construction of new buildings throughout much of the Project corridor, some of which will replace existing structures with new residential, commercial, retail, and hotel uses. The visual character of the Project corridor will change in the future as development occurs in accordance with the General Plan and under the other projects listed in Section A.1 above.

Developments that may result in aesthetic impacts typically relate to the scale (height and bulk) of proposed buildings constructed, especially in the context of the existing surrounding development. There are development projects proposed along the full extent of the Project corridor, each of which would contribute to changes to the visual character of the Project corridor and would in some instances introduce new visual obstructions, changes to scenic vistas, and new sources of light and glare that could degrade day and nighttime views.

As described in the discussion for *Impact AE-1* through *Impact AE-4*, implementation of the Proposed Project would not have a significant adverse impact related to aesthetics, including scenic resources, scenic vistas, visual character and quality, and light and glare. Physical

alterations to the physical environment associated with the Proposed Project alternatives and design options would include the construction of visually unobtrusive improvements within the existing operational public right-of-way, such as above-grade transportation infrastructure elements, including traffic controls; surface transit stop infrastructure (e.g., bus shelters and signage); bicycle facilities; pedestrian facilities; streetscapes; and utilities. Such improvements would maintain the existing land uses of the transportation network in the Project corridor and, with the exception of new light signals and some new streetscape elements, would replace existing features.

As discussed above, the redesign and rebuilding of UN and Hallidie plazas would result in a continuation of existing use in these areas. Although the new design may include new structures at either or both plazas, these structures would not introduce substantial new visual intrusions. Furthermore, no substantial new sources of light and glare would be included that could interfere with day or nighttime views. Therefore, the Proposed Project, in combination with other past, present, and reasonably foreseeable projects, would not result in a cumulatively considerable aesthetic impact.

This topic will not be analyzed further in the EIR.

### E.3. Population and Housing

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>3. POPULATION AND HOUSING— Would the project:</b>					
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing units or create demand for additional housing, necessitating the construction of replacement housing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Impact PH-1: The Proposed Project would not induce substantial population growth, either directly or indirectly. (Less than Significant)**

#### Population

In general, a project would be considered growth-inducing if its implementation would result in a substantial population increase, employment increase, or new development that might not

occur if the project were not implemented. Population growth can be induced directly through the construction of new homes and businesses that attract new residents and employees from other areas of the City, or from outside the City. Although the Proposed Project would not result in increased residential population or introduce new commercial, office, or industrial uses into the City, the Proposed Project objectives include maximizing surface public transit system capacity in the Project corridor to support planned housing and job growth consistent with adopted land use plans. Specifically, the Proposed Project is intended to enhance the transit capacity of the transportation network to carry passengers more efficiently, to maintain an appropriate pedestrian capacity, and to increase bicycle traffic capacity within the Project corridor. Implementation of the Project would accommodate current demand and future development and population growth that has already been planned for and anticipated within City and regional population growth projections. The Proposed Project is not anticipated to shift travel patterns in the City in any fundamental way such that growth would occur in neighborhoods where it is not otherwise anticipated.

Population growth can also be induced indirectly through the extension of roads or other infrastructure (e.g., water, wastewater, electrical lines) to previously unserved areas. Population growth may also be indirectly stimulated by improvements to existing infrastructure, such as the paving of a gravel road, or through economic stimulation such as enhanced amenities (e.g., new or upgraded recreation or park facilities). Although the Proposed Project would not include any new transit lines that would bring transit riders to unserved areas, the Proposed Project is anticipated to enhance transit capacity and carry more passengers more efficiently within the Project corridor. The Proposed Project would not extend or improve existing roads, utilities, or other infrastructure beyond the extent of the current operational public right-of-way or outside of the Project corridor. It would not substantially alter existing or induce new development because transit service already exists in the Project corridor. As described above, the Proposed Project would accommodate current demand and future development and population growth that has already been planned for and anticipated within City and regional population growth projections. Based on the above analysis, direct and indirect population growth impacts resulting from the Proposed Project under each alternative and design option would be less than significant.

This topic will not be analyzed further in the EIR.

### **Employment**

Construction of the Proposed Project would result in temporary construction-related employment opportunities, which would span several phases over a period of several years (3 to 5 years for Alternatives 1 and 2, and an additional 1 to 2 years for Alternative 3). An increase in population related to construction employment would not be substantial because the Proposed Project would consist of relatively small, short-term activities that are expected to be performed by existing contractors in the Bay Area that typically bid on public works projects and which are familiar with construction requirements and procedures in the City. Furthermore, the Proposed Project would result in a continuation of existing transportation land uses, and public spaces at the plazas, and would not introduce new commercial, office, or industrial uses into the City that could have the potential to result in substantial new sources of temporary or permanent employment. Construction of a new pavilion at UN and/or Hallidie Plazas or a visitor center at Hallidie Plaza could result in some new employment opportunities to staff these facilities.

However, the number of new full-time equivalent employees at all facilities combined would likely be less than ten, which is a negligible increase relative to the overall labor market within San Francisco and is anticipated to be able to be accommodated by the current employment pool. Based on the above analysis, employment-related growth impacts resulting from the Proposed Project under each alternative and design option would be less than significant.

This topic will not be analyzed further in the EIR.

**Impact PH-2: The Proposed Project would not displace existing housing units or create demand for additional housing, or displace substantial numbers of people, necessitating the construction of replacement housing. (No Impact)**

A majority of the various Proposed Project elements would be implemented within the operational public right-of-way and would result in a continuation of the existing transportation and public land uses. Thus, the Proposed Project would not have the potential to displace existing housing or persons. As described under *Impact PH-1*, the Proposed Project would not result in increased residential population or introduce new commercial, office, or industrial uses into the City. The Proposed Project would include some minor new development at UN and/or Hallidie Plazas that could generate a small amount of new employment opportunities, however this increased employment is negligible and is not anticipated to trigger the demand for additional housing. Furthermore, the primary objectives of the Proposed Project include increasing the capacity and efficiency of the transit system. Thus, the Proposed Project would help accommodate current and future demand for transporting persons to and from places of employment and their residences, reducing the localized impact of the high demand for both employment and housing. Therefore, for each alternative and design option, the Proposed Project would have no impact related to the displacement of housing units or substantial numbers of people or the creation of demand for additional housing.

This topic will not be analyzed further in the EIR.

## **Cumulative Impacts**

**Impact C-PH-1: The Proposed Project in combination with other past, present, or reasonably foreseeable projects in the vicinity of the Project corridor, would not considerably contribute to cumulative impacts related to population and housing. (Less than Significant)**

The geographic context for cumulative population and housing impacts is any proposed development that is within the Project corridor. The Proposed Project would occur in this larger context that includes other projects and the construction of new buildings throughout much of the Project corridor, some of which will replace existing structures with new residential, commercial, retail, and hotel uses, many of which would increase the demand for employment and housing in an already highly constrained urban environment.

As discussed above, the Proposed Project would not displace housing, would not generate substantial new sources of employment that could trigger the need for constructing additional housing, and would not extend or improve infrastructure to a previously unserved area. Given that the primary objectives of the Proposed Project include increasing the capacity and efficiency of the transit system, the Proposed Project would help accommodate current and future demand for transporting persons to and from places of employment and their residences, reducing the



localized impact of the high demand for both employment and housing. Therefore, the Proposed Project would not contribute to a cumulatively considerable significant population and housing impact.

This topic will not be analyzed further in the EIR.

#### E.4. Cultural Resources

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>4. CULTURAL RESOURCES—Would the project:</b>					
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco Planning Code?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

For the purposes of this Initial Study, the term “historic resource” refers to buildings, structures, objects, sites, landscapes, and historic districts. The term is used to distinguish such resources from archaeological resources. Both historic architectural resources (Topic 4a) and archaeological resources (Topic 4b) may also be considered “historical resources” under CEQA.

#### **Impact CP-1: The Proposed Project could cause a substantial adverse change in the significance of a historical resource. (Potentially Significant)**

The Proposed Project would be implemented within an urban area. All of the various Proposed Project elements would be implemented on public land and a majority of the various Proposed Project elements would be implemented within the operational public right-of-way, which is largely under the jurisdiction of Public Works and SFMTA. Proposed Project elements consist of both transportation and streetscape improvements that could have potentially significant impacts on cultural resources, including historic resources. Properties eligible for the CRHR are historic resources for the purposes of CEQA.

Each alternative and design option would include the relocation of some portions of The Path of Gold Light Standards in limited locations, and in one location would involve the removal of one standard. The Path of Gold Light Standards is a designated historic landmark identified under Article 10 of the Planning Code (Landmark No. 200) and is located between 1 Market Street and

2490 Market Street within the Project corridor. In addition, each alternative would include targeted replacement or relocation of AWSS lines, including AWSS fire hydrants, along Market Street to maintain state of good repair. The AWSS lines are a known historic resource. Both the Path of Gold Light Standards and the AWSS lines are potentially eligible for listing in the CRHR. The Path of Gold Light Standards are considered historic resources for the purposes of CEQA because they are locally listed as designated historic landmark identified under Article 10 of the Planning Code.

The Proposed Project also includes the redesign and rebuilding of UN and Hallidie plazas. UN Plaza is located within the boundaries of the Civic Center Historic District, which is listed under Article 10 of the Planning Code and is considered a historic resource for the purposes of CEQA. The proposed modifications to UN Plaza may be considered a Major Modification as defined in Article 10 and therefore would require Certificates of Appropriateness prior to approval and construction (see Section 7. Additional Provisions for Certificates of Appropriateness and Section 8. Significance of Individual Buildings to the Historic District, Part 3. Noncontributory). Certificates of Appropriateness require the Planning Department to report and recommend findings to the HPC. The HPC will approve, disapprove, or approve with modifications Certificates of Appropriateness within the Civic Center Historic District [Article 10, Section 1006.4 (d)].

Hallidie Plaza is located within the Kearny-Market-Mason-Sutter Conservation District, which is listed under Article 11 of the Planning Code. The proposed modifications to Hallidie Plaza may be considered a Major Modification as defined in Article 11 (see Section 1111.1. Determination of Minor and Major Alterations and Section 7. Standards and Guidelines for Review of New Constructions and Certain Alterations of the Planning Code). The HPC will approve, disapprove, or approve with modifications Certificates of Appropriateness within the Kearny-Market-Mason-Sutter Conservation District (Article 11) as either Compatible Rehabilitation (Section 1113) or Compatible Replacement Building [Section 1109(c)] along with findings in support of its decision.

Evaluation will be required to determine if UN and Hallidie plazas are potentially eligible for listing in the California Register of Historic Resources or the National Register of Historic Places and whether the proposed modifications to these plazas would have any impacts.

A CEQA study area will be defined that encompasses properties within the Project corridor that have the potential to be impacted by the Proposed Project. The properties within the CEQA study area, which include those discussed above amongst others that have yet to be evaluated, will be assessed for eligibility for listing in the CRHR in a Historic Resource Evaluation (HRE). The HRE will describe general existing conditions, including known historic resources, within the CEQA study area. The Planning Department will review and prepare its own response to the HRE in a Historic Resource Evaluation Response (HRER). The EIR will summarize information in the HRE and the HRER.

**Impact CP-2: The Proposed Project could cause a substantial adverse change in the significance of an archaeological resource or disturb human remains. (Less than Significant with Mitigation)**

The Archaeological Sensitivity Assessment (ASA) prepared for the Proposed Project involved a record search, review of historical maps, coordination with the San Francisco archaeologist,

Native American consultation, and a detailed desktop geomorphic assessment.<sup>7</sup> Several prehistoric archaeological resources are recorded or documented within the archaeological area of potential effect (APE), including three within the Market Street area and one within the Mission Street area. In addition, historic-period archaeological resources (e.g., buried ships and wharves) are documented within the APE, including three unknown/unnamed ships and the Market Street Wharf in or near Market Street, and four possible buried ships beneath Mission Street (Byron, Trescott, Panama, and Callao).

In general, much of the Project work along Market Street would be conducted within the confines of the street itself, at limited depths of approximately 12 inches to 3 feet. A subset of Project activities, such as sewer replacement and installation of new or relocated light signals and Path of Gold lights standards could exceed a depth of 12 to 15 feet. The soil in the eastern portion of the Project area is primarily composed of anthropogenic fill material where extensive cutting of dunes and mechanically shifting of sand towards the Bay is well documented. An exception to this, however, is the area of UN Plaza, which is considered sensitive for historic-era human remains related to the Yerba Buena Cemetery. Other areas of Market Street, such as along mid-Market (4<sup>th</sup> Street to Civic Center), have already undergone substantial excavation for the construction and installation of utilities, BART, and Muni facilities, including much of the area of Hallidie Plaza. Mitigation Measure M-CP-1 lists the steps to be taken in the event of an accidental discovery so as to avoid any potential adverse effect on buried or submerged historical resources as defined in CEQA Guidelines Sections 15064.5(a) and (c). Based on the above analysis, and with implementation of Mitigation Measure M-CP-1, the Proposed Project, including redesign and rebuilding of UN and Hallidie plazas, would have a less-than-significant impact on the significance of an archaeological resource or human remains.

This topic will not be analyzed further in the EIR.

**Mitigation Measure M-CP-1: Archeological Resources** The Project Sponsor shall distribute the Planning Department archeological resource “ALERT sheet” to the Project prime contractor; to any Project subcontractor (including demolition, excavation, grading, foundation, and pile driving contractors); and to utilities involved in soils disturbing activities within the Project site. Prior to any soils disturbing activities being undertaken, each contractor shall be responsible for ensuring that the ALERT sheet is circulated to all field personnel, including machine operators, field crew, pile drivers, and supervisory personnel. The Project Sponsor shall provide the Environmental Review Officer (ERO) with a signed affidavit from the responsible parties (prime contractor, subcontractors, and utilities) to the ERO confirming that all field personnel have received copies of the ALERT Sheet.

Should any indication of an archeological resource be encountered during any soils disturbing activity, the Project Head Foreman and/or Project Sponsor shall immediately notify the ERO and shall immediately suspend any soils disturbing activities in the vicinity of the discovery until the ERO has determined what additional measures should be undertaken.

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<sup>7</sup> ICF International, *Archaeological Sensitivity Assessment for the Better Market Street Project*, October 2015.

If the ERO determines that an archeological resource may be present within the Project site, the Project Sponsor shall retain the services of an archaeological consultant from the pool of qualified archaeological consultants maintained by the Planning Department archaeologist. The archeological consultant shall advise the ERO as to whether the discovery is an archeological resource, retains sufficient integrity, and is of potential scientific/historical/cultural significance. If an archeological resource is present, the archeological consultant shall identify and evaluate the archeological resource. The archeological consultant shall make a recommendation as to what action, if any, is warranted. Based on this information, the ERO may require specific additional measures to be implemented by the Project Sponsor.

Measures might further include: preservation in situ of the archeological resource; an archaeological monitoring program; or an archeological testing program. If an archeological monitoring program or archeological testing program is required, it shall be consistent with the Environmental Planning Division guidelines for such programs. The ERO may also require that the Project Sponsor immediately implement a site security program if the archeological resource is at risk from vandalism, looting, or other damaging actions.

The project archeological consultant shall submit to the ERO a Final Archeological Resources Report (FARR) that evaluates the historical significance of any discovered archeological resource and describes the archeological and historical research methods employed in the archeological monitoring/data recovery program(s) undertaken. Information that may put at risk any archeological resource shall be provided in a separate removable insert within the final report.

Copies of the Draft FARR shall be sent to the ERO for review and approval. Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archaeological Site Survey Northwest Information Center (NWIC) shall receive one copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Environmental Planning Division of the Planning Department shall receive one bound copy, one unbound copy, and three CDs containing an unlocked, searchable PDF of the FARR, along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest or interpretive value, the ERO may require a different final report content, format, and distribution than that presented above.

## **Cumulative Impacts**

**Impact C-CP-1: The Proposed Project, in combination with other past, present and reasonably foreseeable future projects in the vicinity of the Project corridor, could considerably contribute to significant impacts related to cultural resources, including historic resources. (Potentially Significant)**

The geographic context for cumulative cultural resource impacts is any proposed development that is within or adjacent to the Project corridor. The Proposed Project would occur in this larger context that includes other projects and the construction of new buildings throughout much of

the Project corridor, some of which will replace existing structures with new residential, commercial, retail, and hotel uses. The construction of new buildings or other substantial structures will have the potential to result in visual disruption to or demolition of historic resources.

The Proposed Project would include changes to the built environment resulting from the construction and relocation of streetscape elements that could impair historic resources within the vicinity of the Project corridor. Therefore, implementation of the Proposed Project, in combination with past, present or reasonably foreseeable projects within and adjacent to the Project corridor could result in cumulatively significant impacts on cultural resources. The potential cumulative impacts on historic resources will be described and analyzed in the EIR.

**Impact C-CP-2: The Proposed Project, in combination with other past, present and reasonably foreseeable future projects in the vicinity of the Project corridor, could considerably contribute to significant impacts related to cultural resources, including prehistoric resources. (Less than Significant with Mitigation)**

The geographic context for cumulative cultural resource impacts is any proposed development that is within or adjacent to the Project corridor. Project-related impacts on archeological resources and human remains are site-specific and generally limited to the proposed project's construction area. As noted above, the sub-surface soil within the project corridor has been subject to extensive previous disturbance. Further, the depth of excavation necessary to implement the proposed project would be about 12 inches to three feet along Market Street and 12 to 15 feet for those Path of Gold light standards that may be moved. As noted above, Mitigation Measure M-CP-1 provides the steps to be taken in the event of an accidental discovery so as to avoid any potential adverse effect on buried or submerged historical resources as defined in CEQA Guidelines Sections 15064.5(a) and (c). For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not contribute to a cumulatively considerable impact on archeological resources and human remains.

This topic will not be analyzed further in the EIR.

## E.5. Transportation and Circulation

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>5. TRANSPORTATION AND CIRCULATION— Would the project:</b>					
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The Project corridor is not located within an airport land use plan area or in the vicinity of a private airstrip. The Proposed Project would not interfere with air traffic patterns. Thus, Topic 5c is not applicable to the Proposed Project and this topic will not be analyzed in this Initial Study, the Transportation Impact Study (TIS), or the EIR.

Alternative 3 would result in greater construction activities and potentially greater transportation and circulation impacts due to the inclusion of Mission Street. As a result, the environmental impacts of the three alternatives would not be the same with regard to transportation and circulation. This will be described and analyzed in the EIR.

**Impact TR-1: The Proposed Project could have a substantial adverse effect on transportation and circulation, including measures of effectiveness for the performance of the circulation system; congestion management programs; hazards due to a design feature; emergency access; and policies, plans, and programs related to public transit, bicycle, and pedestrian facilities. (Potentially Significant)**

Proposed Project elements consist of both transportation and streetscape improvements that could have potentially significant impacts on various aspects of the transportation and circulation network, including measures of effectiveness for the performance of the circulation system; congestion management programs; emergency access; and policies, plans, and programs related to public transit, bicycle, and pedestrian facilities, and would result in changes to the transportation system that could substantially increase hazards.

A TIS will be prepared for the Proposed Project. The TIS will examine existing transportation and circulation conditions and assess the Proposed Project's potential impacts on the transportation network. The TIS also will examine potential conflicts with performance measures of the circulation system, considering both transit and non-motorized travel and relevant components of the circulation system. Impacts on emergency access also will be evaluated, along with the potential for changes to the transportation system resulting in substantial increases in hazards. The EIR will summarize information in the TIS, which will identify the potential transportation and circulation impacts.

## **Cumulative Impacts**

**Impact C-TR-1: The Proposed Project, in combination with other past, present, and reasonably foreseeable projects in the vicinity of the Project corridor, could result in a cumulatively considerable contribution to significant impacts related to transportation and circulation. (Potentially Significant)**

The geographic context for cumulative transportation and circulation impacts includes any transportation and development project that could impact the transportation and transit network within or intersecting the Project corridor. The Proposed Project would occur in this larger context that includes other transportation and development projects within and surrounding the Project corridor. The transportation elements and circulation patterns within and surrounding the Project corridor will change in the future as development occurs in accordance with the General Plan and under the other projects listed in Section A.1 above. Some of these changes will likely result in significant impacts to the transportation and circulation system.

The Proposed Project would include changes to the built environment that would result in changes to surface traffic patterns, bicycle and pedestrian circulation, and under Alternative 3 changes to surface transit, any of which could have potentially significant impacts on various aspects of the transportation and circulation network. Therefore, implementation of the Proposed Project, in combination with past, present or reasonably foreseeable projects in the vicinity of the Project corridor, could result in a cumulatively considerable contribution to significant impacts related to transportation and circulation. The potential cumulative transportation and circulation impacts will be described and analyzed in the TIS and EIR.

## E.6. Noise

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>6. NOISE—Would the project:</b>					
a) Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Be substantially affected by existing noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The Project corridor is not located within an airport land use plan area or within 2 miles of any public airports or public use airports that have not adopted land use plans. The Project corridor also is not located in the vicinity of a private airstrip. Each alternative and design option would not expose people residing or working in the area to excessive noise levels from a public airport, public use airport, or private airstrip. Thus, Topics 6e and 6f are not applicable to the Proposed Project and these topics will not be analyzed in the EIR.

Alternative 3 would result in greater construction activities and different operational traffic patterns due to the inclusion of Mission Street. As a result, the environmental impacts of the three alternatives would not be the same with regard to noise. This will be described and analyzed in the EIR.



**Impact NO-1: The Proposed Project could result in exposure of persons to or generation of noise levels in excess of standards, exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels, a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the Proposed Project, and a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the Proposed Project. (Potentially Significant)**

Each alternative and design option would include construction activities, changes to surface traffic patterns, and under Alternative 3 would include changes to surface transit. The Proposed Project would also include the redesign and rebuilding of UN and Hallidie plazas. Although the Proposed Project would not increase overall traffic volumes, it would result in a redistribution of surface traffic on local streets. This redistribution of surface traffic could result in a permanent increase in traffic noise on some streets while simultaneously reducing traffic noise on other streets. These changes could result in the exposure of people to noise levels or vibration levels in excess of City of San Francisco noise standards. In addition, project construction could result in the exposure of people to a substantial temporary increase in noise during the construction activity periods. The potential noise impacts of the three alternatives and two design options, along with redesign and reconstruction of UN and Hallidie plazas, will be described and analyzed in the EIR. The noise analysis will describe general existing noise and vibration conditions in the Project area, describe noise and vibration standards and ordinances applicable to both construction and operation of the Proposed Project, and identify where the Proposed Project could result in sensitive receptors being exposed to excessive noise and vibration including exposure to substantial temporary or permanent increase in noise and significant noise impacts.

**Impact NO-2: The Proposed Project would not be substantially affected by existing noise levels. (No Impact)**

The Proposed Project would not introduce any new noise-sensitive uses, such as residential or commercial uses. Reconstruction and rebuilding of UN and Hallidie plazas would introduce a new pavilion at UN and/or Hallidie plazas and a visitor center at Hallidie Plaza, however these changes would represent a continuation of the existing public outdoor land uses at these locations and would not expose sensitive receptors to a new or existing noise source. Therefore, the Proposed Project would not be substantially affected by existing noise levels and no impact would result.

This topic will not be analyzed further in the EIR.

## **Cumulative Impacts**

**Impact C-NO-1: The Proposed Project, in combination with other past, present, and reasonably foreseeable projects in the vicinity of the Project corridor, could result in a cumulatively considerable contribution to significant impacts related to noise. (Potentially Significant)**

The geographic context for cumulative noise impacts includes any transportation and development project that could impact the transportation and transit network within or intersecting the Project corridor. The Proposed Project would occur in this larger context that includes other transportation and development projects within and surrounding the Project

corridor. The noise and vibration characteristics within and adjacent to the Project corridor will change in the future as development occurs in accordance with the General Plan and under the other projects listed in Section A.1 above. Some of these changes will likely result in significant noise and vibration impacts.

The Proposed Project would include changes to the built environment that would result in changes to surface traffic patterns and, under Alternative 3, changes to surface transit. The Proposed Project would also include the redesign and rebuilding of UN and Hallidie plazas. Changes to surface traffic patterns and surface transit (under Alternative 3) resulting from the Proposed Project could result in potential noise and vibration impacts as a result of the redistribution of traffic patterns. Therefore, implementation of the Proposed Project, in combination with past, present, and reasonably foreseeable projects in the vicinity of the Project corridor, could result in a cumulatively considerable contribution to significant impacts related to noise. The potential cumulative noise impacts will be described and analyzed in the EIR.

## E.7. Air Quality

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>7. AIR QUALITY—Would the project:</b>					
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal, state, or regional ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Alternative 3 would result in greater construction activities and different operational traffic patterns due to the inclusion of Mission Street. As a result, the environmental impacts of the three alternatives for the Proposed Project would not be the same with regard to air quality. This will be presented in the EIR.

**Impact AQ-1: The Proposed Project could conflict with or obstruct implementation of the applicable air quality plan, violate an air quality standard or contribute substantially to an existing or projected air quality violation, result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment, and expose sensitive receptors to substantial pollutant concentrations. (Potentially Significant)**

The San Francisco Bay Area Air Basin encompasses San Francisco, Alameda, Contra Costa, San Mateo, Santa Clara, and Napa counties, and includes parts of Solano and Sonoma counties. Although air quality in the air basin has generally improved over the last several decades, the basin experiences elevated levels of ozone and particulate matter. The Bay Area Air Quality Management District (BAAQMD) is the primary regulatory agency in the Bay Area responsible for planning, implementing, and enforcing federal and state ambient air quality standards. These standards are established in regulations implementing the federal Clean Air Act and the California Clean Air Act.

In an effort to identify areas of San Francisco most adversely affected by sources of toxic air contaminants, San Francisco partnered with the BAAQMD to conduct a citywide health risk assessment based on an inventory and assessment of air pollution and exposures from mobile, stationary, and area sources within San Francisco. Areas with poor air quality, termed the “Air Pollutant Exposure Zone,” were identified based on health-protective criteria that considers estimated cancer risk, exposures to fine particulate matter, proximity to freeways, and locations with particularly vulnerable populations. A majority of the Project area is located within the Air Pollutant Exposure Zone.

The Air Pollutant Exposure Zone was used as the basis in approving a series of amendments to the San Francisco Environment and Administrative Codes, generally referred to as the Clean Construction Ordinance, or Environment Code Section 25 (Ordinance 28-15, effective April 19, 2015). The purpose of the Clean Construction Ordinance is to protect the public health, safety and welfare by requiring contractors on City public works projects to reduce diesel and other particulate matter emissions generated by construction activities. For projects located within the Air Pollutant Exposure Zone, including the Proposed Project, the Clean Construction Ordinance requires construction equipment to meet or exceed Tier 2 standards for off-road engines and operate with the most effective ARB verified diesel emission control strategy.

To assess the potential air quality impacts that may result from construction and operation of each alternative, an Air Quality Technical Report (AQTR) will be prepared as part of the EIR for the Proposed Project. Most or all of the Proposed Project construction activities would be short-term activities that would not be expected to emit large amounts of air pollutants; however, this will be evaluated in more detail in the EIR, including compliance with the Clean Construction Ordinance. For operational activities, the AQTR will rely on information from the TIS to determine whether the Proposed Project would result in increased emissions from transportation-related sources.

In most of the Bay Area, transportation-related sources account for the majority of air pollutant emissions. The EIR will summarize information from the AQTR, which will identify the potential construction and operational air quality impacts.

**Impact AQ-2: The Proposed Project would not create objectionable odors affecting a substantial number of people. (Less than Significant)**

Odor impacts could result from siting new odor sources such as a wastewater treatment plant, a landfill or composting facility, a refinery or chemical plant, or a food processing facility, near existing sensitive receptors. Odor impact also could result from placing new receptors near an existing odor source. During construction, diesel exhaust from construction equipment would generate some odors. However, construction-related odors would be temporary and would not persist upon completion of the Project. The Proposed Project would not involve siting any new facilities that would generate substantial odors, and would not involve construction of new facilities to house new residents or attract new employees to a location with existing odor sources. Therefore, the Proposed Project would have a less-than-significant impact with respect to objectionable odors affecting substantial numbers of people.

This topic will not be analyzed further in the EIR.

### **Cumulative Impacts**

**Impact C-AQ-1: The Proposed Project, in combination with other past, present, and reasonably foreseeable future projects in the vicinity of the Project corridor, could result in a cumulatively considerable contribution to significant impacts related to air quality. (Potentially Significant)**

Regional air pollution is by its very nature largely a cumulative impact, thus the geographic context for air quality impacts is the San Francisco Bay Area Air Basin. The Proposed Project would occur in this larger context that includes transportation and development projects throughout the air basin. Emissions from past, present, and future projects contribute to the region's adverse air quality on a cumulative basis. No single project by itself would be sufficient in size to result in regional nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative adverse air quality impacts.

The Proposed Project could result in a cumulatively considerable net increase of a criteria pollutant for which the project region is non-attainment. Therefore, implementation of the Proposed Project, in combination with past, present or reasonably foreseeable projects, could result in a cumulatively considerable contribution to significant impacts related to air quality. The potential cumulative air quality impacts will be described and analyzed in the AQTR and the EIR.

## E.8. Greenhouse Gas Emissions

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
<b>8. GREENHOUSE GAS EMISSIONS— Would the project:</b>					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Greenhouse Gas (GHG) emissions and global climate change represent cumulative impacts. GHG emissions cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature; instead, the combination of GHG emissions from past, present, and future projects have contributed and will contribute to global climate change and its associated environmental impacts.

The BAAQMD has prepared guidelines and methodologies for analyzing GHGs. These guidelines are consistent with CEQA Guidelines Sections 15064.4 and 15183.5 which address the analysis and determination of significant impacts from a proposed project's GHG emissions. CEQA Guidelines Section 15064.4 allows lead agencies to rely on a qualitative analysis to describe GHG emissions resulting from a project. CEQA Guidelines Section 15183.5 allows for public agencies to analyze and mitigate GHG emissions as part of a larger plan for the reduction of GHGs and describes the required contents of such a plan. Accordingly, San Francisco has prepared *Strategies to Address Greenhouse Gas Emissions* (GHG Reduction Strategy)<sup>8</sup> which presents a comprehensive assessment of policies, programs, and ordinances that collectively represent San Francisco's Qualified GHG Reduction Strategy in compliance with CEQA guidelines. The actions outlined in the strategy have resulted in a 14.5 percent reduction in GHG emissions in 2010 compared to 1990 levels, exceeding the year 2020 reduction goals outlined in the BAAQMD's 2010 Clean Air Plan, Executive Order S-3-05,<sup>9</sup> and Assembly Bill 32 (also known as the Global Warming Solutions Act.)<sup>10,11</sup>

<sup>8</sup> San Francisco Planning Department, *Strategies to Address Greenhouse Gas Emissions in San Francisco*, 2010. The final document is available online at: <http://www.sf-planning.org/index.aspx?page=2627>.

<sup>9</sup> Executive Order S-3-05, sets forth a series of target dates by which statewide emissions of GHGs need to be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels (approximately 457 million MTCO<sub>2</sub>E); by 2020, reduce emissions to 1990 levels (estimated at 427 million MTCO<sub>2</sub>E); and by 2050 reduce emissions to 80 percent below 1990 levels (approximately 85 million MTCO<sub>2</sub>E).

<sup>10</sup> San Francisco Department of Environment (DOE), *San Francisco Climate Action Strategy, 2013 Update*.

<sup>11</sup> The *Clean Air Plan*, Executive Order S-3-05, and Assembly Bill 32 goals, among others, are to reduce GHGs in the year 2020 to 1990 levels.

Given that the City's local GHG reduction targets are more aggressive than the State and Region's 2020 GHG reduction targets and consistent with the long-term 2050 reduction targets, the City's Greenhouse Gas Reduction Strategy is consistent with the goals of EO S-3-05, AB 32, and the Bay Area 2010 Clean Air Plan. Therefore, proposed projects that are consistent with the City's Greenhouse Gas Reduction Strategy would be consistent with the goals of EO S-3-05, AB 32, and the Bay Area 2010 Clean Air Plan, would not conflict with these plans, and would therefore not exceed San Francisco's applicable GHG threshold of significance.

The following analysis of the Proposed Project's impact on climate change focuses on the Proposed Project's contribution to cumulatively significant GHG emissions. Given the analysis is in a cumulative context, this section does not include an individual Project-specific impact statement.

**Impact C-GG-1: The Proposed Project would generate greenhouse gas emissions, but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing greenhouse gas emissions. (Less than Significant)**

Individual projects contribute to the cumulative effects of climate change by directly or indirectly emitting GHGs during construction and operational phases. Typically, direct operational emissions include GHG emissions from new vehicle trips and area sources (natural gas combustion). Typically, indirect emissions include emissions from electricity providers, energy required to pump, treat, and convey water, and emissions associated with waste removal, disposal, and landfill operations.

The Proposed Project would increase activity in the Project area by providing various transportation and streetscape improvements to Market Street and potentially to Mission Street. The Proposed Project is anticipated to result in the increased use of transit and potential reduction of private vehicle travel in the City. The Proposed Project would result in transportation and streetscape improvements, including changes to roadway configuration and private vehicle access; traffic controls; surface transit, including transit-only lanes, stop spacing, service, stop location, stop characteristics and infrastructure; bicycle facilities; pedestrian facilities; streetscapes; commercial and passenger loading; vehicular parking; plazas; and utilities. It is anticipated these changes would facilitate existing transit operations and enhance transit capacity, as well as increase bicycle and pedestrian travel. The Proposed Project would also result in changes to surface traffic patterns, however it would not generate any new vehicle trips. Construction activities would result in temporary increases in GHG emissions.

The Proposed Project would be subject to and required to comply with several regulations adopted to reduce GHG emissions as identified in the GHG Reduction Strategy. The regulations that are applicable to the Proposed Project include the Commuter Benefits Ordinance, Emergency Ride Home Program, Healthy Air and Clean Transportation Ordinance, Clean Construction Ordinance, Green Building Requirements for City Buildings, Construction and Demolition Debris Recovery, Resource Conservation Ordinance, Construction Recycled Content Ordinance, Stormwater Management Ordinance and Construction Pollution Prevention, Indoor Air Quality, and Environmentally Preferable Purchasing Ordinance.

These regulations, as outlined in San Francisco's *Strategies to Address Greenhouse Gas Emissions*, have proven effective, as San Francisco's GHG emissions have been measurably reduced from 1990 emissions levels, demonstrating that the City has met and exceeded EO S-3-05, AB 32, and the Bay Area 2010 Clean Air Plan GHG reduction goals for 2020. The Proposed Project was determined to be consistent with San Francisco's GHG Reduction Strategy.<sup>12</sup> Other existing regulations, such as those implemented through AB 32, will continue to reduce a project's contribution to climate change. Therefore, the Proposed Project's GHG emissions would not conflict with state, regional, and local GHG reduction plans and regulations, and, thus, the Proposed Project's contribution to GHG emissions would not be cumulatively considerable. Consequently, the Proposed Project would result in a less-than-significant impact with respect to GHG emissions.

In addition to complying with the City's regulations, the 2008 Green Building Ordinance requires that all City Departments prepare an annual department-specific climate action plan. The Proposed Project would be consistent with the Climate Action Plan prepared by Public Works, which is described below.

**San Francisco Department of Public Works 2013 Climate Action Plan.** Public Works most recently updated its Climate Action Plan (CAP) in March 2014<sup>13</sup> (using data from the 2012–2013 fiscal year). The goal of the Public Works CAP is to reduce departmental CO<sub>2</sub>e emissions 15 percent by 2012, 20 percent by 2013, and 25 percent by 2017–2018 to help meet the City's CO<sub>2</sub>e emission goals. Between fiscal year 2008–2009 and fiscal year 2012–2013, Public Works' carbon emissions fell. In fiscal year 2012–13 there was an increase of emissions from the previous two fiscal years and it was above the 2008 baseline level. This rise in CO<sub>2</sub> emissions was mainly due to an increase in the consumption of gasoline fuel. Public Works' total carbon emissions for fiscal year 2012–13 was approximately 5,464.43 metric tons, approximately 285.81 metric tons (approximately 5 percent) over its goal of emitting less than 5,178.62 metric tons. This is over the baseline of 5,038.35 metric tons of CO<sub>2</sub> emissions in fiscal year 2008–2009. Public Works' 2013–2015 Strategic Plan<sup>14</sup> includes Objective 1C, which includes the following outcomes/targets.

- Outcome/Target 1C.1: Increase sidewalk landscaping permits by 5 percent each fiscal year
- Outcome/Target 1C.2: Increase open space square footage and convert hardscape to softscape
- Outcome/Target 1C.3: Identify and implement materials, manufacturing and/or construction methods that reduce carbon emissions

Currently, Public Works is reducing GHG emissions by:

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<sup>12</sup> Greenhouse Gas Analysis: Compliance Checklist. August 4, 2015. This document is on file and available for public review as part of Case File No. 2014.0012E.

<sup>13</sup> San Francisco Department of Public Works, 2014 Climate Action Plan: Updated March 2014, March 2014, available at [http://sfenvironment.org/sites/default/files/fliers/files/sfe\\_cc\\_2014\\_dpw\\_cap\\_fy1213.pdf](http://sfenvironment.org/sites/default/files/fliers/files/sfe_cc_2014_dpw_cap_fy1213.pdf), accessed on March 9, 2015.

<sup>14</sup> San Francisco Department of Public Works, Strategic Plan FY12 - 13 / FY14 - 15, available at <http://www.sfdpw.org/modules/showdocument.aspx?documentid=2606>, accessed on March 9, 2015.

- Reducing Energy Use
  - Conserving energy in our facilities
  - Installing more energy efficient lamps / lights in our buildings and infrastructure (tunnels and underpasses)
  - Reducing fuel use in vehicles
  - Consolidating and reducing computer servers and printer
  - Promoting alternatives to employee commuting (walking, biking and public transportation)
- Conserving water
  - Installing drought resistant plants and water efficient irrigation systems
  - Increase permeable surface through Pavement to Parks and sidewalk landscaping programs
- Reducing Waste
  - Installing and monitoring recycle compost and trash bins at each work site.
  - Encouraging use of virtual warehouse and reuse of building materials
  - Enhancing green purchasing
  - Reviewing and implementing use of alternative construction methods and sustainable and recycled materials
- Ensuring all Public Works building designed, managed, maintained and construction projects strive to meet LEED Gold Standards.
- Sequestering Carbon (taking GHG out of the air)
  - Maintaining 40,000 street trees
  - Creating Street Parks
  - Supporting urban gardening and gleaning programs
  - Greening infrastructure

The Proposed Project would be consistent with Outcome/Target 1C.1 and 1C.2 of Public Works' 2013–2015 Strategic Plan because the Project could decrease the amount of existing impervious areas on Market Street with additional landscaping in the Streetlife Zones and Streetlife Hubs. In addition, the Proposed Project would be consistent with Outcome/Target 1C.3 because any new construction method identified and implemented by Public Works pursuant to Outcome/Target 1C.3 would be applied to construction of the Proposed Project.



## E.9. Wind and Shadow

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>9. WIND AND SHADOW—Would the project:</b>					
a) Alter wind in a manner that <b>substantially</b> affects public areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### **Impact WS-1: The Proposed Project could alter wind in a manner that substantially affects public areas. (Potentially Significant)**

The final design of the Market Street sidewalks (that is, the removal and replacement of street trees and the addition of street furniture and public art) has not yet been determined. The conceptual plans for UN Plaza envision filling in the existing fountain and creating a new outdoor pavilion with a new seating area with tables and benches, as well as new trees and other streetscape elements. The conceptual plans for Hallidie Plaza envision redesigning and rebuilding the entire area by decking over the sunken portion to create a street-level plaza, repaving the entire plaza and adding a new outdoor pavilion with new seating areas and new kiosks. A new structure also would be added to the plaza area, assumed to be used as a tourist information center, as well as other streetscape elements. Because these proposed changes to the Market Street sidewalks and the UN and Hallidie plazas have not been finalized, it is not known if they may increase wind conditions such that a wind hazard for pedestrians may result. The potential wind impacts of the three alternatives and two design options, along with the redesign and reconstruction of UN and Hallidie plazas, will be described and analyzed in the EIR. The wind analysis will describe existing wind conditions on Market Street and the UN and Hallidie plazas, and identify locations, if anywhere, that the Proposed Project could result in wind hazards for pedestrians.

### **Impact WS-2: The Proposed Project would not create new shadow that substantially affects outdoor recreation facilities or other public areas. (Less than Significant)**

To protect certain public open spaces from shadows cast by new structures, San Francisco voters passed Proposition K in 1984, codified as Section 295 of the Planning Code. Section 295 applies to structures exceeding 40 feet in height and restricts casting of new shadow upon public spaces under the jurisdiction of the Recreation and Park Commission during the period between one hour after sunrise and one hour before sunset, year round. No new shadow is allowed on these protected spaces unless the Planning Commission and the Recreation and Park Commission find the impact to be insignificant. In addition, Section 147 of the Planning Code addresses potential shadow impacts that may occur with structures exceeding 50 feet in height to certain public or publicly accessible open spaces in the Downtown Commercial Districts that are also within the Project corridor.

Under all three alternatives, the Proposed Project would not result in the construction of any buildings or structures of significant height such that significant shading would result on public open spaces, including those under the jurisdiction of the Recreation and Park Commission. Sections 295 and 147 of the Planning Code do not apply to the Proposed Project because no structures are proposed that would be in excess of the minimum height thresholds 40 and 50 feet, respectively. Proposed turn signals, stop signs, bicycle signals, bus shelters, Path of Gold Light standards, ADA-accessible ramps, and other physical improvements constructed as part of the Proposed Project would not be of sufficient height and bulk to cast substantial shadows. In addition, the redesign and rebuilding of UN and Hallidie plazas would include structures no greater than 15 feet in height and would lack the bulk to cast substantial shadows. New trees and other landscape features are not considered permanent structures and, therefore, their shadows are excluded from consideration. Because of the limited height and bulk of the proposed shadow-casting elements, any new shadows produced as a result of the Proposed Project, including the shadows produced as a result of the redesign and rebuilding of UN and Hallidie plazas, would be minimal. Therefore, for each alternative, including the redesign and rebuilding of UN and Hallidie plazas, the Proposed Project would have a less-than-significant impact related to shadows on outdoor recreation facilities and other public areas.

This topic will not be analyzed further in the EIR.

## **Cumulative Impacts**

**Impact C-WS-1: The Proposed Project, in combination with other past, present, and reasonably foreseeable projects in the vicinity of the Project corridor, could considerably contribute to cumulative impacts related to wind. (Potentially Significant)**

The geographic context for cumulative wind impacts is any proposed development that is within the Project corridor. The Proposed Project would occur in a larger context that includes other projects and the construction of new buildings throughout much of the Project corridor, some of which would replace existing structures with new residential, commercial, retail, and hotel uses. The character of the Project corridor will change in the future as development occurs in accordance with the General Plan and under the other projects listed in Section A.1 above.

As described in the discussion for *Impact WS-1*, implementation of the Proposed Project may have potential wind impacts. Therefore, implementation of the Proposed Project, in combination with past, present or reasonably foreseeable projects in the vicinity of the Project corridor, could result in a cumulatively considerable contribution to significant impacts related to wind. The potential cumulative wind impacts will be described and analyzed in the EIR.

**Impact C-WS-2: The Proposed Project, in combination with other past, present, and reasonably foreseeable projects in the vicinity of the Project corridor, would not considerably contribute to cumulative impacts related to shadow. (Less than Significant)**

The geographic context for cumulative shadow impacts is any proposed development that is within the Project corridor. The Proposed Project would occur in a larger context that includes other projects and the construction of new buildings throughout much of the Project corridor, some of which would replace existing structures with new residential, commercial, retail, and hotel uses. The character of the Project corridor will change in the future as development occurs in accordance with the General Plan and under the other projects listed in Section A.1 above.

Developments that may result in shadow impacts typically relate to the height of proposed buildings constructed and the proximity of the building to public open spaces. There are development projects proposed along the full extent of the Project corridor, which in some instances would create new shadows on outdoor recreation facilities or on public open spaces. As described in the discussion for *Impact WS-2*, implementation of the Proposed Project would not have a significant adverse impact related to shadow. Section 295 of the Planning Code does not apply to the Proposed Project because no structures are proposed that would be in excess of the minimum height thresholds. As such, physical alterations to the physical environment associated with the Proposed Project alternatives and design options would not include the construction of structures of sufficient height and bulk to cast substantial shadows. Therefore, the Proposed Project, in combination with other past, present, and reasonably foreseeable projects, would not contribute considerably to a cumulative shadow impact.

This topic will not be analyzed further in the EIR.

## E.10. Recreation

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>10. RECREATION—Would the project:</b>					
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Physically degrade existing recreational resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The San Francisco Recreation and Park Department (RPD) manages and operates more than 220 parks, playgrounds, and open space areas throughout the City. The RPD recreation facilities include 25 recreation centers, nine swimming pools, five golf courses, and more than 300 athletic fields, tennis courts, and basketball courts. Regional parks within and near the City and under the jurisdiction of the National Park Service include the Golden Gate National Recreation Area, which has open space areas such as Ocean Beach and Baker Beach in San Francisco and the Marin Headlands north of the City, and the Presidio of San Francisco.

**Table 5** lists the 14 street-level parks and public plazas located within one block of the Project corridor that would be accessible to park users in the Project area. UN and Hallidie plazas, along with the Mechanics Monument Plaza at Market and First Streets, are the only street-level parks and public plazas within the Proposed Project limits. Mechanics Monument Plaza at Market and Bush Streets is constructed completely within the public right-of-way and is therefore under the jurisdiction of Public Works.

**TABLE 5. PARKS AND STREET-LEVEL PLAZAS IN PROJECT AREA**

Name	Type	Location	Ownership
Sue Bierman Park	Park	Washington and Clay streets	Public
Justin Herman Plaza	Plaza	1 Market Street	Public
One Bush Plaza	Plaza	Market and Sansome streets	Private
McKesson Plaza	Plaza	Market and Montgomery streets	Private
Beale Street Plaza	Plaza	Beale Street	Public
Yerba Buena Gardens	Park	750 Howard Street	Public
Mechanics Monument Plaza	Plaza	Market and 1 <sup>st</sup> streets	Public
Jessie Square	Park	Mission and Jessie streets	Public
Union Square	Plaza	Powell and Geary streets	Public
Hallidie Plaza	Plaza	Powell and Market streets	Public
Father Alfred E. Boeddeker Park	Park	Jones and Eddy streets	Public
United Nations Plaza	Plaza	Market and Hyde streets	Public
Civic Center Plaza	Park/Plaza	Larkin and Grove streets	Public
Sgt. John Macaulay Park	Mini-Park	Larkin and O'Farrell streets	Public

**Impact RE-1: The Proposed Project would not result in the increased use of existing neighborhood or regional parks or other recreation facilities such that substantial physical deterioration would result or be accelerated. (Less than Significant)**

Increased recreational facility or park use in a community is usually driven by the addition of new users, typically new residents, and to a lesser degree, by new workers. As described in Topic 1, *Land Use and Land Use Planning*, and Topic 3, *Population and Housing*, the Proposed Project would not result in an increase in population, housing, or residents, and would not generate population that would exceed what has already been anticipated and planned for in City and regional population growth projections through 2035. Overall, improvements to and redesign of existing transportation, streetscape, and utility infrastructure would not generally increase the use of existing parks or other recreation facilities. Any increased employment during the construction phase of the Proposed Project would be temporary and likely to draw from the regional workforce. Thus, these construction workers would not be expected to result in a perceptible increase in the use of City recreation facilities. In addition, because construction of the Proposed Project would be implemented over several phases, rather than one more intensive construction phase (Alternatives 1 and 2: 3 to 5 years, Alternative 3: an additional 1 to 2 years), the Proposed Project would not result in a substantial increase in local employment from construction workers that could otherwise lead to increased park usage.

The Proposed Project would modify transit stop spacing and add new stop locations along the Project corridor. In addition, conceptual-level elements would include design options to improve UN and Hallidie plazas, as well as improve streetscapes and pedestrian and bicycle facilities within the Project corridor. Redesign and rebuilding of UN, Hallidie, and Mechanics Monument plazas could temporarily displace recreational users of the plazas during construction activities. As shown in **Table 5**, there are 11 other public plazas or parks within the Project area, providing ample recreational opportunities for any users that may be temporarily displaced as a result of construction activities. Furthermore, it is unlikely that construction would occur for all three of these public plazas at the same time. Given the abundance and proximity of these alternative recreational facilities, it is anticipated that these plazas and parks could capture the temporary

displacement from these three plazas without any substantial physical deterioration of the facilities.

While the Proposed Project would not directly improve or limit access to recreational facilities, the changes to surface transit services would indirectly alter access to some parks and recreational facilities by relocating stops, requiring use of alternate routes, or providing different travel times. These changes may make traveling to some parks and recreation facilities more convenient and, therefore, result in an incremental increase in usage. On the other hand, the proposed changes may require users to walk farther or perhaps transfer in order to access a facility. The enhanced pedestrian and bicycle facilities provided under each alternative also would provide enhanced access within the Project corridor, which could provide improved connections to nearby recreational facilities. The majority of transit riders, pedestrians, and cyclists along the Project corridor are primarily existing residents and workers who may already frequent recreational facilities. However, the Proposed Project also would include the redesign and rebuilding of UN and Hallidie plazas, including creating new outdoor pavilions with seating and other streetscape elements. The majority of visitors to these plazas are primarily existing residents and workers who may already frequent these plazas. As such, implementation the Proposed Project would not result in a marked difference in the overall use of the parks and recreational facilities.

The changes in access to City and regional parks and recreational facilities as a result of the Proposed Project would not substantially increase the use of any of these facilities such that substantial physical deterioration would result or be accelerated. Therefore, for each alternative, including the redesign and rebuilding of UN and Hallidie plazas, the Proposed Project would have a less-than-significant impact with respect to the increased use of existing neighborhood or regional parks or other recreation facilities.

This topic will not be analyzed further in the EIR.

**Impact RE-2: The Proposed Project would not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. (Less than Significant)**

The Proposed Project objectives include improving pedestrian and bicycle safety, comfort, and mobility along and across the Project corridor. All of the various Proposed Project elements would be implemented on public land and a majority of the various Proposed Project elements would be implemented within the operational public right-of-way, which are largely under the jurisdiction of Public Works and SFMTA.

The Proposed Project also would include the redesign and rebuilding of UN and Hallidie plazas, including creating new outdoor pavilions with seating and other streetscape elements. The improvements to the plazas, which consist of filling in the existing fountain and creating a new outdoor pavilion at UN Plaza and decking over the sunken area and creating a street-level plaza at Hallidie Plaza, could result in increased or more active use of these plazas after the completion of construction activities. Although no new recreational facilities would be constructed as part of the Proposed Project, the proposed bicycle and pedestrian facilities and plaza designs would result in expanded passive recreational opportunities that are directly related to this major transportation corridor.

In addition, as described in *Impact RE-1*, construction and implementation of the Proposed Project would not result in a marked difference in the overall use of the parks and recreational facilities. Consequently, the Proposed Project would not substantially increase demand for or use of other recreational facilities such that increased user demand would require the construction of new recreational facilities or the expansion of existing facilities. Therefore, for each alternative, including the redesign and rebuilding of UN and Hallidie plazas, the Proposed Project would not result in the construction of other recreational facilities that would themselves have a physical environmental impact and the impact to recreational facilities would be less than significant.

This topic will not be analyzed further in the EIR.

**Impact RE-3: The Proposed Project would not result in the degradation of recreational resources. (Less than Significant)**

As described in *Impact RE-2*, all of the various Proposed Project elements would be implemented on public land and a majority of the various Proposed Project elements would be implemented within the operational public right-of-way. Although the Proposed Project would make changes to public plazas, including redesign and rebuilding of UN, Hallidie, and Mechanics Monument plazas, as well as other spaces that are used for passive recreation, the Proposed Project would not result in permanent physical degradation of recreational resources. The Proposed Project would provide more opportunities for social and public engagement on the sidewalk and in other public spaces in the right-of-way along Market Street through the introduction of Streetlife Zones and Hubs. Therefore, for each alternative, including the redesign and rebuilding of UN and Hallidie plazas, the Proposed Project would have a less-than-significant impact with respect to the degradation of recreational resources.

This topic will not be analyzed further in the EIR.

## **Cumulative Impacts**

**Impact C-RE-1: The Proposed Project in combination with other past, present, and reasonably foreseeable projects in the vicinity of the Project corridor, would not considerably contribute to cumulative impacts related to recreation. (Less than Significant)**

The geographic context for cumulative recreational impacts is any proposed development that is within the Project corridor. The Proposed Project would occur in this larger context that includes other projects and the construction of new buildings throughout much of the Project corridor, some of which would replace existing structures with new residential, commercial, retail, and hotel uses. Use of recreational facilities is anticipated to increase as development occurs in accordance with the General Plan and under the other projects listed in Section A.1 above.

Developments that may result in recreational impacts typically relate to the addition of residential uses or recreational facilities. There are development projects proposed along the full extent of the Project corridor, some of which would introduce new residents and new recreational facilities resulting in impacts on existing recreational resources.

As described in the discussion for *Impact RE-1* through *Impact RE-3*, implementation of the Project would not have a significant adverse impact related to recreation. The Proposed Project would result in a continuation of existing transportation land uses and public use of the plazas. As such,

implementation of the Proposed Project would not add residents to the Project area beyond those already accounted for in estimated growth projections, and any increase in employment or increased usage during construction and implementation of the Proposed Project is anticipated to be negligible. While the Proposed Project would indirectly result in altered access to parks and recreational facilities, it would not result in a change in usage that would lead to deterioration of any such facilities. Therefore, the Proposed Project, in combination with past, present, and reasonably foreseeable projects, would not result in a cumulatively considerable recreation impact.

This topic will not be analyzed further in the EIR.

## E.11. Utilities and Service Systems

<b>Topics:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>	<b>Not Applicable</b>
<b>11. UTILITIES AND SERVICE SYSTEMS— Would the project:</b>					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supply available to serve the project from existing entitlements and resources, or require new or expanded water supply resources or entitlements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider that would serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Impact UT-1: The Proposed Project would not exceed the wastewater treatment requirements of the Regional Water Quality Control Board. (Less than Significant)**

The City's combined sanitary sewer and stormwater system (combined sewer system) collects, transports, and treats sanitary sewage and stormwater runoff in the same facilities. Discharges to federal and state waters are governed by two NPDES permits, one of which is the 2014 Bayside Permit (NPDES Permit No. CA0037664).

The Project corridor is located within the Bayside drainage area, which is one of the two drainage areas in the City.<sup>15</sup> The Project corridor is not located within the Oceanside drainage area. The Project corridor is also located within the Channel drainage basin, which is one of the City's eight major drainage basins from which the wastewater and stormwater runoff is collected and conveyed to treatment plants through various trunk sewers and transport structures.<sup>16</sup>

All wastewater and stormwater flows that emanate from the Bayside drainage area are subject to the 2014 Bayside Permit, issued and enforced by the San Francisco Bay Regional Water Quality Control Board. The 2014 Bayside Permit specifies discharge prohibitions, dry-weather effluent limitations, wet-weather effluent performance criteria, receiving water limitations, sludge management practices, and monitoring and reporting requirements for the Southeast Water Pollution Control Plant (which treats discharge from the Project corridor), the North Point Wet-Weather Facility, and the Bayside Wet-Weather Transport/Storage and Diversion Structures. During wet weather, the capacity at the Southeast Water Pollution Control Plant is supplemented by the North Point Wet-Weather Facility and the Bayside Wet-Weather Transport/Storage and Diversion Structures, a series of storage/transport boxes located around the perimeter of the City.<sup>17</sup>

<sup>15</sup> San Francisco is roughly divided into two major drainage areas: the Oceanside and Bayside areas, which are further divided into eight drainage basins. San Francisco Public Utilities Commission. 2030 Sewer System Master Plan: Task 500, Technical Memorandum No. 501 Collection System Modeling. December 2010. Pp. 2-1. Available at: <http://sfwater.org/modules/showdocument.aspx?documentid=595>. Accessed on February 16, 2015.

<sup>16</sup> San Francisco Water Power Sewer. Map. Available at: <http://www.sfwater.org/modules/showdocument.aspx?documentid=3971>. Accessed on February 16, 2015.

<sup>17</sup> The storage/transport boxes provide treatment that consists of settling and screening of floatable materials inside the boxes and that is equivalent to primary treatment at the wastewater treatment



During wet-weather events, when flows exceed the capacities of the treatment plants, wet-weather facilities, and transport/storage structures, the combined stormwater and wastewater are discharged into either the San Francisco Bay or the Pacific Ocean.<sup>18</sup> Discharges from the nearshore combined sewer discharge structures occur only when the storm flow exceeds the combined storage capacity of the transport/storage structures, the capacity of the pumping facilities, and the treatment capacity of the wet-weather facilities. The Bayside Permit prohibits overflows from the combined sewer overflow structures during dry weather, and requires wet-weather overflows to comply with the nine minimum controls specified in the federal Combined Sewer Overflow Control Policy.

The Proposed Project would result in ground disturbance of an area greater than 5,000 square feet and would require preparation of a Stormwater Control Plan that would be reviewed and approved by the SFPUC. Construction of the Proposed Project, including redesign and rebuilding of UN and Hallidie plazas, could create some construction-related impacts on stormwater flows that would be controlled through implementation of the Stormwater Control Plan. A signed maintenance agreement to ensure proper care of the necessary stormwater controls would also be required. Compliance with the City's Stormwater Management Ordinance (Ordinance No. 83-10) would require the Proposed Sponsor to maintain, reduce, or eliminate the existing volume and rate of stormwater runoff discharged from the Project. To achieve this, the Proposed Project would implement and install appropriate stormwater management systems that would retain runoff on-site, promote stormwater reuse, and limit (or eliminate altogether) site discharges from entering the combined sewer collection system. This in turn would limit the incremental demand on both the collection system and wastewater facilities resulting from stormwater discharges and minimize the potential for upsizing or constructing new facilities.

However, for each alternative and redesign and rebuilding of UN and Hallidie plazas, the Proposed Project would comply with existing regulations regarding stormwater Best Management Practices (BMPs) and Public Works permit requirements. To protect the water quality of San Francisco Bay and the Pacific Ocean, and to enhance the function of the City's sewer systems, the Stormwater Management Ordinance requires all new and redevelopment projects that disturb 5,000 square feet or more of ground surface, or surface over water, to comply with the Stormwater Design Guidelines and manage a portion of their stormwater onsite.

Runoff from construction sites is a major source of stormwater contaminants. Construction sites are required to implement BMPs to keep pollutants, such as dirt and debris, out of the City's combined sewer system and sensitive local water bodies. All construction sites must submit an Erosion and Sediment Control Plan as well as a Construction Runoff Permit Application to SFPUC for review and approval. Sites that plan to conduct non-routine, episodic, batch, or other temporary discharges to the City's combined sewer system must obtain a Batch Wastewater Discharge Permit from SFPUC.

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plants. San Francisco Public Utilities Commission. *San Francisco Sewer System Master Plan*. March 2010. Pp. 2-7. Available at: <http://www.gestaltgraphics.com/docs/SFSSSummary.pdf>. Accessed on February 16, 2015.

<sup>18</sup> San Francisco Public Utilities Commission. *San Francisco Sewer System Master Plan*. March 2010. Pp. 2-12. Available at: <http://www.gestaltgraphics.com/docs/SFSSSummary.pdf>. Accessed on February 16, 2015.

On November 17, 2013 the San Francisco Board of Supervisors adopted the Construction Site Runoff Ordinance (Ordinance No. 260-13) amending the Public Works Code to protect water quality by controlling the discharge of sediment or other construction pollutants from construction sites and preventing erosion and sedimentation due to construction activities. This ordinance would apply to the Proposed Project, and construction contractors would be required to comply with these requirements.

Certain Proposed Project elements (e.g., the construction of widened center transit boarding islands and bulbouts, as well as plaza redesign and rebuilding) would make some physical changes that could require stormwater catch basins and sewer lines to be relocated or reconstructed. Proposed Project elements that would not involve in-street construction (e.g., new signals, signal timing and control modifications and relocations, and removal or relocation of trees) would have no impact on storm and wastewater infrastructure. Modifications to UN and Hallidie plazas would be subject to the Construction Site Runoff Ordinance and, to the extent applicable, the Stormwater Design Guidelines. The closure of some existing sewer lines and installation of new sewer lines would be performed in accordance to the Public Works specifications and the San Francisco Public Works Code (Article 2.4, Section 2.4.13(7)). These regulations also require that transit projects within the public right-of-way incorporate low-impact design stormwater facilities consistent with Stormwater Design Guidelines to the maximum extent practical and feasible. It is unlikely that low-impact design measures are feasible to implement as part of the Proposed Project due to the constrained subsurface conditions beneath the right-of-way, however such measures would be incorporated where feasible. Although the Proposed Project would include the relocation and reconstruction of stormwater catch basins and sewer lines, it would not introduce any new land uses or other changes which could cause the Proposed Project to exceed the wastewater treatment requirements of the Regional Water Control Board.

Because runoff during construction would be treated in accordance with BMPs and the stormwater and sewer infrastructure would be relocated and rebuilt pursuant to the Public Works Code, the Proposed Project would have a less-than significant impact related to exceeding wastewater treatment requirements.

This topic will not be analyzed further in the EIR.

**Impact UT-2: The Proposed Project would not require or result in the construction of new, or the expansion of existing, water, wastewater treatment or stormwater drainage facilities; or result in a determination that the wastewater treatment provider has inadequate capacity to serve the Proposed Project. (Less than Significant)**

### Water

San Francisco's water supply system is owned and operated by SFPUC, which supplies water to the City and County of San Francisco and to Santa Clara, Alameda, San Mateo, and Tuolumne counties.

Construction of certain Proposed Project elements (e.g., surface transit infrastructure improvements and streetscape elements proposed under Design Options A and B) would likely include the use of water for dust control in compliance with Article 21 of San Francisco Public

Works Code, which requires the use of reclaimed water, well water or groundwater.<sup>19</sup> Such compliance would eliminate any short-term potable water demand as a result of the Proposed Project.

As described in Topic 1, *Land Use and Land Use Planning*, and Topic 3, *Population and Housing*, the Proposed Project would result in a continuation of existing transportation land uses, and public spaces at the plazas, and would not introduce new commercial, office, or industrial uses into the City that could have the potential to result in substantial new sources of temporary or permanent employment. Therefore, the Proposed Project would not substantially increase water use based on population or employment. Consequently, the Proposed Project would not exceed the increase in water use anticipated in the *2010 Urban Water Management Plan* for the City.

Because the Proposed Project would not substantially increase water demand and the Proposed Project would not require the construction of new or expanded water supply treatment facilities, the Proposed Project would have a less-than-significant impact on water supply facilities.

This topic will not be analyzed further in the EIR.

### **Wastewater and Stormwater**

The City's combined sewer system collects, transports, and treats sanitary sewage and stormwater runoff in the same facilities. Stormwater runoff comprises the primary source of total flows collected, conveyed, and eventually treated at the City's treatment facilities. Implementation of the proposed improvements on Market and Mission Streets would not alter wastewater or stormwater flows in the City. Redesign and rebuilding of the UN and Hallidie plazas could alter stormwater flows. However, the plazas are currently completely impervious. Redesign and rebuilding of the plazas would not increase the amount of impervious area, and it may decrease the amount of impervious areas depending upon the landscaping features that are incorporated during subsequent design. Therefore, the amount of stormwater flowing to the combined sewer system would not increase, and may decrease. As described in Topic 1, *Land Use and Land Use Planning*, and Topic 3, *Population and Housing*, the Proposed Project would result in a continuation of existing transportation land uses, and public spaces at the plazas, and would not introduce new commercial, office, or industrial uses into the City that could have the potential to result in substantial new sources of temporary or permanent employment. Therefore, the Proposed Project would not generate a substantial increase in wastewater based on population or employment.

The Proposed Project would include both transportation and streetscape improvements, including changes to roadway configuration and private vehicle access; traffic signals; surface transit, including transit-only lanes, stop spacing, service, stop location, stop characteristics and infrastructure; bicycle facilities; pedestrian facilities; streetscapes; commercial and passenger loading; vehicular parking; plazas; and utilities. The Proposed Project would be implemented within an urban area and a majority of the various Proposed Project elements would be implemented within the operational public right-of-way (which, in general, is already paved

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<sup>19</sup> If there is no non-potable water available, an exception can be made by the General Manager of the Water Department pursuant to section 1102 of Article 21.

surface). Because nearly all of the improvements would be constructed within paved roadways, existing sidewalks, and existing paved plazas, and would replace existing non-permeable surfaces, the improvements would not increase the amount of impervious surfaces and the Proposed Project would not substantially increase the amount of stormwater runoff. The Proposed Project would not result in a substantial change in surface permeability or an alteration of the Project area topography, which could result in increased runoff. No increase in the amount of stormwater drainage would be anticipated as a result of the Proposed Project.

The Proposed Project would include the closure of some existing sewer lines and installation of new sewer lines beneath Market Street. In addition, certain Proposed Project elements (e.g., the construction of widened center transit boarding islands, narrowed sidewalks, and bulbouts) would make some physical changes that could require stormwater catch basins be relocated or reconstructed. The closure and installation of storm drains and sewers would be performed in accordance to the Public Works specifications and the San Francisco Public Works Code (Article 2.4, Section 2.4.13(7)).

Based on the above analysis, the Proposed Project would not substantially increase stormwater flow or wastewater generated and the Proposed Project would not require construction of new wastewater, and stormwater collection, conveyance, or treatment facilities, although minor changes to existing stormwater collection facilities may be required. Therefore, for each alternative, including the redesign and rebuilding of UN and Hallidie plazas, the Proposed Project would have a less-than-significant impact on wastewater treatment and stormwater drainage facilities and would not result in a determination by the SFPUC that it has insufficient capacity to continue providing wastewater treatment.

This topic will not be analyzed further in the EIR.

**Impact UT-3: The Proposed Project would have sufficient water supply available from existing entitlements and would not require new or expanded water supply resources or entitlements. (Less than Significant)**

SFPUC provides an average of approximately 265 million gallons per day of water to approximately 2.5 million people in San Francisco, Santa Clara, Alameda, San Mateo, and Tuolumne Counties.<sup>20</sup> Approximately 96 percent of the water provided to San Francisco is supplied by the SFPUC Regional Water System, which is made up of water from the Hetch Hetchy Reservoir and Bay Area reservoirs in the Alameda Creek and Peninsula watersheds.<sup>21</sup> The City is currently served by this adequate water delivery infrastructure.

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<sup>20</sup> San Francisco Public Utilities Commission. *2010 Urban Water Management Plan for the City and County of San Francisco*. Pp. 7, 14, 22-25. June 2011. A copy of this document is available for public review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File 2014.0012E and available at: <http://sfwater.org/modules/showdocument.aspx?documentid=1055>. Accessed February 16, 2015.

<sup>21</sup> San Francisco Public Utilities Commission. *2010 Urban Water Management Plan for the City and County of San Francisco*. Pp. 22-25. June 2011. Groundwater and recycled water make up the remainder of the SFPUC supplies to the City.

As described in *Impact UT-2*, the amount of potable water used during construction of the Proposed Project would be minimal because Article 21 of the Public Works Code requires use of non-potable or recycled water at construction sites. As described in Topic 1, *Land Use and Land Use Planning*, and Topic 3, *Population and Housing*, the Proposed Project would result in a continuation of existing transportation land uses, and public spaces at the plazas, and would not introduce new commercial, office, or industrial uses into the City that could have the potential to result in substantial new sources of temporary or permanent employment. Therefore, the Proposed Project would not result in an increase in water demand based on population or employment. The Proposed Project would not generate additional demand for water that would exceed available water resources. Therefore, for each alternative, including the redesign and rebuilding of UN and Hallidie plazas, the Proposed Project would have a less-than-significant impact on water supply resources.

This topic will not be analyzed further in the EIR.

**Impact UT-4: The Proposed Project would be served by a landfill with sufficient permitted capacity to accommodate the Proposed Project's solid waste disposal needs, and the Proposed Project would comply with federal, state, and local statutes and regulations related to solid waste. (Less than Significant)**

In September 2015, the City approved an Agreement with Recology, Inc., for the transport and disposal of the City's municipal solid waste (MSW) at the Recology Hay Road Landfill in Solano County. The City began disposing its MSW at Recology Hay Road Landfill in January 2016, and that practice is anticipated to continue for approximately nine years, with an option to renew the Agreement thereafter for an additional six years. San Francisco had a goal of 75 percent solid waste diversion by 2010, which it exceeded at 80 percent diversion, and has a goal of 100 percent solid waste diversion or "zero waste" to landfill or incineration by 2020. San Francisco Ordinance No. 27-06 requires mixed construction and demolition debris to be transported by a Registered Transporter and taken to a Registered Facility that must recover for reuse or recycling and divert from landfill at least 65 percent of all received construction and demolition debris. The San Francisco Green Building Code also requires certain projects to submit a Recovery Plan to the Department of the Environment demonstrating recovery or diversion of at least 75 percent of all demolition debris. San Francisco's Mandatory Recycling and Composting Ordinance No. 100-09 requires all properties and everyone in the city to separate their recyclables, compostables, and landfill trash. The Hay Road Landfill is permitted by Solano County and the California Department of Resources Recycling and Recovery (CalRecycle) to accept up to 2,400 tons per day of MSW for disposal, to receive up to 620 vehicles per day (averaged over a seven-day period), and to operate up to 24 hours per day, seven days per week.

The Proposed Project would be subject to the City's Mandatory Recycling and Composting Ordinance, which requires all San Francisco residents and commercial landlords to separate their refuse into recyclables, compostables, and trash, thereby minimizing solid waste disposal and maximizing recycling. The Proposed Project would also be subject to the City's Construction and Demolition Debris Recovery Ordinance, which requires all construction and demolition debris to be transported to a registered facility that can divert a minimum of 65 percent of the material from landfills.

The California Integrated Waste Management Act of 1989 (AB 939) requires municipalities to adopt an Integrated Waste Management Plan to establish objectives, policies, and programs related to waste disposal, management, source reduction, and recycling. San Francisco Ordinance No. 27-06 requires a minimum of 65 percent of all construction and demolition debris to be recycled and diverted from landfills. As noted, San Francisco had a goal of 75 percent solid waste diversion by 2010 and a goal of 100 percent solid waste diversion by 2020. San Francisco diverted 80 percent of its solid waste in 2010.<sup>22</sup> San Francisco Ordinance No. 100-09 requires everyone in San Francisco to separate their solid waste into recyclables, compostables, and trash.

Construction of the Proposed Project would generate construction debris and waste. The excavated soil and debris would be transported off-site to the Hay Road Landfill. The Proposed Project would be required to comply with the Resource Efficiency and Green Building Ordinance (San Francisco Environment Code, Chapter 7). The Green Building Ordinance requires all demolition and new construction projects to prepare a Construction and Demolition Debris Management Plan designed to recycle construction and demolition materials to the maximum extent feasible, with a goal of 75 percent diversion. Construction contract specifications for the Proposed Project would include the requirement that the contractor prepare a Construction and Demolition Debris Management Plan to recycle demolition or other construction waste to the maximum extent possible, with a goal of 75 percent diversion. The Proposed Project would be subject to and would comply with San Francisco Ordinance No. 27-06, Zero Waste Goal, the Green Building Ordinance, and all other applicable statutes and regulations related to solid waste. Therefore, the construction debris and waste generated by the Proposed Project would be expected to comply with published federal, state, and local statutes and regulations related to solid waste.

As described in Topic 1, *Land Use and Land Use Planning*, and Topic 3, *Population and Housing*, the Proposed Project would result in a continuation of existing transportation land uses, and public spaces at the plazas, and would not introduce new commercial, office, or industrial uses into the City that could have the potential to result in substantial new sources of temporary or permanent employment. Therefore, the Proposed Project would not generate substantial solid waste based on population or employment. However, construction of the Proposed Project would generate construction debris and waste. Based on the above analysis, for each alternative, the Proposed Project would be accommodated by the existing landfill and would have a less-than-significant impact on solid waste facilities. In addition, the Proposed Project, including the redesign and rebuilding of UN and Hallidie plazas, would comply with federal, state, and local statutes and regulations related to solid waste and impacts would be less than significant.

This topic will not be analyzed further in the EIR.

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<sup>22</sup> San Francisco Department of the Environment. 2012. *Mayor Lee Announces San Francisco Reaches 80 Percent Landfill Waste Diversion, Leads All Cities in North America*. Available: <http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america>. Accessed: February 4, 2015.

## Cumulative Impacts

**Impact C-UT-1: The Proposed Project, in combination with other past, present, and reasonably foreseeable projects in the vicinity of the Project corridor, would not considerably contribute to cumulative impacts related to utilities and service systems. (Less than Significant)**

The geographic context for cumulative utilities impacts is any proposed development that is within the service areas of the utilities providers. The Proposed Project would occur in this larger context that includes other projects and the construction of new buildings throughout much of the service areas of the utilities providers, some of which would replace existing structures with new residential, commercial, retail, and hotel uses. The demand for water, generation for wastewater, generation of stormwater, and generation of solid waste would increase in the future as development occurs in accordance with the General Plan and under the other projects listed in Section A.1 above.

Developments that may result in utilities impacts typically relate to the inclusion of substantial residential uses as well as substantial new sources of temporary or permanent employment. There are development projects proposed within the service areas of the utilities providers that would contribute to an increase in the demand for water, generation of wastewater, generation of stormwater, and generation of solid waste.

As described in the discussion for *Impact UT-1* through *Impact UT-4*, implementation of the Proposed Project would not have a significant adverse impact related to utilities and service systems. The Proposed Project would result in a continuation of existing transportation land uses, and public spaces at the plazas, and would not introduce new commercial, office, or industrial uses into the City that could have the potential to result in substantial new sources of temporary or permanent employment. Therefore, the Proposed Project, in combination with other past, present, and reasonably foreseeable projects, would not result in a cumulatively considerable utilities impact.

This topic will not be analyzed further in the EIR.

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## E.12. Public Services

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact	Not Applicable
<b>12. PUBLIC SERVICES— Would the project:</b>					
a) Result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any public services such as fire protection, police protection, schools, parks, or other services?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Public Service impacts are assessed by determining whether a project would result in the need to increase or alter service in such a way that would necessitate construction of new facilities or alteration of existing facilities that, in turn, would have an adverse impact on the physical environment. As described in Topic 3, *Population and Housing*, the Proposed Project is not anticipated to generate an increase in population that could drive demand for public services. Rather, the Proposed Project elements have been designed to serve the existing and anticipated transit needs.

Public service impacts related to parks, open spaces, and other recreation resources are analyzed in Topic 10, *Recreation*. As described in *Impact TR-1* in Topic 5, *Transportation and Circulation*, impacts related to emergency access will be evaluated in the TIS and summarized in the EIR.

**Impact PS-1: The Proposed Project would not result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. (Less than Significant)**

Overall, improvements to and redesign of existing transportation, streetscape, and utility infrastructure would not generally result in substantial adverse physical impacts associated with new or physically altered governmental facilities.

### Police Protection

The San Francisco Police Department (SFPD) provides police protection services in the City. **Table 6** lists the police stations in the vicinity of the Project corridor.



**TABLE 6. POLICE DISTRICT STATIONS IN THE VICINITY OF THE PROJECT CORRIDOR**

District Stations	Address
Tenderloin	301 Eddy Street
Southern	850 Bryant Street <sup>a</sup>
Mission	630 Valencia Street
Northern	1125 Fillmore Street
Central	766 Vallejo Street

Note:

<sup>a</sup> The Southern District Station is scheduled to move into the Public Safety Building at 1300 3rd Street in 2016.

Construction of the Proposed Project could generate a temporary increase in demand for traffic control during the construction phase. Construction on certain streets within the City is required to have police personnel on-site, generally stipulated as part of a Special Traffic Permit, which is issued by the SFMTA. A Special Traffic Permit is required for any work that does not comply with the regulations in the *Regulations for Working in San Francisco Streets* manual or the Traffic Routing Specifications in a City Contract. Because the construction-related police services (if needed) would be temporary in duration and sporadic in nature, the Proposed Project would not result in the need for altered or new police facilities. Therefore, this impact would be less than significant.

As described in Topic 3, *Population and Housing*, the Proposed Project would not result in increased residential population or introduce new commercial, office, or industrial uses into the City. Therefore, the Proposed Project, including redesign and rebuilding of UN and Hallidie plazas, would not generate demand for new police services based on population or employment. SFPD bases its estimates of need for additional facilities on the number and types of calls for service, types and times of traffic and pedestrian flow patterns, and operational hours of uses within each Police District area.<sup>23</sup> Because the Proposed Project would not include new transit routes and no new population or employment would be added, it is not expected that the Proposed Project would result in a substantial increase in police service hours that would generate a need for new or physically altered police facilities.

SFMTA has a Security, Investigations and Enforcement Unit that provides overall security and enforcement services for the agency. The Security Operations Unit consists of the Proof of Payment (POP) Group, Investigations, Muni Transit Assistance Program, and a work order with SFPD, including a contract for private security guards at all transit facilities. The POP Group administers fare inspections on all transit revenue vehicles and in the subway and on designated platforms and bus stops. The Investigations Group is responsible for handling special investigations of workplace policy violations, graffiti prevention and abatement, and Muni-related crime statistics. The Muni Transit Assistance Program provides community-based staff to

<sup>23</sup> San Francisco Planning Department. *Transit Center District Plan and Transit Tower Final Environmental Impact Report*. P. 546. May 24, 2012.

ride transit lines with high incidences of graffiti and juvenile disturbances to assist with enforcement.

The Enforcement Unit consists of the General Enforcement, Special Events, Enforcement and Enforcement Administration. The General Enforcement Group oversees enforcement activities related to street sweeping, residential permit parking, meters, improperly used disabled placards, booting and towing vehicles and removing abandoned vehicles. The Special Events Enforcement Group oversees and manages the parking enforcement needs and requirements for the various city special events by enforcing parking restrictions at such events, and by directing traffic flow prior to and after such events conclude.

The Emergency Preparedness Unit provides agency-wide leadership in coordinating efforts and initiatives designed to maintain a high level of awareness and readiness and response to emergencies including acts of terrorism. This unit also provides liaison and coordination functions with Bay Area regional transit agencies, City and County of San Francisco departments, and state and federal emergency management officials and agencies.

All of the above-described functions within SFMTA ensure that reliance on SFPD services is minimized, particularly for relatively minor issues such as traffic management during special events and security at the UN and Hallidie plazas. In addition, the Proposed Project would not increase the need for SFMTA's security and enforcement services.

The additional police hours required as a result of the Proposed Project would not necessitate new or altered police facilities. Based on the above analysis, for each alternative, including the redesign and rebuilding of UN and Hallidie plazas, the Proposed Project would result in a less-than-significant impact on police protection services.

This topic will not be analyzed further in the EIR.

### **Fire Protection and Emergency Services**

The San Francisco Fire Department (SFFD), headquartered at 698 Second Street, provides fire suppression and emergency medical services to the City. SFFD consists of three divisions, which are subdivided into 10 battalions and 42 active stations located throughout the City. The SFFD headquarters are scheduled to move to the Public Safety Building at 1300 3<sup>rd</sup> Street in 2016.

Construction of the Proposed Project could generate a temporary increase in demand for fire protection service during the construction phase because construction activities could increase the potential for accidental on-site fires from such sources as the operation of construction equipment and the use of flammable construction materials. Because the construction-related fire protection services (if needed) would be temporary in duration and sporadic in nature, the Proposed Project would not result in the need for altered or new fire facilities, and its impact would, therefore, be less than significant.

As described in Topic 3, *Population and Housing*, the Proposed Project would result in a continuation of existing transportation land uses, and public spaces at the plazas, and would not introduce new commercial, office, or industrial uses into the City that could have the potential to result in substantial new sources of temporary or permanent employment. Therefore, the Proposed Project would not generate a substantial demand for new fire protection services based

on population or employment. The Proposed Project would not result in a substantial increase in demand for fire protection services such that new or physically altered fire protection facilities would be required. Construction of the Proposed Project would require temporary detours and lane closures on existing roadways along the Project corridor, which could impact emergency response times and service standards. The temporary closures and circulation changes would temporarily alter the route that emergency service providers would take to respond to an emergency call and could increase emergency response times. As described under *Impact TR-1* in Topic Section 5, *Transportation and Circulation*, the TIS will evaluate impacts on emergency access, including emergency response times, and the EIR will summarize information in the TIS.

The Proposed Project would not generate demand for new fire suppression and emergency medical services or require an increase in SFFD staff. Based on the above analysis, for each alternative, including the redesign and rebuilding of UN and Hallidie plazas, the Proposed Project would result in less-than-significant impacts on fire protection and emergency services.

This topic will not be analyzed further in the EIR.

As described under *Impact TR-1* in Topic 5, *Transportation and Circulation*, the TIS will evaluate impacts on emergency access and the EIR will summarize information in the TIS.

### **Schools**

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. SFUSD managed 129 schools during the 2013–2014 academic year, including 72 elementary schools, 12 middle schools, 19 senior high schools, 13 preschools, and 13 charter schools, with a total enrollment of more than 57,000 students.<sup>24</sup> In the years to come, SFUSD anticipates that elementary school and middle school enrollment will grow, but high school enrollment is expected to decline due to the declining birth rates of the 1990s. Additional schools are under consideration in fast-growing areas of San Francisco (e.g., Mission Bay, Treasure Island, and Bayview Hunters Point), but no final decisions have been made. A list of all SFUSD schools and their addresses is available at the SFSUD website.<sup>25</sup>

The demand for additional school facilities is driven largely through the increase in residential population in a community. As described in Topic 3, *Population and Housing*, the Proposed Project would result in a continuation of existing transportation, land uses, and public spaces at the plazas, and would not introduce new commercial, office, or industrial uses into the City that could have the potential to result in substantial new sources of temporary or permanent employment. Therefore, the Proposed Project would not generate a substantial demand for new school facilities based on population or employment. Although an increase in construction workers is anticipated during the construction of the Proposed Project, it would be a temporary increase. The Proposed Project would likely draw from a regional workforce, and would not result in the indirect need for new school facilities. Based on the above analysis, for each

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<sup>24</sup> San Francisco Unified School District. "SFUSD Profile." Available at: <http://www.sfusd.edu/en/aboutsfusd/sfusd-profile.html>. Accessed on February 16, 2015.

<sup>25</sup> San Francisco Unified School District. n.d. "All Schools." Available at: <http://www.sfusd.edu/en/schools/all-schools.html>. Accessed on February 16, 2015.

alternative, including the redesign and rebuilding of UN and Hallidie plazas, the Proposed Project would result in less-than-significant impacts on school services.

This topic will not be analyzed further in the EIR.

### **Other Services**

The demand for public services such as libraries is driven largely through the increase in residential units and population in a community. As described in Topic 3, *Population and Housing*, the Proposed Project would not result in increased residential population or introduce new commercial, office, or industrial uses into the City. Therefore, the Proposed Project, including the redesign and rebuilding of UN and Hallidie plazas, would not generate demand for new public services based on population or employment. Although an increase in construction workers is anticipated during the construction of the Proposed Project, it would be a temporary increase, would likely draw from a regional workforce, and would not result in an adverse impact on other services. Based on the above analysis, for each alternative, including the redesign and rebuilding of UN and Hallidie plazas, the Proposed Project would result in less-than-significant impacts on other services.

This topic will not be analyzed further in the EIR.

### **Cumulative Impacts**

**Impact C-PS-1: The Proposed Project, in combination with other past, present, and reasonably foreseeable projects in the vicinity of the Project corridor, would not considerably contribute to cumulative impacts related to public services. (Less than Significant)**

The geographic context for cumulative utilities impacts is any proposed development that is within the service areas of the public service providers. The Proposed Project would occur in this larger context that includes other projects and the construction of new buildings throughout much of the Project corridor, some of which would replace existing structures with new residential, commercial, retail, and hotel uses. The demand for public services within the service areas of the public service providers will increase in the future as development occurs in accordance with the General Plan and under the other projects listed in Section A.1 above.

Developments that may result in public service impacts typically relate to the inclusion of substantial residential uses as well as substantial new sources of temporary or permanent employment. There are development projects proposed within the service areas of the public service providers that would contribute to an increase in the demand for police protection, fire protection and emergency services, schools, and other services.

As described in the discussion for *Impact PS-1*, implementation of the Proposed Project would not have a significant adverse impact related to public service. The Proposed Project would result in a continuation of existing transportation land uses, and public spaces at the plazas, and would not introduce new commercial, office, or industrial uses into the City that could have the potential to result in substantial new sources of temporary or permanent employment. Therefore, the Proposed Project, in combination with other past, present, and reasonably foreseeable projects, would not result in a cumulatively considerable public service impact.

This topic will not be analyzed further in the EIR.

### E.13. Biological Resources

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>13. BIOLOGICAL RESOURCES— Would the project:</b>					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

There are no adopted habitat conservation or natural community conservation plans within the City. Therefore, Topic 13f is not applicable to the Proposed Project and this topic will not be analyzed in the EIR.

**Impact BI-1: The Proposed Project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species or on any riparian habitat or other sensitive natural community. (Less than Significant)**

The Project corridor is characterized as heavily urbanized with minimal landscaping located at existing buildings, sidewalk planter boxes, and roadway median strips as well as non-native tree species that do not support or provide habitat for rare or endangered species. Hayes Creek is a subterranean stream previously altered by infrastructure projects located within the vicinity of the Project corridor.<sup>26</sup> Under Alternatives 1 and 2, trees on Market Street would be removed or relocated where sidewalks would be narrowed. In addition, Alternatives 1 and 2 would include the removal of trees deemed unhealthy, hazardous, or in conflict with design. Therefore, the Proposed Project could result in the removal of all trees along Market Street between Octavia and Steuart streets under either design option. Any tree that is removed would be replaced, if feasible. Under Alternative 3, healthy street trees on Mission Street would remain while unhealthy street trees would be replaced and new street trees would be planted in locations where there are existing empty tree wells and gaps. Overall, there would be fewer trees due to implementation of the Proposed Project. The street trees along the Project corridor are non-native ornamental species and none of the street trees is considered a special-status species.<sup>27</sup>

The closest known occurrences of a special-status species are the Peregrine falcons, which are known to nest near Van Ness Avenue within the vicinity of the Project corridor (and are currently nesting on the 33rd floor of the PG&E building at 77 Beale Street, between Market and Mission streets). Peregrine falcons have been in the Project area since the 1980s and numerous projects have been implemented in the Project area since that time without adversely affecting peregrine falcons.<sup>28,29</sup> Consequently, it is not anticipated that the Proposed Project would affect peregrine falcons. Although the Proposed Project is not anticipated to affect peregrine falcons nesting within or adjacent to the Project corridor, the replacement and/or removal of trees throughout the Project corridor could temporarily disturb other avian species nesting in these trees; such disturbance could occur for the duration of construction.

The Recreation and Park Department has identified 31 natural areas that support an array of native habitats and species in the City.<sup>30</sup> The natural area closest to the Project corridor, Corona Heights Park, is located approximately 1 mile west of the Project corridor. Because of this distance, it is not anticipated that the Proposed Project would impact this natural area. All of the

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<sup>26</sup> Oakland Museum of California, Creek and Watershed map of San Francisco, 2007.

<sup>27</sup> Shaw, Darnell. Personal Communication. E-mail regarding tree surveys on March 31, 2015 to Jessica Viramontes, ICF International.

<sup>28</sup> The Santa Cruz Predatory Bird Research Group. "Peregrine FAQ." Available at: [www2.UCSC.edu/scpbrg/pefaq.html](http://www2.UCSC.edu/scpbrg/pefaq.html). Accessed on February 18, 2015.

<sup>29</sup> Atlas Obscura. "San Francisco's Peregrine Falcons." Available at: [www.atlasobscura.com/places/san-francisco-peregrine-falcons](http://www.atlasobscura.com/places/san-francisco-peregrine-falcons). Accessed on February 18, 2015.

<sup>30</sup> San Francisco Recreation & Parks. 2006. "Significant Natural Resource Areas." February 2006. Available at: [http://sfrecpark.org/wp-content/uploads/SNRAMP\\_Final\\_Draft/SNRAMP\\_ExecSummary.pdf](http://sfrecpark.org/wp-content/uploads/SNRAMP_Final_Draft/SNRAMP_ExecSummary.pdf). Accessed on: February 16, 2015.

various Proposed Project elements would be implemented on public land and a majority of the various Proposed Project elements would be implemented within the operational public right-of-way, which does not support riparian habitat or other sensitive natural communities.

Therefore, for each alternative and design option, the Proposed Project would have no impact on riparian habitat or other sensitive natural communities. The Proposed Project would have a less-than-significant impact on candidate, sensitive, or special-status species due to the removal and/or replacement of trees throughout the Project corridor.

This topic will not be analyzed further in the EIR.

**Impact BI-2: The Proposed Project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including marsh, vernal pool, and coastal wetland) through direct removal, filling, hydrological interruption, or other means. (No Impact)**

Because of the extent of urban development and sub-surface filling in the Project area, there are no federally protected wetlands within the Project area.<sup>31</sup> Consequently, construction and operation of the Proposed Project would not affect federally protected wetlands.

This topic will not be analyzed further in the EIR.

**Impact BI-3: The Proposed Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. (Less than Significant)**

There are approximately 400 resident and migratory species of birds in San Francisco, due to the diverse habitats of the Bay Area and its position on a coastal migration path known as the Pacific Flyway. Birds and active nests are protected by the California Fish and Game Code or the Migratory Bird Treaty Act (MBTA) (16 U.S. Code, Section 703).

Tall structures and features have the potential to interfere with the movement of resident and migratory species of birds. Each of the three alternatives for the Proposed Project would include signal timing and control modifications and relocations, which could include new turn signals, stop signs, and bicycle signals. Each alternative would include relocation, and removal in limited locations, of the Path of Gold light standards on Market Street where the sidewalk would be narrowed to accommodate new transit boarding islands and the new raised cycle track. All of the proposed additions to the Project corridor consist of features, such as traffic signals, that already exist in the landscape; no portion of the project would result in taller structures or other features than those which already exist in the Project corridor. Furthermore, in the dense urban setting of the Project corridor, traffic signals, light standards, and the proposed structures at UN and Hallidie Plaza are common elements of the existing environment, and these elements of the Proposed Project would not create new hazards to birds or interfere with their migration.

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<sup>31</sup> Wetlands are a subset of “waters of the United States” and receive protection under Section 404 of the Clean Water Act.

As discussed under *Impact BI-1*, each alternative would involve the removal of trees based on the health of the trees and conflicts with the Proposed Project design. The requirements of the MBTA and California Fish and Game Code would apply to all tree and vegetation removal activities associated with the Proposed Project. The MBTA and California Fish and Game Code require that removal of tree and vegetation occur outside of the migratory bird nesting season (February 1–August 31), or if tree and vegetation must occur during the migratory bird nesting season that a qualified wildlife biologist conduct a survey for migratory bird nests and implement relocation or protection measures in the event that a nest is found. In the event that surveys for nesting migratory birds are required, such surveys must occur within 3 days of vegetation removal; this may require multiple nest surveys depending upon the timing of tree removal and/or replacement throughout the Project corridor. Public Works and construction contractors retained to conduct the removal and/or replacement of trees would be required to implement these provisions. Given the responsibility of Public Works and contractors to implement applicable provisions of the MBTA and California Fish and Game Code, impacts to migratory birds would be less than significant.

This topic will not be analyzed further in the EIR.

**Impact BI-4: The Proposed Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (Less than Significant)**

The Planning Department, Department of Building Inspection, and Public Works have established guidelines to ensure that the Urban Forestry Ordinance governing the protection of trees is implemented. Public Works Code Section 8.02-8.11 requires disclosure and protection of landmark, significant, and street trees (collectively “protected trees”) located on private and public property. A landmark tree has the highest level of protection and must meet certain criteria and be found worthy of landmark status designation. There are no landmark trees along the Proposed Project corridor.<sup>32</sup> A significant tree (e.g., the palm trees along the Embarcadero) is on privately owned land within 10 feet of the public right-of-way and satisfies certain size requirements.<sup>33</sup> There are no significant trees along the Project corridor. Street trees are trees within the public right-of-way.<sup>34</sup>

As discussed under *Impact BI-1*, each alternative would involve the removal of trees based on the health of the trees and conflicts with the Proposed Project design. Overall, there would be fewer trees due to implementation of the Proposed Project. In the event that street tree removal is necessary, the Proposed Project would comply with the requirements of the Urban Forestry Ordinance and Article 16 of the Public Works Code, and, thus, would not conflict with the City’s adopted plans concerning the preservation of trees. The Public Works Bureau of Urban Forestry must issue a permit before any trees with protected status under the Urban Forestry Ordinance

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<sup>32</sup> San Francisco Public Works. n.d. “Services A-Z, Trees, Significant and Landmark Trees.” Available at: <http://www.sfdpw.org/index.aspx?page=663>. Accessed on March 24, 2015.

<sup>33</sup> San Francisco Public Works. n.d. “Services A-Z, Trees, Significant and Landmark Trees.” Available at: <http://www.sfdpw.org/index.aspx?page=663>. Accessed on February 26, 2015.

<sup>34</sup> San Francisco Public Works. n.d. “Services A-Z, Trees, Street Tree Removal Permitting Process.” Available at: <http://www.sfdpw.org/index.aspx?page=656>. Accessed on February 26, 2015.



can be removed. Under this ordinance, an International Society of Arboriculture-certified arborist must prepare a tree protection plan prior to construction activities within the dripline of a protected tree. The plan must be submitted to the Public Works for review and approval before a permit is issued.

Because the Proposed Project would be required to comply with City tree protection policies, the Proposed Project would have a less-than-significant impact related to conflicts with a tree preservation ordinance.

This topic will not be analyzed further in the EIR.

## **Cumulative Impacts**

**Impact C-BI-1: The Proposed Project, in combination with other past, present, and reasonably foreseeable projects in the vicinity of the Project corridor, would not considerably contribute to cumulative impacts related to biological resources. (Less than Significant)**

The geographic context for cumulative biological resource impacts is any proposed development that is within and adjacent to the Project corridor. The Proposed Project would occur in this larger context that includes other projects and the construction of new buildings throughout much of the Project corridor, some of which would replace existing structures with new residential, commercial, retail, and hotel uses. The biological resources setting along the Project corridor will change in the future as development occurs in accordance with the General Plan and under the other projects listed in Section A.1 above.

Developments that may result in biological resource impacts typically relate to the removal of trees; modification or interference with existing habitats, sensitive natural areas, riparian habitats or federally protected wetlands, migratory wildlife corridors; and conflicts with adopted regulations, plans or policies intended to protect and preserve rare or endangered species and their habitats. However, as discussed above the Project corridor is characterized as heavily urbanized with minimal landscaping located at existing buildings, sidewalk planter boxes, and roadway median strips as well as non-native tree species that do not support or provide habitat for rare or endangered species. Therefore, such changes resulting from cumulative projects would be expected to have minimal changes to the biological resources setting in the Project corridor.

Similarly, implementation of the Proposed Project would not have a significant adverse impact related to biological resources. All of the various Proposed Project elements would be implemented on public land and a majority of the various Proposed Project elements would be implemented within the operational public right-of-way, which does not support or provide habitat for rare or endangered species. All of the proposed additions to the Project corridor consist of features, such as traffic signals, that already exist in the landscape; no portion of the project would result in taller structures or other features than those which already exist in the Project corridor. As discussed under *Impact BI-4*, the Proposed Project would comply with the requirements of the Urban Forestry Ordinance and the Planning Code, and, thus, would not conflict with the City's adopted plans concerning the preservation of trees. The Proposed Project's potential impacts on nesting migratory birds would be reduced through compliance with the MBTA. Therefore, the Proposed Project, in combination with other past, present, and

reasonably foreseeable projects in the vicinity of the Project corridor would not result in a cumulatively considerable biological resources impact.

This topic will not be analyzed further in the EIR.

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## E.14. Geology and Soils

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>14. GEOLOGY AND SOILS— Would the project:</b>					
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Change substantially the topography or any unique geologic or physical features of the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The Proposed Project would not include any septic tanks or alternative wastewater disposal systems. In addition, the City has a combined sewer system and does not rely on the use of septic tanks or alternative wastewater disposal systems. Therefore, Topic 14e is not applicable to the Proposed Project and this topic will not be analyzed in the EIR.

**Impact GE-1: The Proposed Project would not result in exposure of people and structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, seismic ground-shaking, lateral spreading, or landslides. (Less than Significant)**

### **Surface Rupture and Ground Shaking**

San Francisco is located in a seismically active region near the boundary between two major tectonic plates, the Pacific Plate to the southwest and the North American Plate to the northeast.

The fault nearest the Project corridor is the northern segment of the San Andreas fault, located approximately 7 miles to the west of the Project corridor.<sup>35</sup> Maps included in the *General Plan*, Community Safety Element (October 2012) show areas of the City subject to seismic geologic hazards. As shown on those maps, although the closest fault to the Project corridor is the active San Andreas fault, there are no known active fault zones or designated Alquist-Priolo Earthquake Fault Zones mapped as crossing or within the City or Project corridor.<sup>36</sup>

Given the Proposed Project's proximity to the northern segment of the San Andreas fault, there is potential for strong seismic ground shaking in the Project corridor during an earthquake event.<sup>37</sup> The Community Safety Element of the *General Plan* also projects very strong seismic ground shaking in the Project corridor from an earthquake on the Hayward fault, located approximately 9.5 miles northeast of the Project corridor. Strong ground shaking along the Project corridor could result from an earthquake on any one of the numerous active regional faults in the Project Project's vicinity. The United States Geological Survey (USGS) Working Group on California Earthquake Probabilities concluded that there is a 62 percent probability of a strong earthquake (Magnitude  $M \geq 6.7$ ) occurring in the San Francisco Bay Region in a 30-year period from 2003 to 2032.<sup>38,39</sup>

The intensity of the seismic shaking during an earthquake depends on the distance between a site and the epicenter of the earthquake, the magnitude of the earthquake, and the geologic conditions underlying the site. Earthquakes on faults closest to the Project corridor would most likely generate the largest ground motion in the Project corridor. The estimated peak ground

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<sup>35</sup> United States Geological Survey and California Geological Survey, 2010. GIS data for the Quaternary fault and fold database for the United States. Available online: <http://earthquake.usgs.gov/hazards/qfaults/>. Accessed January 2015.

<sup>36</sup> California Geological Survey, 2015. Regulatory Maps website. Available at: <http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm>. Accessed January 23, 2015.

<sup>37</sup> United States Geological Survey and California Geological Survey, 2010. GIS data for the Quaternary fault and fold database for the United States.

<sup>38</sup> Working Group on California Earthquake Probabilities, 2003. *Earthquake Probabilities in the San Francisco Bay Region: 2002 to 2031*. U.S. Geological Survey Open File Report 03-214.

<sup>39</sup> Magnitude is a number that characterizes the relative size of an earthquake and is based on measurement of the maximum motion recorded by a seismograph.

acceleration from large earthquakes for the Project vicinity is approximately 0.70 to 0.75g, which corresponds to strong to very ground shaking.<sup>40</sup>

The Project corridor would be subject to potential impacts from ground shaking and seismically induced ground failure during construction and operation of the Proposed Project. While the potential for seismic ground shaking and ground failure within San Francisco is unavoidable, improvements to and redesign of existing transportation, streetscape, and utility infrastructure would not generally create new seismic hazards to people or structures. Redesign and rebuilding of Hallidie Plaza would include the addition of a new street-level deck over the existing plaza; the construction of this facility would be required to meet stringent construction codes to protect against failure during seismic events. Potential damage to surface improvements and underground utilities from seismic events would not create a significant impact on life and health, but seismic-related damage to other above-ground improvements, such as an overhead wiring pole, has the potential to affect nearby residents and property. The SFMTA Transit Division is responsible, through the Overhead Lines Department, for maintaining overhead lines and poles, and for responding to and addressing incidents of downed overhead wires as safely as possible. All three alternatives for the Proposed Project would be required to comply with engineering seismic design standards as part of the Public Works permitting process and engineering design specifications followed by SFMTA. Therefore, for each alternative, the Proposed Project would have a less-than-significant impact related to the exposure of people and structures to rupture of a known earthquake fault or strong seismic ground shaking. Public Works would coordinate the design of the Proposed Project with BART and SFMTA to ensure the structural integrity of their facilities is maintained and would not be impacted by the Proposed Project.

This topic will not be analyzed further in the EIR.

### **Seismic-Related Ground Failure**

Liquefaction is the phenomenon in which saturated soil temporarily loses its shear strength during periods of earthquake-induced strong ground shaking. The susceptibility of a site to liquefaction is a function of the depth, density, and water content of the soil and the magnitude and frequency of earthquakes in the surrounding region. Saturated, unconsolidated silts, sands, and silty sands within 50 feet of the ground surface are most susceptible to liquefaction. Liquefaction-related phenomena include lateral spreading, ground oscillation, flow failures, loss of bearing strength, subsidence, and buoyancy effects.<sup>41</sup> In addition, densification of the soil resulting in vertical settlement of the ground can also occur. To determine liquefaction susceptibility of a region, three major factors must be analyzed: (a) the density and textural characteristics of the alluvial sediments; (b) the intensity and duration of ground shaking; and (c) the depth to groundwater.

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<sup>40</sup> The intensity of earthquake-induced ground motions can be described using peak site accelerations, represented as a fraction of the acceleration of gravity (g).

<sup>41</sup> Youd, T.L. and D.M. Perkins, 1978. Mapping Liquefaction Induced Ground Failure Potential, in the *Proceedings of the American Society of Civil Engineers, Journal of the Geotechnical Engineering Division*.

According to the California Geological Survey (CGS) Seismic Hazard Zones Map for San Francisco, which illustrates the areas subject to liquefaction, a large portion of the Project corridor is located within an area mapped as a liquefaction hazard zone.<sup>42</sup> In addition, USGS has identified the Project corridor as having liquefaction susceptibility of moderate to very high.<sup>43</sup> The Project corridor is primarily underlain by unconsolidated artificial fill and dune sand with historic high groundwater levels ranging from 10 to 30 feet below ground surface.<sup>44</sup> The liquefaction hazard in this area is the result of the presence of this shallow groundwater and generally loose to medium dense granular soils (artificial fill and dune sands) within 50 feet of the ground surface. Liquefaction of the artificial fill and dune sands at shallow depths adjacent to and beneath the Project corridor could cause settlement in sidewalks, roadways, and utilities. Historically, liquefaction has occurred in the Project vicinity near The Embarcadero and the east end of Market Street. Activities with the greatest potential for excavation include relocation of the Path of Gold Light Standards, which have foundations approximately 12 feet deep, as well as foundation work at UN and Hallidie plazas. Foundations for the construction of structures at UN Plaza would require excavation to a depth of up to 80 feet below street level at UN Plaza and 110 feet below street level at Hallidie Plaza. However, development requiring excavation within the operational Public Works right-of-way is subject to Public Works permitting requirements, including applicable health and safety requirements of Public Works Code Article 2.4, Excavation in the Public Right-of-Way. Excavation for the plaza foundations is subject to the Building Code Chapter 33 (Excavation and Grading).

In addition to these requirements and given conditions within San Francisco, the SFMTA engineers take into account geologic and seismic hazards when designing projects that require any type of foundation such as overhead wiring poles or variable message sign poles. SFMTA generally uses traffic signal poles/mast arms designed by the California Department of Transportation. However, if customized poles are used, SFMTA and Public Works would be responsible for ensuring their engineering specifications and safe installation. These types of features are conservatively designed and constructed in accordance with applicable foundation standards taking into account such geotechnical parameters as soil type, height, and grade.<sup>45</sup> Therefore, for each alternative, including the redesign and rebuilding of UN and Hallidie plazas, the Proposed Project would have a less-than-significant impact with respect to seismic-related ground failure, including liquefaction.

This topic will not be analyzed further in the EIR.

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<sup>42</sup> California Geological Survey. Seismic Hazards Zones Map, City and County of San Francisco, Official Map, November 17, 2000. Available at: [http://gmw.consrv.ca.gov/shmp/download/pdf/ozn\\_sf.pdf](http://gmw.consrv.ca.gov/shmp/download/pdf/ozn_sf.pdf). Accessed on February 12, 2015.

<sup>43</sup> United States Geological Survey, 2000. Preliminary Maps of Quaternary Deposits and Liquefaction Susceptibility, Nine-County San Francisco Bay Region, California: A Digital Database. U.S. Geological Survey Open-File Report 00-444, Sheet 2 of 2. Available at: <http://pubs.usgs.gov/of/2000/of00-444/>. Accessed January 2015.

<sup>44</sup> California Geological Survey, 2000. Seismic Hazard Zone Report for City and County of San Francisco, California, CGS Open File Report 2000-009 (SHZR 043), available online at: [http://gmw.consrv.ca.gov/shmp/download/evalrpt/sf\\_eval.pdf](http://gmw.consrv.ca.gov/shmp/download/evalrpt/sf_eval.pdf). Accessed January 2015.

<sup>45</sup> Email communication with Cheryl Liu, PE, Division of Sustainable Streets, San Francisco Municipal Transportation Agency, February 20, 2015.

## **Landslide**

All of the various Proposed Project elements would be implemented on public land and a majority of the various Proposed Project elements would be implemented within the operational public right-of-way, which is composed of flat to gently sloping topography, and would not affect any potentially unstable slopes susceptible to landslides. Further, the Project corridor is not located within an area mapped as an earthquake-induced landslide hazard zone.<sup>46</sup> Therefore, for each alternative, the Proposed Project would have no impact with respect to landslides.

Based on the above analysis, the Proposed Project would result in less-than-significant impacts related to exposure of people or structures to rupture of a known earthquake fault, strong seismic ground shaking, liquefaction, or landslides.

This topic will not be analyzed further in the EIR.

### **Impact GE-2: The Proposed Project would not result in substantial erosion or loss of topsoil. (Less than Significant)**

The Project corridor is primarily underlain by unconsolidated artificial fill and dune sand in a highly developed urban area. All of the various Proposed Project elements would be implemented on public land and a majority of the various Proposed Project elements would be implemented within the operational public right-of-way, which is predominately covered by impervious surfaces with the exception of minor landscaped areas, such as tree wells, which are typically located in the sidewalk.

Grading and excavation during Proposed Project construction would expose soils to wind and water erosion. Activities with the greatest potential for excavation include relocation of the Path of Gold Light Standards, which have foundations approximately 12 feet deep, as well as foundation work at UN and Hallidie plazas. Foundations for the construction of structures at UN Plaza would require excavation to a depth of up to 80 feet below street level at UN Plaza and 110 feet below street level at Hallidie Plaza. If proper construction management and soil erosion control measures are not implemented during construction, erosion of the disturbed soils could result. Construction projects greater than 5,000 square feet must have a Stormwater Control Plan in accordance with Article 4, Section 2.147 of the Public Works Code. Additionally, all excavation in the operational public right-of-way, regardless of size, must incorporate several measures to prevent erosion, including requirements for covering excavation sites, removal of excavated material at the end of each work day, and requirements that any fill material, sand, aggregate, or asphalt may be stored at the site only in covered, locked containers (Public Works Code Article 2, Section 4.53). With respect to excavation in the plazas, the Project would implement construction BMPs to prevent erosion and the discharge of sediment into construction site stormwater runoff, as described in *Impact HY-1*. Compliance with these codes and requirements would minimize the potential for soil erosion during construction. Following construction, with the exception of soils surrounding trees, surface soils would no longer be exposed and no potential for erosion would

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<sup>46</sup> California Geological Survey. Seismic Hazards Zones Map, City and County of San Francisco, Official Map, November 17, 2000. San Francisco Community Safety Element. Available at: [http://www.sf-planning.org/ftp/general\\_plan/community\\_safety\\_element\\_2012.pdf](http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf). Accessed on September 9, 2015.

be present. Therefore, for each alternative, including the redesign and rebuilding of UN and Hallidie plazas, the Proposed Project would have a less-than-significant impact on erosion and the loss of topsoil.

This topic will not be analyzed further in the EIR.

**Impact GE-3: The Proposed Project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Proposed Project, and would not potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. (Less than Significant)**

As described under *Impact GE-1*, a large portion of the Project corridor is located within an area mapped as a liquefaction hazard zone. All of the various Proposed Project elements would be implemented on public land and a majority of the various Proposed Project elements would be implemented within the operational public right-of-way, which has flat to gently sloping topography. However, construction and operation of the Proposed Project would not change or increase the potential for liquefaction in the event of an earthquake. In addition, the Proposed Project would be required to comply with engineering seismic design standards of Public Works and SFMTA. The Project corridor is not located within an area mapped as an earthquake-induced landslide hazard zone.<sup>47</sup> Thus, the Proposed Project would have no impact on a geologic unit or soil that is unstable and would not potentially result in a landslide. Therefore, the Proposed Project, including redesign and rebuilding of UN and Hallidie plazas, would have a less-than-significant impact on a geologic unit or soil that is unstable and would not potentially result in lateral spreading, subsidence, liquefaction, or collapse.

This topic will not be analyzed further in the EIR.

**Impact GE-4: The Proposed Project would not be located on expansive soil which could create substantial risks to life or property. (Less than Significant)**

Expansive soils are characterized by their ability to undergo significant volume change (shrink and swell) because of variations in soil moisture content. Changes in soil moisture can result from rainfall, landscape irrigation, utility leakage, roof drainage, and perched groundwater. Expansive soils are typically very fine grained with a high to very high percentage of clay. Expansive soils may cause differential and cyclical movements of foundations and other buried structures that can cause damage or distress to structures and equipment.

Soil materials underlying the Project corridor consist primarily of artificial fill of varying composition and dune sand. The dune sand is primarily fine grained sand, which is not expansive. Because much of the fill in the Project area was derived from the dune deposits that were leveled to facilitate development in the area during the mid to late 1800s, artificial fill in the vicinity of the Project corridor is expected to contain significant amounts of dune sand. However, because of the variable nature of the artificial fill materials, localized areas of expansive soil may

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<sup>47</sup> California Geological Survey. Seismic Hazards Zones Map, City and County of San Francisco, Official Map, November 17, 2000. San Francisco Community Safety Element. Available at: [http://www.sf-planning.org/ftp/general\\_plan/community\\_safety\\_element\\_2012.pdf](http://www.sf-planning.org/ftp/general_plan/community_safety_element_2012.pdf). Accessed September 9, 2015.



be present. The Proposed Project would include new construction, although much of it would involve surface improvements. Modifications to Hallidie Plaza would include the addition of a new street-level deck over the existing plaza, which is located on City-owned land. As such, construction of this facility would be required to meet the requirements in the San Francisco Building Code (Building Code) and the California Building Code. Expansive soils would not present a significant safety risk as a result of structure collapse. Improvements such as utility overhead wiring poles and underground utility vaults and pipelines would be subject to Public Works specifications, City permitting requirements, and the Public Works application of engineering design standards, as described under *Impact GE-1*. These requirements include additional measures subject to engineering controls and safety requirements in areas where geologic hazards such as unstable soils may be present. Therefore, for each alternative, the Proposed Project would have a less-than-significant impact related to expansive soil.

This topic will not be analyzed further in the EIR.

**Impact GE-5: The Proposed Project would not result in adverse impacts on topographical or unique geologic features. (No Impact)**

All of the various Proposed Project elements would be implemented on public land and a majority of the various Proposed Project elements would be implemented within the operational public right-of-way, which has flat to gently sloping topography. There are no unique geologic features in the Project corridor. The entire Project corridor is currently developed and no building footprint would be expanded. In addition, significant re-grading of the Project corridor would not be necessary. Therefore, the Proposed Project would have no impact on unique geologic or physical features.

**Impact GE-6: The proposed project would not result in damage to, or destruction of, an as-yet unknown unique paleontological resource or site or unique geologic feature. (Less than Significant)**

Paleontological resources, or fossils, are the remains, imprints, or traces of animals, plants, and invertebrates, including their imprints, from a previous geological period. Collecting localities and the geologic formations containing those localities are also considered paleontological resources. They represent a limited, nonrenewable resource, and once destroyed they cannot be replaced.

The deposition and preservation of paleontological resources are related to the lithologic (rock) unit in which they occur. If a rock type was created in a deposition environment that was not conducive to the deposition and preservation of fossils, fossils will not be present. Lithologic units that may be fossiliferous include sedimentary and volcanic formations. Pleistocene sediments in the San Francisco Bay are known to yield vertebrate fossils.<sup>48</sup>

The ASA concluded that there is a low to moderate sensitivity for encountering archaeological deposits. A review of the local landscape history and geoarchaeological studies reveals that the

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<sup>48</sup> UC Museum of Paleontology Specimens. 2015. UC Museum of Paleontology Specimens. Available: [http://ucmpdb.berkeley.edu/cgi/ucmp\\_query2](http://ucmpdb.berkeley.edu/cgi/ucmp_query2). Accessed: October 8, 2015.

study area contains fill at the ground surface, underlain by dunes and tidal flats. Based on the analytical framework presented in the ASA, it is anticipated that the fill and tidal flats have limited sensitivity for buried resources, while the dunes have higher sensitivity for buried resources. However, as described under Impact GE-2 in Topic 14, *Geology and Soils*, the Project corridor is in a highly developed urban area. Consequently, there is limited potential for unique paleontological resources, sites, or geologic features within the APE.

Given that the shallow depth of excavation necessary to implement the proposed project would not encounter a deposition environment conducive to the deposition and preservation of fossils and given the previous level of sub-surface disturbance in the project area, the potential for encountering unique paleontological resources is very low and no mitigation measures are needed as there would be a less-than-significant impact to such resources.

This topic will not be analyzed further in the EIR.

### **Cumulative Impacts**

**Impact C-GE-1: The Proposed Project, in combination with other past, present, and reasonably foreseeable projects in the vicinity of the Project corridor, would result in less-than-significant cumulative impacts on geology and soils. (Less than Significant)**

The geographic context for cumulative geology and soils impacts are typically site-specific. The impacts of each reasonably foreseeable project would be specific to the respective site and its users and would not be common or contribute to (or shared with, in an additive sense) the impacts on other sites. In addition, development of each alternative would be subject to site development and construction standards (local, state, and federal) that are designed to protect public safety. For example, development of the reasonably foreseeable projects would be subject to Department of Building Inspection design review and safety measures. These measures would reduce the geologic effects of reasonably foreseeable projects to less-than-significant levels. Therefore, the Proposed Project, in combination with other past, present, and reasonably foreseeable projects, would not result in a cumulatively considerable geology and soils impact.

This topic will not be analyzed further in the EIR.

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## E.15. Hydrology and Water Quality

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>15. HYDROLOGY AND WATER QUALITY— Would the project:</b>					
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion of siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other authoritative flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

As described in Topic 1, *Land Use and Land Use Planning*, and Topic 3, *Population and Housing*, the Proposed Project would not result in the development of residential uses. Therefore, Topic 15g is not applicable to the Proposed Project and this topic will not be analyzed in the EIR.

**Impact HY-1: The Proposed Project would not violate water quality or waste discharge standards, exceed the capacity of existing drainage systems, provide additional sources of polluted runoff, or otherwise substantially degrade water quality. (Less than Significant)**

All of the various Proposed Project elements would be implemented on public land and a majority of the various Proposed Project elements would be implemented within the operational public right-of-way. A majority of the modifications to the UN and Hallidie plazas would occur on City-owned land. The right-of-way and the plazas are predominately covered by impervious surfaces with the exception of minor landscaped areas, such as tree wells, which are typically located in the sidewalk. The primary water quality concern associated with Proposed Project implementation is the potential degradation of stormwater runoff flowing into the City's combined sanitary sewer and stormwater system (combined sewer system), which collects, transports, and treats sanitary sewage and stormwater runoff in the same facilities. Although implementation of the Proposed Project would not result in a significant change to the amount or locations of impervious surfaces in the City or the volume of stormwater entering existing drainage systems, Proposed Project elements could affect localized stormwater quality and drainage patterns.

As an urbanized area, the Project area has an abundance of impervious surfaces, such as buildings, streets, parking lots, and other paved surfaces, which prevent the absorption of rainfall. Urban stormwater runoff can be polluted with urban-type pollutants generated by leaks of fuel or lubricants from vehicles, tire wear, brake dust, and fallout from vehicle exhaust. These sources contribute petroleum hydrocarbons, heavy metals, and sediment to runoff, and those pollutants flow into the City's combined sewer system, which contributes to pollutants being discharged at sewer system overflow locations. As described under *Impact UT-1* in Topic 11, *Utilities and Service Systems*, the Project corridor is located within the Bayside drainage area. All wastewater and stormwater flows that emanate from the Bayside drainage area are subject to the 2008 Bayside Permit. The Bayside Permit prohibits overflows from the combined sewer overflow structures during dry weather, and requires wet-weather overflows to comply with the nine minimum controls specified in the federal Combined Sewer Overflow Control Policy. In addition, the Bayside Permits requires a Long-Term Control Plan to manage stormwater flows and minimize the effects of stormwater-related wastewater discharges.

Regulations that would reduce potential impacts from pollutant-laden runoff include compliance with National Pollutant Discharge Elimination System (NPDES) permits related to construction activities as administered by the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) and Article 4 of the Porter-Cologne Water Quality Act, compliance with the Combined Sewer Overflow Control Policy, and Total Maximum Daily Load standards as set forth by the Regional Water Board Basin Plan.<sup>49</sup>

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<sup>49</sup> San Francisco Bay Regional Water Quality Control Board. 2010. *San Francisco Bay Basin (Region 2) Water Quality Control Plan* (Basin Plan), incorporating all amendments approved by the Office of

Regulations incorporated into the City's Stormwater Management Ordinance (Ordinance No. 83-10) would require the Proposed Project to maintain, reduce, or eliminate the existing volume and rate of stormwater runoff discharged from the Project corridor.

With compliance with existing regulations regarding stormwater BMPs and Public Works standards, for each alternative, the Proposed Project, including the redesign and rebuilding of UN and Hallidie plazas, would have a less-than-significant impact related to the violation of water quality or waste discharge standards during construction and operation.

The Project corridor is primarily underlain by unconsolidated artificial fill and dune sand with historic high groundwater levels ranging from 10 to 30 feet below ground surface.<sup>50</sup> In addition, groundwater could be encountered during excavation, notably during the abandonment and/or relocation of sewer sections and other underground utilities along Market Street under each alternative. Any groundwater or wastewater encountered during construction would be subject to treatment requirements of the City's Industrial Waste Ordinance (Ordinance Number 199-77). Discharges to the combined sewer system would be subject to water quality requirements of the City's Sewer Use Ordinance (Ordinance Number 19-92, amended 116-97), as supplemented by Public Works Order No. 158170, requiring a permit from SFPUC's Wastewater Enterprise Collection System Division. A permit may be issued only if an effective pretreatment system is maintained and operated to ensure the combined sewer system is not adversely degraded. The discharge from the Project corridor would mix with sewage in the City's combined sewer system and be treated at the Southeast Water Pollution Control Plant before discharge to the Bay, pursuant to the effluent discharge standards contained in the City's NPDES permit, as described under *Impact UT-1* in Topic 11, *Utilities and Service Systems*. Therefore, excavation dewatering activities during project construction would not substantially affect surface or groundwater quality, and this would be a less-than-significant impact.

The use of hazardous materials during construction, which would include fuels, oils, thermoplastic traffic striping material, and other chemicals, could result in accidental releases or spills, potentially affecting stormwater quality, as described in Topic 16, *Hazards and Hazardous Materials*. Public Works may also add conditions to permits in order to protect public health, safety, and welfare (Public Works Code Article 2, Section 4.20). All excavation in the public right-of-way must comply with requirements for covering excavation sites, hazardous material handling, removal of excavated material at the end of each work day, and requirements that any fill material, sand, aggregate, or asphalt may only be stored at the site in covered, locked containers (Article 2, Section 4.50 et seq.). The Proposed Project would comply with requirements for stormwater control, including compliance with the City's Stormwater Management Ordinance, which requires the preparation of a Stormwater Control Plan.

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Administrative Law as of December 31, 2011 (hereinafter "Regional Water Board 2010"). Available at: [http://www.waterboards.ca.gov/sanfranciscobay/water\\_issues/programs/planningtmdls/basinplan/web/docs/bp\\_ch1withcover.pdf](http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/docs/bp_ch1withcover.pdf). Accessed on February 20, 2015.

<sup>50</sup> California Geological Survey, 2000. Seismic Hazard Zone Report for City and County of San Francisco, California. CGS Open File Report 2000-009 (SHZR 043). Available at: [http://gmw.consrv.ca.gov/shmp/download/evalrpt/sf\\_eval.pdf](http://gmw.consrv.ca.gov/shmp/download/evalrpt/sf_eval.pdf). Accessed January 2015.

The primary water quality concern during operation of the Proposed Project would be the potential degradation of stormwater runoff flowing into the City's combined sewer system from the Project corridor. Given the urbanized setting of the Project corridor, stormwater runoff is potentially polluted with urban-type pollutants generated by leaks of fuel or lubricants from vehicles, tire wear, brake dust, and fallout from vehicle exhaust. These sources contribute petroleum hydrocarbons, heavy metals and sediment to runoff, and those pollutants flow into the City's combined sewer system, potentially contributing to pollutants being discharged at sewer system overflow locations. Discharges to the Bay are in conformance with requirements of the Clean Water Act, Combined Sewer Overflow Control Policy, and the associated state requirements in the Water Quality and Control Plan for the San Francisco Bay Basin. In addition, the Proposed Project would be implemented in a largely pervious area. Consequently, the improvements would not increase the amount of impervious surfaces and the Proposed Project would not substantially increase the amount of stormwater runoff.

With compliance with existing regulations regarding stormwater BMPs and Public Works permit requirements, for each alternative, including the redesign and rebuilding of UN and Hallidie plazas, the Proposed Project would have a less-than-significant impact related to the existing drainage system capacity and polluted runoff during construction and operation.

This topic will not be analyzed further in the EIR.

**Impact HY-2: The Proposed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. (Less than Significant)**

The Project corridor is located in the Downtown Groundwater Basin, which encompasses 12 square miles in downtown San Francisco.<sup>51</sup> The Downtown Groundwater Basin is not used as a source of water supply, and is considered to be inadequate to supply a significant amount of groundwater for municipal supply due to low yield and water quality impairment.<sup>52</sup> Groundwater would not be extracted for municipal supply during construction or operation of the Proposed Project.

The Project corridor is primarily underlain by unconsolidated artificial fill and dune sand with historic high groundwater levels ranging from 10 to 30 feet below ground surface.<sup>53</sup> The Proposed Project would include new construction, although much of it would involve surface improvements. Activities with the greatest potential for excavation include relocation of the Path of Gold Light Standards, which have foundations approximately 12 feet deep, as well as

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<sup>51</sup> California Department of Water Resources. "San Francisco Bay Hydrologic Region Map." 2013. Available at: <http://www.water.ca.gov/groundwater/bulletin118/maps/SF.pdf>. Accessed on February 19, 2015.

<sup>52</sup> Phillips, S. P., S. N. Hamlin, and E. B. Yates. *Geohydrology, Water Quality, and Estimation of Ground-Water Recharge in San Francisco, California, 1987-92*. United States Geological Survey Water Resources Investigations Report 93-4019. Prepared in cooperation with the City and County of San Francisco Water Department.

<sup>53</sup> California Geological Survey, 2000. *Seismic Hazard Zone Report for City and County of San Francisco, California*. CGS Open File Report 2000-009 (SHZR 043). Available at: [http://gmw.consrv.ca.gov/shmp/download/evalrpt/sf\\_eval.pdf](http://gmw.consrv.ca.gov/shmp/download/evalrpt/sf_eval.pdf). Accessed January 2015.

foundation work at UN and Hallidie plazas. Foundations for the construction of structures at UN Plaza would require excavation to a depth of up to 80 feet below street level at UN Plaza and 110 feet below street level at Hallidie Plaza. Based on the anticipated depth to groundwater within the Project corridor, which is 10 to 30 feet below ground surface, groundwater could be encountered during construction of the Proposed Project. If groundwater is encountered during excavation, the effects of lowering the water table would be localized, temporary, and minimal, as only a small fraction of the total Basin area would be affected. As such, the Proposed Project would not be anticipated to substantially deplete groundwater resources. Based on the above analysis, the Proposed Project would have a less-than-significant impact on the depletion of groundwater supplies.

All of the various Proposed Project elements would be implemented on public land and a majority of the various Proposed Project elements would be implemented within the operational public right-of-way as well as UN and Hallidie plazas, which are predominately covered by impervious surfaces. As such, no change in recharge to the groundwater would occur during the operational phase of the Proposed Project. In addition, groundwater would not be used during the Project's operational phase. Therefore, impacts to groundwater supplies and recharge during operation of the Proposed Project would be less than significant.

This topic will not be analyzed further in the EIR.

**Impact HY-3: The Proposed Project would not substantially alter existing drainage patterns, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation. (Less than Significant)**

The Project corridor is located within the Mission Creek Watershed, which is also considered a "Sewershed" inasmuch as the original creeks in the watershed have all been filled or otherwise engineered to run underground in culverts and sewer pipelines and are not free-flowing on the surface. There are no existing rivers in the City. Therefore, the Proposed Project would not alter the course of a stream or river.

All of the various Proposed Project elements would be implemented on public land and a majority of the various Proposed Project elements would be implemented within the operational public right-of-way as well as UN and Hallidie plazas, which are predominately covered by impervious surfaces. Implementation of the Proposed Project would not result in a marked change to runoff and drainage. Therefore, the Proposed Project would not substantially alter the existing drainage pattern nor substantially increase the rate or amount of surface runoff in a manner that would result in flooding or in substantial erosion or siltation.

As described under *Impact HY-1* and under *Impact GE-2* in Topic 14, *Geology and Soils*, the Proposed Project would comply with requirements for stormwater control, including compliance with the City's Stormwater Management Ordinance, which requires the implementation of BMPs for erosion control during construction, and preparation of a Stormwater Control Plan. Furthermore, erosion control measures during construction of the Proposed Project would be implemented pursuant to Building Code Chapter 33 (Excavation and Grading) and the City's NPDES permit to ensure the Proposed Project does not result in siltation of the City's combined sewer system.

Thus, for each alternative, including the redesign and rebuilding of UN and Hallidie plazas, the Proposed Project would result in a less-than-significant impact on the alteration of drainage patterns.

This topic will not be analyzed further in the EIR.

**Impact HY-4: The Proposed Project would not expose people or structures to substantial risk of loss due to flooding. (Less than Significant)**

Flood risk assessment and some flood protection projects are conducted by federal agencies including the Federal Emergency Management Agency (FEMA) and the U.S. Army Corps of Engineers. The flood management agencies and cities implement the National Flood Insurance Program (NFIP) under the jurisdiction of FEMA and its Flood Insurance Administration. The NFIP, which designates flood-prone areas, mapped communities along the San Francisco Bay, including San Francisco. Areas currently designated as prone to surface flooding in San Francisco on the new floodplain maps are in portions of Mission Bay, Treasure Island, Hunters Point Shipyard and Candlestick Point, as well as significant portions of the Port.

In 2008, the Board of Supervisors adopted the Floodplain Management Ordinance as part of the City's effort to join the NFIP. FEMA has prepared draft Flood Insurance Rate Maps (FIRMs) for the City and County of San Francisco. FIRMs identify areas that are subject to inundation during a flood having a one percent chance of occurrence in a given year (also known as a "base flood" or "100-year flood"). FEMA refers to the floodplain that is at risk from a flood of this magnitude as a special flood hazard area (SFHA). The Project corridor is not located within a SFHA.<sup>54</sup> Therefore, the Proposed Project would have no impact with respect to exposing people or structures to substantial risk of loss due to flooding related to a SFHA.

Nonetheless, development in San Francisco must account for flooding potential. Areas underlain by fill or Bay mud are susceptible to subsidence and this can result in sewers that do not drain freely during a storm, leading to backups or flooding of streets and sewers. The Project corridor is primarily underlain by unconsolidated artificial fill and dune sand, which is potentially at risk for backup-induced inundation during storms due to low surface elevation and land subsidence over time by compaction from buildings and soil drying. The potential risk of inundation or flooding of the portions of the Project corridor near San Francisco Bay is further increased by projections of future sea level rise made by the Bay Conservation and Development Commission and other agencies that study the relationship between global warming, carbon emission trends, and sea level rise.<sup>55,56</sup> The City is implementing a long-term program to upgrade the combined sewer system to handle stormwater runoff projections and implement flood control measures City-wide. Within the Project area, a 50-centimeter sea level rise would result in sea level reaching the level of Market Street between Spear and Main streets and the intersection of

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<sup>54</sup> City and County of San Francisco. San Francisco Interim Floodplain Map, Northeast Sector, Final Draft. July 2008. Available at: <http://sfgsa.org/Modules/ShowDocument.aspx?documentid=1785>. Accessed on November 19, 2015.

<sup>55</sup> Bay Conservation and Development Commission. *Living with a Rising Bay: Vulnerability and Adaptation in San Francisco Bay and on its Shoreline*. October 6, 2011.

<sup>56</sup> *ibid.*



Mission and Steuart streets.<sup>57</sup> A 100-centimeter sea level rise would result in the sea level reaching the level of Beale Street along both Market and Mission streets. A 150 centimeter sea level rise would result in the sea level reaching a level above Fremont Street on Market Street and up to Fremont Street on Mission Street. This level of sea level rise would occur within the Project area with or without implementation of the Proposed Project, and the Proposed Project would not alter the elevation of the transportation system or streetscape within the area subject to a 150 centimeter sea level rise.

During the review of the permit to excavate for the Proposed Project, Public Works and/or SFPUC would consider the potential for flooding issues that may occur during and after construction of the Proposed Project.

Based on the above analysis, for each alternative, including the redesign and rebuilding of UN and Hallidie plazas, the Proposed Project would have a less-than-significant impact on flooding related to sea level rise.

This topic will not be analyzed further in the EIR.

**Impact HY-5: The Proposed Project would not expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow, or as a result of the failure of a reservoir. (Less than Significant)**

Tsunamis (seismic sea waves) are large, long-period waves that are typically generated by underwater seismic disturbances, volcanic eruptions, or submarine landslides. Damaging tsunamis are not common on the California coast. Most California tsunamis are associated with distant earthquakes rather than local earthquakes.

Devastating tsunamis have not occurred in historic times in the Bay Area. Because of the lack of reliable information about the kind of tsunami run-ups that have occurred in the prehistoric past, there is considerable uncertainty over the extent of tsunami run-up that could occur. There is ongoing research into the potential tsunami run-up in California. The San Francisco General Plan, Community Safety Element (October 2012) includes Map 5 (Tsunami Hazard Zones), which shows areas where tsunamis are thought to be possible. The Project corridor is located outside of the tsunami-induced inundation hazard zones identified in Map 5 of the Community Safety Element, with the exception of the northeast end of Mission Street between The Embarcadero and Steuart Street in Alternative 3.<sup>58</sup>

A seiche is an oscillation of a water body, such as a bay, which may cause local flooding. A seiche could occur in the San Francisco Bay due to seismic or atmospheric activity. Seiches can result in long-period waves that cause run-up or overtopping of adjacent landmasses, similar to tsunami run-up. According to the historical record, seiches are rare. Map 5 of the Community Safety

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<sup>57</sup> Knowles, Noah. 2010. Potential Inundation Due to Rising Sea Levels in the San Francisco Bay Region. San Francisco Estuary and Watershed Science, 8:1. Available at [http://escholarship.org/uc/search?entity=jmie\\_sfews;volume=8;issue=1](http://escholarship.org/uc/search?entity=jmie_sfews;volume=8;issue=1). Accessed on November 19, 2015.

<sup>58</sup> City and County of San Francisco Planning Department. Draft Community Safety Element of the *General Plan*, Map 05 – Tsunami Hazard Zones, October 2012.

Element also applies to seiches inasmuch as seiches represent water waves that cause run-up or overtopping of adjacent landmasses, similar to a tsunami run-up. In the event of an earthquake capable of producing a tsunami or seiche, the National Warning System and the City's outdoor warning system would provide warning. The advance warning system would allow for evacuation of people prior to a tsunami or seiche, and would provide a high level of protection to public safety. In addition, the Proposed Project would not create habitable structures that would expose people to tsunamis and seiches.

The potential impacts of mudflows, which are a type of landslide, are described under *Impact GE-1* in Topic 14, *Geology and Soils*. It was concluded that impacts related to landslides would be less than significant. Therefore, the Proposed Project, including redesign and rebuilding of UN and Hallidie plazas, would have a less-than-significant impact with respect to the exposure of people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow, or as a result of the failure of a reservoir.

This topic will not be analyzed further in the EIR.

## Cumulative Impacts

**Impact C-HY-1: The Proposed Project, in combination with other past, present, or reasonably foreseeable projects in the vicinity of the Project corridor, would not considerably contribute cumulative impacts related to water quality and hydrology. (Less than Significant)**

The geographic context for cumulative hydrology and water quality impacts is any proposed development that is within the City. The Proposed Project would occur in this larger context that includes other projects and the construction of new buildings throughout much of the Project corridor, some of which would replace existing structures with new residential, commercial, retail, and hotel uses. The hydrology and water quality setting along the Project corridor will change in the future as development occurs in accordance with the General Plan and under the other projects listed in Section A.1 above.

Developments that may result in hydrology and water quality impacts typically relate to the proposed land uses and the proposed change in impervious surfaces. There are development projects proposed throughout the City, each of which would contribute to changes to the hydrology and water quality within the City and would in some cases violate water quality standards, substantially deplete groundwater supplies, substantially alter existing drainage patterns, contribute runoff water, degrade water quality, and result in exposure to seiche, tsunami, or mudflow.

As described in the discussion for *Impact HY-1* through *Impact HY-5*, implementation of the Proposed Project would not have a significant adverse impact related to hydrology and water quality. Furthermore, the Proposed Project would not result in an increase in impervious surfaces over that which exists at present and an increase in stormwater runoff is not expected. The Proposed Project would be implemented in a largely impervious area, and would comply with existing regulations regarding stormwater BMPs and Public Works standards. Consequently, the improvements would not increase the amount of impervious surfaces and the Proposed Project would not substantially increase the amount of stormwater runoff. Therefore, the Proposed Project, in combination with other past, present, and reasonably foreseeable projects, would not result in a cumulatively considerable hydrology and water quality impact.

This topic will not be analyzed further in the EIR.

## E.16. Hazards and Hazardous Materials

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>16. HAZARDS AND HAZARDOUS MATERIALS— Would the project:</b>					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Hazards and hazardous materials impacts may occur when a project directly or indirectly results in hazardous materials exposures affecting people or the environment, subjects people or structures to wildfire hazards, or interferes with emergency response or evacuation plans. Whether this type of impact occurs is typically determined by assessing the potential for hazardous materials exposure, and wildfire hazards, and the potential for emergency response

restrictions in the project vicinity and then evaluating whether the proposed project would directly or indirectly result in a significant change in these conditions which could pose a threat to public health and safety.<sup>59</sup>

San Francisco International Airport is located approximately 11 miles south of the Proposed Project corridor, and the Project corridor is not located in the vicinity of a private airstrip. The Proposed Project would not expose people residing or working in the area to hazards from a public airport, public use airport, or private airstrip. Thus, Topics 16e and 16f are not applicable to the Proposed Project and these topics will not be analyzed in the EIR.

**Impact HZ-1: The Proposed Project would not create a significant hazard through routine transport, use, disposal, handling, or emission of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. (Less than Significant)**

#### **Hazardous Materials Use during Construction and Operation**

The use, storage, and disposal of hazardous materials is regulated by several federal, state, and local agency laws and regulations. The U.S. Environmental Protection Agency is the federal agency that administers hazardous materials and hazardous waste regulations. The Resource Conservation and Recovery Act of 1976 (RCRA), is the primary law that governs the disposal of solid and hazardous waste, and provides for a “cradle to grave” approach to hazardous waste management. RCRA focuses only on active and future facilities and does not address abandoned or historical sites that are managed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The purpose of CERCLA, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised.

At the state level, the Department of Toxic Substances Control (DTSC) administers laws and regulations related to hazardous waste and hazardous substances pursuant to Division 20, Chapters 6.5 and 6.8 of the California Health and Safety Code and Title 22 of the CCR, which are the state equivalents of RCRA and CERCLA, respectively. The State Water Resources Control Board (SWRCB) enforces laws and regulations governing releases of hazardous substances and petroleum pursuant to Division 20, Chapters 6.7, 6.75, and 6.8 of the California Health and Safety Code (Sections 25100, 25200 and 25300 et seq.), and the Porter Cologne Water Quality Control Act (Division 7, Section 13100 et seq. of the California Water Code) and CCR Title 23. ARB promotes and protects public health, welfare, and ecological resources through the reduction of air pollutants pursuant to Division 3 of CCR Title 17.

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<sup>59</sup> The California Health and Safety Code Section 25501 defines a hazardous material as, “...any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety, or to the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, radioactive materials, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.”

The Regional Water Control Board, BAAQMD, and the San Francisco Department of Public Health (SFPDH) have jurisdiction on a regional and local level. Most routine hazardous materials management programs in the City are administered by SFPDH. Hazards and hazardous waste is regulated through one or more programs within SFPDH, including the Hazardous Materials and Waste Program, which regulates sites that store or use hazardous materials or wastes, and operates Underground Storage Tanks (USTs); the Local Oversight Program, which oversees cleanup of properties with leaking USTs; and the Site Assessment and Mitigation Program, which oversees the Maher Program (described below) and the Voluntary Remedial Action Program.

Additional City programs have been enacted to address the potential to encounter hazardous materials in the soil at development sites and the safe handling of hazardous materials. They are contained in the San Francisco Health Code in Article 22A (Analyzing the Soil for Hazardous Waste, also known as the Maher Ordinance, formerly Article 20 of the Public Works Code ), Article 21 (Hazardous Materials), Article 21A (Risk Management Program), and Article 22 (Hazardous Waste Management).

### **Potential Contamination in the Project Corridor**

Because of the long history of heavy vehicular activity in the Project area, the soil in the medians and planter and tree boxes alongside Market and Mission streets may be contaminated with aerially deposited lead (ADL) from the exhaust of cars burning leaded gasoline. Elevated levels of ADL would be considered a potential health risk. In addition, paints containing lead may have been used on streetscape features within the operational public right-of-way, including Overhead Contact System support poles, streetlights, traffic signal poles, traffic lane striping, and other pavement markings. Debris from removal of these structures or soil excavated within the Project corridor may contain elevated concentrations of total or soluble lead that exceed limits established under Title 22 of the CCR, and require disposal in a Class I disposal site.

In addition to the potential presence of ADL, petroleum hydrocarbons, solvents, lubricants, and serpentine rock (which may contain naturally occurring asbestos) may also be present in soil in the Project area. Further, concrete, asphalt, and underlying baserock present along the Project corridor may contain asbestos. In addition, asbestos-containing materials may be present in building components of structures, such as UN and Hallidie plazas, along the Project corridor. The presence of ADL, lead paints, and asbestos in structures and streetscape features to be demolished, removed, or otherwise disturbed by the Proposed Project would be a potential health risk.

In addition, railroad ties and ballasts would be encountered during construction of some of the Proposed Project elements, including full replacement of existing Muni streetcar rail tracks to maintain state of good repair as well as minor adjustment to location of existing streetcar rail tracks at limited locations under Alternatives 1 and 2. It is anticipated that all ties encountered during construction are treated with creosote, which is used as a fungicide, insecticide, miticide, and sporicide to protect wood and is applied by pressure methods to wood products, primarily

utility poles and railroad ties. Wood treated with creosote would require disposal at a Class I disposal facility (on a landfill-by-landfill basis) or, more typically, a Class II disposal facility.<sup>60</sup>

Disposal of traffic striping material and asphalt coatings for removal or addition of striping within the operational public right-of-way (e.g., to color transit-only lanes, protected cycle track) could also result in impacts related to hazardous materials. Thermoplastic traffic striping material currently used by SFMTA is a solid powder which liquefies when heated during application and quickly solidifies again as it cools. Material Safety Data Sheets for the material indicate that it is lead-free and has no chronic health effects related to exposure, though it may cause skin, eye, and respiratory irritation, and may cause burns in its liquid form due to the heat used during application.<sup>61</sup> SFMTA also uses a non-toxic, water-based red asphalt<sup>62</sup> coating to demarcate transit-only lanes, and limited quantities of more traditional traffic paints for small areas such as curbs. Used in accordance with material specifications, the traffic striping material, asphalt coating, and paints would not be expected to pose a health risk to workers, the nearby public, or the environment.

Under the Proposed Project, the improper management of these hazardous materials would have the potential to result in releases of hazardous materials with potential impacts on human health and the environment.

Development requiring excavation within the operational public right-of-way is subject to Public Works permitting requirements, including applicable health and safety requirements of Public Works Code Article 2.4, Excavation in the Public Right-of-Way. Specifically, Section 2.4.53(d) of Public Works Code Article 2.4 states that excavation contractors are subject to all applicable hazardous material guidelines for disposal, handling, release, and treatment of hazardous material; site remediation; and worker safety and training.

San Francisco Health Code Article 22A requires an investigation of the potential presence of hazardous wastes that may be present in soil within historic fill areas at construction sites as a prerequisite for certain excavation and construction activities. Article 22A requires preparation of a site history report and a site assessment, as well as mitigation of any risks identified as a condition of approval for project construction. Approved amendments to Article 22A, which became effective on August 16, 2013, resulted in changes to requirements for projects that involve the disturbance of at least 50 cubic yards of soil within the designated areas defined by Article 22A. The amended Maher Ordinance expands the areas that will require SFDPH review to include properties/sites at which SFDPH determines that hazardous materials may be encountered during redevelopment/construction activities. The expanded criteria for inclusion pursuant to the Maher Ordinance include areas (1) zoned or used for industrial occupancy,

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<sup>60</sup> A Class II disposal facility is a landfill that is not authorized to accept hazardous waste.

<sup>61</sup> Ennis Paint Company, 2008 and 2007, MSDS for Coatings, Resins and Related Materials, White Thermoplastic Roadmarking Compound (revised March 14, 2008) and Lead Free Yellow Thermoplastic Roadmarking Compound (revised January 15, 2007). This document is available for public review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File 2011.0558E.

<sup>62</sup> Streetbond Corporation, MSDS for StreetbondCL Part A and Streetbond150 Part B, revised April 2014. Available at: <http://www.streetbond.com/?q=content/sb-150-tech-data#MSDS>, and <http://www.streetbond.com/?q=content/sb-cl-tech-data#MSDS>. Accessed January 15, 2015.

currently or historically as defined by Article 22A, (2) with current or former presence of hazardous substances or USTs, (3) located within 100 feet of USTs, and (4) located within 150 feet of elevated freeways. According to the September 2014 Expanded Maher Area map, portions of the Project corridor are located within the Maher Area and are subject to the Article 22A requirements.<sup>63</sup>

Construction projects, particularly excavation, grading, and demolition activities, generate particles that can remain airborne, affect respiratory function, and contribute to symptoms from respiratory diseases such as asthma. Children, the elderly, and people with preexisting respiratory symptoms are most susceptible to health effects from airborne particles. Adopted in 2008, San Francisco Health Code Article 22B, Construction Dust Requirements, is intended to protect the public from exposure to construction dust by requiring Dust Control Plans with enhanced monitoring and control measures for large construction projects in San Francisco. Article 22B applies to all construction projects more than 0.5 acre in size that are within 1,000 feet of a sensitive receptor (e.g., a residence, school, childcare center, hospital or other healthcare facility, or group living quarters).

Because the Proposed Project would affect more than 1 acre and excavated areas and materials would be exposed for a temporary period, compliance with NPDES permits related to construction activities as administered by the Regional Water Board would further reduce impacts from hazardous materials used during construction. Under these regulations, the Project Sponsor must obtain a general permit through the NPDES Stormwater Program. The general permit requires the implementation of BMPs for hazardous material storage and soil stockpiles, inspections, maintenance, training of employees, and containment of releases to prevent runoff of hazardous materials into existing stormwater collection systems or waterways.

In addition, all excavation in the operational public right-of-way, regardless of amount, must comply with permit requirements for covering excavation sites, hazardous material handling, removal of excavated material at the end of each work day, and requirements that any fill material, sand, aggregate, or asphalt be stored at the site in covered, locked containers (Public Works Code Article 2, Section 2.4.53(c) et seq.). Although designed for stormwater protection, these permit requirements would also reduce potential impacts related to accidental releases of hazardous materials during construction.

Based on the analysis above, the construction and operation of the Proposed Project, including the redesign and rebuilding of UN and Hallidie plazas, would not result in significant hazardous materials emissions or the handling of hazardous materials during the construction or operational phases, with compliance with the Maher Ordinance.

This topic will not be analyzed further in the EIR.

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<sup>63</sup> San Francisco Planning Department. "Expanded Maher Area." September 2014. Available at: [http://www.sf-planning.org/ftp/files/publications\\_reports/library\\_of\\_cartography/Maher%20Map.pdf](http://www.sf-planning.org/ftp/files/publications_reports/library_of_cartography/Maher%20Map.pdf). Accessed on March 3, 2015.

**Impact HZ-2: The Proposed Project would not substantially emit hazardous emissions or acutely hazardous materials near schools. (Less than Significant)**

Hazardous materials emissions near schools are a particular concern because children, due to their size and stage of development, are more susceptible to many potential health risks from hazardous materials. There are a number of schools within the vicinity of the Project corridor. However, as described in *Impact HZ-1*, the construction and operation of the Proposed Project, including the redesign and rebuilding of UN and Hallidie plazas, would not result in significant hazardous materials emissions or the handling of hazardous materials during the construction or operational phases, with compliance with the Maher Ordinance. Therefore, for each alternative, including the redesign and rebuilding of UN and Hallidie plazas, the Proposed Project would have a less-than-significant impact related to hazardous emissions or acutely hazardous materials near schools with compliance with the Maher Ordinance.

This topic will not be analyzed further in the EIR.

**Impact HZ-3: The Proposed Project would not create a significant hazard to the public or the environment by the location on a hazardous materials site. (Less than Significant)**

The Hazardous Waste and Substances Sites (Cortese) list, compiled pursuant to Government Code Section 65962.5, contains names and addresses of sites that have been identified as being contaminated from the release of hazardous materials, including industrial sites, waste disposal facilities, and sites containing leaking USTs.

The Cortese list of sites within the City includes a large number of sites, but the vast majority no longer pose a potential risk to human health and the environment. For example, there are 2,267 leaking UST (LUST) sites in San Francisco that are identified on the SWRCB's Geotracker database. Of the 2,267 LUST sites, 2,179 cases have been closed, indicating that investigation and remediation of the sites has been completed.<sup>64</sup> Of the 10 Cortese list sites overseen by DTSC, seven remain open/active investigation sites.<sup>65</sup>

Without remediation, contamination at a Cortese list site may have the potential to migrate via groundwater to nearby properties. Contamination that migrates in this manner generally affects soils and groundwater at the depth of groundwater. If construction workers were to excavate to the depth of groundwater during construction of the Proposed Project and soils and groundwater were impacted from reported hazardous material sites, the contaminated soil and groundwater could pose a risk to human health and the environment.

All of the various Proposed Project elements would be implemented on public land and a majority of the various Proposed Project elements would be implemented within the operational public right-of-way, which is largely under the jurisdiction of Public Works and SFMTA. Consequently, the Proposed Project would not be located on or directly affect industrial parcels

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<sup>64</sup> State Water Resources Control Board, Geotracker Database. San Francisco Sites. Available at: [www.geotracker.waterboards.ca.gov](http://www.geotracker.waterboards.ca.gov). Accessed January 15, 2015.

<sup>65</sup> Department of Toxic Substances Control, Envirostor Database, San Francisco Sites. Available at: <http://www.envirostor.dtsc.ca.gov/public>. Accessed on January 16, 2015.



or other reported hazardous materials sites. The Proposed Project would include new construction, although much of it would involve surface improvements. Activities with the greatest potential for excavation include relocation of the Path of Gold Light Standards, which have foundations approximately 12 feet deep, as well as foundation work at UN and Hallidie plazas. Foundations for the construction of structures at UN Plaza could include foundation work that would require excavation for foundations to a depth of up to 80 feet below street level at UN Plaza and 110 feet below street level at Hallidie Plaza. Based on the anticipated depth to groundwater within the Project corridor, which is 10 to 30 feet below ground surface, groundwater could be encountered during construction of the Proposed Project. Small seepage may occur but dewatering for groundwater removal alone is not anticipated (however, dewatering still would be needed to remove rainfall that collected in any excavation pit). Any groundwater encountered during construction is subject to the requirements of the City's Industrial Waste Ordinance (Ordinance Number 199-77), requiring that groundwater meet specified water quality standards before it may be discharged into the sewer system. Because groundwater is not anticipated to be encountered during construction, contamination that could migrate from a nearby site would not affect excavation activities during construction of the Proposed Project.

Other existing laws, regulations, and ordinances would protect construction workers and the general public in the event that hazardous materials from nearby hazardous material sites are encountered during construction of the Proposed Project. As described in *Impact HZ-1*, above, Article 22A of the San Francisco Health Code requires a hazardous materials investigation in areas where significant excavation in potentially contaminated fill materials is proposed. Permit provisions in Article 2, Section 4 of the Public Works Code regarding excavation in public rights-of-way requires compliance with all existing hazardous materials guidelines for disposal, handling, release, and treatment of hazardous material; site remediation; and worker safety and training. Public Works is authorized to require emergency remediation if hazardous materials are encountered at an excavation site within a public right-of-way (Public Works Code Article 2.4 Section 2.4.73). In addition, if contaminated soils are encountered during construction of the Proposed Project, compliance with the Maher Ordinance would ensure that contractor(s) would follow protocols deemed appropriate by SFDPH to avoid or minimize potential exposure.

Based on the analysis above, the Proposed Project, including redesign and rebuilding of UN and Hallidie plazas, would have a less-than-significant construction-related impact with respect to contact with contaminated soils from hazardous material sites with compliance with the Maher Ordinance and compliance with Public Works permit requirements for excavation within the right-of-way.

During operation of the Proposed Project, no potential exposure to contaminated soils from hazardous material sites would be anticipated. Therefore, for each alternative, the Proposed Project would have a less-than-significant operational impact with respect to contact with contaminated soils from hazardous material sites.

This topic will not be analyzed further in the EIR.

**Impact HZ-4: The Proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving fires, and would not interfere with the implementation of an emergency response plan. (Less than Significant)**

Implementation of the existing hazardous material requirements described in *Impact HZ-1* would require the safe use, storage, and disposal of flammable materials during construction of the Proposed Project, which would minimize potential fire risks. In addition, development requiring excavation within the operational public right-of-way is subject to Public Works permitting requirements. Provisions in the Public Works Code regarding excavation (Article 2.4, Section 2.4.52) prohibit excavations greater than 1,200 feet in length without prior written approval of the Director of Public Works, in part to ensure that construction projects do not create significant barriers to emergency response. Public Works may also add conditions to excavation permits in order to protect public health and safety (Article 2.4, Section 2.4.20). As part of right-of-way permit review, Public Works provides notice to other City agencies, such as SFFD. The San Francisco Building and Fire Codes ensure fire safety in San Francisco. In addition, the San Francisco Fire Department (as well as San Francisco Department of Building Inspection) reviews final building plans to ensure conformance with these codes. As applicable, the construction of a new pavilion at UN and/or Hallidie plazas or a visitor center at Hallidie Plaza would conform to these fire safety standards. Furthermore, construction of the Proposed Project would be phased so that each geographic phase would consist of multiple blocks along the length of the Project corridor. Specifically, under Alternatives 1 and 2, construction along Market Street is anticipated to occur in four or five geographic phases over a 3- to 5-year period. Under Alternative 3, construction along Mission Street is anticipated to occur over a shorter period (1 to 2 years) than on Market Street because of fewer construction activities. Mission Street construction would occur after construction along Market Street is completed. During each sub-phase of construction, at least one lane would remain open at all times.

During operation of the Proposed Project, adherence to the Public Works Code and Public Works permit and coordination requirements would ensure that the Proposed Project would not expose persons or structures to significant impacts from increased fire risks or interfere with emergency response. The routine use of flammable materials or potential interference with emergency response is not anticipated during operation of the Proposed Project. In addition, the Proposed Project would not interfere with implementation of an emergency response plan.

Based on the above analysis, the Proposed Project, including redesign and rebuilding of UN and Hallidie plazas, would have a less-than-significant impact regarding the exposure of people or structures to a significant risk of loss, injury, or death involving fires, and the interference with the implementation of an emergency response plan.

This topic will not be analyzed further in the EIR.

## Cumulative Impacts

**Impact C-HZ-1: The Proposed Project, in combination with other past, present, and reasonably foreseeable projects in the vicinity of the Project corridor, would not considerably contribute cumulative impacts related to hazards and hazardous materials. (Less than Significant)**

The geographic context for cumulative hazards and hazardous materials impacts are typically site-specific. The impacts of each reasonably foreseeable project would be specific to the respective site and its users and would not be common or contribute to (or shared with, in an additive sense) the impacts on other sites. As described in the discussion for *Impact HZ-1* through *Impact HZ-4*, with compliance with the Maher Ordinance, which requires contractor(s) to test hazardous soils, construction of the Proposed Project would have a less-than-significant impact related to a reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. In addition, with compliance with the Maher Ordinance, the Proposed Project would have a less-than-significant impact related to hazardous emissions or acutely hazardous materials near schools and contact with contaminated soils from hazardous material sites. Implementation of the existing hazardous material requirements would require the safe use, storage, and disposal of flammable materials during construction of the Proposed Project, which would minimize potential fire risks. Therefore, the Proposed Project, in combination with other past, present, and reasonably foreseeable projects, would not result in a cumulatively considerable hazards and hazardous materials impact.

This topic will not be analyzed further in the EIR.

## E.17. Mineral and Energy Resources

<b>Topics:</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>	<b>Not Applicable</b>
<b>17. MINERAL AND ENERGY RESOURCES— Would the project:</b>					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

All land in San Francisco, including the Project corridor, is an urbanized area and is designated as Mineral Resource Zone 4 (MRZ-4) by the California Division of Mines and Geology under the Surface Mining and Reclamation Act of 1975.<sup>66</sup> This designation means that land in San Francisco is not located within a designated area of significant mineral deposits. Further, there are no designated mineral resource recovery sites within San Francisco. Therefore, Topics 17a and 17b are not applicable to the Proposed Project and these topics will not be analyzed in the EIR.

**Impact ME-1: The Proposed Project would not encourage activities that result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner. (Less than Significant)**

Construction of any alternative would require increased fuel, water, and energy use for the construction vehicles and equipment, and water for construction site activities, such as dust control and equipment wash downs. Specifically, electricity would be used to operate construction equipment such as hand tools and lighting. Construction vehicles and equipment would primarily use diesel fuel, and construction workers would use gasoline, diesel, and electricity to travel to and from the Project corridor. However, the amounts of fuel and energy used during construction would be typical of public works projects and would not be expected to be used in a wasteful manner. As described under *Impact UT-3* in Topic 11, *Utilities and Service Systems*, non-potable water is required to be used for construction dust control pursuant to Article 21 of the Public Works Code. The Proposed Project also would be required to comply with the Resource Efficiency and Green Building Ordinance and Construction Recycled Content Ordinance, which indirectly reduces energy use by reducing the need to extract, transport, and manufacture new construction materials.

In addition, during operation of the Proposed Project, energy and fuel would be used more efficiently than under existing conditions because the Proposed Project would enhance transit capacity and carry more passengers more efficiently within the Project corridor. The Proposed Project would not generate new vehicle trips. The Proposed Project objectives include improving pedestrian safety, comfort, and mobility along and across Market Street from Octavia Street to The Embarcadero, as well as improving safety, comfort, and mobility of bicyclists along the length of the Project corridor. In addition, the Proposed Project was planned with the goal of reducing surface public transit travel time to complete service routes by minimizing idle time caused by congestion and intersection wait times, which increase energy and fuel use. Furthermore, by providing transit-only lanes under all three alternatives for the Proposed Project and raised and/or protected cycle tracks under Design Option B and Alternative 3, the Proposed Project would separate transit and bicycles from automobile traffic, thereby improving surface transit speed and reliability. Although the number of transit vehicles and the transit routes would remain the same under the Proposed Project, the improved transit performance (e.g., improved speed and reliability) and experience provided by the Proposed Project is anticipated to attract new riders to public transit along the Project corridor. Additionally, the Proposed Project would include improvements in bicycle safety, bicycle traffic capacity, bicycle comfort and mobility

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<sup>66</sup> California Division of Mines and Geology. Open File Report 96 03 and Special Report 146, Parts I and II, 1986. Available at: [ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/OFR\\_96-03/OFR\\_96-03\\_Text.pdf](ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/OFR_96-03/OFR_96-03_Text.pdf). Accessed on June 4, 2015.

along the length of the Project corridor. In addition, the rebuilding and redesign of UN and Hallidie plazas would not result in the use of large amounts of fuel or energy. Consequently, the Proposed Project, including redesign and rebuilding of UN and Hallidie plazas, would have a less-than-significant impact on regional energy consumption.

This topic will not be analyzed further in the EIR.

## **Cumulative Impacts**

**Impact C-ME-1: The Proposed Project, in combination with other past, present, and reasonably foreseeable projects in the vicinity of the Project corridor, would not considerably contribute to cumulative impacts related to energy resources. (Less than Significant)**

The geographic context for cumulative energy resources impacts is typically the service area of the energy providers. The Proposed Project would occur in this larger context that includes other projects and the construction of new buildings throughout much of the Project corridor, some of which will replace existing structures with new residential, commercial, retail, and hotel uses. The demand for energy within the service area of the energy providers will change in the future as development occurs in accordance with the General Plan and under the other projects listed in Section A.1 above.

Developments that may result in energy impacts typically use energy resources during construction or operation in a wasteful manner. There are development projects proposed throughout the service area of the energy providers, each of which would contribute to changes to the demand for energy and would in some instances result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner.

As described in *Impact ME-1*, energy resources used during construction of the Proposed Project would not be used in a wasteful manner. During operation of the Proposed Project, energy and fuel would be used more efficiently than under existing conditions because the Proposed Project would enhance transit capacity and carry more passengers more efficiently within the Project corridor. In addition, the Proposed Project was planned with the goal of reducing surface public transit travel time to complete service routes by minimizing idle time caused by congestion and intersection wait times, which increase energy and fuel use. Therefore, the Proposed Project, in combination with other past, present, and reasonably foreseeable projects, would not result in a cumulatively considerable energy impact.

This topic will not be analyzed further in the EIR.

## E.18. Agricultural Resources

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>18. AGRICULTURE AND FOREST RESOURCES: —Would the project</b>					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)) or timberland (as defined by Public Resources Code Section 4526)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

A majority of the various Proposed Project elements would be implemented within the operational public right-of-way in San Francisco, an urban area. According to the California Department of Conservation's Farmland Mapping and Monitoring Program, land within the City and County of San Francisco is categorized as "Urban and Built-up Land," which is defined as "... land [that] is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes."<sup>67</sup> Additionally, no land within the City is zoned for agricultural or forest uses.<sup>68</sup> Because the operational public right-of-way does not contain agricultural or forest uses and no proposed locations are zoned for such uses, under each alternative, the Proposed Project would not convert any land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, conflict with any existing agricultural zoning or a Williamson Act

<sup>67</sup> California Department of Conservation, Farmland Mapping and Monitoring Program. Bay Area Region Important Farmland 2004 and Urbanization 1984 – 2004. Available at: [ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/statewide/2002/fmmp2002\\_11\\_17.pdf](ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/statewide/2002/fmmp2002_11_17.pdf). Accessed on February 8, 2014.

<sup>68</sup> City and County of San Francisco. San Francisco Planning Code, as amended, Section 201, Classes of Use Districts.

contract, or involve any changes to the environment that could result in the conversion of farmland to a non-agricultural use. The Proposed Project also would not be located within any known forest land or timberland areas (as defined by Public Resources Code Sections 12220(g) and 4526, respectively). Thus, under each alternative, the Proposed Project would not result in the loss of forest land or timberland or in the conversion of forest land to non-forest use. Therefore, Topics 18a through 18e are not applicable to the Proposed Project and these topics will not be analyzed in the EIR.

## E.19. Mandatory Findings of Significance

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>19. MANDATORY FINDINGS OF SIGNIFICANCE—Would the project:</b>					
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have impacts that would be individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The following topics have been fully analyzed in this Initial Study. The Proposed Project has been determined to have less-than-significant impacts or no impacts regarding these topics and would not have a considerable contribution to significant cumulative impacts: land use and land use planning, aesthetics, population and housing, greenhouse gas emissions, shadow, recreation, utilities and service systems, public services (including police protection, fire protection, schools, parks, and other services), geology and soils, hydrology and water quality, hazards and hazardous materials, mineral and energy resources, and agricultural and forest resources. The construction and operation of the Proposed Project would not cause degradation in the quality of the environment in the aforementioned topic areas.

As described in Topic 13, *Biological Resources*, the Proposed Project would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. As described in Topic 4, *Cultural Resources*, the Proposed Project could result in a substantial adverse change in the significance of contributors to a historic district. Based on the analysis in this Initial Study, the Proposed Project could result in significant impacts related to the following topics: cultural resources, transportation and circulation, noise, air quality, and wind. The information in the technical reports prepared for each topic, if applicable, will be summarized in the EIR, and the potential direct and indirect impacts will be analyzed in the EIR. The EIR also will address the cumulative impacts related to cultural resources, transportation and circulation, noise, air quality, and wind, and evaluate the Proposed Project's contribution to potentially significant cumulative impacts.

As described in Topic 8, *Greenhouse Gas Emissions*, the Proposed Project's GHG emissions would not conflict with state, regional, and local GHG reduction plans and regulations, and the Proposed Project's contribution to GHG emissions would not be cumulatively considerable. Thus, the Proposed Project would not result in GHG emissions that would cause substantial adverse effects on human beings. As described in Topic 12, *Public Services*, improvements to and redesign of existing transportation, streetscape, and utility infrastructure would not generally result in substantial adverse physical impacts associated with new or physically altered governmental facilities. As such, the Proposed Project's impacts related to public services would not cause substantial adverse effects on human beings. As described in Topic 16, *Hazards and Hazardous Materials*, implementation of the existing hazardous material requirements described in *Impact HZ-1* would require the safe use, storage, and disposal of flammable materials during construction of the Proposed Project, which would minimize potential fire risks. During operation of the Proposed Project, adherence to the Public Works Code and Public Works permit and coordination requirements would ensure that the Proposed Project would not expose persons or structures to significant impacts from increased fire risks or interfere with emergency response. Thus, the Proposed Project would not result in hazards or hazardous materials that would cause substantial adverse effects on human beings. The Proposed Project could result in substantial adverse effects on human beings related to the following topics: transportation and circulation, noise, air quality, and wind based on the analysis in this Initial Study. The potential direct and indirect impacts on human beings related to these topics will be analyzed in the EIR.

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## **F. MITIGATION MEASURES AND IMPROVEMENT MEASURES**

For most topics analyzed in this Initial Study, the Proposed Project would have either no impact or less-than-significant impacts without mitigation. The following mitigation measure has been identified to address a potentially significant impact on archaeological resources resulting from



construction of the Proposed Project. Implementation of this mitigation measure would reduce potential impacts to archaeological resources to a less-than-significant level.

#### **Mitigation Measure M-CP-1: Archeological Resources**

The Project Sponsor shall distribute the Planning Department archeological resource "ALERT sheet" to the Project prime contractor; to any Project subcontractor (including demolition, excavation, grading, foundation, pile driving contractors); and utilities involved in soils disturbing activities within the Project site. Prior to any soils disturbing activities being undertaken, each contractor shall be responsible for ensuring that the ALERT sheet is circulated to all field personnel, including machine operators, field crew, pile drivers, and supervisory personnel. The Project Sponsor shall provide the Environmental Review Officer (ERO) with a signed affidavit from the responsible parties (prime contractor, subcontractor(s), and utilities firm) to the ERO confirming that all field personnel have received copies of the ALERT Sheet.

Should any indication of an archeological resource be encountered during any soils disturbing activity, the Project Head Foreman and/or Project Sponsor shall immediately notify the ERO and shall immediately suspend any soils disturbing activities in the vicinity of the discovery until the ERO has determined what additional measures should be undertaken.

If the ERO determines that an archeological resource may be present within the Project site, the Project Sponsor shall retain the services of an archaeological consultant from the pool of qualified archaeological consultants maintained by the Planning Department archaeologist. The archeological consultant shall advise the ERO as to whether the discovery is an archeological resource, retains sufficient integrity, and is of potential scientific/historical/cultural significance. If an archeological resource is present, the archeological consultant shall identify and evaluate the archeological resource. The archeological consultant shall make a recommendation as to what action, if any, is warranted. Based on this information, the ERO may require specific additional measures to be implemented by the Project Sponsor.

Measures might further include: preservation in situ of the archeological resource; an archaeological monitoring program; or an archeological testing program. If an archeological monitoring program or archeological testing program is required, it shall be consistent with the Environmental Planning Division guidelines for such programs. The ERO may also require that the Project Sponsor immediately implement a site security program if the archeological resource is at risk from vandalism, looting, or other damaging actions.

The project archeological consultant shall submit to the ERO a Final Archeological Resources Report (FARR) that evaluates the historical significance of any discovered archeological resource and describes the archeological and historical research methods employed in the archeological monitoring/data recovery program(s) undertaken. Information that may put at risk any archeological resource shall be provided in a separate removable insert within the final report.

Copies of the Draft FARR shall be sent to the ERO for review and approval. Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archaeological Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and the ERO shall

receive a copy of the transmittal of the FARR to the NWIC. The Environmental Planning Division of the Planning Department shall receive one bound copy, one unbound copy, and three CDs containing an unlocked, searchable PDF of the FARR, along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest or interpretive value, the ERO may require a different final report content, format, and distribution than that presented above.

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## **G. PUBLIC NOTICE AND COMMENT**

The Planning Department prepared a Notice of Preparation of an Environmental Impact Report and Notice of Public Scoping (NOP) for the Proposed Project in January 2015. Notice of Availability (NOA) of the NOP was published in a newspaper of general circulation on January 14, 2015. A NOA was mailed to a mailing list of approximately 6,500 addresses, including other public agencies and interested parties on January 13, 2015. Copies of the full NOP were mailed to public agencies and interested parties on January 13, 2015. Copies of the full NOP were placed in the Main Library in the San Francisco Public Library system on January 14, 2015. One public scoping meeting was held on February 4, 2015, beginning at 6:00 p.m., at which oral comments from the public were received and transcribed. Written comments regarding the scope of the environmental review for the Proposed Project were accepted until 5:00 p.m. on February 13, 2015.

At the public scoping meeting, no persons offered oral comments. Eight written comment letters were provided identifying a number of concerns presented by the current three alternatives for the Proposed Project. The issue with the most comments focused on vehicular access; specifically, entering and exiting private driveways and pedestrian drop-offs/loading and unloading at business entrances. This is followed by concerns over traffic congestion at the intersections with Market Street. There is concern over bicycle interaction and safety in conjunction with vehicles, transit and pedestrians. Several comments expressed concerns regarding access to Bay Area Rapid Transit (BART) entrances. There were no comments on the proposed plans for vehicle parking or plazas.

The environmental issues presented during the public scoping period have been taken into account during analyses prepared for this Initial Study, and will be considered in the analyses prepared for the EIR.

## H. DETERMINATION

On the basis of this Initial Study:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.

DATE March 30, 2016



Sarah B. Jones  
Environmental Review Officer  
for  
John Rahaim  
Director of Planning

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## Glossary

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# BETTER MARKET STREET PROJECT INITIAL STUDY

## GLOSSARY

Complete Street	Complete streets are streets planned, designed, operated and maintained to support the mobility of individuals of all abilities and ages and to provide safe and efficient access for all users regardless of the form of transportation, including walking, bicycling, riding transit, and operating automobile for commercial or private purposes.
Contra-flow Bicycle Lane	Contra-flow bicycle lanes are bicycle lanes designed to allow bicyclists to ride in the opposite direction of motor vehicle traffic. They convert a one-way traffic street into a two-way street: one direction for motor vehicles and bikes, and the other for bikes only.
Cycle track	<p>Per the National Association of City Transportation Officials (NACTO), a cycle track is an exclusive bike facility that combines the user experience of a separated path with the on-street infrastructure of a conventional bike lane. A cycle track is physically separated from motor traffic and distinct from the sidewalk. Cycle tracks have different forms but all share common elements—they provide space that is intended to be exclusively or primarily used for bicycles, and are separated from motor vehicle travel lanes, parking lanes, and sidewalks. Cycle tracks may be one-way or two-way, and may be at street level, at sidewalk level, or at an intermediate level. The cycle track definitions are provided below.</p> <p><i>Protected Buffered Cycle Track:</i> Protected cycle tracks are bikeways that are at street level and use a variety of methods for physical protection from passing traffic. A protected cycle track may be combined with a parking lane or other barrier between the cycle track and the motor vehicle travel lane. A protected cycle track can be one-way or two-way. One-way cycle tracks allow bicycle movement in one direction on one side of the road. Two-way cycle tracks allow bicycle movement in both directions on one side of the road.</p> <p><i>Raised Cycle Track:</i> Raised cycle tracks are bicycle facilities that are vertically separated from motor vehicle traffic. Many are paired with a furnishing zone between the cycle track and motor vehicle travel lane and/or pedestrian area. A raised cycle track may allow for one-way or two-way travel by bicyclists.</p>

Floating parking lane	A single parking lane placed in the buffer between a curbside cycle track and the vehicular travel lane. Alternative 3 would place a floating parking lane on one side of the street per block, with the parking lane alternating between the north and south sides of Mission Street.
Inbound	Transit traveling in the eastbound direction within the proposed Project corridor.
Outbound	Transit traveling in the westbound direction within the proposed Project corridor.
Overhead Contact System	Part of Muni's trolley bus overhead electric wire system for powering buses, in combination with the traction power (also see Traction Power below). Consists of copper-alloy wires along the transit route that provides power to the trolleybuses or streetcars, guy wires stabilizing the copper-alloy wires, and poles that hold up the guy wires.
Path of Gold Light Standards	Light poles with a three-part top, each containing a light globe. The Path of Gold Light Standards is a designated historic landmark identified under Article 10 of the Planning Code (Landmark No. 200) and is located between 1 Market Street and 2490 Market Street.
Safe hit posts	Physical barriers that defer vehicles from infringing upon painted safety zones and bicycle lanes (e.g., plastic traffic posts).
Sharrows	A sharrow is a pavement marking in a travel lane to indicate that the lane is shared with bicyclists.
Streetlife Zones	Streetlife Zones would be located along the entire length of Market Street adjacent to the sidewalk through-zone and the curb. Streetlife Zones would concentrate the objects currently located on, or proposed for, the sidewalk, including benches, trees, bicycle racks, and lighting.
Streetlife Hubs	Streetlife Hubs would be located in areas where the sidewalk is wider and near existing active uses, such as retail shops, in which more prominent streetscape elements could be featured, including kiosks, cafés, public art, or interactive installations.
Traction Power	Part of Muni's trolley bus overhead electric wire system for powering buses, in combination with the Overhead Contact System (see Overhead Contact System above).