THIS PRINT COVERS CALENDAR ITEM NO. : 11

SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY

DIVISION: Capital Programs & Construction

BRIEF DESCRIPTION:

Approving the Van Ness Avenue Bus Rapid Transit (BRT) Project, analyzed as the Locally Preferred Alternative in the Final EIS/EIR, and adopting Findings under the California Environmental Quality Act, including a Statement of Overriding Considerations, and a Mitigation Monitoring and Reporting Plan.

SUMMARY:

- On May 15, 2012, SFMTA Board of Directors selected the Center-running BRT with Right Side Boarding Platforms Single Median and Limited Left Turns as the Locally Preferred Alternative (LPA) for the Van Ness Avenue BRT Project (Project), to be analyzed in the Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR).
- The Final EIS/EIR was distributed on July 5, 2013 and notices were sent to the State Clearinghouse and Federal Register.
- The San Francisco County Transportation Authority (SFCTA) certified the Final EIS/EIR on September 10, 2013.

ENCLOSURES:
1. SFMTAB Resolution
2. Van Ness Avenue BRT CEQA Findings
3. Mitigation Monitoring and Reporting Program for the Van Ness Avenue BRT Project

APPROVALS: **DATE**

DIRECTOR _____ 9/10/13

SECRETARY _____ 9/10/13

ASSIGNED SFMTAB CALENDAR DATE: September 17, 2013

PURPOSE

The purpose of this calendar item is for the SFMTA Board to approve the Project analyzed as the LPA in the Final EIS/EIR for the Project, and adopt findings under CEQA.

GOAL

The Project would assist in meeting or furthering the following goals of the SFMTA Strategic Plan:

Goal 1: Create a safer transportation experience for everyone
- *Objective 1.1*: Improve security for transportation system users
- *Objective 1.*3: Improve the safety of the transportation system

Goal 2: Make transit, walking, bicycling, taxi, ridesharing and carsharing the most attractive and preferred means of travel
- *Objective 2.1*: Improve customer service & communications
- *Objective 2.2*: Improve transit performance
- *Objective 2.3*: Increase use of all non-private auto modes

Goal 3: Improve the environment and quality of life in San Francisco
- *Objective 3.1*: Reduce the Agency's and the transportation system's resource consumption, emissions, waste, and noise
- *Objective 3.2*: Increase the transportation system's positive impact to the economy
- *Objective 3.3*: Allocate capital resources effectively
- *Objective 3.4*: Deliver services efficiently
- *Objective 3.5*: Reduce capital and operating structural deficits

DESCRIPTION

The Project is a large scale plan to implement "full-feature" bus rapid transit (BRT) on one of the busiest transit routes that is also a major "north-south" transportation corridor for all transportation modes in San Francisco. Once completed, it will be an integral part of the Muni "Rapid" network of transit service proposed in 2008 that will gradually be implemented on all major corridors in San Francisco.

As recommended under the California Environmental Quality Act (CEQA) and the CEQA Guidelines (CEQA Section 21083.7; CEQA Guidelines Section 15222), there should be coordination of the preparation of environmental review documents whenever both a federal Environmental Impact Statement (EIS) and an Environmental Impact Report (EIR) under CEQA are required. The SFCTA, in cooperation with the SFMTA, has prepared a joint EIS/EIR for the proposed project. Prior to publishing the final EIS for the project, federal regulations require the selection of an LPA.

Once they have completed an alternatives analysis and selected an LPA, project sponsors request FTA approval to begin preliminary engineering (PE). During PE, the project sponsor refines the definition of the LPA's scope, schedule, and budget sufficient to complete the federal environmental review process; that is, to determine the environmental, transportation cultural, and social impacts of the proposed project and to develop (and commit to the implementation of) strategies for mitigating them.

After reviewing four alternatives as presented in the draft EIS/EIR, staff recommended selection "The Center-running BRT with Right Side Boarding Platforms/Single Median and Limited Left Turns" as the LPA. The LPA combines elements of Alternatives 3 and 4 of the Draft EIS/EIR and was further analyzed in the Final EIS/EIR.

On May 15, 2012, the SFMTA Board of Directors adopted Resolution No. 12-070, which selected the Center-running BRT with Right Side Boarding Platforms Single Median and Limited Left Turns as the LPA for the Van Ness Avenue BRT Project to be analyzed in the final EIS/EIR.

Under this alignment of the Project, BRT lanes would flank the center median except at stations where the BRT vehicles would transition to the center of the roadway and be protected by right side boarding platforms. This alignment would also eliminate all left turns from Van Ness Avenue between Mission and Lombard streets, with the exception of a two-lane left turn onto Broadway from southbound Van Ness, in order to gain the most transit travel time benefits.

Staff believes this to be the best solution to further the identified goals of the project to ensure faster service and improved reliability, while also meeting specific needs regarding fleet flexibility, operations flexibility and continuation toward a zero emission fleet.

Background and Previous SFMTA Actions
Several past actions and studies by SFMTA and other government agencies over the past 25 years have led to recommending the proposed project for adoption.

BRT Elements of the Staff Recommended Locally Preferred Alternative
The proposed Project would consist of the following:

- Semi-exclusive center-running bus lanes with passenger platforms designed for use by new low-floor BRT hybrid buses and low floor trolley coaches that load from the right side
- Increased stop spacing: reconfigured and reduced number of stops that are enhanced to become "stations." (15 northbound / 14 southbound stops – reduced to nine northbound / nine southbound stations)
- Transit signal priority, replacement of traffic signal system, replacement of streetlights / poles, and relocation of electric overhead wires and power supply for use by trolley coach vehicles
- The retaining of a substantial portion of the existing median and greens pace
- Branding of the project to identify its service within SFMTA Rapid Services Network

Performance
The Project would be expected to provide significant improvements in transit performance in the Van Ness and Mission Street corridors.

- Approximately 30 percent faster run time on Van Ness Avenue between Mission Street and Lombard Street (15 minutes with project vs. 21 minutes today)
- Approximately a 25 percent increase in passenger capacity: Route 47 switch from 40-foot buses to 60-foot buses; both Route 47 and 49 to operate at 7.5 minute frequencies
- An estimated 60 percent increase in passenger levels (38,000 in 2007 vs. 61,000 in 2035)

Project Milestones and Schedule
A tentative Project schedule and milestones are shown below. Efforts will be made to condense the design and construction phases.

- March 2013 -- Began Conceptual Engineering (CE)
- September 2013 -- Final EIS/EIR
- September 2013 -- Federal Record of Decision (ROD)/Notice of Determination
- April 2014 -- 30 percent design / engineering
- Summer 2015 --100 percent design /engineering complete
- Winter 2015 -- Construction begins
- Spring 2015 -- New vehicles begin to arrive
- Winter 2017 -- Construction complete
- Spring 2018 -- Revenue service begins

ALTERNATIVES CONSIDERED

The Van Ness BRT environmental review analyzed four alternatives.

- Alternative 1: "No Build"
- Alternative 2: Side Running BRT with Right Side Boarding from sidewalk bulbouts
- Alternative 3: Center Running BRT with Right Side Boarding from platform islands located adjacent to the exclusive bus lanes
- Alternative 4: Center Running BRT with Right and Left side boarding from platform islands located adjacent to the exclusive bus lanes
- LPA: Center-running BRT with Right Side Boarding Platforms Single Median and Limited Left Turns

The two center running Alternatives (3 and 4) also included a design option that eliminated all left turns between Mission and Lombard streets except for a double left turn lane from southbound Van Ness onto Broadway.

FUNDING IMPACT

The estimated cost of the Core BRT project (bus lanes/stations and platforms/landscaping) is approximately $125,000,000. Funding for the project will come from the following sources:

- $75,000,000 – Federal Transit Administration "Small Starts" program funds
- $36,000,000 – San Francisco – Prop K sales tax
- $14,000,000 – Other local, regional and State funding sources

In addition there are a number of infrastructure upgrade projects running in parallel with the Van Ness BRT project. These projects will rebuild the aging infrastructure along the Van Ness Avenue corridor and have funding streams independent of those for the Van Ness BRT:

- $20,700,000 – Pole Replacement Project - Van Ness Avenue is equipped with an Overhead Contact System (OCS) to supply power to transit vehicles. The system is supported by 277 ornamental concrete poles and steel poles, most of which also serve support streetlight luminaries. The majority of the poles were built in 1915 and are in various stages of structural disrepair. This project is fully funded through Federal Formula funds and is matched by local match.
- $20,000,000 – SF*go* (Transit Signal Modernization and Upgrade) - SF*go* is a branding name for a project to modernize and improve the traffic signal system in San Francisco. The tools that comprise SF*go* include advanced traffic signal controllers, traffic cameras, video detection hardware, changeable message sign hardware, advanced signal operations software, etc. that are linked together via a modernized communications network. This amount represents the cost of upgrading the signal systems along Van Ness Ave. This project is fully funded through Federal CMAQ and local matching funds.

OTHER APPROVALS RECEIVED OR STILL REQUIRED

The SFCTA Board certified the final EIS/EIR for the Van Ness BRT project and approved the LPA on September 10, 2013.

Because Van Ness Avenue is a State highway, the California Department of Transportation (Caltrans) is required to conduct a review process that is performed in parallel to the environmental review process. This activity results in production of a document known as a combined Project Study Report/Project Report (PSR/PR). Caltrans approved the PSR/PR for this project prior to staff finalizing the EIS/EIR for the project. The FTA must issue the ROD and a Notice of Determination before SFMTA may begin the detailed design phase of the Project.

Additional local, Caltrans, and FTA approvals will be required to approve design and begin construction of the Project.

RECOMMENDATION

Staff recommends that the SFMTA Board of Directors approve the Project, analyzed as the LPA in the Final EIS/EIR, and adopt CEQA Findings, including the Statement of Overriding Considerations, and the Mitigation Monitoring and Reporting Plan.

SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY
BOARD OF DIRECTORS

RESOLUTION No. _____

WHEREAS, The San Francisco Municipal Transportation Agency (SFMTA) and the San Francisco County Transportation Authority (SFCTA) are partnered in the development of Bus Rapid Transit (BRT) for Van Ness Avenue (the Project); and,

WHEREAS, The goals of BRT are robust and stable ridership, efficient, effective and equitable transit service, neighborhood livability and community vitality, and links to a citywide rapid transit network; and,

WHEREAS, The SFCTA released the draft Environmental Impact Statement / Environmental Impact Report (EIS/EIR) for public review and comment from November 4 – December 23, 2011, which included a public meeting where comments could be submitted, and information about the project provided at a webinar and at neighborhood briefings; and,

WHEREAS, After a long period of analysis by staff at SFMTA and SFCTA, and after considering the information in the draft EIS/EIR and incorporating public comments received during the review period of the draft EIS/EIR, the staff recommendation for the locally preferred alternative (LPA) for the Project, for analysis in the Final EIS/EIR, was "The Center-running BRT with Right Side Boarding Platforms Single Median and Limited Left Turns," which combines key elements contained in Alternatives 3 and 4; and,

WHEREAS, On May 15, 2012, the Municipal Transportation Agency Board of Directors adopted Resolution No. 12-070, which identified and endorsed the LPA for the Van Ness Avenue Bus Rapid Transit Project, "The Center-running BRT with Right Side Boarding Platforms Single Median and Limited Left Turns" for further analysis in the Final EIS/EIR; and,

WHEREAS, The SFCTA has completed a combined Final EIS/EIR, which analyzes the environmental impacts of the LPA; and,

WHEREAS, The Final EIS/EIR identified the LPA, "The Center-running BRT with Right Side Boarding Platforms Single Median and Limited Left Turns," as the environmentally superior Build Alternative and the only fully funded alternative; and,

WHEREAS, The Final EIS/EIR was prepared to respond to comments on the Draft EIS/EIR and was distributed on July 5, 2013; and,

WHEREAS, The SFCTA certified the EIS/EIR as adequate, accurate and objective and reflecting the independent judgment of the SFCTA on September 10, 2013; and,

WHEREAS, The SFMTA Board has reviewed and considered the information contained in the EIS/EIR; now, therefore, be it

RESOLVED, That the San Francisco Municipal Transportation Agency Board of Directors approves the Van Ness Avenue Bus Rapid Transit Project, analyzed as the Locally Preferred Alternative in the Final EIS/EIR for the Project; and be it further

RESOLVED, That the SFMTA Board adopts the CEQA Findings and Statement of Overriding Considerations for the EIS/EIR, attached to this Resolution as Attachment A and incorporated herein as those fully set forth; and adopts the Mitigation Monitoring and Reporting Plan attached to this Resolution as Exhibit 1 to Attachment A; and be it further

RESOLVED, That the SFMTA Board authorizes the Director of Transportation to direct staff to continue with obtaining otherwise necessary approvals and to carry out the actions to implement the Project.

I certify that the foregoing resolution was adopted by the Municipal Transportation Agency Board of Directors at its meeting of September 17, 2013.

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Secretary, Municipal Transportation Agency Board

ATTACHMENT A

VAN NESS AVENUE BUS RAPID TRANSIT PROJECT

CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS: FINDINGS OF FACT, EVALUATION OF MITIGATION MEASURES AND ALTERNATIVES, AND STATEMENT OF OVERRIDING CONSIDERATIONS

SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY

In determining to approve the proposed Van Ness Avenue Bus Rapid Transit Project ("Van Ness BRT Project" or "Project") and related approval actions, the San Francisco Municipal Transportation Agency ("SFMTA") makes and adopts the following findings of fact and statement of overriding considerations and adopts the following recommendations regarding mitigation measures and alternatives based on substantial evidence in the whole record of this proceeding and under the California Environmental Quality Act, California Public Resources Code Sections 12000 *et seq.* ("CEQA"), particularly Sections 21081, 21081.5, and 21081.6, the Guidelines for Implementation of CEQA, 14 California Code of Regulations Sections 15000 *et seq.* ("CEQA Guidelines"), particularly Sections 15091 through 15093, and Chapter 31 of the San Francisco Administration Code ("Chapter 31"). The SFMTA adopts these findings in its capacity as a responsible agency under CEQA.

I. Introduction

This document is organized as follows:

Section I provides a description of the proposed Project, the environmental review process for the Project, the SFMTA and other agency Actions to be taken to implement the Project, and the location of records;

Section II identifies the impacts found not to be significant that do not require mitigation;

Section III identifies potentially significant impacts that can be avoided or reduced through mitigation and describes the disposition of mitigation measures;

Section IV identifies significant impacts that cannot be avoided or reduce to less-than-significant levels and describes any applicable mitigation measures and the disposition of the mitigation measures and sets forth the economic, legal, social, technological or other considerations that support the rejection of certain mitigation measures as infeasible that were not incorporated into the Project;

Section V evaluates the different project alternatives and the economic, legal, social, technological, or other considerations that support the rejection of the alternatives as infeasible that were not incorporated into the Project; and

Section VI presents a statement of overriding considerations setting forth specific economic, legal, social, technological or other reasons in support of the SFMTA's approval of the Project in light of the significant unavoidable impacts discussed in Section V.

The Mitigation Monitoring and Reporting Program ("MMRP") for the mitigation measures that have been proposed for adoption is attached to these findings as **Exhibit 1**. The Mitigation Monitoring and Reporting Program is required by CEQA Section 21081.6 and CEQA Guidelines Section 15091. It provides a Table A setting forth each mitigation measure listed in the Final EIS/EIR that is required to reduce or avoid a significant adverse impact. **Exhibit 1** also specifies the agency responsible for implementation of each measure and establishes monitoring actions and a monitoring schedule. In addition, the findings include a Table B in Exhibit 1, which lists Improvement Measures for implementation by the SFMTA, and other implementing agencies, to further reduce effects of environmental impacts found to be less than significant.

These findings are based upon substantial evidence in the entire record before the Authority. The references set forth in these findings to certain pages or sections of the EIS/EIR or responses to comments in the Final EIS/EIR are for ease of reference and are not intended to provide an exhaustive list of the evidence relied upon for these findings.

A. Project Description

The Van Ness BRT Project configuration proposed for implementation is the Locally Preferred Alternative ("LPA"). The Van Ness BRT LPA proposes operating buses in a dedicated transit lane, or transitway, for a 2-mile-long stretch running from Mission Street and South Van Ness Avenue to Lombard Street and Van Ness Avenue. Two mixed-flow traffic lanes (one southbound and one northbound) would be converted into two dedicated transit lanes in the center of the roadway. The BRT transitway would reduce the existing mixed-flow traffic lanes from three lanes to two lanes in each direction to accommodate the BRT transitway. The Project would be built entirely within the existing street right-of-way and would require no reduction in sidewalk widths. Curbside parking would generally be maintained, although some loss of street parking would occur at locations throughout the Project corridor.

The LPA combines features of two alternatives analyzed in the Draft EIS/EIR – Build Alternative 3 and Build Alternative 4, with Design Option B. The LPA has a center-lane BRT with a single median, but with right-side boarding. This combination of features is achieved by having the BRT vehicles run alongside a single median for most of the corridor, similar to Build Alternative 4. However, at station locations, BRT vehicles would transition to the center of the roadway, allowing right-side loading at station platforms as proposed under Build Alternative 3. Thus, existing SFMTA Muni ("Muni") bus stops located on the sidewalk along Van Ness Avenue would be removed and replaced with BRT stations located on the right side of the transitway. The 15 northbound and 14 southbound Muni bus stops along Van Ness Avenue and South Van Ness Avenue between Mission Street and Lombard Street would be replaced with a total of eight northbound and nine southbound BRT stations. The LPA includes a Vallejo Northbound Station variant which, if approved, would include an additional northbound station for a total of nine northbound stations. The environmental effects of the LPA are the same with or without the Vallejo Northbound Station variant. These findings, therefore, are applicable to

approval of the LPA both with and without the variant. The LPA also incorporates Design Option B, proposed as an option to either Build Alternative 3 or 4. The LPA with Design Option B would eliminate all left turns from Van Ness Avenue between Mission and Lombard streets with the exception of one south bound left turn at Broadway Street.

The Van Ness BRT would include these additional features:

- Level or near level boarding that minimizes the horizontal and vertical gap between the platform edge and vehicle door threshold to decrease passenger loading time, increase service reliability and improve access for all users.
- High-quality stations with canopy for weather protection, comfortable seating, vehicle arrival time information, landscaping and ability to safely accommodate waiting passengers for two BRT vehicles and meet ADA accessibility requirements.
- Proof of payment system, allowing passengers to swipe fare cards on the platform or on-bus once boarded, allowing all-door loading and reducing passenger loading time.
- Traffic signal optimization using technology upgrades to allow real-time traffic management and optimal signal timing.
- Transit signal priority to recognize bus locations and provide additional green light time for buses approaching intersections and reducing delay at red lights.
- Pedestrian safety enhancements, including enhanced median refuges, nose cones, and curb bulbs, to reduce crossing distances at intersections and increase safety.
- Accessible pedestrian signals with crossing time countdowns at all signalized intersections in the Project corridor.

The Project would also include replacement of the overhead contact system (OCS) of wires and support poles/streetlights between Mission Street and North Point Street, which provides electrical energy for the existing SFMTA, or Muni, operated trolley buses.

B. Project Purpose/Objectives

The Van Ness BRT Project is an outgrowth of the 2004 Countywide Transportation Plan ("CWTP"), which identified BRT on Van Ness Avenue as part of a strategic investment in a citywide network of rapid transit. The CWTP identified these objectives for a rapid transit network:

- Improve transit levels of service for existing users quickly and cost effectively;
- Strengthen the citywide network of rapid transit services;
- Raise the cost effectiveness of SFMTA services and operational efficiency of the city's Transit Preferential Streets ("TPS") roadway network; and
- Contribute to the urban design, identify, and livability of the BRT corridors as signature TPS streets.

(Final EIS/EIS/EIR at 1-5, 1-7.)

Following the recommendations in the CWTP, the San Francisco County Transportation Authority ("Transportation Authority," "Authority" or "SFCTA") undertook the Van Ness Avenue BRT Feasibility Study, completed in 2006. During the development of the Feasibility Study, the City and County of San Francisco ("City") defined BRT in San Francisco to mean a full-featured system with a dedicated lane, transit signal priority, high-quality stations, distinctive vehicles and level or near level all-door boarding. With consideration of the specific needs for the corridor identified by the Feasibility Study, the Authority identified these specific objectives for the Van Ness BRT in the Final EIS/EIR:

- Significantly improve transit reliability, speed, connectivity and comfort;
- Improve pedestrian comfort, amenities, and safety;
- Enhance the urban design and identity of Van Ness Avenue;
- Create a more livable and attractive street for local residential, commercial, and other activities; and
- Accommodate safe multimodal circulation and access within the corridor.

C. Environmental Review

The Transportation Authority, in cooperation with the Federal Transit Administration ("FTA"), initiated the preparation of a joint EIS under the National Environmental Policy Act ("NEPA") and EIS/EIR under CEQA. Federal agencies that approve the Project will consider the effects of the Project as identified under NEPA in the Final EIS/EIR. State and local agencies that approve the Project will consider the effects of the Projects as identified under CEQA in the Final EIS/EIR. On September 14, 2007, the Authority sent a Notice of Preparation ("NOP") of an EIS/EIR to the State Clearinghouse and to local, regional and State agencies. The FTA published a Notice of Intent ("NOI") in the Federal Register on September 24, 2007. The NOP indicated the environmental topics anticipated to be addressed and alternatives to be considered in the EIS/EIR. The Authority noticed a 30-day comment period. The Authority also took the following actions to provide notification of scoping:

- Submitted notice of the scoping period and meetings to local newspapers via media advisory on September 25, 2007.
- Published notice of the scoping period and meetings in the Bay City News on September 27, 2007, announced on CBS Local News on September 27, 2007, and published in the San Francisco Examiner on October 4, 2007.
- Mailed an announcement postcard to 20,000 residential and commercial occupants of buildings along the Van Ness Avenue corridor.
- Mailed an announcement postcard and e-mailed to approximately 400 individuals, agencies, organizations, and businesses on a mailing list derived from the Van Ness Avenue BRT Feasibility Study and subsequent Project outreach.
- Announced the scoping period and meetings on the Authority's web site: www.sfcta.org and on the SFMTA's website.
- Installed an announcement poster at bus stops along on Van Ness Avenue.
- Announced the scoping period and meetings at the Van Ness Avenue BRT Citizens Advisory Committee ("VN CAC") meeting on September 25, 2007.

The Authority held public scoping meetings for the proposed project on October 2 and October 4, 2007.

In response to the NOI and NOP, the Authority and FTA received over 60 oral or written comments recommending one or more alternatives to be analyzed in the EIS/EIR and nearly 70 oral or written comments recommending potential environmental impact areas to study. The results of the scoping process are found in the Van Ness Avenue Bus Rapid Transit Scoping Summary Report, SFCTA, November 30, 2007. The comments on alternatives recommended considering:

- Center lane BRT, including a right-door boarding
- Express bus or limited service bus
- Curb lane BRT by removing parallel parking
- Subway alternative
- Other service or policy alternatives, such as: free fare; operating auto traffic as a subway, diamond lane, or toll road; extending north and south termini; operating a transit shuttle; providing all transit preferential features except a dedicated bus lane.

Topics mentioned for impact study referenced the following:

- Traffic diversions onto streets parallel to Van Ness Avenue
- Traffic impacts on regional travelers
- Traffic impacts on truck operations
- Traffic delays
- Signal timing
- Cumulative effects considering projects such as Doyle Drive and California Pacific Medical Center
- Future land use growth and development
- Pedestrian safety on Van Ness Avenue with project
- Effects on aesthetics
- Effects on landscaping and median plantings
- Bus vehicle pollution
- Transit benefits
- Passenger waiting experience
- Effects on senior citizens
- Travel demand forecasting accuracy
- Stormwater management
- Construction impacts

The FTA and Authority then prepared a Draft EIS/EIR that analyzed four alternatives, a no project alternative and three build alternatives: Build Alternative 2 – Side-Lane BRT with Street Parking; Build Alternative 3 – Center-Lane BRT with Right-Side Boarding and Dual Medians; and Build Alternative 4 – Center-Lane BRT with Left-Side Boarding and Single Median. For the two center-lane BRT alternatives, the Draft EIS/EIR also analyzed a Design Option B, which

would eliminate all but one northbound and one southbound left turn in the Project corridor (e.g. South Van Ness Avenue and Market Street to Van Ness Avenue and Lombard Street). Consistent with the requirements of NEPA, the Draft EIS/EIR analyzed each of the alternatives at an equal level of detail. The Draft EIS/EIR described the setting, identified impacts of each alternative and presented mitigation measures for impacts found to be significant or potentially significant.

The Draft EIS/EIR included a discussion of the operational effects of the alternatives on transportation; land use; community impacts; growth; aesthetics and visual resources; cultural resources; utilities; geology, soils, seismicity and topography; hazardous waste and materials; hydrology and water quality; air quality; noise and vibration; energy; biological resources; and environmental justice. It also considered construction-related impacts and cumulative impacts.

In addition to the alternatives considered and analyzed in detail, the Draft EIS/EIR explained why several other alternatives considered during the three-year planning effort were considered but rejected from further consideration. One set of alternatives were found to have fatal flaws because they would not meet one or more project screening criteria, which were developed taking into account the purpose and need of the project as identified through the CWTP and the Feasibility Study. These alternatives included (1) a curb-lane BRT with no parallel parking, and (2) a surface light rail or subway alternative. The Authority considered other alternatives also, but rejected them from further consideration in the Draft EIS/EIR because they were judged low-performing alternatives, in that they would do little to meet the screening criteria. These alternatives included (1) transit preferential street treatments and bus bulbs, but without dedicated bus lane, and (2) peak-period only dedicated bus lane.

The Authority published a Notice of Availability/Notice of Completion ("NOA/NOC") and distributed copies of the Draft EIS/EIR to the State Clearinghouse (State Clearinghouse Number 2007092059), which the Clearinghouse received on November 7, 2011. The Authority noticed the availability of the Draft EIS/EIR for public review and comment and the date and time of the Authority public hearing and online webinar on the Draft EIS/EIR by mailing a postcard NOA/NOC to properties within a 500-foot radius of Van Ness Avenue within the project limits and to properties fronting Gough and Franklin streets in the Project corridor. This radius mailing to approximately 17,000 properties included various residential and commercial properties. The postcard NOA/NOC provided information on where the Draft EIS/EIR was available for review and how to obtain an electronic copy, hard copy, or CD copy of the document. Multilingual notices (English, Spanish and Chinese) were published in local newspapers and on transit vehicles, shelters and poles throughout the corridor. The SFCTA also announced the availability of the Draft EIS/EIR on the agency's Facebook page and Twitter feed. The Authority gave presentations on the project to neighborhood organization, and the SFCTA provided an informational table at the Sunday Streets event on October 23, 2011.

The Authority held a duly noticed public hearing on the Draft EIS/EIR on November 30, 2011 and an online webinar on December 5, 2011. At the hearing and webinar, members of the public had an opportunity to submit comments. The Authority made the Draft EIS/EIR available for public review and comment from November 4 through December 23, 2011.

After the publication of the Draft EIS/EIR, the Authority and the SFMTA selected the LPA for inclusion in the Final EIS/EIR as required by NEPA regulations of the FTA as set forth in the Code of Federal Regulations, Title 23, Part 771.125. The selected LPA is a refinement of the center-running alternative with limited left turns and is referred to as Center Lane BRT with Right Side Boarding/Single Median and Limited Left Turns. It combines features of Build Alternatives 3 and 4 to reduce the need to rebuild the median or procure dual-side door vehicles.

The Final EIS/EIR contains responses to comments submitted on the Draft EIS/EIR during the 49-day public review period for the Draft EIS/EIR, clarification of information presented in the Draft EIS/EIR in response to those comments or based on additional information that became available during the public comment review period, corrects errors in the Draft EIS/EIR, and provides details explaining how the LPA compares to the alternatives analyzed in the Draft EIS/EIR for the following environmental factors: community impacts (as required by NEPA), aesthetics/visual resources, biological resources, cultural resources, utilities and public services, hydrology and water quality, transportation and circulation, and construction impacts. The following environmental factors are not further discussed for the LPA design because the Draft EIS/EIR identified no differences in effects among either Build Alternative 3 or 4 for: land use, growth, geology/soils./seismic/topography, hazardous waste/materials, air quality, noise and vibration, energy, environmental justice, and Section 4(f).

Subsequent to the close of the public comment period on the Draft EIS/EIR, the Authority received some additional comments on the Project, primarily in response to notices sent out by the Authority advising the public that it would be taking action to select a preferred alternative for inclusion in the Final EIS/EIR. The Authority has reviewed the comments received after the close of the public comment period on the Draft EIS/EIR. These comments primarily concern recommendations on whether to select the proposed LPA or a different alternative. Comments made in this regard are similar to comments previously received on the Draft EIS/EIR and responded to in the Final EIS/EIR.

In addition, the staff report prepared in support of the approval of the project provides updated information on the process that Authority staff has undertaken to resolve issues related to station location and pedestrian safety concerns raised in comments on the proposed LPA. None of the comments made after the close of the comment period, however, contain new information revealing new or more severe significant environmental impacts that would result from the Project, identify feasible project alternatives or mitigation measures substantially different from those identified in the Draft EIS/EIR, or point to substantial flaws in the Draft EIS/EIR.

On July 5, 2013 the Authority published the Final EIS/EIR by posting the document on its public website. From June 28 through July 11, CDs or paper copies of the Final EIS/EIR were sent to the parties included in the Distribution List (Appendix E of the Final EIS/EIR) and to those parties that commented on the Draft EIS/EIR and provided a physical mailing address. Email notices with a link to the online digital files of the Final EIS/EIR were sent to commenters on the Draft EIS/EIR who provided an email address but no physical mailing address. The Notice of Availability (NOA) was submitted to the Federal Register and local newspapers. Notice regarding the project was published in the Federal Register, the *San Francisco Examiner*, and the *Sing Tao Daily* on July 12, 2013, and in *El Mensajero* on July 14, 2013.

The Authority certified the Final EIS/EIR, adopted CEQA Findings, including the adoption of a statement of overriding considerations and MMRP, and approved the LPA. In certifying the Final EIS/EIR, the Authority found that the Final EIS/EIR did not add significant new information to the Draft EIS/EIR that would require recirculation of the EIS/EIR under CEQA because the Final EIS/EIR contains no information revealing (1) any new significant environmental impact that would result from the Project or from a new mitigation measure proposed to be implemented; (2) any substantial increase in the severity of a previously identified environmental impact; (3) any feasible project alternative or mitigation measure considerably different from others previously analyzed that would clearly lessen the environmental impacts of the Project but that was rejected by the Project Sponsor; or (4) that the Draft EIS/EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. The SFMTA concurs in these findings of the Transportation Authority.

D. Environmental Analysis of the Project

The environmental analysis of the Project is detailed in chapters 3 through 7 of the Final EIS/EIR. Chapter 7 of the Final EIS/EIR explains the relationship between the requirements of the National Environmental Policy Act (NEPA), under which an Environmental Impact Statement is required for the Project, and the requirements of the California Environmental Quality Act, under which an Environmental Impact Report is required for the Project. Chapters 3 through 6 of the Final EIS/EIR are each divided into sections based on the various environmental factors considered. The sections generally start with a description of the affected environment and existing conditions and conclude with a description of impacts and any measures that would avoid, minimize and/or mitigate impacts. The analysis of the environmental factors in these chapters identifies any impacts that would result from each of the alternatives, including the LPA. Section 10.4 of the Final EIS/EIR provides a summary of the environmental consequences of the LPA and explains how it compares to the other alternatives in terms of environmental impacts and its performance in achieving the project purpose and need.

Based on technical analyses presented in the Draft EIS/EIR, agency, stakeholder, and public input received during circulation of the Draft EIS/EIR and results of weighting and risk analysis performed by a steering committee of SFCTA and SFMTA staff, the SFCTA and SFMTA staff jointly recommended, and their boards subsequently selected for inclusion in the Final EIS/EIR, the LPA as a center-lane BRT with right-side boarding/single median and limited left turns.

The LPA represents an optimized, refined center-running alternative; BRT vehicles would operate alongside the median for most of the corridor, similar to Build Alternative 4. At station locations, the BRT runningway would transition to the center of the roadway, allowing right-side loading using standard vehicles, similar to Build Alternative 3. This alternative would retain the high-performance features of Build Alternatives 3 and 4 (e.g., maximum transit priority, fewest conflicts) while avoiding the need to acquire left-right door vehicles or remove the entire existing median. Because the limited left-turn variant (Design Option B) was shown in the Draft EIS/EIR to provide the greatest travel time benefits for transit, would reduce the weaving associated with the transitions, and aid with the flow of north-south traffic on Van Ness Avenue, the LPA

incorporates Design Option B, eliminating all left turns from Van Ness Avenue between Mission and Lombard streets, with the exception of the southbound (SB) (two-lane) left turn at Broadway.

The LPA also involves some minor modifications to station locations and number of stations as compared to those shown for the build alternatives in the Draft EIS/EIR. Specifically, the stations are now on the near side of intersections to allow for trucks turning onto Van Ness Avenue. Since the northbound (NB) Market Street station would be less than one block from the Mission Street station, the NB Mission Street station would be removed under the LPA, giving the LPA 8 NB stations compared to the other build alternatives, which have 9 NB stations. There is currently a stop for bus route 49 at the 13th Street/ Duboce/ Mission/ US 101 off-ramp intersection (one block from the Mission Street/ South Van Ness Avenue intersection) and a stop for bus route 47 at 11th and Mission Street (also one block from the Mission Street/South Van Ness Avenue intersection).

The LPA also involves the incorporation of a SB station at Vallejo Street in response to community concerns regarding stop spacing, giving the LPA one additional SB station as compared to the other build alternatives. A NB transit station at Vallejo Street is included as a design variant, referred to as the Vallejo Northbound Station Variant. With the variant, the LPA would have the same number of NB stations as the other build alternatives. The decision on whether to include the variant will be made at the time of project approval. Section 2.2.2.4 of the Final EIS/EIR provides a detailed description of the LPA.

The Final EIS/EIR details how the LPA compares in terms of impacts to the Alternatives analyzed in the Draft EIS/EIR. In general, the LPA impacts fall between the impacts identified for Alternative 3 and Alternative 4, with Design Option B. In no case does the LPA have greater or more severe impacts than identified for any of the alternatives in the Draft EIS/EIR. The Final EIS/EIR does include an updated parking analysis for the LPA that uses a somewhat different methodology than was used for the analysis of parking in the Draft EIS/EIR. The methodology considers updates to Caltrans Highway Design Manual and ADA design requirements. As a result, the analysis concludes that the parking loss from the LPA will be greater than identified for the alternatives in the Draft EIS/EIR, although if those calculations are updated with the same methodology, the LPA will result in a parking loss similar to Alternative 3. The updated analysis does not change the conclusion that the parking loss from all alternatives, including the LPA, will be less than significant under CEQA. However, to address identified community impacts under NEPA, these findings include the adoption of improvement measures that would further reduce the less than significant impacts associated with a loss of parking in the corridor.

In summary, the LPA and the LPA with the Vallejo Northbound Station Variant make minor changes in location and number of stations and combine features of Alternatives 3 and 4, with Design Option B. The analyses in the Final EIS/EIR demonstrate that the effects of the LPA and variant fall within the range of effects identified for the build alternatives analyzed in the Draft EIS/EIR. As such, the analyses of the LPA and the LPA with the Vallejo Northbound Station Variant are within the scope of the Build Alternatives analyzed in the Draft EIS/EIR, do not change the significance conclusions in the Draft EIS/EIR, and do not result in any new or more severe impacts than analyzed in the Draft EIS/EIR.

E. Approval Actions

The following approval actions will be taken to implement the Project.

Local Agencies

1. San Francisco County Transportation Authority

- Certifies EIS/EIR under CEQA.
- Approves preferred alternative and funding agreements with SFMTA.

2. San Francisco Municipal Transportation Agency

- Approves preferred alternative and funding agreements with Authority.
- Approves a Cooperative Agreement with Caltrans for construction and funding.
- Approves various design and construction contracts.

3. San Francisco Board of Supervisors

- Approves sidewalk and grade changes.
- Approves memorandum of understanding with Caltrans for conversion of traffic lane to dedicated transit use.

4. San Francisco Departments of Public Works, Public Utilities and Fire

- Approve various design plans and construction work in right-of-way, including removal and replanting of trees, median and sidewalk design, drainage systems and utility systems.

5. San Francisco Planning Department

- Determines consistency of project with General Plan.

6. San Francisco Historic Preservation Commission

- Approves certificate of appropriateness for structures in Civic Center Historic District.

7. San Francisco Arts Commission

- Approves design of City public structures.

Regional Agencies

1. San Francisco Bay Area Regional Water Quality Control Board

- Enforces compliance with the statewide stormwater Construction General Permit.

2. Metropolitan Transportation Commission

- Makes air quality conformity determination in coordination with the interagency Bay Area Air Quality Conformity Task Force.

State Agencies

California Department of Transportation

- Approves memorandum of understanding with City for conversion of traffic lane to dedicated transit use.
- Approves Cooperative Agreement with SFMTA for construction and funding.
- Approves the Project Study Report/Project Report documenting project cost and design exceptions.

Federal Agencies

Federal Transit Administration

- Approves the Record of Decision for the EIS/EIR under NEPA.
- Approves federal funding for the project.

F. Contents and Location of Records

The record upon which all findings and determinations related to the Project are based includes the following.

- The Project plans and supporting documents prepared by the Authority.
- The Final EIS/EIR, including the Draft EIS/EIR, comments received on the Draft EIS/EIR, Responses to Comments, staff-initiated text changes and all appendices and all documents referenced in or relied upon by the Final EIS/EIR.
- All information (including written evidence and testimony) provided by staff to the Authority relating to the EIS/EIR, the Project, and the alternatives set forth in the EIS/EIR.
- All information (including written evidence and testimony) presented to the Authority by the environmental consultant and subconsultants who prepared the EIS/EIR, or incorporated into reports presented to the Authority.
- All information (including written evidence and testimony) presented to the Authority from other public agencies relating to the Project or the EIS/EIR.
- All information (including written evidence and testimony) presented at any public hearing or workshop related to the Project and the EIS/EIR.
- The Mitigation Monitoring and Reporting Program for the Project.
- All public meeting agendas, minutes and reports, all oral testimony and oral and video records of public hearings and written testimony at public hearings before the Authority and other agencies, and all reports, correspondence, references and material kept in the

ordinary course of business associated with the public planning process related to the Project.

- All relevant staff and public reports and memoranda kept in the ordinary course of business providing substantial evidence to support these findings and the Final EIS/EIR, including attachments, appendices and reference kept in the ordinary course of business.
- All other documents comprising the record pursuant to Public Resources Code Section 2116.76(e).

The Authority is the custodian of documents comprising the record of proceedings, including, without limitation, the documents listed above, and is located at 1455 Market Street, 22nd Floor, San Francisco, California, 94102.

G. Requirement for Findings of Fact

CEQA requires public agencies to consider the potential effects of their discretionary activities on the environment and, when feasible, to adopt and implement mitigation measures that avoid or substantially lessen the effects of those activities on the environment. Specifically, Public Resources Code section 21002 provides that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects[.]" The same statute states that the procedures required by CEQA "are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects." Section 21002 goes on to state that "in the event [that] specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof."

The mandate and principles announced in Public Resources Code Section 21002 are implemented, in part, through the requirement that agencies must adopt findings before approving projects for which EIRs are required. (See Pub. Resources Code, § 21081, subd. (a); CEQA Guidelines, § 15091, subd. (a).) For each significant environmental effect identified in an EIR for a proposed project, the approving agency must issue a written finding reaching one or more of three permissible conclusions. The three possible findings are:

(1) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment.

(2) Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.

(3) Specific economic, legal, social, technological, other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report.

(Public Resources Code Section 21081, subd (a); see also CEQA Guidelines Section 15091, subd. (a).)

Public Resources Code section 21061.1 defines "feasible" to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors." CEQA Guidelines section 15364 adds another factor: "legal" considerations. (See also *Citizens of Goleta Valley v. Board of Supervisors* (*Goleta II*) (1990) 52 Cal.3d 553, 565.)

The concept of "feasibility" also encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project. (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 410, 417 (*City of Del Mar*).) "'[F]easibility' under CEQA encompasses 'desirability' to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors." (*Ibid*.; see also *Sequoyah Hills Homeowners Assn. v. City of Oakland* (1993) 23 Cal.App.4th 704, 715 (*Sequoyah Hills*); see also *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 1001 [after weighing "'economic, environmental, social, and technological factors' … 'an agency may conclude that a mitigation measure or alternative is impracticable or undesirable from a policy standpoint and reject it as infeasible on that ground'"].)

With respect to a project for which significant impacts are not avoided or substantially lessened, a public agency, after adopting proper findings, may nevertheless approve the project if the agency first adopts a statement of overriding considerations setting forth the specific reasons why the agency found that the project's "benefits" rendered "acceptable" its "unavoidable adverse environmental effects." (CEQA Guidelines, §§ 15093, 15043, subd. (b); see also Pub. Resources Code, § 21081, subd. (b).) The California Supreme Court has stated, "[t]he wisdom of approving . . . any development project, a delicate task which requires a balancing of interests, is necessarily left to the sound discretion of the local officials and their constituents who are responsible for such decisions. The law as we interpret and apply it simply requires that those decisions be informed, and therefore balanced." (*Goleta II, supra*, 52 Cal.3d at p. 576.)

Because the EIR identified significant effects that may occur as a result of the project, and in accordance with the provisions of the Guidelines presented above, SFMTA hereby adopts these findings as part of the approval of the Project. These findings reflect the independent judgment of the SFMTA and constitute its best efforts to set forth the evidentiary and policy bases for its decision to approve the Project in a manner consistent with the requirements of CEQA. These findings, in other words, are not merely informational, but rather constitute a binding set of obligations that come into effect with the SFMTA's approval of the Project.

H. Findings About Significant Environmental Impacts and Mitigation Measures.

The following Sections II, III and IV set forth the SFMTA's findings about the Final EIS/EIR's determinations regarding significant environmental impacts and the mitigation measures proposed to address them. These findings provide the written analysis and conclusions of the SFMTA regarding the environmental impacts of the Project and the mitigation measures included as part of the Final EIS/EIR and adopted by the SFMTA as part of the Project. In

making these findings, the SFMTA has considered the opinions of staff and experts, other agencies and members of the public.

The SFMTA finds that the determination of significance thresholds for CEQA impacts set forth in Chapter 7 of the Final EIS/EIR is a judgment decision within the discretion of the SFMTA; the significance thresholds used in the Final EIS/EIR are supported by substantial evidence in the record, including the expert opinion of the Final EIS/EIR preparers and SFMTA staff; and the significance thresholds used in the Final EIS/EIR provide reasonable and appropriate means of assessing the significance of the adverse environmental effects of the Project. Thus, although as a legal matter, the SFMTA is not bound by the significance determinations in the Final EIS/EIR (see Pub. Resources Code Section 21082.2, subd. (e)), the SFMTA finds them persuasive and hereby adopts them as its own.

To avoid duplication and redundancy, these findings do not attempt to describe the full analysis of each environmental impact under CEQA contained in the Final EIS/EIR. Instead, a full explanation of these environmental findings and conclusions under CEQA can be found in the Final EIS/EIR and these findings hereby incorporate by reference, and rely upon as substantial evidence, the discussion and analysis in the Final EIS/EIR supporting the Final EIS/EIR's determination regarding the Project's impacts and mitigation measures designed to address those impacts. In making these findings, the SFMTA ratifies, adopts and incorporates in these findings the determinations and conclusions of the Final EIS/EIR relating to environmental impacts and mitigation measures, except to the extent any such determinations and conclusions are specifically and expressly modified by these findings.

As set forth below, the SFMTA adopts and incorporates all of the mitigation measures set forth in the Final EIS/EIR that the SFMTA determines are feasible. All of the feasible mitigation measures are set forth in the attached MMRP. These mitigation measures will substantially lessen or avoid the potentially significant and significant impacts of the Project. The SFMTA adopts each of the mitigation measures proposed in the Final EIS/EIR for the Project, with the exception of the mitigation measures that it finds infeasible for the specific reasons set forth below in these findings. Mitigation measures identified in the Final EIS/EIR and found not feasible are discussed below in Section IV, with one exception. Mitigation measure M-TR-C2 is rejected as infeasible as explained in Section III.I, as unnecessary and, therefore, inapplicable to the LPA that is proposed for adoption.

With the exception of mitigation measures expressly identified as infeasible and rejected in these findings, in the event a mitigation measure recommended in the Final EIS/EIR has inadvertently been omitted in these findings or the MMRP, such mitigation measure is hereby adopted and incorporated in the findings below by reference. In addition, in the event the language describing a mitigation measure set forth in these findings or the MMRP fails to accurately reflect the mitigation measures in the Final EIS/EIR due to a clerical error, the language of the policies and implementation measures as set in the Final EIS/EIR shall control. The mitigation measure numbers used in these findings reflect the mitigation measure numbers used in the Final EIS/EIR.

In the section II, III and IV below, the same findings are made for a category of environmental impacts and mitigation measures where appropriate. Rather than repeat the identical finding dozens of times to address each and every significant effect and mitigation measure, the initial finding obviates the need for such repetition because in no instance is the SFMTA rejecting the conclusions of the Final EIS/EIR or the mitigation measures recommended in the Final EIS/EIR for the Project, except in those instances where it expressly has rejected a mitigation measure as infeasible for the reasons set forth in these findings.

II. Impacts Found Not To Be Significant and Thus Requiring No Mitigation; Improvement Measures

A. Less Than Significant Impact

Based on substantial evidence in the whole record of this proceeding, the SFMTA finds that the implementation of the Project will not result in any significant impacts in the areas listed below in this Section. Each of these topics is analyzed and discussed in detail including, but not limited to, in the EIS/EIR at the pages indicated.

1. Land Use

a) Operations – Consistency with existing and planned land use; consistency with regional and local planning goals and policies (Final EIS/EIR at Section 4.1).

b) Cumulative – Consistency with existing and planned land use; consistency with regional and local planning goals and policies, considered together with reasonably foreseeable actions (Final EIS/EIR at Section 5.4.1).

2. Population and Housing/Growth

a) Operations – Directly or indirectly induce substantial population growth in an area or displace housing (Final EIS/EIR at Section 4.3).

b) Construction – Construction period impacts that directly or indirectly induce substantial population growth in an area or displace housing (Final EIS/EIR at Section 4.15.2).

c) Cumulative – Directly or indirectly induce substantial population growth in an area or displace housing that may result from the project, considered together with reasonably foreseeable actions (Final EIS/EIR at Section 5.4.2).

3. Visual/Aesthetics

a) Cumulative – Impacts to the visual environment or visual resources, considered together with reasonably foreseeable actions (Final EIS/EIR at Section 5.4.3).

4. Public Services

a) **Operations –** New or physically altered governmental facilities, service ratios, or altered response times (Final EIS/EIR at Section 4.2.2).

5. Cultural Resources

a) **Cumulative –** Impacts to significant historic and architectural properties, and archeological resources that may result from the project, considered together with reasonably foreseeable actions (Final EIS/EIR at Section 5.4.4).

6. Geology/Soils/Seismicity/Topography

a) **Cumulative –** Soil erosion, fault rupture, ground shaking, liquefaction, and slope instability that may result from the project, considered together with reasonably foreseeable actions (Final EIS/EIR at Section 5.4.6).

7. Air Quality

a) **Operations –** Localized carbon monoxide and toxic air contaminates from idling vehicles (Final EIS/EIR at Section 4.10).

8. Greenhouse Gas Emissions

a) **Operations –** Automobile VMT and associated greenhouse gas emissions (Final EIS/EIR at Section 4.10.7).

b) **Cumulative – Automobile VMT and associated greenhouse gas emissions that may** result from the project, considered together with reasonably foreseeable actions (Final EIS/EIR at Section 5.4.10).

9. Biological Environment

a) **Cumulative –** Vegetation removal and replanting opportunities related to the project, considered together with reasonably foreseeable actions (Final EIS/EIR at Section 5.4.8).

10. Traffic and Circulation

a) **Cumulative - Nonmotorized** – Impacts on nonmotorized transportation environment, including pedestrian and bicycles together with reasonably foreseeable actions (Final EIS/EIR at Section 5.4.12).

B. Less Than Significant Impact, Improvement Measure

In the case of certain of the less-than significant impacts, the SFMTA finds that the impacts can be further reduced through the implementation of certain improvement measures, which the SFMTA hereby adopts for implementation during project construction and operation. Improvement measures are set forth in Table B of Exhibit 1. The SFMTA finds that for the

reasons stated in these findings and in the Final EIS/EIR that implementation of these improvement measures would further reduce less-than-significant impacts associated with areas listed below in this section.

1. Land Use

Construction

a) IM-CI-C1. Temporary Loading, Colored Parking Replacement Space
b) IM-CI-C2. Temporary Parking Management.

Construction activities associated with the Project would not change land uses or displace properties. Implementation of replacement loading zones and colored parking spaces, and adjustment of residential parking permits and implementation of SF park program, would further reduce less than significant temporary impacts on loading and parking during construction activities (Final EIS/EIR at Section 4.15.2).

2. Aesthetics/Visual Resources

Construction

a) IM-AE-C1. Maintain Site In Orderly Manner.
b) IM-AE-C2. Nighttime Lighting.

During project construction, SFMTA will require the contractor to maintain the site in an orderly manner, removing trash and waste, and securing equipment at the close of each day's operation. To reduce glare and light during any nighttime construction activities, SFMTA will require the contractor to direct lighting onto the immediate area under construction only and to avoid shining lights toward residences, nighttime commercial properties, and traffic lanes. The improvement measures will further reduce less than significant aesthetic/visual impacts during construction activities (Final EIS/EIR at Section 4.15.3).

3. Cultural Resources

Operation

a) M-AE-2, M-AE-3, M-AE-5, and M-AE-6, described below in Section III, C. Aesthetics/Visual Resources

The Project operation would have a less than significant effect to historic and architectural properties and no impact to archeological resources. During operation of the Project, mitigation measures M-AE-2, M-AE-3, M-AE-5, and M-AE-6, adopted to reduce significant impacts to aesthetic and visual resources, will also further reduce the less than significant impacts that would occur to significant historic and architectural properties by ensuring the compatibility of the Project with historic elements such as the Civic Center Historic District. (Final EIS/EIR at Section 4.5.5).

4. Utilities and Service Systems

Construction

a) IM-UT-C1. Work conducted in accordance with contract specifications.

During construction of the Project, compliance with standard procedures will minimize the potential for damage to utilities, injury to construction workers, and ensure proper completion of construction work. This improvement measure will further reduce the less than significant impacts that would occur to utilities and service systems (Final EIS/EIR at Section 4.15.5).

5. Geology/Soils/Seismicity/Topography

Operation

a) IM-GE-1. Localized soil modification treatments.

b) IM-GE-2. Fill soils replaced with engineered soils.

c) IM-GE-3. Deeper foundations at station platforms.

Design features to address identified geologic hazards include localized soil modification treatments, replacing fill soils with engineered soils, and deeper foundations at station platforms and in areas mapped as liquefaction areas. These improvement measures will further reduce the less than significant impacts that would occur to geology/soils/seismicity/topography (Final EIS/EIR at Section 4.7).

6. Water Quality and Hydrology

Operation

a) IM-HY-1. Landscape areas to reduce runoff.

b) IM-HY-2. Stormwater management tools.

c) IM-HY-3. Maintaining landscaping in the corridor.

d) IM-HY-4. Trash receptacles at BRT stations.

Operational improvement measures that will further reduce less than significant impacts to stormwater quality and facilities include reducing runoff, using stormwater management tools from the *San Francisco Better Streets Plan,* maintaining the corridor by monitoring for pests and using the least hazardous chemical pesticides, herbicides, and fertilizers only when needed, and equipping the BRT stations with trash receptacles to minimize miscellaneous waste that may enter the storm drain system (Final EIS/EIR at Section 4.9).

Construction

a) IM-HY-C1. Preparation and implementation of a SWPPP during construction.

b) IM-HY-C2. Impacts to CSS require coordination with SFPUC.

c) IM-HY-C3. Groundwater encountered during construction will be contained and treated before being discharged into CSS.

Compliance with permit requirements and standard best management practices will avoid significant impacts to water quality during construction. During construction of the Project, the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP), coordination with SFPUC regarding impacts to the sewer, conformity of construction activities with "Keep it on Site" guide, and treating any encountered groundwater would further reduce less than significant impacts associated with earthwork activities (Final EIS/EIR at Section 4.15.8).

Cumulative

a) IM-HY-1 through IM-HY-4. Described above in Operation a-d.

b) IM-HY-C1 through IM-HY-C3. Described above in Construction e-g.

Compliance with permit requirements and standard best practices will avoid significant cumulative impacts to water quality during operation and construction of the Project and other planned projects in the vicinity (Final EIS/EIR at Section 5.4.5). The cited improvement measures will further reduce less than significant impacts to water quality during project operation and construction.

7. Noise and Vibration

Operation

a) IM-NO-1. Upkeep of roadway surface.

The BRT operation would not increase noise and vibration; it would operate a less noisy fleet of diesel-electric hybrid and electric-powered vehicles than exists today. To further reduce the less than significant impact from noise during Project operation, the roadway surface will be maintained throughout project operation. (Final EIS/EIR at Section 4.11).

Construction

a) IM-NO-C1. Best practices in equipment noise and vibration control.

b) IM-NO-C2. Truck loading, unloading, and hauling routes will avoid residential neighborhoods.

c) IM-NO-C3. Noise and vibration monitoring in sensitive areas.

d) IM-NO-C4. Contractor will comply with City noise ordinances and obtain all necessary permits.

During project construction, compliance with best management practices will further reduce less than significant noise and vibration impacts. Best management practices include, but are not limited to, using newer equipment, turning off idling equipment, truck loading, unloading and hauling in nonresidential areas, noise and vibration monitoring in sensitive areas, and complying with all City noise ordinances (Final EIS/EIR at Section 4.15.10).

Cumulative

e) IM-NO-C1 through IM-NO-C4. Described above in Construction a-d.

Control measures IM-NO-C1 through IM-NO-C4 will be implemented to minimize noise and vibration disturbances at sensitive areas during construction. Project construction will comply with the City Noise Ordinance to avoid significant impacts during construction of the proposed project and other planned projects in the vicinity. Construction phasing for the Project will be coordinated with these other planned projects to minimize the Project's less than significant contribution to construction-related impacts to sensitive receptors (Final EIS/EIR at Section 5.4.11).

8. Biological Environment

Operations

a) IM-BI-1. Preserve mature trees; replacement trees and landscaping incorporated into landscape plan.

b) IM-BI-2. Preconstruction tree survey.

c) IM-BI-3. Landscaping will not use species listed as noxious weeds.

These operational improvement measures would further reduce less than significant impacts to the biological environment from removal of existing trees and landscaping by preserving mature trees as feasible, including planting of replacement trees and landscaping into the landscape plan, conducting a preconstruction tree survey to identify protected trees that will be potentially impacted by the Project, determining the need for tree removal permits, and not using species listed as noxious weeds in landscaping (Final EIS/EIR at Section 4.13).

9. Traffic and Circulation

Operations - Nonmotorized

a) IM-NMT-1. Comprehensive wayfinding.

b) IM-NMT-4. Provide sufficient information to educate people where to exit buses outside of Van Ness Avenue corridor.

During project operation, providing comprehensive wayfinding and sufficient information to educate less-ambulatory passengers that board at BRT stations that they will need to exit through the front, right doors for stops outside the Van Ness Avenue corridor would further reduce less than significant impacts to nonmotorized transportation (Final EIS/EIR at Section 3.4).

Operations - Parking

a) IM-TR-1. On-street parking created where bus stops are consolidated or moved as feasible.

b) IM-TR-2. Additional on-street parking provided from lane striping as feasible.

c) IM-TR-3. Infill on-street parking provided as feasible.

d) IM-TR-4. Priority given to retaining colored on-street parking spaces.

e) IM-TR-5. Blue handicapped parking spaces will have a curb ramp behind each space.

During project operation, parking removal will be minimized by creating on-street parking as feasible where bus stops are moved, where lane restriping occurs and where infill parking may be provided. Priority will be given to retaining colored parking spaces and all blue handicapped spaces will have a curb ramp behind them. These improvement measures will further reduce less than significant impacts (Final EIS/EIR at Section 3.5).

Cumulative – Parking.

a) IM-TR-1 through IM-TR-5. Described above in Section II.9. Traffic and Circulation, Operations – Parking.

Operation of the project will reduce the amount of available parking. Implementation of these measures would further reduce the Project's less than significant contribution to cumulative parking impacts during construction and operation of the Project and other planned projects in the vicinity. (Final EIS/EIR at Section 5.5.2.)

III. Findings of Potentially Significant Impacts That Can Be Avoided Or Reduced Through Implementation of Mitigation Measures.

The California Environmental Quality Act requires agencies to adopt mitigation measures that would avoid or substantially lessen a project's identified significant impacts or potential significant impacts if such measures are feasible.

The findings in this Section III concern mitigation measures set forth in the Final EIS/EIR. These findings discuss mitigation measures as proposed in the Final EIS/EIR and recommended for adoption by the SFMTA as a responsible agency under CEQA. All mitigation measures identified in the Final EIS/EIR that will reduce or avoid significant adverse environmental impacts, except those expressly identified as infeasible in these findings, are proposed for adoption and are set forth in Table A of **Exhibit 1**, in the Mitigation Monitoring and Reporting Program. Mitigation measures identified in the Final EIS/EIR and found not feasible are discussed below in Section IV, with one exception. Mitigation measure M-TR-C2 is rejected as infeasible as explained in Section III.J, as unnecessary and, therefore, inapplicable to LPA that is proposed for adoption.

As explained previously, **Exhibit 1**, attached, contains the Mitigation Monitoring and Reporting Program required by CEQA Section 21081.6 and CEQA Guidelines Section 15091. It provides a table setting forth each mitigation measure listed in Final EIS/EIR that is found by the SFMTA to be feasible and that is required to reduce or avoid a significant adverse impact. **Exhibit 1** also specifies the agency responsible for implementation of each measure, establishes monitoring actions and a monitoring schedule.

The SFMTA hereby adopts the Mitigation Monitoring and Reporting Program (MMRP) attached as **Exhibit 1**, as required by Section 21081.6 of the Public Resources Code.

Mitigation Measures within the Jurisdiction of Other Agencies.

The SFMTA has made a determination that the mitigation measures identified in this Section III, with the exception of M-TR-C2 can and should be implemented and in so determining, has found that the measures are feasible. The SFMTA recognizes that the implementation of some of the mitigation measures are within the jurisdiction of other agencies as identified and set forth in **Exhibit 1**. As indicated in **Exhibit 1,** other City and County of San Francisco agencies and the California Department of Transportation ("Caltrans") will assist SFMTA in implementing mitigation measures, including the San Francisco Department of Public Works ("SFDPW") and the San Francisco Public Utilities Commission ("SFPUC"). SFMTA, which will oversee construction of the Project and operate the Project, will carry out mitigation measures or direct a contractor to carry out the mitigation measures that must be implemented during construction and operation. SFMTA will incorporate into design and construction contract requirements those mitigation measures that must be performed as part of the Project design and construction.

The Authority as the lead CEQA agency, will enforce the mitigation measures by designating a Mitigation Monitoring Manager to oversee the monitoring and reporting of all mitigation and improvement measures. Further, the Authority will have agreements with SFMTA that will require the SFMTA to implement or, through contracts, ensure implementation of, the mitigation measures and improvement measures. The Authority (or its consultant) will conduct periodic audits of the construction site and through the agreements will have authority to resolve with SFMTA any issues that arise concerning compliance with mitigation requirements on the part of SFMTA or its contractor. The SFMTA, by adopting these findings, adopts all of the feasible mitigation measures as they are set out in the Final EIS/EIR and finds that the mitigation measures discussed in this Section, with the exception of M-TR-C2, are feasible and enforceable through the project approval actions and will mitigate, reduce or avoid significant environmental effects of the Project.

The SFMTA urges the Authority, SFDPW, SFPUC and Caltrans to adopt and implement the mitigation measures set forth in the Final EIS/EIR that are within the jurisdiction and responsibility of such entities and finds that these agencies can and should adopt and participate in the implementation of the mitigation measures. SFMTA understands that the Authority will enforce the mitigation measures through its agreements with SFMTA. However, to the extent that the mitigation measures are not adopted by such other entities, one or more of the additional significant impacts listed below would occur, depending on the nature of the mitigation measures that are not implemented. There are no mitigation measures available to the Project other than those identified in the Final EIS/EIR to reduce these impacts to a level of insignificance.

A. Public Services[1]

1 Public Services are discussed in the Final EIS/EIR in Sections 4.2, 4.15.2 and 5.5.3 as a subcategory within Community Impacts. The Community Impact category also encompasses other impacts of a socioeconomic nature that are analyzed under NEPA but are not analyzed under CEQA.

1. **Construction.** (Final EIS/EIR at 4.15.2) Construction activities associated with the Project would result in temporary impacts to community facilities and government services due to rerouting and loss of on-street parking.

M-CI-C1. Implementation of M-CI-C1 requires the creation of a Transportation Management Plan ("TMP") that includes traffic rerouting, a detour plan, and public information procedures. It will be developed during the design phase with participation from local agencies, other major project proponents in the area (e.g., CPMC Cathedral Hill, Hayes Two-Way Conversion, and the Geary Corridor BRT projects), local communities, business associations, and affected drivers. Early and well-publicized announcements and other public information measures will be implemented prior to and during construction to minimize confusion, inconvenience, and traffic congestion.

M-CI-C2. Implementation of M-CI-C2 requires, as part of the TMP, that SFMTA plan construction to minimize nighttime construction in residential areas and minimize daytime construction impacts on retail and commercial areas.

M-CI-C3. Implementation of M-CI-C3 requires, as part of the TMP, that SFMTA take major civic and performing arts events into consideration in construction scheduling and planning.

M-CI-C4. Implementation of M-CI-C4 requires, as part of the TMP public information program, that SFMTA coordinate with adjacent properties along Van Ness Avenue to determine the need for colored parking spaces and work to identify locations for replacement spaces or plan construction activities to minimize impacts from the loss of these spaces.

M-CI-C5. Implementation of M-CI-C5 requires, as part of the TMP public information program, that SFMTA coordinate with adjacent properties along Van Ness Avenue to ensure that pedestrian access to these properties is maintained at all times.

M-CI-C6. Implementation of M-CI-C6 requires, as part of the TMP, that SFMTA implement a process for accepting and addressing complaints. This includes provision of contact information for the Project Manager, Resident Engineer, and Contractor on project signage with directions to call if there are any concerns. Complaints will be logged and tracked to ensure they are addressed.

M-CI-C7. Implementation of M-CI-C7 requires, as part of the TMP, that SFMTA maintain adequate passenger and truck loading zones for adjacent land uses, including maintaining access to driveways and providing adequate loading zones on the same or adjoining street block face.

Implementation of these measures would reduce the impacts caused by rerouting and loss of on-street parking to a less than significant level.

2. **Cumulative.** (Final EIS/EIR at 5.5.3) Cumulative impacts to community facilities and government services during construction of the Project and other planned projects in the facility would result due to rerouting and loss of parking.

M-CI-C1 through M-CI-C7. Described above in Public Services – Construction Impact 1.

Implementation of these measures will reduce to a less than significant level the Project's contribution to cumulative impacts to community facilities and government services during construction of the project and other planned projects in the vicinity caused by rerouting and loss of on-street parking.

B. Aesthetics/Visual Resources

1. Operation. (Final EIS/EIR at Section 4.4) The replacement OCS support pole/streetlight network would increase lighting over existing conditions to meet current safety lighting standards. Adjacent residences may be sensitive to the replacement street lighting, which would increase nighttime illumination over existing conditions on the sidewalks and roadway.

M-AE-1. Implementation of M-AE-1 requires sidewalk lighting to be designed to minimize glare and nighttime light intrusion on adjacent residential properties and other properties that would be sensitive to increased sidewalk lighting.

Implementation of this measure would reduce the impacts caused by increased lighting to a less than significant level.

2. Operation. (Final EIS/EIR at Section 4.4) The removal and replacement of the existing OCS support pole/streetlight network would result in potentially adverse aesthetic/visual impacts.

M-AE-2. Implementation of M-AE-2 requires the design and installation of a replacement OCS support pole/streetlight network that (1) retains the aesthetic function of the existing network as a consistent infrastructural element along Van Ness Avenue, (2) assures a uniform architectural style, character and color throughout the corridor that is compatible with the existing visual setting and (3) retains the architectural style of the original OCS support pole/streetlight network. Within the Civic Center Historic District, M-AE-2 requires the OCS support pole/streetlight network design to comply with the Secretary of Interior's Standards for the Treatment of Historic Properties and to be compatible with the character of the historic district as described in the Civic Center Historic District designating ordinance as called for by the San Francisco Planning Code.

Implementation of this measure would reduce the aesthetic/visual impacts caused by the removal and replacement of the OCS support pole/streetlight network to a less than significant level.

3. Operation. (Final EIS/EIR at Section 4.4) Changes to the existing landscaped median and tree canopy would require the removal of 90 median trees resulting in an adverse change in the visual quality of the corridor until new tree planting matures and as a result of changes to the landscaped median and tree canopy. The Project is anticipated to

increase the number of trees in the project corridor, compared with existing conditions, by 53 trees as a result of replanting.

M-AE-3. Implementation of M-AE-3 requires a project landscape design plan, including tree type and planting scheme for median BRT stations and sidewalk plantings that replaces removed landscaping and re-establishes high-quality landscaped medians and a tree-lined corridor. To the extent feasible, M-EA-3 requires the use of single species street trees and an overall design that provides a sense of identity and cohesiveness for the corridor and the placement of new trees close to corners, if feasible, for visibility.

M-AE-4. Implementation of M-AE-4 requires design and installation of landscaped medians so that median design promotes a unified, visual concept for the Van Ness Avenue corridor consistent with policies in the Van Ness Area Plan, Civic Center Area Plan, and San Francisco Better Streets Plan.

Implementation of these measures would reduce the visual impacts caused by the temporary loss of trees and by changes to the landscaped median and tree canopy to a less than significant level.

4. Operation. (Final EIS/EIR at Section 4.4) Operation of the Project would result in impacts to the visual setting of Significant Buildings and special-status buildings, including City Hall and the War Memorial and Performing Arts Center.

M-AE-5. Implementation of M-AE-5 requires design and installation of a project BRT station and transitway design plan (including station canopies, wind turbines, and other features) that is consistent with applicable City design policies in the San Francisco General Plan and San Francisco Better Streets Plan; and, for project features located in the Civic Center Historic District, requires application of the Secretary of Interior's Standards for the Treatment of Historic Properties, as well as Planning Code Article 10, Appendix J pertaining to the Civic Center Historic District, and other applicable guidelines, local interpretations and bulletins concerning historic resources.

M-AE-6: Implementation of M-AE-6 requires that the development of context-sensitive design of BRT station features be balanced with the project objective to provide a branded, cohesive identity for the proposed BRT service. The following design objectives that support planning policies described in Section 4.4.1 will be incorporated in the BRT station design and landscaping plans:

- Provide architectural integration of BRT stations with adjacent Significant and Contributory Buildings through station canopy placement, materials, color, lighting, and texture, as well as integration of the presence of modern solar paneling and wind turbine features to harmonize project features with adjacent Significant and Contributory Buildings.
- Provide integration of BRT stations and landscaping with existing and proposed streetscape design themes within the Civic Center Historic District, in conformance with the Secretary of Interior's Standards for the Treatment of Historic Properties and compatible with the character of the historic district as described in the Civic Center

Historic District designating ordinance as called for by the San Francisco Planning Code.

- Marking the intersection of Van Ness Avenue and Market Street as a visual landmark and gateway to the city in the design of the Market Street BRT station.

Implementation of these measures would reduce the impacts caused by changes to the visual setting to special-status buildings to a less than significant level.

C. Cultural Resources

1. Construction. (Final EIS/EIR at Section 4.15.4) Construction of the Project would result in ground disturbance with the potential to unearth prehistoric sites that are heretofore unknown.

M-CP-C1. Implementation of M-CP-C1 requires focused archival research to identify specific areas within the vertical area of potential effects ("APE") that are likely to contain potentially significant remains. Methods and findings will be documented as an addendum to the 2009 survey and sensitivity assessment (Byrd *et al.*, 2013). M-CP-C1 requires research to be initiated once the project's APE map is finalized identifying the major Areas of Direct Impact (i.e., the stations and sewer relocation).

M-CP-C2. Implementation of M-CP-C2 requires the creation of the Testing/Treatment plan, which would provide archaeological protocols to be employed immediately prior to project construction to test areas identified as potentially significant or having the potential to contain buried cultural resources. If such areas might be unavoidable, mitigation measures would be proposed.

M-CP-C3. Implementation of M-CP-3 requires, if buried cultural resources are encountered during construction activities, pursuant to 36 Code of Federal Regulations 800.13(b)(3), construction to be halted and the discovery area isolated and secured until a qualified professional archaeologist assesses the nature and significance of the find. Unusual, rare, or unique finds—particularly artifacts or features not found during data recovery—could require additional study.

M-CP-C4. Implementation of M-CP-C4 requires, if human remains are discovered during project construction, the stipulations provided under Section 7050.5 of the State Health and Safety Code to be followed. The San Francisco County coroner would be notified as soon as is reasonably possible (CEQA Section 15064.5). There would be no further site disturbance where the remains were found, and all construction work would be halted within 100 feet of the discovery. If the remains are determined to be Native American, the coroner is responsible for contacting the California Native American Heritage Commission within 24 hours. The Commission, pursuant to California PRC Section 5097.98, would notify those persons it believes to be the most likely descendants ("MLD"). Treatment of the remains would be dependent on the views of the MLD.

Implementation of these measures would reduce the impacts to cultural resources caused by ground disturbance to less than significant levels.

D. Utilities and Service Systems

1. Operation. (Final EIS/EIR at Section 4.6) Operation of the Project would result in utility relocation or modification for construction and to maintain access for utility providers to conduct maintenance, repair, and upgrade/replacement activities.

M-UT-1. Implementation of M-UT-1 requires BRT construction to be closely coordinated with concurrent utility projects planned within the Van Ness Avenue corridor.

M-UT-2. Implementation of M-UT-2 requires an inspection and evaluation of the sewer pipeline within the project limits be undertaken to assess the condition of the pipeline and need for replacement. Coordination with SFPUC and SFDPW will continue and be tracked by the Committee for Utility Liaison on Construction and Other Projects ("CULCOP").

M-UT-3. Implementation of M-UT-3 requires, during planning and design, consideration to be given to ensure that the proposed BRT transitway and station facilities do not prevent access to the underground Auxiliary Water Supply System ("AWSS") lines. M-UT-3 requires adequate access for specialized trucks to park next to gate valves for maintenance. The gate valves must not be located beneath medians or station platforms.

M-UT-4. Implementation of M-UT-4 requires, in situations where utility facilities cannot be relocated, SFMTA to create a plan to accommodate temporary closure of the transitway and/or stations in coordination with utility providers to allow utility providers to perform maintenance, emergency repair, and upgrade/replacement of underground facilities that may be located beneath project features such as the BRT transitway, station platforms, or curb bulbs. M-UT-4 requires signage for BRT patrons and safety protocols for Muni operators and utility providers to be integrated into this plan.

Implementation of these measures would reduce the impacts caused by relocations and replacements to less than significant levels.

2. Cumulative. (Final EIS/EIR at Section 5.4.9) Construction of the Project would result in utility relocation or modification for construction and to maintain access for utility providers to conduct maintenance, repair and upgrade/replacement activities. Cumulative impacts to utilities could occur during construction of the proposed project and other planned projects in the vicinity.

M-UT-1. Implementation of M-UT-1 requires BRT construction to be closely coordinated with concurrent projects planned within the Van Ness Avenue corridor.

Implementation of this measure would reduce the Project's contribution to cumulative impacts caused by relocations and replacements to a less than significant level.

E. Geology/Soils/Seismic/Topography

1. Construction. (Final EIS/EIR at Section 4.15.6) Construction of the Project could result in slope instability impacts.

M-GE-C1. Implementation of M-GE-C1 requires all cuts deeper than 5 feet be shored. Shoring design of open excavations must be completed in consideration of the surcharge load from nearby structures, including an examination of the potential for lateral movement of the excavation walls as a result. M-GE-C1 requires the following BMP's to be implemented:

- Heavy construction equipment, building materials, excavated soil, and vehicle traffic shall be kept away from the edge of excavations, generally a distance equal to or greater than the depth of the excavation.
- During wet weather, storm runoff shall be prevented from entering the excavation. Excavation sidewalls can be covered with plastic sheeting, and berms can be placed around the perimeter of the excavated areas.
- Sidewalks, slabs, pavement, and utilities adjacent to proposed excavations shall be adequately supported during construction.

Implementation of this measure by construction contractors would reduce the impacts caused by slope instability to less than significant levels.

F. Hazardous Waste/Materials

1. Operation. (Final EIS/EIR at Section 4.8) Earthwork activities proposed under the Project could be subject to identified recognized environmental conditions ("RECs"), such as aerially deposited lead ("ADL"), lead based paint ("LBP"), and nearby database listed, hazardous materials sites.

M-HZ-1. Implementation of M-HZ-1 requires that a Phase II review or follow-up investigation, for identified RECS, be conducted prior to construction, including field surveys, a regulatory file review for each identified REC, and if the aforementioned field survey and file review reveal a likelihood of encountering contaminated soil or groundwater during project construction, then a subsurface exploration will be conducted within the areas proposed for construction earthwork activities.

M-HZ-2. Implementation of M-HZ-2 requires soils in landscaped medians that will be disturbed by project activities be tested for ADL according to applicable hazardous material testing guidelines. If the soil contains extractible lead concentrations that meet the definition of hazardous materials, then M-HZ-2 requires that a Lead Compliance Plan to be approved by Caltrans be required prior to the start of construction or soil-disturbance activities. If lead levels present in surface soils reach concentrations in excess of the hazardous waste threshold, then M-HZ-2 requires onsite stabilization or disposal at a Class 1 landfill, which will be specified in the Lead Compliance Plan.

M-HZ-3. Implementation of M-HZ-3 requires that the paint used for traffic lane striping and on streetscape features, including the OCS support poles/streetlights, be tested for LBP prior to

demolition/removal to determine proper handling and disposal methods during project construction. If lead is detected, then M-HZ-3 requires the appropriate procedures be included in the Construction Implementation Plan to avoid contact with these materials or generation of dust or vapors.

Implementation of these measures would reduce the impacts caused by hazardous materials to less than significant levels.

2. Construction. (Final EIS/EIR at Section 4.15.7) Impacts would occur if construction workers or members of the public were exposed to hazardous materials during excavation, grading, and related construction earthwork activities.

M-HZ-C1. Implementation of M-HZ-C1 requires the creation of a Worker Site Health and Safety Plan with the following components, in response to potential RECs identified in the Phase II review or other follow-up investigations, and results from preconstruction LBP and ADL surveys specified in Sections 4.8.3 and 4.8.4:

- A safety and health risk/hazards analysis for each site task and operation in the work plan;
- Employee training assignments;
- Personal protective equipment requirements;
- Medical surveillance requirements;
- Air monitoring, environmental sampling techniques, and instrumentation;
- Safe storage and disposal measures for encountered contaminated soil, groundwater, or debris, including temporary storage locations, labeling, and containment procedures.
- Emergency response plan; and
- Spill containment program.

M-HZ-C2. Implementation of M-HZ-C2 requires procedures to be included in the project SWPPP to contain any possible contamination, including protection of storm drains, and to prevent any contaminated runoff or leakage either into or onto exposed ground surfaces, as specified in Section 4.15.8, Hydrology and Water Quality Construction Impacts.

M-HZ-C3. Implementation of M-HZ-C3 requires implementation of necessary public health and safety measures during construction.

Implementation of these measures by construction contractors would reduce the impacts during construction caused by hazardous materials to a less than significant level.

3. Cumulative. (Final EIS/EIR at Section 5.4.7) The aforementioned potential RECs involve localized impacts, including the release of hazardous materials. The hazardous materials mitigation measures identified for construction-period impacts will avoid the Project contributing to cumulative impacts as a result of the proposed project in consideration with other planned projects in the vicinity.

M-HZ-C1. Described above in Hazardous Wastes/Materials – Construction.

M-HZ-C2. Described above in Hazardous Wastes/Materials – Construction.

M-HZ-C3. Described above in Hazardous Wastes/Materials – Construction.

Implementation of these measures would avoid the Project making a significant contribution to cumulative impacts from hazardous materials exposure during construction of the Project and other planned projects in the vicinity.

G. Air Quality

1. Construction. (Final EIS/EIR at Section 4.15.9) Construction activities associated with the Project would result in short-term increases in the emission of criteria air pollutants and precursors that could exceed Bay Area Air Quality Management District ("BAAQMD") CEQA significance criteria.

M-AQ-C1. Implementation of M-AQ-C1 requires construction contractors to implement BAAQMD Basic Construction Mitigation Measures and applicable Additional Construction Mitigation Measures. These are listed in the Final EIS/EIR at Table 4.15-4.

M-AQ-C2. Implementation of M-AQ-C2 requires construction contractors to comply with BAAQMD Regulation 11, Rule 2 concerning the handling of materials such as asbestos containing materials that could release toxic air contaminants during construction.

Implementation of these measures by construction contractors would reduce the impacts caused by construction dust to less than significant levels.

2. Cumulative. (Final EIS/EIR at Section 5.4.10) Construction activities associated with the Project and with other planned projects in the vicinity would result in short-term increases in the emission of criteria air pollutants and precursors that could exceed BAAQMD CEQA significance criteria.

M-AQ-C1. Described above in Air Quality, Construction.

M-AQ-C2. Described above in Air Quality, Construction.

Implementation of these measures by construction contractors would reduce to a less than significant level the Project's contribution to cumulative impacts caused by construction dust from the Project and planned projects in the vicinity.

H. Biological Environment

1. Construction. (Final EIS/EIR at Section 4.15.11) Construction activities associated with the Project would result in removal of mature trees and potential work within tree drip lines.

M-BI-C1. Implementation of M-BI-C1 requires Best Management Practices ("BMPs") identified in tree protection plans and tree removal permits resulting from the preconstruction tree survey be implemented to preserve the health of trees during project construction.

Implementation of this measure would reduce the impacts caused by tree removal during construction to a less than significant level.

2. Construction. (Final EIS/EIR at Section 4.15.11) Construction activities associated with the Project could disturb migratory birds and active bird nests during the nesting season, causing nest abandonment and death of young or loss of reproductive potential at active bird nests.

M-BI-C2. Implementation of M-BI-C2 requires avoiding the disturbance of protected bird nests during the breeding season. M-BI-C2 requires that tree and shrub removal be scheduled during the non-breeding season (i.e., September 1 through January 31), as feasible. If tree and shrub removal are required to occur during the breeding season (i.e., February 1 through August 31), then the following measures will be implemented to avoid potential adverse effects to nesting birds:

- A qualified wildlife biologist will conduct preconstruction surveys of all potential nesting habitats within 500 feet of construction activities where access is available. Exclusionary structures (e.g., netting or plastic sheeting) may be used to discourage the construction of nests by birds within the project construction zone.
- If preconstruction surveys conducted no more than 2 weeks prior to construction identify that protected nests are inactive or potential habitat is unoccupied during the construction period, then no further mitigation is required.
- If active protected nests are found during preconstruction surveys, then the project proponent will create a no-disturbance buffer (acceptable in size to the California Department of Fish and Wildlife ("CDFW")) around active protected bird and/or raptor nests during the breeding season, or until it is determined that all young have fledged.

Implementation of this measure would reduce the impacts to migratory and nesting birds caused by construction activities to a less than significant level.

I. Transportation and Circulation

1. Construction - Traffic. (Final EIS/EIR at Section 4.15.1) Construction activities associated with the Project would result in closure of one SB and one NB lane, short-term detours, and reduced speeds through construction zones.

M-TR-C1. Implementation of M-TR-C1 requires that the temporary conversion of parking lanes to mixed-flow traffic lanes be implemented to generally maintain two open traffic lanes in each direction and minimize traffic impacts.

M-TR-C3. Implementation of M-TR-C3 requires pre-planning of closures of a second mixed-flow traffic lane and detours for nighttime or off-peak traffic hours as feasible, and in conformance with approved noise requirements.

M-TR-C4. Implementation of M-TR-C4 requires maintenance of one east-west and one north-south crosswalk leg open at all times at all intersections.

M-TR-C5. Implementation of M-TR-C5 requires installation of sufficient barricading, signage, and temporary walkways as needed to minimize impacts to pedestrians and bicyclists.

M-TR-C6. Implementation of M-TR-C6 requires SFMTA to coordinate with Golden Gate Transit ("GGT") as part of the TMP to plan temporarily relocated transit stops as needed, and minimize impacts to GGT service.

M-TR-C7. Implementation of M-TR-C7 requires implementation of a TMP to minimize delay and inconvenience to the traveling public, including a public information program and wayfinding to provide local businesses and residents with information related to the construction activities and durations, temporary traffic closures and detours, parking restrictions, and bus stop relocations.

Implementation of these measures would reduce the construction period traffic impacts caused by lane closures, detours, and reduced speeds to less than significant levels.

Rejection of M-TR-C2.

The Final EIS/EIR identified an additional mitigation measure, **M-TR-C2**, calling for installation of a contraflow lane system during project construction, including elimination of left turns in either direction along Van Ness Avenue, if Build Alternative 2, Side-lane BRT with Street Parking, was selected for implementation. This mitigation measure would maintain two lanes of mixed flow traffic in each direction during construction of Build Alternative 2. **M-TR-C2** is not needed for the selected LPA Alternative because two travel lanes can be maintained without a contraflow lane system, with implementation of **M-TR-C1**. **M-TR-C1** will convert parking lanes to travel lanes and thereby maintain two travel lanes. Therefore, **M-TR-C2** is rejected as infeasible because it is not needed and, therefore, inapplicable, to the LPA Alternative proposed for implementation.

2. **Construction - Transit.** (Final EIS/EIR at Section 4.15.1) Construction activities associated with the Project would result in reduced road capacity and posted operating speeds, slowing of average travel speeds of buses, and relocations of existing bus stops.

M-TR-C1, M-TR-C3 through M-TR-C7. Described above in Transportation and Circulation, Construction - Traffic.

Implementation of these measures would reduce the construction period transit impacts caused by reduced road capacity and posted operating speeds, slowing of average travel speeds of buses, and relocations of existing bus stops to less than significant levels.

3. **Construction – Nonmotorized Transportation.** (Final EIS/EIR at Section 4.15.1) Construction activities associated with the Project would result in partial closure of sidewalks, and disruptions to pedestrian and bicycle crossing movements would occur.

M-TR-C1, M-TR-C3 through M-TR-C7. Described above in Transportation and Circulation, Construction - Traffic.

Implementation of these measures would reduce the impacts caused by sidewalk closures and disruptions to crossing movements to less than significant levels.

4. **Construction - Parking.** (Final EIS/EIR at Section 4.15.1) Construction activities associated with the Project would result in temporary conversion of parking lanes to mixed-flow traffic lanes, resulting in removal of on-street parking on both sides of Van Ness Avenue.

M-TR-C1, M-TR-C3 through M-TR-C7. Described above in Transportation and Circulation, Construction - Traffic.

Implementation of these measures would reduce the impacts caused by temporary conversion of parking lanes to mixed-flow lanes to less than significant levels.

5. **Operation – Transit.** (Final EIS/EIR at Section 3.2) Operation of the Project could result in impacts to transit service in year 2035 due to vehicle crowding.

M-TR-1. Implementation of M-TR-1 requires an additional vehicle be added to the fleet as needed to provide additional service and reduce station vehicle crowding impacts.

Implementation of this measure would reduce the impact caused by vehicle crowding to a less than significant level.

6. **Cumulative – Construction Traffic/Transit/Parking.** (Final EIS/EIR at Section 5.5.1) Traffic congestion, travel delay, removal of parking and access restrictions attributable to construction activities of various projects within the general vicinity could be expected during the construction period. Construction of multiple projects within close vicinity would escalate the traffic and circulation impacts during the construction period at select intersections.

M-TR-C1, M-TR-C3 through M-TR-C7. Described above in Transportation and Circulation, Construction - Traffic.

Implementation of these measures would reduce to a less than significant level the Project's contribution to cumulative circulation impacts during construction of the Project and other planned projects in the vicinity.

IV. Significant Impacts That Cannot Be Avoided or Reduced to A Less-than-significant Level; Mitigation Measures Rejected as Infeasible

Based on substantial evidence in the whole record of these proceedings, the SFMTA finds that, where feasible, changes or alterations have been required, or incorporated into, the Project to reduce the significant environmental impacts listed below as identified in the Final EIS/EIR. The SFMTA adopts all of the feasible mitigation measures proposed in the Final EIS/EIR that are relevant to the Project and these are set forth in the MMRP, attached hereto as **Exhibit 1**, Table A. The SFMTA further finds, however, for the impacts listed below, that no feasible mitigation measures are currently available to render the effects less than significant. The SFMTA hereby finds that there is substantial evidence that for the specific economic, legal, social, technological or other considerations set forth in these findings, the Final EIS/EIS and the record as a whole, make the following measures infeasible. The SFMTA rejects these measures as infeasible. The effects therefore remain significant and unavoidable. Based on the analysis contained within the Final EIS/EIR, other considerations in the record, and the standards of significance, the SFMTA finds that because some aspects of the Project would cause potentially significant impacts for which feasible mitigation measures are not available to reduce the impact to a less-than-significant level, the impacts are ***significant and unavoidable***.

The SFMTA determines that the following significant impacts on the environment, as reflected in the Final EIS/EIR, are unavoidable, but under Public Resources Code Section 21081(a)(3) and (b), and CEQA Guidelines 15091(a)(3), 15092(b)(2)(B), and 15093, the SFMTA determines that the impacts are acceptable due to the overriding considerations described in Section VI below. This finding is supported by substantial evidence in the record of this proceeding.

A. Significant Impacts to Traffic.

1. Traffic Impacts in 2015 (Existing Conditions Plus Project); Mitigation Measures Rejected As Infeasible. (Final EIS/EIR Chapter 3. Transportation; Section 3.1.2.3; Section 3.3 Traffic 3-45 to 3-56; 3-59 to 3-62; Appendix I, 19 to 20.) Operation of the Project would cause diversion of some traffic from Van Ness Avenue to nearby parallel streets in the travel corridor, increasing traffic on these parallel streets. The Project would cause acceptable levels of service (LOS) under existing conditions to decline to unacceptable LOS under existing conditions plus the Project (2015 Build scenario) at the intersections listed below, during the PM peak hour. The SFMTA finds that mitigation measures to avoid these impacts are rejected as infeasible for the reasons stated below in Section IV.B. Project features and mitigation measures in the form of traffic management strategies described below in Section IV.A.3 may reduce these impacts but the impacts would remain ***significant and unavoidable*** at these intersections.

- **Gough/Hayes**. LOS D would decline to LOS E.
- **Franklin/O'Farrell**. LOS D would decline to LOS E.
- **Franklin/Market.** LOS C would decline to LOS F.

2. Traffic Impacts in 2035 (Cumulative Conditions Plus Project). (Final EIS/EIR Chapter 3. Transportation; Section 3.1.2.3; Section 3.3 Traffic 3-62 to 3-80; Appendix I, 19 to 20)

a. Project impacts in 2015 contribute to cumulative impacts in 2035; mitigation measures rejected as infeasible. The Project-specific impacts in 2015 would make a considerable contribution to cumulative traffic impacts in 2035 at the intersections listed below. The SFMTA finds that mitigation measures to avoid these cumulative impacts are rejected as infeasible for the reasons stated below in Section IV.B. Project features and mitigation measures in the form of traffic management strategies described below in Section IV.A.3 may reduce these impacts, but the impact would remain ***significant and unavoidable***.

- **Gough/Hayes.**
- **Franklin/O'Farrell.**
- **Franklin/Market/Page.**

b. Project contributes to cumulative impacts in 2035; mitigation measures rejected as infeasible. The Project would make a considerable contribution in 2035 to a decline in the level of service, during the PM peak hour, at the intersections listed below. The SFMTA finds that mitigation measures to avoid these impacts are rejected as infeasible for the reasons stated below in Section IV.B. Project features and mitigation measures in the form of traffic management strategies described below in Section IV.A.3 may reduce these impacts, but the impacts would remain ***significant and unavoidable***.

- **Gough/Sacramento**. Project makes a considerable contribution to a decline from LOS C to LOS F in 2035.
- **Gough/Eddy.** Project makes a considerable contribution to a decline from LOS B to LOS E in 2035.
- **Franklin/Eddy.** Project makes a considerable contribution to a decline from LOS C to LOS F in 2035.
- **Franklin/McAllister.** Project makes a considerable contribution to a decline from LOS C to LOS F in 2035.

c. Project contributes to cumulative impacts in 2035; no feasible mitigation measure. The Project would make a considerable contribution to a decline from LOS E to LOS F in 2035, during the PM peak hour, at the intersection of **South Van Ness/Mission/Otis.** LOS cannot be improved at this intersection because there is no right of way available to add lanes at this intersection, and the traffic signal timings are constrained by the pedestrian minimum timings and cannot be allocated to congested movements. Project features and mitigation measures in the form of traffic management strategies described below in Section IV.A.3 may reduce these impacts, but the impacts would remain ***significant and unavoidable***.

3. Project Features and Mitigation Measures Proposed for Adoption.

a. Project Features. (Final EIS/EIR Section 3.3 Traffic 3-80 to 3-81.) The Project proposed for approval by the SFMTA incorporates features that help avoid or minimize traffic impacts through project design, in keeping with the Project's objective to accommodate traffic circulation. These Project features include area-wide signal timing and optimization; signal priority for BRT on Van Ness Avenue, which also benefits north/south mixed traffic; reducing left-turn movements along the project alignment; and right-turn pockets at high-demand locations. These Project features may reduce traffic impacts but the impacts at the above listed intersections would remain significant and unavoidable.

b. Traffic Management "Toolbox" Strategies. (Final EIS/EIR Section 3.3 Traffic 3-87 to 3-88.)The SFMTA has identified and hereby adopts as mitigation measures to reduce traffic intersection impacts, a "toolbox" of short-term traffic management strategies designed to improve traffic management in the study area. The approaches in the toolbox are not associated with any specific intersection delay, but they would assist the transition from the existing circulation pattern without the project to a multimodal circulation pattern in the corridor with the Project under both the existing and cumulative scenarios. The toolbox effort includes raising public awareness of circulation changes; advising drivers of alternate routes and instituting pedestrian improvements. These strategies may reduce traffic impacts but cannot be readily represented in conventional traffic operations models; therefore, their potential effect on minimizing traffic delay impacts has not been quantified and the traffic impacts at the above listed intersections would remain significant and unavoidable.

- **Driver Wayfinding and Signage.**
- **Public Awareness Campaign and TMP during Project Construction.**
- **Pedestrian Amenities at Additional Corridor Locations.**

B. Mitigation Measures Proposed for Rejection as Infeasible. (Final EIS/EIR Section 3.3 Traffic 3-80 to 3-83.) The SFMTA hereby finds that there is substantial evidence that the specific economic, social or other considerations stated in this Section IV.B make the following mitigation measures infeasible. The SFMTA therefore rejects these measures as infeasible for the reasons stated in this Section IV.B.

In general, these measures are rejected as infeasible because while reducing localized traffic delays in the short term, they would worsen conditions for pedestrians, transit circulation and safety, and bicycle safety. Further, by increasing automobile traffic capacity, they are not expected to be effective in the long term due to the risk of induced demand.

The use of tow-away zones and the addition of right-turn pockets would worsen pedestrian conditions by removing on-street parking, which acts as a buffer from moving traffic, increasing the levels of moving traffic itself and the associated conflicts with pedestrians at intersections,

and raising exposure of pedestrians to motorized traffic where turn pockets are added. These outcomes would not support the project purpose and need to improve pedestrian comfort and safety.

In addition, these mitigation measures would conflict with the City's Charter and the San Francisco General Plan. The San Francisco General Plan Transportation Element specifically identifies the important role of on-street parking as a buffer between pedestrians and traffic. Policy 18.2 provides that no additional tow-away zones should be instituted if they would worsen pedestrian safety and comfort. The buffer provided by parallel parking is especially important on Franklin and Gough Streets, which have higher traffic volumes than Van Ness Avenue. Further, these streets have narrower sidewalks than the standards recommended in the San Francisco Better Streets Plan, which the Board of Supervisors has incorporated in the San Francisco General Plan. Finally, the San Francisco City Charter Article VIII A, 115, Transit First Policy provides that "Decisions regarding the use of limited public street and sidewalk space shall encourage the use of public rights-of-way by pedestrians, bicyclists, and public transit." The SFMTA finds that the implementation of the traffic mitigation measures described below will worsen pedestrian, transit and bicycle conditions and conflict with the Transit First Policy and San Francisco General Plan policies.

Further, substantial evidence supports the finding that expanding roadway capacity induces new vehicle trips and is not an effective way to address congestion over the long term. New roadway capacity generates new automobile trips that were not previously made, returning delays to previous levels.[1] In 2009, the California Resources Agency, in adopting revisions to the CEQA Guidelines Appendix G, removed the suggestion that traffic impacts and mitigation determinations be based on automobile LOS or volume to capacity ratios, citing induced demand as a key rationale for the change.[2]

Specific reasons for rejecting each mitigation measure as infeasible are as follows:

- **Gough/Hayes 2015.** Traffic impacts at this intersection would be primarily a result of the delays for the Gough Street southbound approach. Provision of a fourth southbound through lane on Gough Street through the implementation of a PM peak-period tow-away zone along the east side of Gough Street between Ivy and Linden would restore the intersection to LOS C. However, a tow-away lane would worsen pedestrian conditions along the east side of Gough Street by removing parking during the peak period.

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1 Litman, T. 2010. Generated Traffic and Induced Travel, Implications for Transport Planning. Victoria Transport Policy Institute; Cervero, R. 2002. Induced Travel Demand: Research Design, Empirical Evidence, and Normative Policies. Journal of Planning Literature; R. Cervero. 2001. Induced Demand: An Urban and Metropolitan Perspective. Policy Forum: Working Together to Address Induced Demand. U.S. Environmental Protection Agency. Federal Highway Administrative, U.S. Department of Transportation. Eno Transportation Foundation, Inc.

2 California Natural Resources Agency. 2009, Final Statement of Reasons for Regulatory Action, Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97. Accessed at http://ceres,ca,gov/ceqa/docs/Final_Statement_of_Reasons.pdf

- **Franklin/O'Farrell 2015.** Traffic impacts at this intersection would be primarily a result of the approximately 357 vehicles making the eastbound left turn from O'Farrell Street during the PM peak hour and incurring extensive delays. Adding an exclusive eastbound left-turn lane as a mitigation measure would restore LOS at this intersection to an acceptable level; however, this mitigation would cause adverse impacts on Muni bus services. O'Farrell Street has a bus-only lane on the south side. Providing an eastbound left-turn lane at Franklin Street would require this bus-only lane to be converted to a general purpose lane. Losing this bus lane would adversely impact Muni bus speed and cause delays.

- **Franklin/Market 2015.** Traffic impacts at this intersection would be primarily the result of the delays for the eastbound left-turn approach from Market Street. This intersection performs poorly due to the additional northbound vehicles (1) making a U-turn onto Otis Street from Mission Street northbound, (2) turning right onto Gough Street northbound, (3) turning right onto eastbound Market Street, and (4) turning left onto northbound Franklin Street. To restore intersection LOS to an acceptable level would require (1) rerouting Muni buses from eastbound Page Street to the proposed two-way Haight Street, (2) closing Page Street to vehicular traffic and (3) using split-phase timing for eastbound Page Street traffic that is added to Market Street eastbound left-turn movements. However, this would adversely affect bicycle users who heavily utilize Page Street bike lanes to connect to Market Street bike lanes.

- **Gough/Sacramento 2035**. Traffic impacts at this intersection would be primarily a result of the delays for the Gough Street approach. Adding a second southbound through lane along Gough Street by instituting a PM peak-period tow-away zone on the west side of Gough Street between Clay and Sacramento Streets would mitigate the impact. However, this would necessitate removing parking that provides a buffer between traffic and pedestrians.

- **Gough/Eddy 2035.** Traffic impacts at this intersection would be primarily a result of the delays for the Eddy Street approach. Adding a 50-foot-long exclusive eastbound right-turn lane by eliminating three parking spaces on the south side of Eddy Street and relocating the bus stop on the near side of Gough to the far side of the intersection would mitigate the impact. However, this would have the adverse effect of removing the buffer between traffic and pedestrians, decreasing pedestrian safety and potentially worsening transit access.

- **Gough/Hayes 2035.** Traffic impacts at this intersection would be primarily a result of the delays for the Gough Street southbound approach. Adding a fourth southbound through lane on Gough Street through the implementation of PM peak-period tow-away along the eastside of Gough Street between Ivy and Linden, and a 100-foot exclusive eastbound right turn lane by removing six parking spaces on the south side of Hayes Street would mitigate the impact. However, parking removal would worsen pedestrian conditions along the east side of Gough Street and the south side of Hayes Street.

- **Franklin/O'Farrell 2035.** Traffic impacts at this intersection would be primarily a result of the delays for the O'Farrell Street approach. Adding additional lanes to increase the capacity on northbound Franklin Street and eastbound O'Farrell Street would mitigate the impact. However, there is no available right of way along Franklin Street and this mitigation would require converting an existing bus-only lane on O'Farrell Street to a general-purpose lane, which would adversely affect transit along O'Farrell Street.

- **Franklin/Eddy 2035.** Traffic impacts at this intersection would be primarily a result of the delays for the Eddy Street approach. Adding a 50-foot-long exclusive eastbound left-turn lane by eliminating two parking spaces on the south side of Eddy Street would mitigate this impact. However, this mitigation measure would adversely affect pedestrian safety by removing parking that acts as a buffer between traffic and pedestrians.

- **Franklin/McAllister 2035.** Traffic impacts at this intersection would be primarily a result of the delays for the Franklin Street approach. Adding a fourth northbound through lane by instituting a PM peak-period tow-away zone along the west side of Franklin Street between Fulton and McAllister Street would mitigate this impact. This would extend the existing tow-away zone by one block south. However, this mitigation measure would adversely affect pedestrian safety by removing parking that acts as a buffer between traffic and pedestrians.

- **Franklin/Market 2035.** Traffic impacts at this intersection would be primarily a result of the delays for the eastbound Market Street left-turn approach. This intersection would perform poorly mainly due to the additional northbound vehicles (1) making a U-turn onto Otis Street from Mission Street northbound, (2) turning right onto Gough Street, (3) turning right onto eastbound Market Street, and (4) turning left onto northbound Franklin Street. Traffic impacts could be mitigated by closing Page Street to eastbound vehicular traffic and adjusting signal timing at this intersection to provide more time for Market Street eastbound left-turn movements. However, these changes would adversely affect bicyclists using the Page Street bike lanes to access Market Street.

For the reasons stated above, the SFMTA finds that the Project incorporates all feasible mitigation measures and has eliminated or substantially lessened all significant effects on the environment where feasible. The remaining significant and unavoidable effects listed above are found by the SFMTA to be acceptable due to the overriding considerations set forth below.

V. Evaluation Of Project Alternatives

This section describes the Project as well as the Project alternatives and the reasons for rejecting the Alternatives. This Section also outlines the Project's purposes and provides a context for understanding the reasons for selecting or rejecting alternatives, and describes the Project alternative components analyzed in the Final EIS/EIR.

CEQA mandates that an EIS/EIR evaluate a reasonable range of alternatives to the Project or the Project location that generally reduce or avoid potentially significant impacts of the Project. CEQA requires that every EIS/EIR evaluate a "No Project" alternative. Alternatives provide a basis of comparison to the Project in terms of beneficial, significant, and unavoidable impacts. This comparative analysis is used to consider reasonable feasible options for minimizing environmental consequences of the Project. The Commission has given the alternatives careful consideration and rejects the Final EIS/EIR alternatives that are not selected for approval as infeasible for the specific economic, legal, social, technological or other considerations presented below.

A. Reasons for Selection of the Project

As discussed above in Section I, the Project is based on the LPA analyzed in the Final EIS/EIR. The SFMTA has undertaken a detailed process in selecting the LPA. As explained in Section I.B, the Authority first identified the need for bus rapid transit on Van Ness in the 2004 Countywide Transportation Plan. In 2006, the Authority undertook a feasibility study and identified five primary objectives, or purpose and need, for the BRT project. The primary objectives of the Project are to:

- Significantly improve transit reliability, speed, connectivity and comfort;
- Improve pedestrian comfort, amenities, and safety;
- Enhance the urban design and identity of Van Ness Avenue, creating a more livable attractive street;
- Accommodating safe multimodal circulation and access within the corridor.

To identify a limited set of build alternatives to be analyzed in the Draft EIS/EIR, the Authority prepared an *Alternatives Screening Report* in March 2008. The *Alternatives Screening Report* recommended three main build alternatives that were then analyzed in the Draft EIS/EIR in addition to the No Build Alternative. Other alternatives considered but found to contain fatal flaws were rejected from further consideration as explained in Section I.C. The Final EIS/EIR analyzed the four alternatives, and a design option for two of those alternatives:

- No Build Alternative
- Build Alternative 2: Side-Lane BRT with Street Parking
- Build Alternative 3: Center-Lane BRT with Right-Side Boarding and Dual Medians
- Build Alternative 4: Center-Lane BRT with Left-Side Boarding and Single Median

Build Alternatives 3 and 4 included a Design Option B, which provided for elimination of all but one north-bound and south-bound left turn lanes within the Project corridor. These alternatives are discussed in greater detail in Section 2.2 of the EIS/EIR. The Project (the LPA), combines elements of two of these alternatives, Build Alternative 3 and Build Alternative 4, along with Design Option B. The LPA is referred to as Center Lane BRT with Right Side Boarding/Single Median and Limited Left Turns. The Final EIS/EIR provides a detailed explanation of the LPA and the environmental effects of the LPA as compared to the alternatives in the Final EIS/EIR.

In developing the LPA for approval with the Authority, the SFMTA has carefully considered the extent to which the LPA meets the identified objectives of the Project, its attributes, and the environmental effects of the Project. In addition, the SFMTA has considered factors of importance to project stakeholders, including public comments received during the Draft EIS/EIR public comment period, and further public and agency input including the project Technical Advisory Committee and the Citizens Advisory Committee.

In identifying the LPA, the Authority went through an alternatives performance evaluation process. As explained in Section 10.2 of the Final EIS/EIR, the Authority developed a list of eight key areas, each of which includes multiple indicators as explained in Section 10.2. Those indicators that directly related to the project's purpose and need, and that were used to evaluate potential alternatives in the *Alternatives Screening Report*, are listed below. These factors served as the main considerations in evaluating alternatives for adoption. The remaining indicators captured additional considerations of importance to project stakeholders and decision makers and are described in the Final EIS/EIR.

Transit performance:

- Transit travel time: The percent reduction in travel time for the SFMTA BRT routes (#47 and #49) compared with existing conditions.
- Reliability (Likelihood of Unexpected Stops): This indicator considers the extent to which each alternative would improve the reliability of transit service by reducing stops made outside passenger loading/unloading.
- Ridership: This indicator ranks the relative success of the alternatives in attracting various types of trips to public transit.

Passenger experience:

- Platform Crowding: A measure of the area per waiting passenger to SFMTA minimum standards of 5 square feet per passenger at subway stations.
- Amount of Buffer Between Platform and Auto Traffic: A measurement of the number of feet between moving traffic and passenger waiting areas at bus stations.
- Number of Lane Transitions: A measurement of the number of lane transitions that buses need to make along the route.
- In-Vehicle Passenger Crowding: A measure of the number of people on a bus relative to capacity compared to SFMTA's threshold for crowding, set at 85% of total vehicle capacity.

Access and pedestrian safety:

- Average Median Refuge Width: This indicator measures the average width of the median, which affects the safety of pedestrians when crossing the roadway.
- Average Crossing Distance: A measurement of the average distance to cross the street, in feet.

Urban design/landscape:

- Consistency of Median Footprint: A measurement of the extent to which the alternatives would provide a median with a consistent shape or footprint from block to block –

assessing how well an alternative advances the purpose and need to provide a strong street identity.

Transit system performance:

- Average Total Intersection Person-Delay: A measurement of the average delay for all travelers along and crossing Van Ness Avenue, including people in cars, buses, and pedestrians.
- Lane Productivity: A measurement of the number of people (in cars or on transit) that would use each lane of Van Ness Avenue during the PM peak hour in 2015.
- Traffic Operations/Delay: An identification of the number of intersections in the study area that experience an average delay of 55 seconds or greater (i.e. LOS E or LOS F) in 2015.

Operations and Maintenance

- Cost of Muni Service: An estimate of the cost of providing service in the corridor and is a function of the number of buses and drivers required.

Construction and Capital Costs

- Total Construction Costs: Constructions costs of an alternative.
- Construction Duration: Length of project construction, measured in months.

Of these 16 indicators, the performance of the build alternatives identified in the Draft EIS/EIR were found to vary for 10: transit travel time, reliability and ridership; buffer between platform and traffic, and lane transitions; median refuge width; consistency of median footprint; lane productivity; and cost of Muni service, and total construction costs. The evaluation process identified strengths and weaknesses of each build alternative. Alternative 2 performed best in number of lane transitions and total construction cost, but poorest in transit travel time, likelihood of unexpected stops, and cost to Muni. Alternatives 3 and 4 performed similarly for some factors, but Alternative 4 performed better in buffer between platform and traffic, total construction cost, and lane transitions. However, it performed worse than Alternative 3 in likelihood of unexpected stops, and average median refuge width. Both Alternatives 3 and 4 scored better in all three transit performance factors when combined with Design Option B.

In terms of environmental impacts, there were no distinguishing differences in the degree of impact among the project build alternatives for a number of the environmental factors that were considered, but distinguishing differences were identified for the following environmental factors:

- Traffic operations/delay at intersections. Under Alternative 2, in 2015 three intersections would experience undesirable delays - Alternative 2 would contribute significant delays at 2 intersections; in 2035 nine intersections would experience undesirable delays – Alternative 2 would contribute significantly to delays at five intersections. Under Alternatives 3 and 4 (with or without Design Option B), in 2015 four intersections would experience undesirable delays – Alternatives 3 and 4 would contribute significantly to delays at 3 intersections; in 2035 twelve intersections would experience undesirable delays – Alternatives 3 and 4 (with or without Design Option B), would contribute

significantly to delays at eight intersections. By comparison, under the No Build Alternative, the same number of intersections would experience undesirable delays in 2015 as for Alternatives 3 and 4; however, in 2035, only seven intersections would experience undesirable delays.

- Removal of trees. Alternative 2 would remove 58 trees - 20 median trees and 38 sidewalk trees; Alternative 4 would remove 64 median trees; and Alternative 3 would remove 102 median trees. However, the adoption and implementation of mitigation measures M-AE-3 and M-AE-4 would reduce the impacts of tree removals to a less than significant level. The No Build Alternative would not remove any trees.

- Need for replacement of the aging sewer pipeline under Van Ness Avenue. Alternative 3 would require replacement of the entire sewer pipeline in the corridor; Alternative 4 would require replacement of a portion of the sewer pipeline and Alternative 2 would not require replacement of the sewer pipeline. However, the adoption and implementation of mitigation measures M-UT-2 would reduce the impacts to the sewer pipeline to a less than significant level. The No Build Alternative would not require any sewer replacement.

Following such performance evaluation process, the Authority and SFMTA, who had agreed by a Memorandum of Understanding that both must identify the same preferred alternative, found that they were not able to reach consensus. They then formed a steering committee, as explained in the FEIS/EIR, Section 10.3, to further evaluate the strengths and weaknesses of the Draft EIS/EIR alternatives.

The LPA, which combines features of two alternatives, Alternatives 3 and 4, and Design Option B, was the result of this process. It reduces the risk factors of having to rebuild the median in the entire corridor as under Alternative 3, and it eliminates the need under Alternative 4 to procure dual-side door vehicles. No five-door electric trolley coaches are in operation in North American, which would be needed under Alternative 4 for the Muni Route 49 buses. Also, Alternative 4 operating costs are higher. The LPA has the transit performance attributes of a center-running BRT (e.g. faster, more reliable service) while avoiding the need to acquire left-right door vehicles and completely rebuild the median.
With regard to environmental impacts, the LPA's performance is similar to that of Build Alternatives 3 and 4 with Design Option B. While the LPA has similar impacts on traffic as both Alternatives 3 and 4, the LPA's impacts on trees and the sewer line are less than those of Build Alternative 3, because it avoids a complete removal of median trees and rebuilding of the sewer, but greater than Build Alternative 4, because some portion of the median would require rebuilding. Impacts to trees and sewer pipeline would be reduced to a less than significant level due to adopted mitigation measures.

The Final EIS/EIR also identifies nonmotorized transportation effects where the LPA would improve current conditions:

Crosswalk conditions and crossing experience: The LPA would improve the crossing experience as compared to the No Build Alternative by shortening the crossing distance over existing conditions and providing wider median refuges.

Pedestrian signals and timing: The LPA would improve existing conditions and meet required crossing speeds for pedestrians at nearly all intersections. The LPA would have more east-west crossings that meet City and Federal Highway Administration targets than the No Build Alternative.

Sidewalk safety: The LPA would improve sidewalk safety through the creation of curb bulbs, removal of existing bus shelters from sidewalks, and improved sidewalk lighting. While on five blocks, the LPA would remove all or most parking, which acts as a buffer between pedestrians and automobiles, it would otherwise retain a fairly even distribution of most curbside parking. On two blocks in which all or most of the parking would be removed, the Project would provide an approximately 2-foot-wide buffer, such as in the form of curbside planters located between the sidewalk and street, to address the lack of a buffer provided by a parking lane or planters on those blocks.

Pedestrian accessibility: The LPA would improve the accommodation of pedestrians with a range of physical abilities by adding new corner bulbs and nose cones to aid slower walkers.

Following identification of the LPA, the Authority conducted further outreach involving a series of public meetings and stakeholder meetings, after which the Authority and SFMTA voted to select the LPA for inclusion in the Final EIS/EIR, in accordance with the requirements of FTA NEPA regulations, as set forth in the Code of Federal Regulations, Title 23, Part 771.125.

B. Alternatives Rejected and Reasons for Rejection

The SFMTA rejects as infeasible the alternatives set forth in the Final EIS/EIR and listed below, to the extent that they differ from the LPA, because the SFMTA finds that there is substantial evidence, including evidence of economic, legal, social, technological, and other considerations described in this Section in addition to those described in Section VI below under CEQA Guidelines 15091(a)(3), that make infeasible such Alternatives.

1. The No Build Alternative

The performance evaluation process, described above and in detail in Section 10.2 of the Final EIS/EIR, demonstrates that the No Build Alternative fails to perform well in most of the critical factors relevant to the project objectives. Most importantly, it had the poorest performance of all alternatives considered in transit performance (transit travel time, reliability, ridership). With the exception of the amount of buffer between platform and auto traffic, and the fact that it would have no construction costs, it had the poorest performance in the categories for which the performance evaluation showed differences among alternatives.

With regard to environmental factors, the No Build Alternative would avoid all of the construction-related impacts of the project, including traffic detours and congestion, parking restrictions, air pollution, noise, and removal of mature trees. Although traffic conditions at intersections in the project area would worsen under the No Build Alternative as compared to existing conditions, fewer intersections would experience unacceptable levels of service under the No Build Alternative than under other alternatives.

The No Build Alternative is rejected as infeasible because of its poor performance with regard to meeting the project's purpose and need. The No Build Alternative would leave transit travel times with no appreciable improvement compared to existing conditions. Unexpected stops would be expected 70% of the time along each block in the corridor, and improvements to median refuge width and transit ridership would not occur. Further, fewer total persons would be able to use each lane on Van Ness Avenue and Muni operating costs savings would not be achieved as would occur with the LPA.

2. The Build Alternative 2: Side-Lane BRT with Street Parking

The purpose and need evaluation showed that Build Alternative 2 had the best performance for two of the key purpose and need performance indicators described above (number of lane transitions and total construction cost). Importantly, however, it did not perform as well as the LPA in any of the transit performance indicators: transit travel time, reliability or ridership. It would also have higher operational costs than the LPA and performed more poorly than the LPA in some other indicators: average median refuge, and lane productivity (e.g. number of persons able to travel in each lane).

Environmentally Superior Alternative. Of the Build Alternatives, including the LPA, Build Alternative 2 would be the environmentally superior alternative, for the following reasons:

- Build Alternative 2 would result in fewer significant operational traffic congestion impacts at intersections than for the other build alternatives - at one fewer intersection in 2015 and three fewer intersections in 2035, compared to the other build alternatives, including the LPA;
- Build Alternative 2 would require removal of notably fewer trees (particularly in the median) than the other build alternatives, including the LPA. However, for all alternatives, this impact would be mitigated to a less than significant level; and
- Construction of Build Alternative 2 would not trigger replacement or relocation of segments of the aging sewer pipeline, as would occur in varying degrees under the build alternatives, including the LPA. However, for all alternatives, this impact would be mitigated to a less than significant level.

All of the build alternatives, including the LPA, would result in similar environmental benefits and similar impacts, including unmitigated significant impacts. But, the degree of impacts for Build Alternative 2 would be reduced as compared to the other build alternatives, including the LPA, making Build Alternative 2 the environmentally superior alternative.

After consideration of environmental impacts and the alternatives analysis process, including consideration of stakeholder, agency and public comments, Build Alternative 2 is rejected as

infeasible because it would not achieve the project purpose and need to the extent of the LPA. In the important area of transit performance, Alternative 2 did not perform as well as the LPA in any area. Alternative 2 also would have greater operating costs, smaller median refuge widths, and would move fewer people in each lane through the corridor than the LPA.

3. The Build Alternative 3: Center-Lane BRT with Right-Side Boarding and Dual Medians

Build Alternative 3 would perform similarly to the LPA for two key performance indicators described above (ridership and lane productivity); with the inclusion of Design Option B, it would perform as well as the LPA for additional indicators (transit travel time, likelihood of stops, and cost of Muni service). It would perform worse than the LPA in three regards (buffer between platform and auto traffic, average median refuge width, total construction cost). In terms of environmental effects, Build Alternative 3 would affect the same number of intersections as the LPA, but would require the removal of more median trees and would require replacement of the sewer pipeline along the length of the corridor.

The LPA represents an optimized, refined center-running alternative that is similar in many respects to Build Alternative 3; however, as explained above, the performance of Build Alternative 3 for both purpose and need and environmental factors is inferior to that of the LPA and therefore is rejected as infeasible.

4. Build Alternative 4: Center-Lane BRT with Left-Side Boarding and Single Median

The purpose and need evaluation showed that Build Alternative 4 would perform similarly to the LPA for two performance indicators (ridership and lane productivity). It would also have the best performance among alternatives in the amount of buffer between platform and auto traffic. With the inclusion of Design Option B, it would perform as well as the LPA for additional indicators (transit travel time, likelihood of stops, and cost of Muni service). It would also perform better than the LPA in consistency of median footprint, number of lane transitions and total construction cost. In terms of environmental effects, Alternative 4 has similar traffic intersection impacts as the LPA, but it would require removal of fewer median trees and likely require less replacement of the sewer pipeline than the LPA.

Although Build Alternative 4 has less of an environmental effect on tree removal and sewer pipeline replacement, and performed strongly in terms of key purpose and need indicators, this alternative would require left-side boarding and the acquisition of left-right door vehicles. No such vehicles are known to be in use and operating in North America. For these reasons, Alternative 4 is rejected as infeasible.

VI. Statement Of Overriding Considerations

Pursuant to CEQA Section 21081, CEQA Guideline 15093, and Chapter 31, the SFMTA hereby finds, after consideration of the Final EIS/EIR and the evidence in the record, that each of the specific overriding economic, legal, social, technological and other benefits of the Project as set forth below independently and collectively outweighs the significant and unavoidable impacts of the Project and is an overriding consideration warranting approval of the Project. In addition, the

SFMTA finds that the mitigation measures and alternatives to the Project that are rejected, are rejected for the following economic, social or other considerations in and of themselves, in addition to the specific reasons discussed above. The specific reasons for these findings are based on substantial evidence in the record including but not limited to the documents referenced in these findings.

On the basis of the above findings and the substantial evidence in the whole record of this proceeding, the SFMTA specifically finds, and therefore makes this Statement of Overriding Considerations:

The proposed project has been found to provide numerous benefits related to transit performance, passenger experience, access and pedestrian safety, urban design and landscape, system performance, and operation and maintenance, as described below.

Transit Performance

The project would significantly improve transit travel time, reliability, and ridership along Van Ness Avenue. In 2015, relative to the No Build Alternative described in the EIS/EIR, the LPA would reduce transit travel time by 33 percent, reducing the travel time gap between autos and transit by as much as 50 percent. Among other features, it would include transit signal priority for buses to provide additional green light time for buses approaching an intersection and to reduce delay at red lights. Reliability would also improve with the LPA; the likelihood of a bus unexpectedly stopping (excluding loading and unloading passengers) would decrease by 52 percent, allowing more consistent travel times. With the proposed project, transit boardings would increase by 37 percent throughout the routes of Muni bus lines 47 and 49 when compared with the No Build Alternative, and up to half of the additional riders could be former drivers. BRT vehicles would offer increased passenger capacity over the Muni 47 line buses that presently operate in the Van Ness Avenue corridor, and include a mix of 60-foot electric trolley coaches and 60-foot diesel hybrid motor coaches. With implementation of the project, Van Ness Avenue BRT would increase the street's transit mode share to 44 percent of all motorized trips, relative to 30 percent under the No Build Alternative.

Passenger Experience

The proposed project offers numerous enhancements to the passenger experience compared with existing conditions. High quality bus stations would be provided, each with an elevated platform, canopy for weather protection, comfortable seating, vehicle arrival time information, landscaping and other amenities, including protective railings as appropriate. The platforms would be large enough to comfortably accommodate waiting passengers, long enough to load two BRT vehicles, and designed to provide Americans with Disabilities Act (ADA) accessibility. Level or near level boarding would be provided to minimize the horizontal and vertical gap between the platform edge and vehicle door threshold. A proof of payment system would allow passengers to swipe their fare cards either on the platform before buses arrive or on-bus once boarded, allowing for all-door loading. The number of lane-weaves made by buses along Van Ness Avenue would reduce by more than 50 percent compared with the No-Build Alternative, providing a smoother ride for passengers – especially for standing passengers. Improved station

facilities with level or near level boarding, additional amenities, and real-time arrival information would also improve transit passengers' comfort.

Access and Pedestrian Safety

The project would incorporate features to increase pedestrian safety at intersections, including pedestrian countdown signals, additional curb bulbs, nose cones and enhanced median refuges to reduce crossing distances at intersections and increase safety. With the proposed project, the median refuges within all of the crosswalks in the project corridor would be at least six feet wide, compared with existing conditions in which 47 percent of the median refuges are less than five feet wide. These features would shorten crossing distances, allowing nearly all intersections to meet local and federal standards for minimum pedestrian crossing speed, while giving pedestrians more information about when it is safe to cross. New ADA curb ramps and Accessible Pedestrian Signals (APS) along Van Ness Avenue would improve safety and access for all users. Pedestrians would also benefit from wider effective sidewalk widths in many locations due to removal of existing bus shelters and addition of curb bulbs, pedestrian-scale lighting, and additional median trees and landscaping and tree plantings along the sidewalk.

Urban Design and Landscape

A main component of the Van Ness Avenue BRT Project is to provide a consistent landscaped median treatment and pedestrian lighting, as well as establish a more unified identity for Van Ness Avenue as one of the City's most prominent arterials with a visible rapid transit service. The improved streetscape features of the project would enhance the amenity and urban design of Van Ness Avenue as a gateway into the city and support recently approved nearby high-density mixed-use development plans. The project would help transform the street into a vibrant pedestrian promenade that supports the Civic Center and commercial uses. Placement of BRT infrastructure would demonstrate an investment in the corridor and would provide a greater sense of permanence than existing bus facilities. Such facilities can support place-making and livability, while helping to stimulate further transit-oriented development. The Project also would replace the overhead contact system of wires and support poles/streetlights between Mission Street and North Point Street, which provides electrical energy for existing SFMTA operated trolley buses.

System Performance

The project would increase the total number of people (in cars and on transit) that use each lane of Van Ness Avenue. While the No Build Alternative moves approximately 605 transit patrons and 630 people in private vehicles in each lane on Van Ness Avenue, the proposed project would move approximately 930 transit patrons and 680 people in private vehicles in each lane. Traffic in the corridor would be optimized using technology upgrades to allow real-time traffic management and optimal signal timing.

Operation and Maintenance

The proposed project would reduce the cost of operating bus routes 47 and 49, because the projected travel time savings would allow the same service frequencies to be provided using

fewer buses and drivers. The Project would reduce the cost of on-street service from Mission to Lombard streets from $8.3 million annually, under existing conditions, to a projected $6.1 million annually, a 27 percent reduction in annual costs.

I.

II. Appendix J

III. Mitigation Monitoring & Reporting Program for the Van Ness Avenue BRT Project

City and County of San Francisco, California

By the

San Francisco County Transportation Authority and San Francisco Municipal Transportation Agency

July 2013

Introduction

This Mitigation Monitoring and Reporting Program (MMRP) is for the Van Ness Bus Rapid Transit (BRT) Project. The California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) regulations require an enforceable mitigation monitoring program for projects. CEQA Section 21081.6 and CEQA Guideline 15097(a), require public agencies to adopt a program for monitoring and reporting on the measures required to mitigate or avoid significant environmental impacts identified in the Final Environmental Impact Report (EIR). Under NEPA regulations, a monitoring and enforcement program shall be adopted and summarized where applicable for any mitigation (40 CFR Section 1505.2(c) and 23 CFR 771.27A). Under CEQA, the MMRP must be adopted when a public agency makes its findings pursuant to CEQA so that the mitigation requirements can be made conditions of project approval. Consistent with these requirements, this MMRP ensures compliance with all mitigation requirements set forth in the Final EIS/EIR that have been determined to be feasible under the CEQA Findings. These measures include, but are not limited to, elements that would be designed into the new facility and implementation of best management practices during construction. This MMRP will be kept on file in the offices of the San Francisco County Transportation Authority (Authority), 1455 Market Street, 22nd Floor, San Francisco, CA 94103.

Mitigation Monitoring & Reporting Program

Analysis of each environmental factor in Chapters 3 through 7 of the Final EIS/EIR includes discussion of the affected environment, environmental consequences (including permanent/project operational impacts, construction impacts, and cumulative impacts), and avoidance, minimization,

and compensation measures for each project alternative, including the LPA. This MMRP includes all feasible mitigation measures that are applicable to the adopted project, the LPA. The avoidance, minimization, and compensation measures are identified in the following two categories: "mitigation measures" and "improvement measures." Mitigation measures are contained in Table A and are measures required to address a potentially significant impact. Improvement measures are contained in Table B. Improvement measures identified in the Final EIS/EIR are not needed to avoid or reduce significant impacts, but either embody regulatory requirements or are standard construction procedures or best practices that are recommended to reduce or avoid impacts that are less than significant... The purpose of the MMRP is to list all mitigation and improvement measures adopted for the Van Ness Avenue BRT Project, and the milestones at which measures must be implemented. It also identifies the implementing, enforcing, and monitoring entities. The Authority, as the lead agency under CEQA, will oversee the implementation of the mitigation and monitoring program through project implementation, including construction, testing and initial operations. The Authority will designate a Mitigation Monitoring Manager at the Authority to oversee the monitoring and reporting of all mitigation and improvement measures. The San Francisco Municipal Transportation Agency (SFMTA), as a responsible agency under CEQA, will be the entity that will construct and operate the project and will be responsible for carrying out mitigation measures that must be implemented as part of project design, construction and operation. The SFMTA shall designate a mitigation and monitoring coordinator to oversee the implementation of all relevant mitigation measures.

To ensure compliance with the MMRP, further agreements between the Authority and SFMTA will require SFMTA to implement or, through contracts, ensure implementation of, the mitigation measures and improvement measures. The Authority (or its Consultant) will conduct periodic audits of the construction site, and through the agreements will have authority to resolve with SFMTA any issues that arise concerning compliance with mitigation requirements on the part of SFMTA or its contractor. Through its CEQA Findings, the Authority will also urge other agencies that will issue permits for the work, including the Department of Public Works and Caltrans to require compliance with the mitigation measures through their permits.

Table A (Mitigation Measures) and Table B (Improvement Measures) are organized by environmental discipline, or affected resource. They provide a summary of the mitigation measures or improvement measures identified in the Final EIS/EIR. Table A and Table B include a summary of the following information:

- **Affected Resource:** Provides a broad title of the impact or effect that is to be mitigated or improved.
- **Contractor:** Refers to any contractor hired by SFMTA to implement the project.
- **Mitigation or Improvement Measures:** Provides a brief description of the mitigation or improvement measures. The MMRP includes all mitigation measures and improvement measures identified in the Final EIS/EIR that the Authority and the SFMTA found feasible and adopted as part of the CEQA Findings for the Project. The Authority will ensure that these measures are fully enforceable, in most cases by SFMTA, by making them conditions of project funding. Through agreements with SFMTA, the Authority will require SFMTA to incorporate the measures into design documents, construction specifications and project operational procedures. Other agencies may assist Authority in monitoring compliance with mitigation measures, such as the FTA, Department of Public Works, or Caltrans through their permitting and funding authority.

- **Implementation Procedure:** Describes by whom and when the mitigation and/or improvement measures must be implemented.
- **Implementation Responsibility:** Describes who is responsible for implementing the mitigation and/or improvement measures. In most cases it is the SFMTA or the Contractor.
- **Implementation Schedule:** Identifies the project phase or milestone at which the mitigation and/or improvement measures must be implemented. The Mitigation Monitoring Manager must approve that the mitigation measure is adequately addressed at each phase of project development.
- **Monitoring Responsibility:** Identifies the agency responsible for ensuring that mitigation measures are implemented. In most cases it is the SFMTA.
- **Report Recipient:** Identifies the agencies who will be notified that the mitigation measures have been implemented adequately. The Authority and the FTA are always reporting recipients.

Table A. Mitigation Monitoring & Reporting Program for the Van Ness Avenue BRT Project (Mitigation Measures)

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
1(M)	Aesthetics/ Visual Resources	M-AE-1: Design sidewalk lighting to minimize glare and nighttime light intrusion on adjacent residential properties and other properties that would be sensitive to increased sidewalk lighting.	SFMTA, in coordination with SFDPW and SFPUC, with approval by SF Arts Commission	SFMTA, SFDPW, SFPUC	Final Design	SFMTA to oversee approval from SF Arts Commission	Authority FTA

4 The number coding is as follows: improvement (IM) or mitigation (M) measure – environmental resource – construction period includes (C) – numerical order within environmental resource.

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
2(M)	Aesthetics/ Visual Resources & Cultural Resources	M-AE-2: Design and install a replacement OCS support pole/streetlight network that (1) retains the aesthetic function of the existing network as a consistent infrastructural element along Van Ness Avenue, (2) has a uniform aesthetic throughout the corridor and (3) carries visual character that is of similar caliber to the architectural style of the original OCS support pole/streetlight network. Within the Civic Center Historic District, design the OCS support pole/streetlight network to comply with the Secretary of Interior's Standards for the Treatment of Historic Properties and be compatible with the character of the historic district as described in the Civic Center Historic District designating ordinance as called for by the San Francisco Planning Code.	SFMTA in coordination with SFDPW and SFPUC with approval by SF Arts Commission and, in Civic Center Historic District, HPC - Caltrans will review and approve final design of electrical plans (prior to issuing encroachment permit).	SFMTA, SFDPW, SFPUC	Final Design	SFMTA to oversee approvals by: -SFAC -SF HPC (within the Civic Center Historic District)	Authority FTA City Planning

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
3(M)	Aesthetics/ Visual Resources & Cultural Resources	M-AE-3: To the extent that the project alters sidewalk and median landscaping, design and implement a project landscape design plan, including tree type and planting scheme for median BRT stations and sidewalk plantings that replaces removed landscaping and re-establishes high-quality landscaped medians and a tree-lined corridor. To the extent feasible, use single species street trees and overall design that provides a sense of identity and cohesiveness for the corridor. Place new trees close to corners, if feasible, for visibility.	The project landscape design plan will require review and approval by the San Francisco Arts Commission, as well as review and approval by the SFDPW as part of their permitting of work in the street ROW, which ensures consistency with the San Francisco Better Streets Plan.	SFMTA, SFDPW	Final Design	SFMTA to oversee approvals by: - SFAC - SFDPW -SFHPC (within the Civic Center Historic District)	Authority FTA

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
3(M)	Aesthetics/ Visual Resources & Cultural Resources	M-AE-3: To the extent that the project alters sidewalk and median landscaping, design and implement a project landscape design plan, including tree type and planting scheme for median BRT stations and sidewalk plantings that replaces removed landscaping and re-establishes high-quality landscaped medians and a tree-lined corridor. To the extent feasible, use single species street trees and overall design that provides a sense of identity and cohesiveness for the corridor. Place new trees close to corners, if feasible, for visibility.	The median landscape design plan within the Civic Center Historic District will be reviewed by the San Francisco HPC and the City Hall Preservation Advisory Commission. A Certificate of Appropriateness must be obtained from the HPC for the landscape plans within the Civic Center Historic District.	SFMTA, SFDPW	Final Design	SFMTA to oversee approvals by: - SFAC - SFDPW -SFHPC (within the Civic Center Historic District)	Authority FTA

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
4(M)	Aesthetics/ Visual Resources & Biological Resources	M-AE-4: Design and landscape medians with consistent tree plantings to promote a unified, visual concept for the Van Ness Avenue corridor consistent with policies in the Van Ness Area Plan, Civic Center Area Plan, and San Francisco Better Streets Plan. This design goal for a unified, visual concept will be balanced with the goal of preserving existing trees; thus, new tree plantings would be in-filled around preserved trees.	See M-AE-3	SFMTA, SFDPW	Final Design	SFMTA to oversee approvals by: - SFAC -SFHPC	Authority FTA SFAC SFHPC SFDPW

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
5(M)	Aesthetics/ Visual Resources & Cultural Resources	M-AE-5: Design and install a project BRT station and transitway design plan (including station canopies, wind turbines, and other features) that is consistent with applicable City design policies in the San Francisco General Plan and San Francisco Better Streets Plan; and for project features located in the Civic Center Historic District, apply the Secretary of Interior's Standards for the Treatment of Historic Properties, Planning Code Article 10, Appendix J pertaining to the Civic Center Historic District, and other applicable guidelines, local interpretations and bulletins concerning historic resources.	Review and approval processes supporting this measure include: (1) The San Francisco Art Commission approval of the station and transitway design plan as part of its review of public structures;	SFMTA, SFDPW	Final Design	SFMTA to oversee approvals by: -SFDPW - SFAC -SFHPC	Authority FTA

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
5(M)	Aesthetics/ Visual Resources & Cultural Resources	M-AE-5: Design and install a project BRT station and transitway design plan (including station canopies, wind turbines, and other features) that is consistent with applicable City design policies in the San Francisco General Plan and San Francisco Better Streets Plan; and for project features located in the Civic Center Historic District, apply the Secretary of Interior's Standards for the Treatment of Historic Properties, Planning Code Article 10, Appendix J pertaining to the Civic Center Historic District, and other applicable guidelines, local interpretations and bulletins concerning historic resources.	(2) The SFDPW approval of the station and transitway design plan as part of its permitting of work in the street right-of-way, which it will include review for consistency with the San Francisco Better Streets Plan; (3) the HPC approval of the portion of the station and transitway design plan located within the Civic Center Historic District as part of granting a Certificate of Appropriateness; and	SFMTA, SFDPW	Final Design	SFMTA to oversee approvals by: -SFDPW - SFAC -SFHPC	Authority FTA

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
5(M)	Aesthetics/ Visual Resources & Cultural Resources	M-AE-5: Design and install a project BRT station and transitway design plan (including station canopies, wind turbines, and other features) that is consistent with applicable City design policies in the San Francisco General Plan and San Francisco Better Streets Plan; and for project features located in the Civic Center Historic District, apply the Secretary of Interior's Standards for the Treatment of Historic Properties, Planning Code Article 10, Appendix J pertaining to the Civic Center Historic District, and other applicable guidelines, local interpretations and bulletins concerning historic resources.	(4) the City Hall Preservation Advisory Commission and City Planning Department advise on design to HPC.	SFMTA, SFDPW	Final Design	SFMTA to oversee approvals by: -SFDPW - SFAC -SFHPC	Authority FTA

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
6(M)	Aesthetics/ Visual Resources & Cultural Resources	M-AE-6: Context-sensitive design of BRT station features will be balanced with the project objective to provide a branded, cohesive identity for the proposed BRT service. The following design objectives that support planning policies described in Section 4.4.1 will be incorporated in the BRT station design and landscaping plans: • Architectural integration of BRT stations with adjacent Significant and Contributory Buildings through station canopy placement, materials, color, lighting, and texture, as well as the presence of modern solar paneling and wind turbine features to harmonize project features with adjacent Significant and Contributory Buildings.	See M-AE-3	SFMTA, SFDPW	Final Design	SFMTA to oversee approvals by: -SFAC -SF HPC	Authority FTA

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
6(M)	Aesthetics/ Visual Resources & Cultural Resources	• Integration of BRT stations and landscaping with existing and proposed streetscape design themes within the Civic Center Historic District, in conformance with the Secretary of Interior's Standards for the Treatment of Historic Properties and compatible with the character of the historic district as described in the Civic Center Historic District designating ordinance as called for by the San Francisco Planning Code. • Marking the intersection of Van Ness Avenue and Market Street as a visual landmark and gateway to the city in design of the Market Street BRT station.	See M-AE-3	SFMTA, SFDPW	Final Design	SFMTA to oversee approvals by: -SFAC -SF HPC	Authority FTA

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
7(M)	Air Quality	M-AQ-C1: Require construction contractors to implement the BAAQMD *Basic Construction Mitigation Measures* listed in Table 4.15-7 and the applicable measures in the *Additional Construction Mitigation Measures*. This includes Measure 10 in the *Additional Construction Mitigation Measures*, which requires implementation of an off-road equipment emission reduction plan.	Contractors shall implement daily during project construction, per contract specifications.	Contractor	Construction	SFMTA to conduct weekly monitoring to ensure implementation of measure. SFMTA to prepare weekly report throughout project construction duration.	Authority

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
8(M)	Air Quality	M-AQ-C2: Require construction contractors to comply with BAAQMD Regulation 11 (Hazardous Pollutants) Rule 2 (Asbestos Demolition, Renovation, and Manufacturing), which for project demolition activities requires removal standards, reporting requirements, and mandatory monitoring and record keeping.	Contractors shall implement daily during project construction, per contract specifications.	Contractor	Construction	SFMTA to conduct weekly monitoring to ensure implementation of measure. SFMTA to prepare weekly report throughout project construction duration.	Authority

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
9(M)	Biological Environment	M-BI-C1: Have a certified arborist conduct a preconstruction tree survey to evaluate trees already identified for preservation during the design phase. Employ Best Management Practices (BMPs) identified in tree protection plans and tree removal permits required by SFDPW that will be implemented to preserve the health of those identified trees during project construction.	Per contract specifications, a qualified arborist will implement tree preservation BMPs leading up to/during project construction, including all tree relocations, per contract specifications.	Contractor will provide a qualified arborist to implement.	Preconstruction/ Construction	SFMTA to oversee approvals from SFDPW SFMTA to provide weekly report throughout project construction duration.	Authority FTA SFDPW

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
10 (M)	Biological Environment	M-BI-C2: To comply with the Migratory Bird Treaty Act, avoid disturbance of nesting migratory birds during the breeding season by implementing the following procedures: (1) If feasible, schedule tree and shrub removal during the nonbreeding season (i.e. September 1 through January 31); (2) if tree and shrub removal is required during breeding season (i.e. February 1 through August 31), follow these measures:	Per contract specifications, a qualified wildlife biologist will implement pre-construction survey and exclusion structures and buffers as needed prior to construction and monitor as needed during construction.	Contractor will provide a qualified wildlife biologist to implement.	Preconstruction/ Construction	SFMTA to provide weekly report throughout project construction duration.	Authority FTA

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
10 (M)	Biological Environment	• Have a qualified wildlife biologist conduct preconstruction surveys of all potential nesting habitat within 500 feet of construction activities where access is available. Exclusion structures (e.g. netting or plastic sheeting) may be used to discourage the construction of nests by birds within the project construction zone. A preconstruction survey of all accessible nesting habitat within 500 feet of construction activities is required to occur no more than 2 weeks prior to construction.	Per contract specifications, a qualified wildlife biologist will implement pre-construction survey and exclusion structures and buffers as needed prior to construction and monitor as needed during construction.	Contractor will provide a qualified wildlife biologist to implement.	Preconstruction/ Construction	SFMTA to provide weekly report throughout project construction duration.	Authority FTA

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
10 (M)	Biological Environment	• If preconstruction surveys conducted no more than 2 weeks prior to construction identify that protected nests are inactive or potential habitat is unoccupied during the construction period, then no further mitigation is required. Trees and shrubs within the construction footprint that have been determined to be unoccupied by protected birds or that are located outside the no-disturbance buffer for active nests may be removed.	Per contract specifications, a qualified wildlife biologist will implement pre-construction survey and exclusion structures and buffers as needed prior to construction and monitor as needed during construction.	Contractor will provide a qualified wildlife biologist to implement.	Preconstruction/ Construction	SFMTA to provide weekly report throughout project construction duration.	Authority FTA

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
10 (M)	Biological Environment	• If active protected nests are found during preconstruction surveys, then create a no-disturbance buffer (acceptable in size to CDFW) around active protected bird and/or raptor nests during the breeding season, or until the qualified wildlife biologist determines that all young have fledged. Typical buffers include 500 feet for raptors and 50 feet for passerine nesting birds. The size of these buffer zones and types of construction activities restricted in these areas may be further modified during consultation with CDFG, and will be based on existing noise and human disturbance levels at the project site.	Per contract specifications, a qualified wildlife biologist will implement pre-construction survey and exclusion structures and buffers as needed prior to construction and monitor as needed during construction.	Contractor will provide a qualified wildlife biologist to implement.	Preconstruction/ Construction	SFMTA to provide weekly report throughout project construction duration.	Authority FTA

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
10 (M)	Biological Environment	• Nests initiated during construction are presumed to be unaffected, and no buffer will be necessary; however, the "take" (e.g., mortality, severe disturbance to) of any individual protected birds will be prohibited. Monitoring of active nests when construction activities encroach upon established buffers may be required by CDFG.	Per contract specifications, a qualified wildlife biologist will implement pre-construction survey and exclusion structures and buffers as needed prior to construction and monitor as needed during construction.	Contractor will provide a qualified wildlife biologist to implement.	Preconstruction/ Construction	SFMTA to provide weekly report throughout project construction duration.	Authority FTA

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
11(M)	Cultural Resources	M-CP-C1 Focused archival research will identify specific areas within the APE that are likely to contain potentially significant remains. Methods and findings will be documented as an addendum to the 2009 survey and sensitivity assessment. Research will be initiated once the project's APE map is finalized identifying the major Areas of Direct Impact (the stations and sewer relocation). Many documents, maps, and drawings cover long stretches of Van Ness, while other locations may be researched if documents indicate potential sensitivity in adjacent areas. The Addendum Survey Report will include the following:	Qualified archaeologist to conduct research during final design to inform construction planning and further consultation between FTA and SHPO.	Authority to provide qualified archaeologist to implement	Final Design	FTA to provide Addendum Survey Report to SHPO as part of ongoing Section 106 consultation. SFMTA to provide final design and oversee archaeology approvals from the Planning Department.	Authority FTA SHPO Planning Department

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
11(M)	Cultural Resources	• A contextual section that addresses the development of urban infrastructure along Van Ness Avenue as well as widening and grading activities along the thoroughfare. This overview will provide a basis for evaluating potential resources as they relate to the history of San Francisco and to its infrastructure. • Documentary research that identifies the types of documents available for the identified station locations: street profiles for grading, street widening maps showing demolished building sites, utility work plans, and others as appropriate. This will include researching various archives and records of public agencies in both San Francisco and Oakland (Caltrans).	Qualified archaeologist to conduct research during final design to inform construction planning and further consultation between FTA and SHPO.	Authority to provide qualified archaeologist to implement	Final Design	FTA to provide Addendum Survey Report to SHPO as part of ongoing Section 106 consultation. SFMTA to provide final design and oversee archaeology approvals from the Planning Department.	Authority FTA SHPO Planning Department

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
11(M)	Cultural Resources	• Locations apt to have historic remains present within select areas of the APE (i.e., not removed by later grading or construction). • A cut-and-fill reconstruction of the entire APE corridor, comparing the modern versus mid-1800s ground surface elevations, to fine-tune the initial prehistoric sensitivity assessment, and refine the location of high-sensitivity locations where prehistoric remains may be preserved. • Relevant profiles and plan views of specific blocks to illustrate the methods used in analyzing available documentation.	Qualified archaeologist to conduct research during final design to inform construction planning and further consultation between FTA and SHPO.	Authority to provide qualified archaeologist to implement	Final Design	FTA to provide Addendum Survey Report to SHPO as part of ongoing Section 106 consultation. SFMTA to provide final design and oversee archaeology approvals from the Planning Department.	Authority FTA SHPO Planning Department

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
11(M)	Cultural Resources	• Summary and conclusions to provide detailed information on locations that have the potential to contain extant prehistoric archaeological and historic-era remains that might be evaluated as significant resources, if any. • Two results are possible based on documentary research: • No or Low Potential for Sensitive Locations – major Areas of Direct Impact have no potential to retain extant archaeological remains that could be evaluated as significant resources. No further work would be recommended, beyond adherence to the Inadvertent Discovery Plan (M-CP-3).	Qualified archaeologist to conduct research during final design to inform construction planning and further consultation between FTA and SHPO.	Authority to provide qualified archaeologist to implement	Final Design	FTA to provide Addendum Survey Report to SHPO as part of ongoing Section 106 consultation. SFMTA to provide final design and oversee archaeology approvals from the Planning Department.	Authority FTA SHPO Planning Department

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
11(M)	Cultural Resources	• Potentially Sensitive Locations – If the major Areas of Direct Impact contain locations with a moderate to high potential to retain extant historic or prehistoric archaeological remains that could be evaluated as significant resources, further work would be carried out, detailed in a Testing and Treatment Plan (see M-CP-2). The Phase I addendum report will be submitted to the SHPO for review and concurrence prior to initiation of construction.	Qualified archaeologist to conduct research during final design to inform construction planning and further consultation between FTA and SHPO.	Authority to provide qualified archaeologist to implement	Final Design	FTA to provide Addendum Survey Report to SHPO as part of ongoing Section 106 consultation. SFMTA to provide final design and oversee archaeology approvals from the Planning Department.	Authority FTA SHPO Planning Department

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
12(M)	Cultural Resources	M-CP-C2: The Testing/Treatment plan, if required, would provide archaeological protocols to be employed immediately prior to project construction to test areas identified as potentially significant or having the potential to contain buried cultural resources. In case such areas might be unavoidable, mitigation measures would be proposed. For historic-era resources, work would initially entail detailed, focused documentary research to evaluate the potential significance of any archaeological material identified during initial research that might be preserved. Significance would be based on the data-potential of possible remains applied to accepted research designs. Two results could ensue:	Per contract specifications, qualified archaeologist to instruct construction crews on this procedure prior to start of construction and throughout construction, as needed. Construction crew members to implement if needed during project construction.	Authority to provide qualified archaeologist to prepare Testing/ Treatment Plan if required. Contractor or SFMTA to provide qualified archaeologist to implement Testing/ Treatment Plan if required.	Construction	FTA to consult with SHPO on a Testing/ Treatment Plan to complete the Section 106 Process.	Authority FTA SHPO Planning Department

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
12(M)	Cultural Resources	• No Potentially Significant Remains. If no locations demonstrate the potential for significant remains, no further archaeological testing would be recommended. • Potentially Significant Remains. If any locations have the potential to contain significant remains, then appropriate field methods will be proposed, including compressed testing and data-recovery efforts. Testing will be initiated immediately prior to construction, when there is access to historic ground levels. Should a site or site feature be found and evaluated as potentially significant, mitigation in the form of data recovery will take place immediately upon discovery should avoidance of the site not be possible.	Per contract specifications, qualified archaeologist to instruct construction crews on this procedure prior to start of construction and throughout construction, as needed. Construction crew members to implement if needed during project construction.	Authority to provide qualified archaeologist to prepare Testing/ Treatment Plan if required. Contractor or SFMTA to provide qualified archaeologist to implement Testing/ Treatment Plan if required.	Construction	SFMTA to monitor instruction and to provide weekly reports of archaeological findings and procedures throughout project construction duration as well as verification of training of all relevant construction crew staff working on job site.	Authority FTA SHPO Planning Department

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
12(M)	Cultural Resources	If required for prehistoric resources, a Treatment Plan would identify relevant research issues for resource evaluation, and pragmatic field methods to identify, evaluate, and conduct data recovery if needed. This could include a pre-construction geoarchaeological coring program or a compressed three-phase field effort occurring prior to construction, when the ground surface is accessible. The procedures detailed in the Treatment Plan would be finalized in consultation with the SHPO. A Phase 2 Test/Phase 3 Mitigation report will document all testing and data-recovery excavation methods and findings.	Per contract specifications, qualified archaeologist to instruct construction crews on this procedure prior to start of construction and throughout construction, as needed. Construction crew members to implement if needed during project construction.	Authority to provide qualified archaeologist to prepare Testing/ Treatment Plan if required. Contractor or SFMTA to provide qualified archaeologist to implement Testing/ Treatment Plan if required.	Construction	SFMTA to monitor instruction and to provide weekly reports of archaeological findings and procedures throughout project construction duration as well as verification of training of all relevant construction crew staff working on job site.	Authority FTA SHPO Planning Department

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
13(M)	Cultural Resources	M-CP-C3: In the event buried cultural resources are encountered during construction activities, pursuant to 36 CFR 800.13, construction would be halted and the discovery area isolated and secured until a qualified professional archaeologist assesses the nature and significance of the find. Unusual, rare, or unique finds—particularly artifacts or features not found during data recovery—could require additional study. Examples of these would include the following: • Any bone that cannot immediately be identified as non-human • Any types of intact features (hearths, house floors, cache pits, structural foundations, etc.) • Artifact caches or concentrations	Per contract specifications, construction crews to be instructed on this policy prior to start of construction and throughout construction, and to implement if needed during project construction.	Contractor to provide qualified archaeologist to implement	Construction	SFMTA to monitor instruction and to provide weekly reports of archaeological findings and procedures throughout project construction duration.	Authority FTA SHPO Planning Department

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
13(M)	Cultural Resources	• Rare or unique items (engraved or incised stone or bone, beads or ornaments, mission-era artifacts) • Archaeological remains which are redundant with materials collected during testing or data recovery and which have minimal data potential need not be formally investigated. This could include debitage; most flaked or ground tools, with the exception of diagnostic or unique items (e.g., projectile points, crescents) shell; non-human bone; charcoal and other plant remains.	Per contract specifications, construction crews to be instructed on this policy prior to start of construction and throughout construction, and to implement if needed during project construction.	Contractor to provide qualified archaeologist to implement	Construction	SFMTA to monitor instruction and to provide weekly reports of archaeological findings and procedures throughout project construction duration.	Authority FTA SHPO Planning Department

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
13(M)	Cultural Resources	• Diagnostic and unique artifacts unearthed during construction would be collected and their proveniences noted. Artifact concentrations and other features would be photographed, flotation/soils/radiocarbon samples taken (as appropriate), and locations mapped using a GPS device.	Per contract specifications, construction crews to be instructed on this policy prior to start of construction and throughout construction, and to implement if needed during project construction.	Contractor to provide qualified archaeologist to implement	Construction	SFMTA to monitor instruction and to provide weekly reports of archaeological findings and procedures throughout project construction duration.	Authority FTA SHPO Planning Department

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
13(M)	Cultural Resources	Upon discovery of deposits which may constitute a site, the agency official shall notify the State Historic Preservation Officer (SHPO) and any Indian tribe that might attach religious and cultural significance to the affected property. The notification shall describe the agency official's assessment of National Register eligibility of the property and proposed actions to resolve the adverse effects (if any). The SHPO, Indian tribe, and Advisory Council on Historic Preservation (the Council) shall respond within 48 hours of the notification. The agency official shall take into account their recommendations regarding National Register eligibility and proposed actions, and then carry out appropriate actions. The agency official shall provide the SHPO, Indian tribe, and the Council a report of the actions when they are completed.	Per contract specifications, construction crews to be instructed on this policy prior to start of construction and throughout construction, and to implement if needed during project construction.	Contractor to provide qualified archaeologist to implement	Construction	SFMTA to monitor instruction and to provide weekly reports of archaeological findings and procedures throughout project construction duration.	Authority FTA SHPO Planning Department

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
13(M)	Cultural Resources	The above activities could be carried out quickly and efficiently, with as little delay as possible to construction work. The methods and results of any excavations would be documented, with photographs, in an Addendum Report. Any artifacts collected would be curated along with the main collection. Samples would be processed in a lab and analyzed, or curated with the collection for future studies, at the discretion of the project proponent. If major adjustments are made to the final project design, a qualified professional archaeologist should be consulted before work begins, to determine whether additional survey, research, and/or geoarchaeological assessments are needed.	Per contract specifications, construction crews to be instructed on this policy prior to start of construction and throughout construction, and to implement if needed during project construction.	Contractor to provide qualified archaeologist to implement	Construction	SFMTA to monitor instruction and to provide weekly reports of archaeological findings and procedures throughout project construction duration.	Authority FTA SHPO Planning Department

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
14(M)	Cultural Resources	M-CP-C4**:** If humans are discovered during project construction, the stipulations provided under Section 7050.5 of the State Health and Safety Code will be followed. The San Francisco County coroner would be notified as soon as is reasonably possible (CEQA Section 15064.5). There would be no further site disturbance where the remains were found and all construction work would be halted within 100 feet of the discovery. If the remains are determined to be Native American, the coroner is responsible for contacting the California Native American Heritage Commission within 24 hours. The Commission, pursuant to California Public Resources Code Section 5097.98 would notify those persons it believes to be the most likely descendants (MLD). Treatment of the remains would be dependent on the views of the MLD.	Per contract specifications, construction crews to be instructed on this policy prior to start of construction and throughout construction, and to implement if needed during project construction.	Contractor to provide qualified archaeologist to implement	Construction	SFMTA to monitor instruction and to provide weekly reports of archaeological findings and procedures throughout project construction duration.	Authority County Coroner NAHC Planning Department

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
15(M)	Geology/Soils/Seismicity/Topography	M-GE-C1: Shore all cuts deeper than 5 feet (AGS, 2009a). Consider surcharge load from nearby structures in shoring design of open excavations including an examination of the potential for lateral movement of the excavation walls as a result. Implement the following construction BMPs related to shoring and slope stability: • Keep heavy construction equipment, building materials, excavated soil, and vehicle traffic away from the edge of excavations, generally a distance equal to or greater than the depth of the excavation. • During wet weather, prevent storm runoff from entering the excavation. Excavation sidewalls can be covered with plastic sheeting, and berms can be placed around the perimeter of the excavated areas.	Per contract specifications, contractor to implement during construction.	Contractor	Construction	SFMTA to oversee cuts and provide weekly reports describing the shoring technique used on all cuts deeper than 5 feet throughout project construction duration.	Authority FTA

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
15(M)	Geology/Soils/Seismicity/Topography	• Adequately support sidewalks, slabs, pavement, and utilities adjacent to proposed excavations during construction.	Per contract specifications, contractor to implement during construction.	Contractor	Construction	SFMTA to oversee cuts and provide weekly reports describing the shoring technique used on all cuts deeper than 5 feet throughout project construction duration.	Authority FTA

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
16(M)	Hazardous Waste/Materials	M-HZ-C1: Create a Worker Site Health and Safety Plan with the following components, in response to potential Recognized Environmental Conditions identified in the Phase II review or other follow-up investigations, and results from preconstruction lead-based paint (LBP) and aerially deposited lead (ADL) surveys specified in Sections 4.8.3 and 4.8.4: • A safety and health risk/hazards analysis for each site task and operation in the work plan; • Employee training assignments; • Personal protective equipment requirements; • Medical surveillance requirements; • Air monitoring, environmental sampling techniques, and instrumentation;	Per contract specifications, plan (including special provisions) to be written by Contractor as part of construction planning phase.	Contractor	Construction (planning phase)	SFMTA to oversee approval from Caltrans. SFMTA to provide weekly reports on adherence to plan throughout construction duration.	Authority FTA Caltrans

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
16(M)	Hazardous Waste/Materials	• Safe storage and disposal measures for encountered contaminated soil, groundwater, or debris, including temporary storage locations, labeling, and containment procedures. • Emergency response plan; and Spill containment program.	Per contract specifications, plan (including special provisions) to be written by Contractor as part of construction planning phase.	Contractor	Construction (planning phase)	SFMTA to oversee approval from Caltrans. SFMTA to provide weekly reports on adherence to plan throughout construction duration.	Authority FTA Caltrans

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
17(M)	Hazardous Waste/Materials	M-HZ-C2, IM-HY-C1 and IM-HY-5: Coordinate preparation of a Storm Water Pollution Prevention Plan (SWPPP) required to comply with the National Pollutant Discharge Elimination System (NPDES) General Permit requirements with San Francisco Public Utilities Commission (SFPUC) and conform construction activities with SFPUC's "Keep it on site" guide. Include in the project SWPPP the following measures to contain any possible contamination, including protection of storm drains, and to prevent any contaminated runoff or leakage either into or onto exposed ground surfaces: • Use of stormwater BMPs, including inlet protection devices, temporary silt fencing, soil stabilization measures, street sweeping, stabilized construction entrances, and temporary check dams.	Per contract specifications, plan to be written by contractor as part of construction planning phase.	Contractor	Permitting & Construction (planning phase)	SFMTA to oversee approvals from Caltrans and RWQCB SFMTA to provide weekly reports outlining adherence to SWPPP throughout construction duration.	Authority FTA Caltrans RWQCB

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
17(M)	Hazardous Waste/Materials	• Conducting drilling/piling operations in accordance with guidelines set forth by the City, including the Department of Public Health Local Oversight Program and Caltrans Construction Site BMP Manual. • Lining storage areas. • Proper and expeditious disposal of items to be removed, such as landscaping, curb bulb waste, existing bus stop shelters, and demolished OCS and signal poles.	Per contract specifications, plan to be written by contractor as part of construction planning phase.	Contractor	Permitting & Construction (planning phase)	SFMTA to oversee approvals from Caltrans and RWQCB SFMTA to provide weekly reports outlining adherence to SWPPP throughout construction duration.	Authority FTA Caltrans RWQCB

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
17(M)	Hazardous Waste/Materials	In accordance with NPDES General Permit requirements the SWPPP will address water quality impacts associated with construction activities, including identification of all drainage facilities onsite, placement of appropriate stormwater and non-stormwater pollution controls, erosion and sediment control, spill response and containment plans, inspection scheduling, maintenance, and training of all construction personnel onsite..	Per contract specifications, plan to be written by contractor as part of construction planning phase.	Contractor	Permitting & Construction (planning phase)	SFMTA to oversee approvals from Caltrans and RWQCB SFMTA to provide weekly reports outlining adherence to SWPPP throughout construction duration.	Authority FTA Caltrans RWQCB

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
18(M)	Hazardous Waste/Materials	M-HZ-C3: Implement public health and safety measures contained in Worker Health and Safety Plan (M-HZ-C1) during construction.	Per contract specifications, measures will be identified as part of M-HZ-C1 above, and will be implemented throughout construction specifications.	Contractor	Construction	SFMTA to provide weekly reports throughout construction duration.	Authority FTA Caltrans

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
19(M)	Hazardous Waste/Materials	M-HZ-1: Prior to construction, review Phase II study and conduct a follow-up investigation, if appropriate, for identified recognized environmental conditions (RECS). Required actions are: • Field survey identified RECs to verify the physical locations of the REC sites with respect to the preferred build alternative project components and proposed construction earthwork, and observe the current conditions of the sites. • Conduct a regulatory file review for each identified REC to determine the current status of the sites and, if possible, the extent of the contamination.	SFMTA shall implement M-HZ-1 following final design.	SFMTA	Final Design/Construction Planning	SFMTA to provide a report with findings.	Authority FTA Caltrans

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
19(M)	Hazardous Waste/Materials	• If the aforementioned field survey and file review reveal a likelihood of encountering contaminated soil or groundwater during project construction, then conduct a subsurface exploration within the areas proposed for construction earthwork activities. Conduct the subsurface investigation within the project limits, adjacent to, or downgradient from the REC sites. If soil profiling reveals contaminant concentrations that meet the definition of hazardous materials, prepare and implement Construction Implementation Plan that addresses management of hazardous materials and hazardous waste that is consistent with the federal and state of California requirements pertaining to hazardous materials and wastes management.	SFMTA shall implement M-HZ-1 following final design.	SFMTA	Final Design/Construction Planning	SFMTA to provide a report with findings.	Authority FTA Caltrans

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
20(M)	Hazardous Waste/Materials	M-HZ-2: Test soils in landscaped medians that will be disturbed by project activities for aerially deposited lead according to applicable hazardous material testing guidelines. If the soil contains extractible lead concentrations that meet the definition of hazardous materials, obtain Caltrans approval of a Lead Compliance Plan prior to the start of construction or soil-disturbance activities. If lead levels present in surface soils reach concentrations in excess of the hazardous waste threshold, stabilize onsite or dispose at a Class 1 landfill such soils as specified in the Lead Compliance Plan.	SFMTA shall implement soil testing for ADL prior to construction to inform construction planning. Per contract specifications, Contractor shall adhere to Lead Compliance Plan, if necessary.	SFMTA	Final Design/Construction Planning	SFMTA to provide a report with findings and, if necessary, a Lead Compliance Plan. If necessary, SFMTA shall provide weekly reports on Contractor compliance with Lead Compliance Plan throughout construction duration.	Authority FTA Caltrans

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
21(M)	Hazardous Waste/Materials	M-HZ-3: Test for lead in paint used for traffic lane striping and on streetscape features, including the OCS support poles/streetlights, prior to demolition/removal to determine proper handling and disposal methods during project construction. If lead is detected, include appropriate procedures in the Construction Implementation Plan to avoid worker or public contact with these materials or generation of dust or vapors.	SFMTA shall implement LBP testing of structures to be demolished, prior to construction to inform construction planning. Per contract specifications, Contractor shall adhere to Construction Implementation Plan.	SFMTA	Final Design/Construction Planning	SFMTA to provide report outlining LBP and shall include procedures in Construction Implementation Plan SFMTA to provide weekly reports on adherence to Construction Implementation Plan throughout construction duration.	Authority FTA Caltrans

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
22(M)	Community Impacts/ Public Services & Land Use, Transportation & Circulation	M-CI-C1: During the design phase, with participation from local agencies, other major project proposers in the area (e.g., the California Pacific Medical Center [CPMC] Cathedral Hill Campus, the Better Market Street Project, and the Geary Corridor BRT projects), local communities, businesses associations, and affected drivers develop a Transportation Management Plan (TMP) that includes traffic rerouting, a detour plan, and public information procedures. Implement early and well-publicized announcements and outreach to help minimize confusion, inconvenience, and traffic congestion at the start of and during construction.	SFMTA to implement as part of construction planning phase. Per contract specifications, Contractor to implement during construction.	SFMTA – planning Contractor - construction	Construction Planning Phase, Construction Phase	SFMTA to oversee approvals from Caltrans and SFDPW SFMTA to provide weekly reports on adherence to TMP throughout construction duration.	Authority FTA Caltrans SFDPW

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
23(M)	Community Impacts/ Public Services & Land Use, Transportation & Circulation	M-CI-C2: As part of the TMP, construction planning will minimize nighttime construction in residential areas and minimize daytime construction impacts on retail and commercial areas.	SFMTA to implement as part of construction planning phase. Per contract specifications, Contractor to implement during construction.	SFMTA	Construction Planning Phase, Construction Phase	SFMTA to oversee project approvals from Caltrans and SFDPW SFMTA to provide weekly reports on adherence to TMP in Civic Center area throughout construction duration.	

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
24(M)	Community Impacts/ Public Services & Land Use, Transportation & Circulation	M-CI-C3: Incorporate in the TMP applicable in the Civic Center area, consideration of major civic and performing arts events.	SFMTA to implement as part of construction planning phase. Per contract specifications, Contractor to implement during construction.	SFMTA	Construction Planning Phase, Construction Phase	SFMTA to oversee project approvals from Caltrans and SFDPW SFMTA to provide weekly reports on adherence to TMP in Civic Center area throughout construction duration.	Authority FTA Caltrans SFDPW

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
25(M)	Community Impacts/ Public Services & Land Use, Transportation & Circulation	M-CI-C4:[5] As part of the TMP public information program, coordinate with adjacent properties along Van Ness Avenue to determine the need for colored parking spaces (for freight and passenger and disabled loading) for these uses and work to identify locations for replacement spaces or plan construction activities to minimize the loss of these spaces.	SFMTA to implement as part of construction planning phase. Per contract specifications, Contractor to implement during construction.	SFMTA	Construction Planning Phase, Construction Phase	SFMTA to oversee approvals from Caltrans and SFDPW. SFMTA to provide weekly reports on adherence to TMP throughout construction duration.	Authority FTA Caltrans SFDPW

5 M-CI-2 constitutes a mitigation measure under NEPA and an improvement measure under CEQA.

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
26(M)	Community Impacts/ Public Services & Land Use, Transportation & Circulation	M-CI-C5: As part of the TMP public information program, coordinate with adjacent properties along Van Ness Avenue to ensure that pedestrian access to these properties is maintained at all times.	SFMTA to implement as part of construction planning phase. Per contract specifications, Contractor to implement during construction.	SFMTA	Construction Planning Phase, Construction Phase	SFMTA to oversee approvals from Caltrans and SFDPW. SFMTA to provide weekly reports on adherence to TMP throughout construction duration	Authority FTA Caltrans SFDPW

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
27(M)	Community Impacts/ Public Services & Land Use, Transportation & Circulation	M-CI-C6: As part of the TMP, SFMTA's process for accepting and addressing complaints will be implemented. This includes provision of contact information for the Project Manager, Resident Engineer, and Contractor on project signage with direction to call if there are any concerns. Complaints are logged and tracked to ensure they are addressed.	SFMTA to implement as part of construction planning phase. Per contract specifications, Contractor to implement during construction.	SFMTA	Construction Planning Phase, Construction Phase	SFMTA to oversee approvals from Caltrans and SFDPWF SFMTA to provide weekly reports on adherence to TMP throughout construction duration.	Authority FTA Caltrans SFDPW

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
28(M)	Community Impacts/ Public Services & Land Use, Transportation & Circulation	M-CI-C7. As part of the TMP, adequate passenger and truck loading zones will be maintained for adjacent land uses, including maintaining access to driveways and providing adequate loading zones on the same or adjoining street block face.	SFMTA to implement as part of construction planning phase. Per contract specifications, Contractor to implement during construction.	SFMTA	Construction Planning Phase, Construction Phase	SFMTA to oversee approvals from Caltrans and SFDPW. SFMTA to provide weekly reports on adherence to TMP throughout construction duration.	Authority FTA Caltrans SFDPW

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
29(M)	Transportation and Circulation	M-TR-C1: Temporarily convert parking lanes to mixed-flow traffic lanes to generally maintain two open traffic lanes in each direction and minimize traffic impacts.	SFMTA to implement as part of construction planning phase. Per contract specification, Contractor to implement during construction.	SFMTA, Contractor	Construction Planning Phase, Construction Phase	SFMTA to oversee approvals from Caltrans and SFDPW. SFMTA to provide weekly reports on adherence to TMP throughout construction.	Authority FTA Caltrans SFDPW

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
	Transportation and Circulation	M-TR-C3: Plan required closures of a second mixed-flow traffic lane and detours for nighttime or off-peak traffic hours and as in conformance with approved noise requirements.	SFMTA to implement as part of construction planning phase. Per contract specification, Contractor to implement during construction	SFMTA, Contractor	Construction Planning Phase, Construction Phase	SFMTA to oversee approvals from Caltrans and SFDPW SFMTA to provide weekly reports on adherence to TMP throughout construction duration.	Authority FTA Caltrans SFDPW

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
30(M)	Transportation and Circulation	M-TR-C4: Maintain one east-west and north-south crosswalk leg open at all times at all intersections.	SFMTA to implement as part of construction planning phase. Per contract specification, Contractor to implement during construction	SFMTA, Contractor	Construction Planning Phase, Construction Phase	SFMTA to oversee approvals from Caltrans and SFDPW SFMTA to provide weekly reports on adherence to TMP throughout construction duration.	Authority FTA Caltrans

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
31(M)	Transportation and Circulation	M-TR-C5: Install sufficient barricading, signage, and temporary walkways as needed to minimize impacts to pedestrians.	SFMTA to implement as part of construction planning phase. Per contract specification, Contractor to implement during construction	SFMTA, Contractor	Construction Planning Phase, Construction Phase	SFMTA to oversee approvals from Caltrans and SFDPW SFMTA to provide weekly reports on adherence to TMP throughout construction duration.	Authority FTA Caltrans SFDPW

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
32(M)	Transportation and Circulation	M-TR-C6: Coordinate with the Golden Gate Bridge & Highway Transportation District (GGT) as part of the TMP to plan temporarily relocated transit stops as needed, and minimize impacts to GGT service.	SFMTA to implement as part of construction planning phase through coordination with GGT. Per contract specification, Contractor to implement during construction.	SFMTA, Contractor	Construction Planning Phase & Construction	SFMTA to oversee approvals from Caltrans and concurrence from GGT. SFMTA to provide weekly reports on adherence to TMP throughout construction duration.	Authority FTA Caltrans GGT

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
33(M)	Transportation and Circulation	M-TR-C7: Develop and coordinate with other major projects in the area a Transportation Management Plan (TMP) outlining methods and strategies to minimize construction activity-related traffic delay and inconvenience to the traveling public. The TMP will include a public information program and wayfinding to provide local businesses and residents with information related to the construction activities and durations, temporary traffic closures and detours, parking restrictions, and bus stop relocations. The public information program will be coordinated with regional agencies, such as Caltrans and Golden Gate Transit.	SFMTA to implement as part of construction planning phase. Per contract specification, Contractor to implement during construction.	SFMTA	Construction Planning Phase & Construction; TMP to be developed during the 30 percent project design phase	SFMTA to oversee approvals from Caltrans and SFDPW SFMTA to provide weekly reports on adherence to TMP throughout construction duration.	Authority FTA Caltrans SFDPW

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
34(M)	Transportation and Circulation	M-TR-1: Add an additional vehicle to the fleet on Routes 47 and 49 if needed to decrease headways for each route sufficiently to bring the load factors below SFMTA's maximum vehicle load standard of 0.85.	SFMTA Transit Operations to implement as needed during project operation.	SFMTA	Operation	SFMTA to provide quarterly reports on crowding for first 2 years of operation, annual reports for subsequent 5 years.	Authority FTA

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
35(M)	Transportation and Circulation	M-Traffic Management Toolbox: Develop and implement a traffic management toolbox to raise public awareness of circulation changes; advise drivers of alternate routes; and provide pedestrian improvements. Toolbox actions will include: • Provide driver wayfinding and signage, especially to assist infrequent drivers of the corridor who may not be aware of alternate routes, such as along the Larkin/Hyde and Franklin/Gough corridors. Coordinate with Caltrans to develop the driver wayfinding and signage strategy as part of mitigation measure and M-TR-C5. Continue to monitor traffic after construction and during project operation. If the above mentioned construction measures prove to be helpful in minimizing traffic delay impacts, consider implementing similar strategies on an as-needed basis during project operation.	SFMTA to implement during and after construction.	SFMTA	Construction and Operation	SFMTA to provide weekly reports on adherence to TMP throughout construction duration. SFMTA to prepare monthly monitoring reports for the first two years of project operation.	Authority FTA Caltrans Golden Gate Transit

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
35(M)	Transportation and Circulation	• Public Awareness Campaign and Transportation Management Plan (TMP) during and after Project Construction. As discussed as part of mitigation measure M-TR-C7, the TMP will implement a public awareness program of wayfinding during construction and will coordinate the public information program with regional agencies, including Caltrans and GGT. Continue to monitor traffic after construction and during project operation. If the above mentioned construction measures prove to be helpful in minimizing traffic delay impacts, the SFMTA may choose to implement similar strategies on an as-needed basis during project operation.	SFMTA to implement during and after construction.	SFMTA	Construction and Operation	SFMTA to provide weekly reports on adherence to TMP throughout construction duration. SFMTA to prepare monthly monitoring reports for the first two years of project operation.	Authority FTA Caltrans Golden Gate Transit

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
35(M)	Transportation and Circulation	• Pedestrian Amenities at Additional Corridor Locations. After construction, during project operation, monitor travel in the corridor to identify additional locations for pedestrian improvements based on a combination of pedestrian and vehicle volumes, infrastructure capabilities, and collision history. Consider the potential for long-term, pedestrian amenities, such as countdown signals and pedestrian curb bulbs, to help reduce the severity of automobile traffic delays through mode shift .	SFMTA to implement during and after construction.	SFMTA	Construction and Operation	SFMTA to provide weekly reports on adherence to TMP throughout construction duration. SFMTA to prepare monthly monitoring reports for the first two years of project operation.	Authority FTA Caltrans Golden Gate Transit

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
36(M)	Utilities and Service Systems	M-UT-1: Closely coordinate BRT construction with concurrent utility projects planned within the Van Ness Avenue corridor.	SFMTA, SFPUC, and SFDPW to implement as part of construction planning phase, including coordination with the Committee for Utility Liaison on Construction and Other Projects (CULCOP) and the San Francisco Street Construction Coordination Center.	SFMTA, SFPUC and contractor	Permitting & Construction (planning phase)	SFMTA to oversee approvals from SFDPW.	Authority FTA

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
37(M)	Utilities and Service Systems	M-UT-2: During the design phase, inspect and evaluate the sewer pipeline within the project limits to assess the condition of the pipeline and need for replacement. If repair or relocation is needed, during project construction, continue to coordinate such work with SFPUC and SFDPW working with the City's Committee for Utility Liaison on Construction and Other Projects (CULCOP).	SFMTA and SFPUC to conduct needed sewer inspections during final design.	SFMTA, SFPUC	Final Design & Construction (planning phase)	SFMTA to oversee approvals from SFDPW.	Authority FTA

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
38(M)	Utilities and Service Systems	M-UT-3: Design the project to ensure that the proposed BRT transitway and station facilities do not prevent access to the underground auxiliary water supply service (AWSS) lines. Ensure that the design provides adequate access for specialized trucks to park next to gate valves for maintenance and that gate valves are not located beneath medians or station platforms.	SFMTA, SFDPW, SFPUC, and the San Francisco Fire Department to coordinate and plan during final design, and again for construction planning. Per contract specifications, Contractor to implement during construction.	SFMTA, SFPUC, and the San Francisco Fire Department	Final Design & Construction	SFMTA to oversee approvals from SFPUC and San Francisco Fire Department SFMTA to provide weekly reports on accessibility of AWSS lines and gate valves throughout construction duration.	Authority FTA

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
39(M)	Utilities and Service Systems	M-UT-4: In situations where utility facilities cannot be relocated, create an operations plan to accommodate temporary closure of the transitway and/or stations in coordination with utility providers to allow utility providers to perform maintenance, emergency repair, and upgrade/replacement of underground facilities that may be located beneath project features such as the BRT transitway, station platforms, or curb bulbs. Integrate into the plan signage for BRT patrons and safety protocols for Muni operators and utility providers.	SFMTA to coordinate with utility providers, SFDPW, the SFPUC and SF Fire Department during final design to ensure project design considers utility maintenance programs, including those overlapping with project construction.	SFMTA	Final Design, Construction	SFMTA to oversee approvals from SFPUC, SF Fire Department, and SFDPW.	Authority FTA

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
40(M)	Community Impacts	M-CI-IM-1[6]: Prior to construction, coordinate with all businesses that would be affected by removal of colored parking spaces, including short-term parking, to confirm the need for truck and/or passenger loading spaces and to identify and implement appropriate replacement parking locations to minimize the impacts to these businesses.	SFMTA to implement as part of design phase Per contract specifications, Contractor to implement relocated parking	SFMTA	Design and Construction	SFMTA to oversee approvals from Caltrans and SFDPW. SFMTA to provide weekly report on adherence to parking designs throughout construction duration.	Authority FTA Caltrans SFDPW

6 M-CI-IM-1 and M-CI-IM-2 constitutes a mitigation measure under NEPA and an improvement measure under CEQA

No.	Affected Resource/s	Mitigation & Improvement Measures[4]	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
41(M)	Community Impacts	M-CI-IM-2[7]: Apply parking management tools as needed to offset any substantial impacts from the loss of on-street parking, which may include adjustment of residential parking permits in the residential community north of Broadway, or use of SFpark, which is a package of real-time tools to manage parking occupancy and turnover through pricing (appropriate in areas of high-density commercial uses that rely on high parking turnover).	SFMTA to implement as part of post-construction project monitoring phase.	SFMTA	Post-Construction Monitoring Phase	SFMTA to provide quarterly parking assessment for first 2 years of project operation.	Authority FTA

7 M-CI-IM-1 and M-CI-IM-2 constitutes a mitigation measure under NEPA and an improvement measure under CEQA

Table B. Mitigation Monitoring & Reporting Program for the Van Ness Avenue BRT Project (Improvement Measures)

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
1 (IM)	Aesthetics/ Visual Resources	IM-AE-C1: During construction, require the contractor to maintain the site in an orderly manner, removing trash and waste, and securing equipment at the close of each day's operation.	Contractor to implement daily during project construction.	Contractor	Construction	SFMTA to conduct daily visual scans and prepare weekly report throughout project construction duration.	Authority FTA
2 (IM)	Aesthetics/ Visual Resources	IM-AE-C2: To reduce glare and light used during nighttime construction activities, require the contractor to direct lighting onto the immediate area under construction only and to avoid shining lights toward residences, nighttime commercial properties, and traffic lanes.	Contractor to implement nightly during project construction.	Contractor	Construction	SFMTA to conduct nightly visual scans and prepare weekly report throughout project construction duration.	Authority FTA

8 The number coding is as follows: improvement (IM) or mitigation (M) measure – environmental resource – construction period includes (C) – numerical order within environmental resource.

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
3 (IM)	Biological Environment	IM-BI-1: In compliance with local tree protection policies codified in the San Francisco Public Works Code, preserve mature trees and incorporate them into the project landscape plan as feasible. Incorporate the planting of replacement trees and landscaping into the landscape plan as feasible.	A qualified arborist will be on the landscape design team to work with SFMTA and SFDPW staff to identify preservation opportunities for mature trees.	Qualified arborist, SFMTA, SFDPW	30% design through final design	SFMTA to provide CER, final design and oversee project approvals from SFDPW Bureau of Urban Forestry.	Authority FTA
4 (IM)	Biological Environment	IM-BI-2: Have a certified arborist complete a preconstruction tree survey to identify protected trees that will be potentially impacted by the proposed project, and to determine the need for tree removal permits and tree protection plans under San Francisco Public Works Code requirements.	A qualified arborist will conduct tree survey during 30% design, and then again during final design as needed.	Qualified Arborist, SFMTA	30% design through final design	SFMTA to provide CER, final design and oversee project approvals from SFDPW Bureau of Urban Forestry.	Authority FTA

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
5 (IM)	Biological Environment	IM-BI-3: In compliance with the Executive Order on Invasive Species, E.O. 13112, design and implement landscaping that does not use species listed as noxious weeds.	Qualified landscape architect will exclude noxious weeds from landscape plan.	Qualified Landscape Architect provided by SFMTA	Final Design	SFMTA to provide final design and oversee project approvals from SFDPW Bureau of Urban Forestry	Authority FTA
6 (IM)	Geology/Soils/Seismicity/Topography	IM-GE-1: Perform localized soil modification treatments as needed at locations where station platforms would be located in areas of fill or areas mapped as a liquefaction area. Such soil modification may include soil vibro-compaction or permeation grouting.	Per contract specifications, Contractor to implement during design and construction phase, in preparation of construction of station platforms.	Contractor	Final Design/Permitting/Construction	SFMTA to provide weekly report on soil modification treatments throughout project construction duration.	Authority FTA

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
7 (IM)	Geology/Soils/Seismicity/Topography	IM-GE-2:Over-excavate fill soils and replace them with engineered fill as needed in areas where proposed project structures would be located in areas of fill or in liquefaction zones.	Per contract specifications, Contractor to implement during design and construction phase, in preparation of construction of station platforms.	Contractor	Final Design/Permitting/Construction	SFMTA to provide weekly report on fill soils in areas of fill or liquefaction zones throughout project construction duration.	Authority FTA

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
8 (IM)	Geology/Soils/Seismicity/Topography	IM-GE-3: As needed; in areas of fill or areas mapped as a liquefaction area, design and construct deeper foundations for station platforms and canopies.	SFMTA to perform assessment during final design. Per contract specifications, Contractor to implement during permitting and construction phase, in preparation of construction of station platforms.	Contractor	Final Design/Permitting/Construction	SFMTA will oversee permit approval from SFDPW and Caltrans SFMTA to provide weekly reports on compliance with foundational requirements throughout construction of foundations, then monthly reports on subsidence through the remainder of project construction	Authority FTA Caltrans SFDPW

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
9 (IM)	Water Quality and Hydrology	IM-HY-C1. See M-HZ-C2.	Per contract specifications, SWPPP to be written by contractor as part of construction planning phase.	Contractor	Permitting & Construction (planning phase)	SFMTA to oversee approvals by: SFPUC and RWQCB SFMTA to provide weekly reports outlining adherence to SWPPP	Authority FTA RWQCB
10 (IM)	Water Quality and Hydrology	IM-HY-C2: Coordinate with and obtain any needed permit approval from the SFPUC for any construction work that impacts the combined sewer system (CSS)	SFMTA shall obtain any needed approval from SFPUC.	SFMTA, SFPUC and contractor	Permitting & Construction (planning phase)	SFMTA to oversee approvals from SFPUC SFMTA to provide weekly reports on adherence to "Keep it on Site" guidelines throughout construction duration.	Authority FTA RWQCB

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
11 (IM)	Water Quality and Hydrology	IM-HY-C3: If groundwater is encountered during project excavation activities, pump the water from the excavated area, contain and treated it in accordance with all applicable State and federal regulations before discharging it to the existing local CSS. Obtain a batch discharge permit from SFPUC prior to commencement of discharge to the CSS.	SFMTA and SFPUC to implement as part of construction planning phase. Per contract specifications, contractor shall implement during construction if groundwater is encountered.	SFMTA, SFPUC and contractor	Permitting & Construction (planning phase)	SFMTA to oversee approvals from SFPUC and RWQCB	Authority FTA RWQCB

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
12 (IM)	Water Quality and Hydrology	IM-HY-1: Design landscape areas provided by the project to minimize and reduce total runoff. Avoid the overuse of water and/or fertilizers on landscaped areas.	SFMTA and landscape architects to implement during landscape design. SFDPW to implement water and fertilizer usage during project operation Contractor will implement landscape plan and follow watering/fertilizing guidelines during construction, as needed, and per contract specifications.	SFMTA, SFDPW	Final Design & Operation	SFMTA to oversee approvals from SF Arts Commission, HPC, and Planning Department SFDPW to provide quarterly reports on fertilizer usage for first 5 years of operation. SFMTA to submit weekly reports on Contractor implementation of landscape plan and watering/fertilizing guideline adherence, as needed throughout construction duration.	Authority FTA

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
13 (IM)	Water Quality and Hydrology	IM-HY-2: As project design progresses, investigate and as feasible incorporate in the design and implement stormwater management tools, such as permeable paving, infiltration planters, swales, and rain gardens, as set forth in the *San Francisco Better Streets Plan*. In determining the feasibility of implementing stormwater management tools, consider streetscape geometry, topography, soil type and compaction, groundwater depth, subsurface utility locations, building laterals, maintenance costs and safety, and pedestrian accessibility.	SFMTA, SFPUC and SFDPW landscape architects to include in landscape design, and consult with SFDPW on maintenance aspects. Contractor to implement stormwater management tools, per contract specifications.	SFMTA, SFPUC , SFDPW, and Contractor	Final Design & Operation	SFMTA to oversee approvals from: SFAC, HPC, Planning Department, SFDPW, and SFPUC for final design. SFMTA to provide weekly reports on implementation of stormwater elements throughout construction duration.	Authority FTA

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
14 (IM)	Water Quality and Hydrology	IM-HY-3: In compliance with the City Integrated Pest Management Policy (City Municipal Code, Section 300), employ prevention and non-chemical control methods in maintaining landscaping in the Van Ness Avenue corridor, including monitoring for pests before treating, and using the least-hazardous chemical pesticides, herbicides, and fertilizers only when needed and as a last resort.	SFMTA and landscape architects to consider pest management requirements in landscape design, and the contractor to implement throughout the plant establishment period. SFDPW to implement during project operation Contractor to implement during construction, as needed and per contract specifications and City guidelines.	Contractor, SFMTA, SFDPW	Final Design & Operation	SFMTA to oversee approvals from: SFAC, HPC, and Planning Department, for final design. SFMTA to provide weekly reports on pest control elements throughout construction duration. SFDPW to provide quarterly reports on pest control management for the first 5 years of operation.	Authority FTA SFDPW

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
15 (IM)	Water Quality and Hydrology	IM-HY-4: Equip proposed BRT stations with trash receptacles to minimize the miscellaneous waste that may enter the storm drain system and clog storm drains or release pollutants.	SFMTA to implement during final design.	SFMTA	Final Design	SFMTA	Authority FTA
16 (IM)	Water Quality and Hydrology	IM-HY-5: See-M-HZ-C2.	Per contract specifications, SWPPP to be written by contractor as part of construction planning phase. SWPPP will be implemented by Contractor.	Contractor	Permitting & Construction (planning phase)	SFMTA to oversee approvals from SFPUC and RWQCB SFMTA to provide weekly reports on implementation of SWPPP throughout construction duration.	Authority FTA RWQCB

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
17 (IM)	Noise and Vibration	IM-NO-C1: During construction, implement the following best practices in equipment noise and vibration control, as feasible: • Use newer equipment with improved noise muffling and ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine covers, and engine vibration isolators intact and operational. Newer equipment will generally be quieter in operation than older equipment. All construction equipment should be inspected at periodic intervals to ensure proper maintenance and presence of noise control devices (e.g., mufflers and shrouding).	Per contract specifications, Contractor to implement during construction.	Contractor	Construction	SFMTA to provide weekly reports outlining adherence to standards throughout construction duration.	Authority FTA

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
17 (IM)	Noise and Vibration	• Perform all construction in a manner that minimizes noise and vibration. Utilize construction methods or equipment that will provide the lowest level of noise and ground vibration impact. • Turn off idling equipment. • When possible, limit the use of construction equipment that creates high vibration levels, such as vibratory rollers and hammers. When such equipment must be used within 25 feet of any existing building, select equipment models that generate lower vibration levels. Restrict the hours of vibration-intensive equipment or activities, such as vibratory rollers, so that annoyance to residents is minimal (e.g., limit to daytime hours as defined in the noise ordinance).	Per contract specifications, Contractor to implement during construction.	Contractor	Construction	SFMTA to provide weekly reports outlining adherence to standards throughout construction duration.	Authority FTA

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
18 (IM)	Noise and Vibration	IM-NO-C2: During project construction, conduct project truck loading, unloading, and hauling operations so that noise and vibration are kept to a minimum by carefully selecting routes to avoid passing through residential neighborhoods to the greatest possible extent.	Per Contract specifications, Contractor to implement daily during project construction, per contract specifications.	Contractor	Construction	SFMTA to provide weekly reports on adherence to noise and vibration minimization practices throughout construction duration.	Authority FTA
19 (IM)	Noise and Vibration	IM-NO-C3: Perform independent noise and vibration monitoring in sensitive areas as needed to demonstrate compliance with applicable noise limits. Require contractors to modify and/or reschedule their construction activities if monitoring determines that maximum limits are exceeded at residential land uses per the City Noise Ordinance.	SFMTA to perform independent noise and vibration monitoring. Contractor to implement modifications as needed during project construction, per contract specifications.	Contractor	Construction	SFMTA to provide weekly reports on noise and vibration monitoring throughout construction duration.	Authority FTA SFDPH

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
20 (IM)	Noise and Vibration	IM-NO-C4: During construction, comply with the City noise ordinances and obtain all necessary permits, particularly in relation to nighttime construction work.	Per contract specifications. Contractor to implement throughout project construction.	Contractor	Construction	SFMTA to provide weekly reports on compliance with City noise ordinance throughout construction duration.	Authority FTA
21 (IM)	Noise and Vibration	IM-NO-1: Throughout project operation, maintain roadway surface to avoid increases in BRT noise and vibration levels.	SFMTA to ensure regular maintenance of roadway surface through Caltrans maintenance agreement.	SFMTA/SFDPW	Operation	SFMTA to provide final maintenance agreement with Caltrans and identify maintenance funding source for local contribution to BRT runningway maintenance	Authority FTA

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
22 (IM)	Traffic and Circulation	IM-NMT-1: Include comprehensive wayfinding, allowing all users to navigate to and from the correct platform.	SFMTA to implement as part of construction planning phase. Per contract specifications, Contractor to implement during construction.	SFMTA	Construction Planning Phase, Construction Phase	SFMTA to prepare weekly report throughout duration of project construction.	Authority FTA
23 (IM)	Traffic and Circulation	IM-NMT-2**:** For Build Alternative 4, bus vehicle design should incorporate an intuitive seating space for users requiring level boarding that is easily accessible to both the front door on the right side and the door behind the operator on the left side.	SFMTA to incorporate in vehicle procurement	SFMTA	Operation	SFMTA to provide periodic report on vehicle procurement	Authority FTA

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
24 (IM)	Traffic and Circulation	IM-NMT-3**:** For Build Alternative 4, bus vehicle design should incorporate audible cues, such as stop announcements, of which door will open to avoid any confusion for passengers.	SFMTA to incorporate in vehicle procurement	SFMTA	Operation	SFMTA to provide report on vehicle procurement	Authority FTA
25 (IM)	Traffic and Circulation	IM-NMT-4: Provide sufficient information to educate less-ambulatory passengers that board at BRT stations that they would need to exit through the front, right doors for stops outside the Van Ness Avenue corridor.	SFMTA to incorporate in vehicle procurement	SFMTA	Operation	SFMTA to provide report on vehicle procurement	Authority FTA
26 (IM)	Traffic and Circulation	IM-TR-1**:** On-street parking will be created where bus stops are consolidated or moved to the center of the street.	SFMTA to implement as part of construction planning phase. Per contract specifications, Contractor to implement during construction.	SFMTA	Construction Planning Phase, Construction Phase	SFMTA to prepare weekly report during applicable phase of project construction.	Authority FTA

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
27 (IM)	Traffic and Circulation	IM-TR-2**:** Additional on-street parking will be provided where feasible by lane striping.	SFMTA to implement as part of construction planning phase. Per contract specifications, Contractor to implement during construction.	SFMTA	Construction Planning Phase, Construction Phase	SFMTA to prepare weekly report during applicable phase of project construction.	Authority FTA
28 (IM)	Traffic and Circulation	IM-TR-3**:** Infill on-street parking spaces will be provided where they do not exist today as feasible.	SFMTA to implement as part of construction planning phase. Per contract specifications, Contractor to implement during construction.	SFMTA	Construction Planning Phase, Construction Phase	SFMTA to prepare weekly report during applicable phase of project construction.	Authority FTA

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
29 (IM)	Traffic and Circulation	IM-TR-4: SFMTA will give priority to retaining color-painted on-street parking spaces, such as yellow freight zones white passenger loading zones, green short-term parking, and blue disabled parking.	SFMTA to implement as part of construction planning phase. Per contract specifications, Contractor to implement during construction.	SFMTA	Construction Planning Phase, Construction Phase	SFMTA to prepare weekly report during applicable phase of project construction.	Authority FTA
30 (IM)	Traffic and Circulation	IM-TR-5**:** Blue handicapped parking spaces will be designed to provide a curb ramp behind each space.	SFMTA to implement as part of construction planning phase. Per contract specifications, Contractor to implement during construction.	SFMTA	Construction Planning Phase, Construction Phase	SFMTA to prepare weekly report during applicable phase of project construction.	Authority FTA

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
31 (IM)	Utilities and Service Systems	IM-UT-C1: For construction work involving utilities follow these requirements: • Obtain authorization from utility provider before initiating work • Contact Underground Service Alert in advance of excavation work to mark-out underground utilities • Conduct investigations, including exploratory borings if needed, to confirm the location and type of underground utilities and service connections • Prepare a support plan for each utility crossing detailing the intended support method • Take appropriate precautions for the protection of unforeseen utility lines encountered during construction	SFMTA, SFPUC, and SFDPW to implement as part of construction planning phase, including coordination with utility providers, the Committee for Utility Liaison on Construction and Other Projects (CULCOP) and the San Francisco Street Construction Coordination Center.	SFMTA, SFPUC and contractor	Permitting & Construction (planning phase)	SFMTA to oversee approvals from SFDPW and Caltrans. SFMTA to provide weekly reports on adherence to permitting requirements with respect to utilities throughout construction duration.	Authority FTA Caltrans SFDPW

No.	Affected Resource/s[8]	Mitigation & Improvement Measures	Implementation Procedure	Implementation Responsibility	Implementation Schedule	Monitoring Responsibility	Reporting Recipient
31 (IM)	Utilities and Service Systems	• Restore or replace each utility as close as planned and work with providers to ensure its location is as good or better than found prior to removal	Per contract specifications and as outlined in approval permits, Contractor to implement planned approach to utilities.	SFMTA, SFPUC and contractor	Permitting & Construction (planning phase)	SFMTA to oversee approvals from SFDPW and Caltrans. SFMTA to provide weekly reports on adherence to permitting requirements with respect to utilities throughout construction duration.	Authority FTA Caltrans SFDPW