FINAL ENVIRONMENTAL IMPACT REPORT

VOLUME 1

SAN FRANCISCO BICYCLE PLAN

San Francisco Planning Department

City and County of San Francisco

Case No. 2007.0347E

August 2009

State Clearinghouse No. 2008032052

Draft EIR Publication Date: November 26, 2008

Draft EIR Public Hearing Date: January 8, 2009

Draft EIR Public Comment Period: November 26, 2008 - January 13, 2009

Final EIR Certification Date: June 25, 2009

FILE NO. 090913 MOTION NO. M09-136

[Affirming certification of the Bicycle Plan Project FEIR]

Motion affirming the certification by the Planning Commission of the Final Environmental Impact Report for the 2009 San Francisco Bicycle Plan Project.

WHEREAS, The City and County of San Francisco, through its San Francisco Municipal Transportation Agency (MTA) and Planning Commission (collectively, the "Project Sponsor") is proposing adoption of the 2009 San Francisco Bicycle Transportation Plan, which includes minor, long-term, and near-term improvements for the bicycle route network, and amendments to the General Plan and Planning Code to reflect said Bicycle Plan, (the "Project"); and

WHEREAS, The MTA Board of Directors, in its Resolution No. 07-012, adopted January 30, 2007, initiated the process for environmental review of the Project and thereafter applied to the Planning Department for environmental review of the Project (City Planning Case No. 2007.0347E); and

WHEREAS, The Planning Department for the City and County of San Francisco (the "Department") determined that an Environmental Impact Report ("EIR") was required and provided public notice of that determination by publication in a newspaper of general circulation on June 5, 2007; and

WHEREAS, On November 26, 2008, the Department published the Draft Environmental Impact Report ("DEIR") for the Project; and

WHEREAS, On January 8, 2009, the Commission held a duly noticed public hearing on the DEIR, at which time opportunity for public comment was received on the DEIR, and written comments were received through January 13, 2009; and

WHEREAS, The Department prepared responses to comments received at the public hearing on the DEIR and submitted in writing to the Department, prepared revisions to the text of the DEIR and published a Draft Summary of Comments and Responses on June 11, 2009; and

WHEREAS, A Final Environmental Impact Report ("FEIR") for the Project was prepared by the Department, consisting of the DEIR, any consultations and comments received during the review process, any additional information that became available and the Draft Summary of Comments and Responses, all as required by law; and

WHEREAS, On June 25, 2009, the Commission reviewed and considered the FEIR and, by Motion No. 17912, found that the contents of said report and the procedures through which the FEIR was prepared, publicized and reviewed complied with the provisions of the California Environmental Quality Act (CEQA), the State CEQA Guidelines and Chapter 31 of the San Francisco Administrative Code; and

WHEREAS, By Motion No. 17912, the Commission found the FEIR to be adequate, accurate and objective, reflected the independent judgment and analysis of the Department and the Commission and that the Summary of Comments and Responses contained no significant revisions to the DEIR, adopted findings relating to significant impacts associated with the Project and certified the completion of the FEIR in compliance with CEQA and the State CEQA Guidelines; and

WHEREAS, On June 25, 2009, by Resolution Nos. 17913, 17914, and 17915, the Planning Commission adopted CEQA Findings and adopted and recommended General Plan and Planning Code Amendments, and on June 26, 2009, by Resolutions Nos. 09-105 and 09-106, the MTA Board of Directors adopted CEQA Findings and the 2009 Bicycle Transportation Plan, which includes minor, long-term, and near-term improvements for the bicycle route network, and approved legislation for implementation of 45 near-term bicycle improvement projects; and

WHEREAS, By letters to the Clerk of the Board of Supervisors dated July 15, 2009, Catherine Liddell on behalf of South Beach-Rincon Hill-Mission Bay Neighborhood Association and Mary Miles on behalf of Coalition for Adequate Review, filed appeals of the FEIR to the Board of Supervisors, which the Clerk of the Board of Supervisors received on or around July 15, 2009; and

WHEREAS, On August 4, 2009, this Board held a duly noticed public hearing to consider the appeal of the FEIR certification filed by Appellants; and

WHEREAS, This Board has reviewed and considered the FEIR, the appeal letters, the responses to concerns document that the Planning Department prepared, the other written records before the Board of Supervisors, and heard testimony and received public comment regarding the adequacy of the FEIR; and

WHEREAS, the FEIR files and all correspondence and other documents have been made available for review by this Board and the public. These files are available for public review by appointment at the Planning Department offices at 1650 Mission Street and the MTA offices at 1 So. Van Ness, and are part of the record before this Board by reference in this motion; now, therefore, be it

MOVED, That this Board of Supervisors hereby affirms the decision of the Planning Commission in its Motion No. 17912 to certify the FEIR and finds the FEIR to be complete, adequate and objective and reflecting the independent judgment of the City and in compliance with CEQA and the State CEQA Guidelines.

City and County of San Francisco

Tails

Motion

City Hall
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102-4689

File Number: 090913 **Date Passed:**

Motion affirming the certification by the Planning Commission of the Final Environmental Impact Report for the 2009 San Francisco Bicycle Plan Project.

August 4, 2009 Board of Supervisors — APPROVED

File No. 090913

I hereby certify that the foregoing Motion was APPROVED on August 4, 2009 by the Board of Supervisors of the City and County of San Francisco.

Angela Calvillo
Clerk of the Board

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PLANNING DEPARTMENT

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Planning Commission Motion 17912

HEARING DATE: June 25, 2009

Hearing Date:	June 25, 2009
Case No.:	**2007.0347E**
Project Title:	**San Francisco Bicycle Plan**
Project Address:	N/A, **Citywide, primarily within the public right-of-way**
Zoning:	N/A
Block/Lot:	N/A, **Citywide, primarily within the public right-of-way**
Project Sponsor:	Oliver Gajda, Bicycle Program Manager San Francisco Municipal Transportation Agency One South Van Ness Avenue San Francisco, CA 94103
Staff Contact:	Debra Dwyer – (415) 575-9031 Debra.Dwyer@sfgov.org

ADOPTING FINDINGS RELATED TO THE CERTIFICATION OF A FINAL ENVIRONMENTAL IMPACT REPORT FOR THE PROPOSED UPDATE TO THE 2009 SAN FRANCISCO BICYCLE TRANSPORTATION PLAN, WHICH INCLUDES MINOR, LONG-TERM, AND NEAR-TERM IMPROVEMENTS FOR THE BICYCLE ROUTE NETWORK, AND AMENDMENTS TO THE GENERAL PLAN AND PLANNING CODE TO REFLECT SAID BICYCLE PLAN.

MOVED, that the San Francisco Planning Commission (hereinafter "Commission") hereby CERTIFIES the Final Environmental Impact Report identified as Case No. 2007.0347E, the San Francisco Bicycle Plan (hereinafter "Project"), based upon the following findings:

1. The City and County of San Francisco, acting through the Planning Department (hereinafter "Department") fulfilled all procedural requirements of the California Environmental Quality Act (Cal. Pub. Res. Code Section 21000 *et seq.*, hereinafter "CEQA"), the State CEQA Guidelines (Cal. Admin. Code Title 14, Section 15000 *et seq.*, (hereinafter "CEQA Guidelines") and Chapter 31 of the San Francisco Administrative Code (hereinafter "Chapter 31").

   A. The Department determined that an Environmental Impact Report (hereinafter "EIR") was required and provided public notice of that determination by publication in a newspaper of general circulation on June 5, 2007.

   B. Public notice was provide on June 5, 2007 of a Public Scoping meeting for the EIR for this project, and such meeting was subsequently held on June 26, 2007.

   C. On November 26, 2008, the Department published the Draft Environmental Impact Report (hereinafter "DEIR") and provided public notice in a newspaper of general circulation of the availability of the DEIR for public review and comment and of the date and time of the Planning Commission public hearing on the DEIR; this notice was mailed to the Department's list of persons requesting such notice.

D. In addition, the Notices of availability of the DEIR (NOA) and of the date and time of the public hearing were mailed to more than 1,400 persons, neighborhood organizations, and agencies on November 26, 2008. The Planning Department also emailed a copy of the NOA on November 26, 2008 to persons for whom an email address had been provided. .

E. On November 26, 2008, copies of the DEIR were mailed or otherwise delivered to a list of persons requesting it, to those noted on the distribution list for the DEIR, and to government agencies, the latter both directly and through the State Clearinghouse.

F. Notice of Completion was filed with the State Secretary of Resources via the State Clearinghouse on November 26, 2008.

2. The Commission held a duly advertised public hearing on said DEIR on January 8, 2009 at which opportunity for public comment was given, and public comment was received on the DEIR. The period for acceptance of written comments ended on January 13, 2009.

3. The Department prepared responses to comments on environmental issues received at the public hearing in writing during the 47-day public review period for the DEIR and submitted after the close of the public comment period, prepared revisions to the text of the DEIR in response to comments received or based on additional information that became available during the public review period, and corrected errors in the DEIR. This material was presented in a Comments and Responses document, published on June 11, 2009, distributed to the Commission, to the SFMTA Board, and to all parties who commented on the DEIR, and made available to others upon request at Department offices.

4. A Final Environmental Impact Report has been prepared by the Department, consisting of the Draft Environmental Impact Report, supporting studies, documents and other materials, any consultations and comments received during the review process, any additional information that became available, and the Comments and Responses document, all as required by law.

5. Project Environmental Impact Report files have been made available for review by the Commission and the public. These files are available for public review by appointment at the Department offices at 1650 Mission Street, Suite 400, in San Francisco, and are part of the record before the Commission.

6. On June 25, 2009, the Commission reviewed and considered the Final Environmental Impact Report and hereby does find that the contents of said report and the procedures through which the Final Environmental Impact Report was prepared, publicized, and reviewed comply with the provisions of CEQA, the CEQA Guidelines, and Chapter 31.

7. The project sponsor has indicated that the presently preferred alternative consists of the preferred project design for 47 of the near-term improvements as described in the Final Environmental Impact Report and presented in Exhibit A hereto.

8. The Planning Commission hereby does find that the Final Environmental Impact Report concerning File No. 2007.0347E, the San Francisco Bicycle Plan, reflects the independent judgment and analysis of the City and County of San Francisco, is adequate, accurate and objective, and that the Comments and Responses document contains no significant revisions to the DEIR, and hereby does CERTIFY THE COMPLETION of said Final Environmental Impact Report in compliance with CEQA and the CEQA Guidelines.

9. The Commission, in certifying the completion of said Final Environmental Impact Report, hereby does find that the project described in the Environmental Impact Report and the project preferred by the project sponsor, described in Exhibit A attached hereto:

   A. Will have project-specific significant effects on the environment resulting in a potential reduction of traffic levels-of-service on some roadway segments and at some intersections, a potential slowing of transit movement in specific locations, and a potential reduction of loading spaces in certain locations within the project area. While none of the policy goals, objectives, and actions taken to support the 2009 Bicycle Plan, now and into the future, would, in themselves, have a significant effect on the physical environment, the predictable indirect impact of implementing the policy goals, objectives, and actions would be the implementation of the proposed physical environmental improvements which are described in the 2009 Bicycle Plan. Therefore, the implementation of policy goals, objectives, and actions could indirectly lead to the same impacts as identified for the actual improvement projects. Specifically, the project may result in the significant and unavoidable impacts described in Exhibit B hereto.

I hereby certify that the foregoing Motion was ADOPTED by the Planning Commission at its regular meeting of June 25, 2009.

Linda Avery
Commission Secretary

AYES: Miguel, Antonini, Borden, Olague, Sugaya

NOES:

ABSENT: Lee, Moore

ADOPTED: June 25, 2009

EXHIBIT A

2009 SAN FRANCISCO BICYCLE PLAN
PREFERRED PROJECT ALTERNATIVE

The Preferred Project Alternative as determined by the San Francisco Municipal Transportation Agency consists of the 2009 Bicycle Plan, the minor and long-term improvements for the bicycle route network as described in the EIR, and the following preferred project options for the near-term improvements for the bicycle route network as described in the Final EIR.

The preferred project designs for the near-term improvements listed in Table A.1 are exactly the same as a project design option analyzed in the Draft EIR.

TABLE A.1 NEAR-TERM IMPROVEMENT PROJECTS		OPTION 1	OPTION 2
PROJECT NO.	PROJECT NAME		
1-2	BROADWAY TUNNEL SIGNAGE IMPROVEMENTS	YES	
2-3	14TH STREET BICYCLE LANE, DOLORES STREET TO MARKET STREET	YES	
2-5	BEALE STREET BICYCLE LANE, BRYANT STREET TO FOLSOM STREET	YES	
2-6	DIVISION STREET BICYCLE LANES, 9TH STREET TO 11TH STREET		YES
2-7	FREMONT STREET SOUTHBOUND BICYCLE LANE, HARRISON STREET TO HOWARD STREET	YES	
2-8	HOWARD STREET WESTBOUND BICYCLE LANE, SHORT EXTENSION AT 9TH STREET	YES	
2-9	HOWARD STREET, WESTBOUND BICYCLE LANE, THE EMBARCADERO TO FREMONT STREET	YES	
2-12	MARKET STREET BICYCLE LANES, OCTAVIA BOULEVARD TO VAN NESS AVENUE	YES	
2-13	MCCOPPIN STREET BICYCLE PATH, MARKET STREET TO VALENCIA STREET	YES	
2-15	OTIS STREET WESTBOUND BICYCLE LANE, GOUGH STREET TO SOUTH VAN NESS AVENUE	YES	
3-1	FELL STREET AND MASONIC AVENUE INTERSECTION IMPROVEMENTS	YES	
3-3	MCALLISTER STREET BICYCLE LANE, MARKET STREET TO MASONIC AVENUE	YES	
3-4	POLK STREET BICYCLE LANE, MARKET STREET TO MCALLISTER STREET	YES	
3-5	SCOTT STREET BICYCLE LANE, FELL STREET TO OAK STREET	YES	
3-6	THE "WIGGLE" IMPROVEMENTS	YES	
4-1	16TH STREET BICYCLE LANES, 3RD STREET TO TERRY FRANCOIS BOULEVARD	YES	
4-2	CARGO WAY BICYCLE LANES, 3RD STREET TO JENNINGS STREET	YES	
4-3	ILLINOIS STREET BICYCLE LANES, 16TH STREET TO CARGO WAY	YES	
4-5	MISSISSIPPI STREET BICYCLE LANES, 16TH STREET TO MARIPOSA STREET	YES	
5-3	ALEMANY BOULEVARD BICYCLE LANES, ROUSSEAU STREET TO SAN JOSE AVENUE	YES	

5-5	CESAR CHAVEZ STREET BICYCLE LANES, I-280 TO US 101 FREEWAYS	YES	
5-7B	GLEN PARK AREA BICYCLE LANES, (B) CONNECTION BETWEEN MONTEREY BOULEVARD AND SAN JOSE AVENUE	YES	
5-11	POTRERO AVENUE AND BAYSHORE BOULEVARD BICYCLE LANES, 25TH STREET TO CESAR CHAVEZ STREET	YES	
5-13	SAN BRUNO AVENUE BICYCLE LANES, PAUL TO SILVER AVENUES *	YES *	
6-2	CLIPPER STREET BICYCLE LANES, DOUGLASS STREET TO PORTOLA DRIVE	YES FOR SEGMENT I	YES FOR SEGMENT II[1]
7-2	7TH AVENUE BICYCLE LANES, LAWTON STREET TO LINCOLN WAY	YES	
7-5	KIRKHAM STREET BICYCLE LANES, 9TH AVENUE TO GREAT HIGHWAY	YES	
7-6	PAGE AND STANYAN STREETS INTERSECTION TRAFFIC SIGNAL IMPROVEMENTS	YES	
8-1	19TH AVENUE MIXED-USE PATH, BUCKINGHAM WAY TO HOLLOWAY AVENUE		YES
8-3	HOLLOWAY AVENUE BICYCLE LANES, JUNIPERO SERRA BOULEVARD TO VARELA AVENUE	YES	
8-4	JOHN MUIR DRIVE BICYCLE LANES, LAKE MERCED BLVD TO SKYLINE BOULEVARD	YES	
8-5	SLOAT BOULEVARD BICYCLE LANES, GREAT HIGHWAY TO SKYLINE BOULEVARD	YES	

* Please note that while Option 1 is the preferred design option for Project 5-13, SFMTA is preserving consideration of Option 2.

The preferred project designs for the near-term improvements listed in Table A.2 are a refinement to a project design option analyzed in the Draft EIR, and are further described in the Comments and Responses document section on staff initiated text changes.

TABLE A.2 NEAR-TERM IMPROVEMENT PROJECTS		**MODIFIED OPTION 1**	**MODIFIED OPTION 2**
PROJECT NO.	**PROJECT NAME**		
1-3	NORTH POINT STREET BICYCLE LANES, THE EMBARCADERO TO VAN NESS AVENUE	YES	
2-1	2ND STREET BICYCLE LANES, KING STREET TO MARKET STREET	YES	
2-2	5TH STREET BICYCLE LANES, MARKET STREET TO TOWNSEND STREET		YES
2-4	17TH STREET BICYCLE LANES, CORBETT AVENUE TO KANSAS STREET, INCLUDING CONNECTIONS TO THE 16TH STREET BART STATION VIA HOFF STREET OR VALENCIA STREET, AND 17TH STREET TO DIVISION STREET VIA POTRERO AVENUE **	YES**	
2-10	MARKET STREET AND VALENCIA STREET INTERSECTION	YES	

[1] Pursuant to refinement of this project, the original Project 6-2 Option I for Segment II on Diamond Heights Boulevard from the intersection of Diamond Heights Boulevard with Clipper Street to the intersection of Diamond Heights Boulevard and Portola Drive is no longer under consideration. Therefore, there is only one option for each segment.

	IMPROVEMENTS		
2-11	MARKET STREET BICYCLE LANES, 17TH STREET TO OCTAVIA BOULEVARD	YES	
2-14	MCCOPPIN STREET BICYCLE LANE, GOUGH STREET TO VALENCIA STREET	YES	
2-16	TOWNSEND STREET BICYCLE LANES, 8TH STREET TO THE EMBARCADERO	YES	
5-1	23RD STREET BICYCLE LANES, KANSAS STREET TO POTRERO AVENUE	YES	
5-2	ALEMANY BOULEVARD BICYCLE LANES, BAYSHORE BOULEVARD TO ROUSSEAU STREET	YES	
5-4	BAYSHORE BOULEVARD BICYCLE LANES, CESAR CHAVEZ STREET TO SILVER AVENUE		YES
5-7A	GLEN PARK AREA BICYCLE LANES, (A) CONNECTION BETWEEN ALEMANY BOULEVARD AND SAN JOSE AVENUE		YES
5-8	KANSAS STREET BICYCLE LANES, 23RD STREET TO 26TH STREET	YES	
5-9	OCEAN AVENUE BICYCLE LANES, ALEMANY BOULEVARD TO LEE AVENUE		YES
5-12	SAGAMORE STREET AND SICKLES AVENUE BICYCLE LANES, ALEMANY BOULEVARD TO BROTHERHOOD WAY	YES	
6-1	CLAREMONT BOULEVARD BICYCLE LANES, DEWEY BOULEVARD TO ULLOA STREET	YES	
6-3	LAGUNA HONDA BOULEVARD BICYCLE LANES, PLAZA STREET TO WOODSIDE		YES
6-4	LAGUNA HONDA BOULEVARD BICYCLE LANES, PORTOLA DRIVE TO WOODSIDE AVENUE	YES	
6-5	PORTOLA DRIVE BICYCLE LANES, CORBETT AVENUE TO O'SHAUGHNESSY BOULEVARD	YES	
6-6	PORTOLA DRIVE BICYCLE LANES, O'SHAUGHNESSY BOULEVARD/WOODSIDE AVENUE TO SLOAT BOULEVARD/ST. FRANCIS BOULEVARD		YES
7-1	INTERSECTION IMPROVEMENTS AT 7TH AVENUE AND LINCOLN WAY	YES	
7-3	GREAT HIGHWAY AND POINT LOBOS AVENUE BICYCLE LANES, EL CAMINODEL MAR TO CABRILLO STREET	YES	
7-4	JOHN F. KENNEDY DRIVE AND KEZAR DRIVE BICYCLE LANES, STANYAN STREET TO TRANSVERSE DRIVE	YES	
8-2	BUCKINGHAM WAY BICYCLE LANES, 19TH AVENUE TO 20TH AVENUE	YES	

** Please note that while Modified Option 1 is the preferred design option for Project 2-4, SFMTA is preserving consideration of Option 2 for the Center Segment of Project 2-4 between Church Street and Potrero Avenue.

The preferred project design for the following five near-term improvement projects has not yet been determined. For these projects, it is anticipated that the preferred project designs, once identified, would be within the range of project options analyzed in the Draft EIR. When a preferred project design is determined, an assessment will be made regarding whether or not supplemental environmental analysis is required.

Project 1-1 Broadway Bicycle Lanes, Polk Street to Webster Street

Project 3-2 Masonic Avenue Bicycle Lanes, Fell Street to Geary Boulevard

Project 4-4 Innes Avenue Bicycle Lanes, Donahue Street to Hunters Point Boulevard

Project 5-6 Cesar Chavez Street/26th Street Bicycle Lanes, Sanchez Street to US-101

Project 5-10 Phelan Avenue Bicycle Lanes, Judson Avenue to Ocean Avenue

EXHIBIT B

SIGNIFICANT AND UNAVOIDABLE IMPACTS THAT MAY RESULT FROM THE 2009 BICYCLE PLAN PROJECT PREFERRED PROJECT

A. Traffic[1]

The 2009 Bicycle Plan Preferred Project has the long-term potential and cumulative potential (which considers impacts of both the Bicycle Plan and other development anticipated to occur around the project area) to increase traffic delay in some areas of the City. Through the reduction of roadway capacity and specifically the reduction in the number of lanes available for automotive vehicle use, the Preferred Project may cause a significant adverse impact to some intersection levels of service.

The 2009 Bicycle Plan Preferred Project also has the near-term potential and cumulative potential (which considers impacts of both the Bicycle Plan and other development anticipated to occur around the project area) to cause a significant adverse impact to intersection levels-of-service at the following locations:

Cluster 2

2nd Street/Bryant Street, Project 2-1 Modified Option 1, Existing plus Project and 2025 Cumulative plus Project conditions

2nd Street/Folsom Street, Project 2-1 Modified Option 1, 2025 Cumulative plus Project conditions

2nd Street/Harrison Street, Project 2-1 Modified Option 1, Existing plus Project and 2025 Cumulative plus Project conditions

2nd Street/Howard Street, Project 2-1 Modified Option 1, 2025 Cumulative plus Project conditions

2nd Street/Townsend Street, Project 2-16 Modified Option 1, 2025 Cumulative plus Project conditions

5th Street/Brannan Street, Project 2-2 Modified Option 2, 2025 Cumulative plus Project conditions

5th Street/Bryant Street, Project 2-2 Modified Option 2, Existing plus Project and 2025 Cumulative plus Project conditions

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[1] Unless otherwise noted, the significant and unavoidable traffic and transit impacts are for PM peak hour conditions.

5th Street/Howard Street, Project 2-2 Modified Option 2, 2025 Cumulative plus Project conditions

7th Street/Townsend Street, Project 2-16 Modified Option 1, 2025 Cumulative plus Project conditions

10th Street/Brannan Street/Potrero Street, combined Projects 2-4 Modified Option 1 and 2-6 Option 2, Existing plus Project and 2025 Cumulative plus Project conditions

Church Street/Market Street/14th Street, Combined Projects 2-3 and 2-11 Modified Option 1, 2025 Cumulative plus Project conditions

Church Street/Market Street/14th Street, Project 2-11 Modified Option 1, 2025 Cumulative plus Project conditions

Fremont Street/Howard Street, combined Projects 2-7 and 2-9, Existing plus Project and 2025 Cumulative plus Project conditions

Fremont Street/Howard Street, Project 2-9, Existing plus Project and 2025 Cumulative plus Project conditions

Potrero Street/16th Street, Project 2-4 Modified Option 1, 2025 Cumulative plus Project conditions

Cluster 3

Masonic Avenue/Fell Street, Combined Projects 3-1 and 3-2 Option 1, 2025 Cumulative plus Project conditions

Masonic Avenue/Fell Street, Project 3-2 Option 1, Existing plus Project and 2025 Cumulative plus Project conditions

Masonic Avenue/Fell Street, Project 3-2 Option 2, 2025 Cumulative plus Project conditions

Masonic Avenue/Turk Street, Project 3-2 Options 1 and 2, in the AM peak hour, 2025 Cumulative plus Project conditions

Masonic Avenue/Turk Street, Project 3-2 Option 1, in the PM peak hour, 2025 Cumulative plus Project conditions

Masonic Avenue/Fulton Street, Project 3-2 Options 1 and 2, in the AM peak hour, 2025 Cumulative plus Project conditions

Masonic Avenue/Geary Boulevard, Project 3-2 Option 1, 2025 Cumulative plus Project conditions

Cluster 5

Bryant Street/Cesar Chavez Street, Project 5-6 Options 1 and 2, Existing plus Project and 2025 Cumulative plus Project conditions

Evans Avenue/Cesar Chavez Street, Project 5-5 Option 1, Existing plus Project and 2025 Cumulative plus Project conditions

Guerrero Street/Cesar Chavez Street, Project 5-6 Options 1 and 2, Existing plus Project and 2025 Cumulative plus Project conditions

Mission Street/Cesar Chavez Street, Project 5-6 Options 1 and 2 in the AM peak hour for 2025 Cumulative plus Project conditions, and Project 5-6 Options 1 and 2 in the PM peak hour, Existing plus Project and 2025 Cumulative plus Project conditions

South Van Ness Avenue/Cesar Chavez Street, Project 5-6 Options 1 and 2, Existing plus Project and 2025 Cumulative plus Project conditions

B. Transit

The 2009 Bicycle Plan Preferred Project has the long-term potential to slow some transit movement in some locations, as well as the near-term potential and cumulative potential to slow some transit movement in some locations, specifically:

Cluster 2

Muni bus line 10, Combined Projects 2-1 and 2-16 Modified Option 1, 2025 Cumulative plus Project conditions

Muni bus line 9, Combined Project 2-4 Modified Option 1 and 2-6 Option 2, 2025 Cumulative plus Project conditions

Muni bus line 9, Project 2-4 Modified Option 1, 2025 Cumulative plus Project conditions

Muni bus line 30, Project 2-16 Modified Option 1, Existing plus Project and 2025 Cumulative plus Project plus Project conditions, near the intersection of 4th Street/Townsend Streets

Muni bus line 45, Project 2-16 Modified Option 1, Existing plus Project and 2025 Cumulative plus Project plus Project conditions, near the intersection of 4th Street/Townsend Street

SamTrans bus line 292, Combined Project 2-4 Modified Option 1 and 2-6 Option 2, 2025 Cumulative plus Project conditions

Muni bus line 292, Project 2-4 Modified Option 1, 2025 Cumulative plus Project conditions

Cluster 3

Muni bus line 43, Combined Projects 3-1 and 3-2 Option 1, Existing plus Project and 2025 Cumulative plus Project conditions

Muni bus line 43, Project 3-2 Option 1, Existing plus Project and 2025 Cumulative plus Project conditions

Cluster 5

Muni bus line 12, Project 5-6 Option 1, Existing plus Project and 2025 Cumulative plus Project conditions

Muni bus line 27, Project 5-6 Option 1, Existing plus Project and 2025 Cumulative plus Project conditions

Cluster 6

Muni bus line 48, Projects 6-2, 6-5 Modified Option 1, and 6-6 Option 1, 2025 Cumulative plus Project conditions*

Muni bus line 52, Projects 6-2, 6-5 Modified Option 1, and 6-6 Option 1, 2025 Cumulative plus Project conditions*

* Note: Project 6-2 Segment II Option 1 is no longer being considered for implementation by SFMTA. Also, the preferred project design for Project 6-6 is Modified Option 2.

C. Loading

The 2009 Bicycle Plan Preferred Project has the long-term potential to eliminate some curb space currently used for passenger loading/unloading or commercial freight loading/unloading in as yet undetermined locations, as well as the near-term potential and cumulative potential to eliminate some curb space currently used for passenger loading/unloading or commercial freight loading/unloading.

Cluster 1

Along North Point Street east of Columbus Avenue, Modified Project 1-3, Existing plus Project and 2025 Cumulative plus Project conditions

Cluster 2

Along 2nd Street between Market and Bryant Streets in the 2nd Street Corridor, Project 2-1 Modified Option 1, Existing plus Project and 2025 Cumulative plus Project conditions for commercial freight loading/unloading

Along north side of Market Street near Noe Street, Project 2-11 Modified Option 1, Existing plus Project and 2025 Cumulative plus Project conditions

Cluster 5

Along Bayshore Boulevard between Cesar Chavez Street and Industrial Street, Project 5-4 Modified Option 2, Existing plus Project and 2025 Cumulative plus Project

Along the west side of San Bruno Avenue between Paul Avenue and Silver Avenue, Project 5-13 Option 1 and Option 2, Existing plus Project and 2025 Cumulative plus Project

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SAN FRANCISCO BICYCLE PLAN

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San Francisco Planning Department

City and County of San Francisco

Case No. 2007.0347E

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● *Indicates material that is new or has been revised since publication of the Draft EIR*

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TABLES FROM COMMENTS AND RESPONSES[1]

1 Tables may appear more than once in this document. The page number indicated refers to its first appearance in the FEIR.

FIGURES

I. GLOSSARY

ACWS	Asphalt Concrete Wearing Surface
ABAG	Association of Bay Area Governments
BBATF	BART Bicycle Accessibility Task Force
BAAQMD	Bay Area Air Quality Management District
BAC	Bicycle Advisory Committee
BART	Bay Area Rapid Transit
BAFUL	Bicycles Allowed Full Use of Lane
BATA	Bay Area Toll Authority
BFU	Caltrans Bicycle Facilities Unit
BOS	Board of Supervisors
BTP	Bicycle Transportation Plan
BTIP	Bayview Transportation Improvement Project
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CMUTCD	California Manual on Uniform Traffic Control Devices
CTCDC	California Traffic Control Device Committee
CVC	California Vehicle Code
CMA	Congestion Management Agency
DPT	Department of Parking and Traffic
DPH	Department of Public Health
DPW	Department of Public Works
EMS	Emergency Medical Services Division
EIR	Environmental Impact Report
GGBHTD	Golden Gate Bridge Highway and Transportation District
GGNRA	Golden Gate National Recreation Area
GGT	Golden Gate Transit
GIS	Geographic Information System
HDM	Caltrans Highway Design Manual
IS	Initial Study
ISCOTT	Interdepartmental Staff Committee on Traffic and Transportation
ISTEA	Inter-modal Surface Transportation Efficiency Act
ITS	Intelligent Transportation System
LAB	League of American Bicyclists
LOS	Level of Service
LRV	Light Rail Vehicle
MEA	Major Environmental Analysis
MMC	methyl methacrylate
MPO	Metropolitan Planning Organization
MTA	San Francisco Municipal Transportation Agency
MTA CAC	Municipal Transportation Agency Citizen's Advisory Council
MTC	Metropolitan Transportation Commission

MUTCD	Federal Manual of Uniform Traffic Control Devices
Muni	San Francisco Municipal Railway
OTS	Office of Traffic Safety
OC	Oversight Committee
PCO	Parking Control Officer
PJPB	Peninsula Joint Powers Board (Caltrain)
PMS	Pavement Management System
ROW	Right-Of-Way
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agency
SAR	Strategic Analysis Report
SCCC	Street Construction Coordination Center
SFBC	San Francisco Bicycle Coalition
SFCTA	San Francisco County Transportation Authority
SF Environment	Department of the Environment
SFFD	San Francisco Fire Department
SFGH	San Francisco General Hospital
SFMTA	San Francisco Municipal Transportation Agency
SFPD	San Francisco Police Department
SFRA	San Francisco Redevelopment Agency
SFUSD	San Francisco Unified School District
Sharrow	Shared Lane Pavement Marking
SR2S	Safe Routes to School
STIP	State Transportation Improvement Program
SWITRS	Statewide Integrated Traffic Records System
TC	San Francisco Transportation Code
TDA	Transportation Development Act
TEA-21	Transportation Equity Act of the 21st Century
TFCA	Transportation Fund for Clean Air
TIS	Transportation Impact Study
TWG	Technical Working Group

II. EXECUTIVE SUMMARY

This Environmental Impact Report (EIR) chapter provides a brief summary of the proposed San Francisco Bicycle Plan Project (the "Proposed Project") and its potential environmental consequences. The chapter includes a summary description of the Proposed Project, a summary list of related environmental issues to be resolved, a summary identification of the associated significant environmental impact and mitigation findings of this EIR, and a summary of EIR-identified alternatives to the Proposed Project and their comparative environmental effects.

This summary should not be relied upon for a thorough understanding of the Proposed Project and its individual impacts and mitigation needs. Please refer to Chapter IV of this EIR for a more complete description of the Proposed Project and to Chapters V and VI for a more complete description of associated impacts and mitigation needs, and Chapter VII of this EIR for a more complete description of identified alternatives to the Proposed Project and their comparative impacts.

A. PROJECT SYNOPSIS

The San Francisco Bicycle Plan (Bicycle Plan Project), would provide for the implementation of near-term bicycle route improvement projects (near-term improvements), long-term bicycle route network improvement projects (long-term improvements), and minor improvements such as signage and pavement marking changes. It would also adopt policy goals, objectives, and actions to support the implementation of these and related changes, at this time and in the future. By enacting these changes, the Bicycle Plan Project's overall goal is to increase safe bicycle use; the Bicycle Plan's specific goals are to (1) refine and expand the existing bicycle route network; (2) ensure plentiful, high-quality bicycle parking to complement the bicycle route network; (3) expand bicycle access to transit and bridges (4) educate the public about bicycle safety; (5) improve bicycle safety through targeted enforcement; (6) promote and encourage safe bicycling; (7) adopt bicycle-friendly practices and policies; and (8) prioritize and increase bicycle funding.

BICYCLE PLAN

In order to accomplish its goals, the Proposed Project would amend the City and County of San Francisco's *General Plan*, the *Planning Code*, and the *Transportation Code* to reflect the Bicycle Plan or implement its policies.

In order to accomplish its goals, the Bicycle Plan Project would implement policy actions, near-term improvements, minor improvements, and long-term improvements. Implementation of the policy actions, and implementation of the proposed improvements, would also require amendments to the *San Francisco General Plan* and *Planning Code*. Some *Transportation Code* amendments would also be required, to allow for bicycle safety education, issuance of bicycle "fix-it" tickets, and other actions. Each proposed policy; near-term improvement, long-term, improvement, and minor improvement is described in Chapter IV, Project Description, and analyzed in Chapter V, Subsections V.A.2 through V.A.5, pp. V.A.2-1 through V.A.5-30, of this EIR. Applicable changes to the *General Plan*, *Planning Code*, or *Transportation Code* are proposed to reflect the updated Bicycle Plan policies.

Near-term Improvements

The near-term improvements are bicycle route network improvement projects that will address gaps and deficiencies within the existing bicycle route network. These near-term improvements include bicycle projects that were originally listed as priority projects in the April 2005 draft Network Improvement Document (NID); projects that were already funded, but not implemented prior to the Superior Court of California ruling that prevented implementation; and projects that have recently been designed. There are 60 near-term improvements with complete and specific project designs.

The proposed near-term improvements consist of design elements intended to enhance safety and improve bicycle travel in the City. These elements vary from simple improvements such as pavement markings, including sharrows,[1] to more complex treatments, like the installation of bicycle lanes, pathways or other bicycle facilities. Some of these treatments may be implemented in conjunction with the removal or narrowing of traffic lanes. For most of the specific near-term improvements, more than one design option has been developed for consideration by decision makers. The design options chosen for analysis for each project represent a range in terms of resulting environmental effects. As such, these options now constitute a suite of design elements from which decision-makers may choose in order to address the network deficiencies at a specific location. With certification of the Bicycle Plan Project EIR, no further environmental analysis would be required to implement any such design

1 Sharrows are a traffic control device which consists of pavement markings within the traffic lane. The markings are intended to alert drivers that bicyclists share the traffic lane and also to reduce the chance of bicyclists impacting the open doors of parked vehicles. For more information on sharrows, please see http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd/CAMUTCDPart9.pdf.

element that is within the range of design elements studied as part of this environmental review process.

Written project descriptions for each of the 60 near-term improvements are included in the Project Description section of this report and project drawings showing existing and proposed road configurations are provided in Appendix B. The project-level analysis of potential environmental effects is included in Chapter V, Section V.A.3, p. V.A.3-1. The implementation of these design-ready projects will close network gaps and improve safety and cyclists' experience, thereby increasing bicycle ridership to meet the overall goal of the Bicycle Plan.

Minor Improvements

Minor improvements are treatments that may be implemented as necessary to improve conditions for bicycle use within the City. They include the following design elements to improve bicycle travel: minor pavement marking and signage changes such as the installation of colored pavement materials or sharrows (shared lane markings) or minor changes to parking and traffic lane configurations; minor changes to intersection traffic signal timing plans; the installation of bicycle boxes[2] at certain intersections; and bicycle parking within the public right-of-way, including bicycle racks on sidewalks meeting certain criteria and on-street bicycle parking. Program-level review for the minor improvements is presented in Subsection V.A.4, (p V.A.4-1), of this report.

Long-term Improvements

Long-term improvements are bicycle route network improvement projects that consist of either major improvements to segments of the existing bicycle route network or are potential future additions of new streets and pathways to the bicycle route network. These proposed long-term improvements include a wide range of potential design features that will improve the overall connectivity and safety of the bicycle route network. Currently, neither a schedule nor specific designs for these projects have been developed.

The anticipated long-term improvements may include, but are not limited to, the following design elements to improve bicycle travel: signage changes; pavement marking such as the

[2] Bicycle boxes are striped waiting areas for bicyclists situated behind a crosswalk and in front of a motor vehicle stop bar where a bicycle lane approaches a signalized intersection. Bicycle boxes allow bicyclists approaching an intersection in a bicycle lane to move to the front of a queue of motor vehicles and position themselves for turning movements at the intersection. Bicycle boxes include a stenciled bicycle marking and are generally accompanied by signs communicating where bicycles and motor vehicles should stop.

installation of colored pavement materials and the installation of sharrows; modifications to bus zones and parking configurations such as changes to the location, configuration, and number of metered or unmetered parking spaces and loading zones; changes to the locations and configurations of curbs, sidewalks and medians (including both planted and unplanted), including widening of roadways; reconfiguration of intersections to improve bicycle crossings, including installation of bicycle traffic signals; the installation of traffic calming devices, including designation of bicycle boulevards that prioritize bicycle travel over other transportation modes; installation of bicycle lanes, pathways or other bicycle facilities, including in conjunction with the narrowing or removal of traffic lanes; the removal of parking spaces, and the designation of shared bicycle and transit lanes.

The impacts of these future improvements are evaluated at a program level in this analysis with regard to the Proposed Project footprint (the affected street right-of-way and park land). Once fully developed, these future improvements, individually or collectively, may require further project-level environmental analysis that would consider the potential environmental effects of these improvements. The program-level analysis for these long-term improvements is presented in Chapter V, Subsection V.A.5, p. V.A.5-1, of this report.

B. ENVIRONMENTAL ISSUES

As provided for in the California Environmental Quality Act (CEQA) statues and guidelines, the environmental focus of this EIR is limited to those environmental issues known to the San Francisco Planning Department (Planning Department, the Lead Agency under CEQA), including those concerns identified as possibly significant in their preliminary review of the Proposed Project (Initial Study, attached in Appendix A[3]) and Notice of Preparation (NOP), and by other interested agencies and individuals in response to the NOP. These identified areas of environmental concern include possible project impacts on:

- Cultural Resources
- Transportation and Circulation
- Noise
- Air Quality
- Biological Resources
- Mandatory Findings of Significance

[3] The Initial Study for the Bicycle Plan Project EIR was published on March 15, 2008 with an Appendix of Project Drawings (Appendix A of the Initial Study). Some of the project drawings have been modified. A current set of project drawings for the near-term improvements is being provided here as Appendix B. Therefore, Appendix A of the Initial Study is not being attached to this document. These drawings are available online at the Planning Department Web site, www.sfplanning.org/mea, or may be viewed by appointment at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case file 2007.0347E.

The following Table ES-1, "Summary of Significant Impacts and Mitigation Measures" on p. ES-6, identifies the potential impacts that the Bicycle Plan Project could potentially have on the physical environment. Where applicable, this table identifies project revisions or conditions, expressed as mitigation measures, which would reduce the identified impact(s) to a less-than-significant level. All of the impacts identified in this table have been identified as significant . The impact's level of significance after implementation of the required Mitigation Measure is provided in the column labeled, "Potential Significance With Mitigation." This table further separates the anticipated impacts according to the separation of analysis provided in this document.

These impacts are listed in the same internal order as they appear in the text of Chapter 3 of this document. Transportation and transportation-related impacts are listed first in this table. Program policy action impacts are identified by the abbreviation "TR-Ax.x" where the "x.x" matches the numbering provided for each policy action, in the Bicycle Plan Program-Level discussion of Subsection V.A.2, p. V.A.2-1, of this EIR. Project-level impacts follow, and are identified by the abbreviation "TR-Px-xx" where the "x-xx" matches the numbering provided for each of the 60 specific near-term projects analyzed in Subsection V.A.3, p. V.A.3-1, of this EIR. No significant impacts were identified for any of the nine minor improvements, as is noted in the table. The potentially-significant impacts that would result from long-term improvements are presented next, and are identified by the abbreviation "TR-LTx.x" where "x.x" matches the numbering provided for each long-term improvement analyzed in Subsection V.A.5, p. V.A.5-1, of this EIR. Air Quality and Noise entries follow the review of Transportation impacts. However, no significant Air Quality or Noise impacts were identified in the environmental analysis of this Bicycle Plan Project. The headings for these entries are included in the table as place-holders, but no significant impacts or mitigation measures are included under either header.

This table should not be relied upon for a thorough understanding of the Proposed Project and its impacts and mitigation needs, but is presented for the reader's reference as a simplified overview of project impacts and mitigation measures. In addition, summary matrices for policy actions and near-term project-level impacts may be found at the end of transportation impact Subsections V.A.2 (program-level review of the Bicycle Plan policy actions), and V.A.3 (project-level review of the 60 near-term improvements).

TABLE ES-1
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
SIGNIFICANT TRANSPORTATION IMPACTS OF PROGRAM-LEVEL BICYCLE PLAN POLICY ACTIONS			
Bicycle Route Network Goals, Objectives and Action Items			
TR-A1.1: Predictable indirect impacts from approval of a policy to implement improvements to streets and paths proposed as near-term improvements, and to implement minor improvements to other streets and paths on the existing bicycle route network, or in the case of bicycle parking, to implement minor improvements within the street right-of-way, would include construction of the aforementioned improvements. The indirect results of this action would, therefore, include all of those environmental impacts identified under the sections of the transportation study for the Bicycle Plan related to the project-level impacts of the near-term improvements and the program-level impacts resulting from implementation of the minor improvements. The results of this analysis are summarized in Subsections V.A.3 and V.A.4 of this report. The mitigation measures identified in Subsection V.A.3 would lessen some of the impacts that may result from implementation of the near-term improvements. No significant impacts were identified from the minor improvements in Subsection V.A.4. However, there would be some environmental impacts from the near-term improvements that would remain significant and unavoidable as described in Subsection V.A.3 of this report	Traffic, Transit and Loading	**M-TR-A1.1:** Mitigation Measures defined in Subsection V.A.3 shall be implemented in association with the 60 near-term improvements proposed and implemented under the Bicycle Plan. For those identified significant impacts with respect to traffic, transit, and loading in Subsection V.A.3 for which no feasible mitigation measures have been identified, the impacts remain significant and unavoidable.	SUI

SUI = Significant unavoidable Impact Unless other wise noted all Traffic Impacts refer to PM peak hour	LTS = Less than Significant

TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-A1.2: Predictable indirect impacts from approval of a policy to implement improvements to streets and paths proposed as long-term improvements on the existing bicycle route network as well as additions to the network would include construction of the aforementioned improvements. The indirect results of this action would, therefore, include all of those environmental impacts identified under the sections of the transportation impact study for the Bicycle Plan related to the program-level impacts of the long-term improvements. The results of this analysis are summarized in Subsection V.A.5 of this report and include potentially significant and significant and unavoidable impacts. As has been previously stated, the specific designs for the long-term improvements are unknown at this time. The mitigations measures identified in Subsection V.A.5 would lessen some of the impacts that may result from implementation of the long-term improvements. However, there would be some that would remain significant and unavoidable.	Traffic, Transit, and Loading	**M-TR-A1.2:** Mitigation Measures discussed and defined in Subsection V.A.5 shall be implemented in association with long-term improvements proposed and implemented under the Bicycle Plan. Specific designs for the long-term improvements are unknown at this time. Once specific project designs for the long-term improvements are developed and analyzed for potential environmental impacts with respect to traffic, transit, parking, pedestrian, bicycles and loading, mitigation measures may be identified and implemented.	SUI
TR-A1.4: Predictable indirect impacts from the collaboration between the SFMTA and other agencies to ensure that San Francisco continues to implement the Transit-First Policy could include the construction of improvements or implementation of other changes to meet Transit-	Traffic, Transit, and Loading	**M-TR-A1.4**: The indirect impacts of Action 1.4 could result in the implementation of improvements to support the City's Transit First Policy. Therefore, it would include potential impacts identified under all sections of this environmental review for the Bicycle Plan such as those discussed in the transportation	SUI

SUI = Significant unavoidable Impact Unless other wise noted all Traffic Impacts refer to PM peak hour	LTS = Less than Significant

TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
First Policy goals. The indirect impacts of Action 1.4 would, therefore, include potential impacts identified under the environmental review for all sections of the Bicycle Plan such as those discussed in the analysis of the potential impacts of the near-term improvements, long-term improvements, and minor improvements, as well as impacts that may result from future projects which would be similar to those discussed in this analysis. Physical improvements known at this time are analyzed in Subsections V.A.3, V.A.4, and V.A.5 of this document. As discussed in Subsection V.A.4, no significant impacts would result from implementation of the minor improvements. Mitigation measures have been identified in Subsections V.A.3 and V.A.5 that would address some of the significant impacts for near-term and long-term improvements. However, there are some impacts that would remain significant and unavoidable, and those are also discussed in the above referenced Subsections.		impact analysis of the potential impacts of the near-term improvements, long-term improvements, and minor improvements as well as impacts that may result from future projects which would be similar to those discussed in this analysis. Physical improvements known at this time are analyzed in Subsections V.A.3, V.A.4, and V.A.5 of this EIR. As discussed in Subsection V.A.4, no significant impacts would result from implementation of the minor improvements. Mitigation measures have been identified in Subsections V.A.3 and V.A.5 that would address some of the significant impacts for near-term and long-term improvements. However, there are some impacts that would remain significant and unavoidable and those are also discussed in the above referenced sections.	
General Plan Amendments, Environmental Review, and Citywide Coordination Goals, Objectives and Action Items			
TR-A7.1: Incorporation of the Bicycle Plan into the *General Plan*, and amendment of sections of the Area Plans relevant to bicycling would accomplish the goals otherwise described in this Bicycle Plan. An indirect result of this action would, therefore, support the construction of improvements or	Traffic, Transit, and Loading	**M-TR-A7.1:** As described under the mitigation measures M-TR-A1.1 and M-TR-A1.2 above for potential significant impacts TR-A1.2 and TR-A 1.2 resulting from Actions A1.1 and A1.2, Mitigation Measures defined in Subsections V.A.3 and V.A.5 shall be implemented in association with improvements	SUI

SUI = Significant unavoidable Impact Unless other wise noted all Traffic Impacts refer to PM peak hour	LTS = Less than Significant

TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
implementation of other changes presented as part of the Bicycle Plan and analyzed in Subsections V.A.3, V.A.4, and V.A.5 of this EIR. Some of these improvements would have a significant impact on the physical environment. The indirect impacts of these actions would include the significant impacts identified for the near-term and long-term improvements in Subsections V.A.3 and V.A.5 of this EIR, including potential worsening of traffic levels-of-service, potential slowing of transit movement in the City, and potential reduction of truck loading spaces. Some of these significant impacts have been determined to be significant and unavoidable.		proposed and implemented under the Bicycle Plan for potential indirect impacts resulting from Action 7.1.	
TR-A7.3: Collaboration between the SFMTA and Planning Department to coordinate updates to the *General Plan* in accord with subsequent updates and amendments to the Bicycle Plan and bicycle route network would accomplish the goals otherwise described in this Bicycle Plan. An indirect result of this action may be the construction of improvements or implementation of other changes similar to those presented as part of the Bicycle Plan and analyzed here with respect to potential impacts on traffic, transit, parking, pedestrians, bicycles, and loading in Subsection V.A.3, V.A.4, and V.A.5 of this EIR. Future improvements resulting from Action 7.3 may result in significant impacts on the physical environment similar to	Traffic, Transit, and Loading	**M-TR-A7.3:** As described under the mitigation measure M-TR-A1.4 above for potential significant impact TR-A1.4 resulting from Action A1.4, Mitigation Measures defined in Subsections V.A.3 and V.A.5 shall be implemented in association with improvements proposed and implemented under the Bicycle Plan for potential indirect impacts resulting from Action 7.3.	SUI

SUI = Significant unavoidable Impact Unless other wise noted all Traffic Impacts refer to PM peak hour	LTS = Less than Significant

TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
those described in this report with respect to traffic, transit, and loading for the near-term and long-term improvements in Subsections V.A.3 and V.A.5 of this EIR, including potential worsening of traffic levels-of-service, potential slowing of transit movement in the City, and potential reduction of truck loading spaces. Some of these significant impacts have been determined to be significant and unavoidable. Therefore, there may be indirect significant impacts as a result of Action 7.3.			
TR-A7.4: The process to develop an Area Plan or update an existing Area Plan to reflect Bicycle Plan policies may indirectly result in the construction of bicycle facility improvements or implementation of other changes within an Area. These improvements could result in impacts similar to those summarized in Subsection V.A.3, V.A.4, and V.A.5 of this report with respect to potential impacts on traffic, transit, parking, pedestrians, bicycles, and loading. Some of these improvements may have a significant impact on the physical environment. The indirect impacts of these actions would include environmental impacts similar to the identified significant impacts that may result from implementation of the near-term and long-term improvements in Subsections V.A.3, and V.A.5 of this report, including potential worsening of traffic levels-of-service, potential slowing of transit movement in the City, and potential reduction of	Traffic, Transit, and Loading	**M-TR-A7.4**: As described under the mitigation measure M-TR-A1.4 for potential indirect impact TR-A1.4 resulting from Action A1.4, Mitigation Measures defined in Subsections V.A.3 and V.A.5 shall be implemented in association with improvements proposed and implemented under the Bicycle Plan to address potential indirect impacts resulting from Action 7.4.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
truck loading spaces. Mitigation measures have been identified to address some of these significant impacts. However, there are some for which no feasible mitigation measures have been identified. Therefore, there may be indirect significant impacts as a result of Action 7.4.			
Bicycle Funding Goals and Objectives			
TR-A8.1: Collaboration between the SFMTA and other agencies to identify funding to assist in achieving the Bicycle Plan goals and objectives would involve the exchange of information which would have no direct impact on the physical environment. However, success in identifying funding sources would result in implementation of projects to support the Bicycle Plan goals and objectives. This action would, therefore, support the construction of improvements or implementation of other changes presented as part of the Bicycle Plan and analyzed in Subsections V.A.3, V.A.4, and V.A.5 of this EIR; some of these improvements would have a significant impact on the physical environment as identified in the analysis, including potential worsening of traffic levels-of-service, potential slowing of transit movement in the City, and potential reduction of truck loading spaces.	Traffic, Transit and Loading	**M-TR-A8.1:** As described under the mitigation measures M-TR-A1.1 and M-TR-A1.2 above for potential significant impacts TR-A1.2 and TR-A 1.2 resulting from Actions A1.1 and A1.2, Mitigation Measures defined in Subsections V.A.3 and V.A.5 shall be implemented in association with improvements proposed and implemented under the Bicycle Plan to address potential indirect impacts resulting from Action 8.1.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
SIGNIFICANT TRANSPORTATION IMPACTS OF NEAR-TERM IMPROVEMENT PROJECTS			
Cluster 1			
TR-P1-1a: As a result of the parking lane removal on the south side of Broadway between Franklin Street and Van Ness Avenue, school children loading activities in front of Saint Brigid School could continue to occur in the afternoon (before 4 p.m.), but passenger loading activities would have to be prohibited during the weekday AM peak period (7:00 a.m. to 9:00 a.m.) because of City of San Francisco *Transportation Code* Section 38N which prohibits blocking of a bicycle lane during peak periods. This prohibition would represent a significant impact on passenger loading for the students of Saint Brigid School under Existing plus Project conditions for the AM peak hour as a result of Project 1-1.	Passenger Loading	**M-TR-P1-1a:** An alternative school passenger drop-off location would have to be identified to accommodate passenger loading demand, such as expanding the existing passenger drop-off location along the east side of Franklin Street between Pacific Avenue and Broadway on the west side of the school building. Alternatively, the passenger drop off zone on Broadway could be maintained by eliminating the proposed eastbound bicycle lane between Franklin Street and Van Ness Avenue and having bicyclists share the curb lane with motor vehicles, similar to existing conditions. With the implementation of either of these mitigation measures, the significant impact on loading for the students of Saint Brigid School would be reduced to less than significant under Existing plus Project conditions for Project 1-1.	LTS
TR-P1-1b: Similar to that described above for Significant Impact TR-P1-1a, above, Project 1-1 would result in a significant impact to passenger loading for students of Saint Brigid School under 2025 Cumulative plus Project conditions as a result of Project 1-1.	Passenger Loading	**M-TR-P1-1b:** Refer to Mitigation Measure 1-1a, above for mitigation of this impact. With the implementation of either of these mitigation measures, the significant impact on loading for the students of Saint Brigid School would be reduced to less than significant under 2025 Cumulative plus Project conditions for Project 1-1.	LTS

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P1-1c: As a result of the elimination of one westbound travel lane on the north side of Broadway between Buchanan and Webster Streets, school children loading activities in front of Hamlin School would also be prohibited during the weekday AM peak period. This prohibition would represent a significant impact on passenger loading for the students of Hamlin School under Existing plus Project conditions.	Passenger Loading	**M-TR-P1-1c**: Extend the existing passenger loading zone on the north side of Broadway near Webster Street towards the east, all the way to Buchanan Street. The passenger zone extension would be located to the right of the proposed bicycle lane and would be operational during school arrival and dismissal periods only (typically from 7:00 to 8:30 a.m. and from 2:00 to 3:30 p.m.). This mitigation would reduce or eliminate incidents of double parking related to passenger loading and alleviate any associated congestion. With the implementation of this mitigation measure, the significant impact regarding loading for the students of Hamlin School would be reduced to less than significant under Existing plus Project conditions for Project 1-1.	LTS
TR-P1-1d: Similar to that described above for Significant Impact TR-P1-1c, above, Project 1-1 would result in a significant impact to passenger loading for students of the Hamlin School under 2025 Cumulative plus Project conditions as a result of Project 1-1.	Passenger Loading	**M-TR-P1-1d:** Refer to Mitigation Measure M-TR-P1-1c, above, for mitigation of this impact. With the implementation of this mitigation measure, the significant impact on loading for the students of Hamlin School would be reduced to less than significant under 2025 Cumulative plus Project conditions for Project 1-1.	LTS
TR-P1-3a: The three-way controlled intersection at Van Ness Avenue/North Point Street would operate at LOS E under 2025 Cumulative plus Project conditions for Project 1-3.	Traffic	**M-TR-P1-3a:** Per the California *Manual on Uniform Traffic Control Devices* (MUTCD), a signal warrant analysis was conducted to determine the feasibility of signalization of the Van Ness/North Point Street intersection. Signalization of the intersection would improve the intersection operations from LOS E to	LTS

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
		LOS B, and therefore would result in no significant impacts under 2025 Cumulative conditions for Project 1-3.	
TR-P1-3b: Due to double-parked vehicles and the removal of general travel lanes, a significant loading impact may occur along North Point Street east of Columbus Avenue as a result of Project 1-3 under Existing plus Project conditions.	Loading	**M-TR-P1-3b:** No feasible mitigation measures have been identified to mitigate this loading impact. Therefore, a significant loading impact may occur along North Point Street east of Columbus Avenue with implementation of Project 1-3 under Existing plus Project conditions	SUI
TR-P1-3c: Due to double-parked vehicles and the removal of general travel lanes, a significant loading impact may occur along North Point Street east of Columbus Avenue as a result of Project 1-3 under 2025 Cumulative plus Project conditions.	Loading	**M-TR-P1-3c:** No feasible mitigation measures have been identified to mitigate this loading impact. Therefore, a significant loading impact may occur along North Point Street east of Columbus Avenue with implementation of Project 1-3 under 2025 Cumulative plus Project conditions.	SUI
Cluster 2			
TR-P2-1a: The intersection of 2nd Street/Bryant Street would operate at LOS F under Existing plus Project conditions for Project 2-1 Option 1.	Traffic	**M-TR-P2-1a:** No feasible mitigation measures have been identified for the 2nd Street/Bryant Street intersection under Existing plus Project conditions for Option 1. Hence, a significant impact would occur at this intersection with the implementation of Project 2-1 Option 1.	SUI
TR-P2-1b: The intersection of 2nd Street/Bryant Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 2-1 Option 1.	Traffic	**M-TR-P2-1b:** No feasible mitigation measures have been identified for the 2nd Street/Bryant Street intersection under 2025 Cumulative plus Project conditions for Option 1. Hence, a significant impact	SUI

SUI = Significant unavoidable Impact Unless other wise noted all Traffic Impacts refer to PM peak hour	LTS = Less than Significant

TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
		would occur at this intersection with the implementation of Project 2-1.	
TR-P2-1c: The intersection of 2nd Street/Harrison Street would operate at LOS F under Existing plus Project conditions for Project 2-1 Option 1.	Traffic	**M-TR-P2-1c:** It is proposed that five seconds of green time be added to the northbound 2nd Street approach and five seconds of green time be reduced from the eastbound Harrison Street approach. This would improve the 2nd Street/Harrison Street intersection operations from LOS F to LOS E. Nevertheless, this mitigation measure would not reduce the project impacts to a less-than-significant level for Project 2-1 Option 1.	SUI
TR-P2-1d: The intersection of 2nd Street/Harrison Street would operate at LOS F under Existing plus Project conditions for Project 2-1 Option 2.	Traffic	**M-TR-P2-1d:** It is proposed that five seconds of green time be added to the northbound 2nd Street approach and five seconds of green time be reduced from the eastbound Harrison Street approach. This would improve the 2nd Street/Harrison Street intersection operations from LOS F to LOS E. Nevertheless, this mitigation measure would not reduce the project impacts to a less-than-significant level for Project 2-1 Option 2.	SUI
TR-P2-1e: The intersection of 2nd Street/Harrison Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 2-1 Option 1.	Traffic	**M-TR-P2-1e:** It is proposed that five seconds of green time be added to the northbound 2nd Street approach and five seconds of green time be reduced from the eastbound Harrison Street approach, thus improving the 2nd Street/Harrison Street intersection operations and reducing average delay by 50.2 seconds. Nevertheless, this mitigation measure would not	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
		reduce the project impacts to a less-than-significant level for Project 2-1 Option 1.	
TR-P2-1f: The intersection of 2nd Street/Harrison Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 2-1 Option 2.	Traffic	**M-TR-P2-1f:** It is proposed that five seconds of green time be added to the northbound 2nd Street approach and five seconds of green time be reduced from the eastbound Harrison Street approach. This will improve the 2nd Street/Harrison Street intersection operations and reduce average delay. Nevertheless, this mitigation measure will not reduce the project impacts to a less-than-significant level for Project 2-1 Option 2.	SUI
TR-P2-1g: The intersection of 2nd Street/Folsom Street would operate at LOS E under Existing plus Project conditions for Project 2-1 Option 1.	Traffic	**M-TR-P2-1g:** The southbound 2nd Street approach shall be modified from a protected phase to a permitted phase with no changes to green time allocation. This will improve the 2nd Street/Folsom Street intersection operations from LOS E to LOS D, with 47.9 seconds of delay. Hence, this mitigation measure would reduce the project impacts of Project 2-1 Option 1 to a less-than-significant level.	LTS
TR-P2-1h: The intersection of 2nd Street/Folsom Street would operate at LOS E under Existing plus Project conditions for Project 2-1 Option 2.	Traffic	**M-TR-P2-1h:** The southbound 2nd Street approach shall be modified from a protected phase to a permitted phase with no changes to green time allocation. This will improve the 2nd Street/Folsom Street intersection operations from LOS E to LOS D, with 47.9 seconds of delay. Hence, this mitigation measure would reduce the project impacts of Project 2-1 Option 2 to a less-than-significant level.	LTS

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P2-1i: The intersection of 2nd Street/Folsom Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 2-1 Option 1.	Traffic	**M-TR-P2-1i:** It is proposed that the southbound 2nd Street approach be modified from a protected phase to a permitted phase with no changes to green time allocation. This would improve the 2nd Street/Folsom Street intersection operations and reduce the average delay. Nevertheless, this mitigation measure would not reduce the project impacts to a less-than-significant level for Project 2-1 Option 1.	SUI
TR-P2-1j: The intersection of 2nd Street/Folsom Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 2-1 Option 2.	Traffic	**M-TR-P2-1j:** It is proposed that the southbound 2nd Street approach be modified from a protected phase to a permitted phase with no changes to green time allocation. This would improve the 2nd Street/Folsom Street intersection operations and reduce the average delay. Nevertheless, this mitigation measure would not reduce the project impacts to a less-than-significant level for Project 2-1 Option 2.	SUI
TR-P2-1k: The intersection of 2nd Street/Howard Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 2-1 Option 1.	Traffic	**M-TR-P2-1k:** No feasible mitigation measures have been identified for the 2nd Street/Howard Street intersection under 2025 Cumulative plus Project conditions. Hence, a significant traffic impact would occur at the 2nd Street/Howard Street intersection with the implementation of Project 2-1 Option 1.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P2-1l: The intersection of 2nd Street/Howard Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 2-1 Option 2.	Traffic	**M-TR-P2-1l:** No feasible mitigation measures have been identified for the 2nd Street/Howard Street intersection under 2025 Cumulative plus Project conditions for Option 2. Hence, a significant traffic impact would occur at this intersection with the implementation of Project 2-1 Option 2.	SUI
TR-P2-1m (combined Projects 2-1 and 2-16): The intersection of 2nd Street/Townsend Street would operate at LOS E under 2025 Cumulative plus Project conditions for combined Projects 2-1 and 2-16 Option 1.	Traffic	**M-TR-P2-1m:** No feasible mitigation measures have been identified to mitigate for the 2nd Street/Townsend Street intersection under 2025 Cumulative plus Project conditions for Option 1. Hence, a significant traffic impact would occur at the 2nd Street/Townsend Street intersection with the implementation of combined Projects 2-1 and 2-16 Option 1.	SUI
TR-P2-1n(combined Projects 2-1 and 2-16): The intersection of 2nd Street/Townsend Street would operate at LOS E under 2025 Cumulative plus Project conditions for combined Projects 2-1 and 2-16 Option 2.	Traffic	**M-TR-P2-1n:** No feasible mitigation measures have been identified to mitigate the 2nd Street/Townsend Street intersection under 2025 Cumulative plus Project conditions for Option 2. Hence, a significant impact would occur at the 2nd Street/Townsend Street intersection with the implementation of the combined Projects 2-1 and 2-16 Option 2.	SUI
TR-P2-1o (combined Projects 2-1 and 2-16): Muni bus line 10 would experience significant delays as a result of combined Projects 2-1 and 2-16 Option 1 under Existing plus Project conditions.	Transit	**M-TR-P2-1o:** The implementation of combined Projects 2-1 and 2-16 Option 1 under Existing plus Project conditions would add approximately 863 seconds (14.4 minutes) of delay for Muni bus line 10. With mitigation as described for the 2nd Street/Harrison Street, and 2nd Street/Folsom Street intersections (Mitigation Measures M-TR-P2-1c, M-TR-P2-1e, M-TR-P2-1f, M-TR-P2-1g, M-TR-P2-1h,	LTS

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TABLE ES-1 (CONTINUED) SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES			
Significant Impacts	**Impact Category**	**Mitigation Measures**	**Level of Significance With Mitigation**
		M-TR-P2-1i, and M-TR-P2-1j), approximately 27 seconds of delay southbound and 266 seconds (4.4 minutes) of delay northbound would be added to Muni bus line 10. The total added delay of 293 seconds (4.8 minutes) would be less than the transit delay threshold of six minutes. Therefore, impacts to Muni bus line 10 for combined Projects 2-1 and 2-16 Option 1 under Existing plus Project conditions would be reduced to a less-than-significant level.	
TR-P2-1p (combined Projects 2-1 and 2-16): Muni bus line 10 would experience significant delays as a result of combined Projects 2-1 and 2-16 Option 2 under Existing plus Project conditions.	Transit	**M-TR-P2-1p:** The implementation of combined Projects 2-1 and 2-16 Option 2 under Existing plus Project conditions would add approximately 524 seconds (8.7 minutes) of delay for Muni bus line 10. With mitigation as described for the 2nd Street/Harrison Street, and 2nd Street/Folsom Street intersections, approximately 58 seconds of delay southbound and 39 seconds of delay northbound would be added to Muni bus line 10. The total added delay of 97 seconds (1.6 minutes) would be less than the transit delay threshold of six minutes. Therefore, impacts to Muni bus line 10 for combined Projects 2-1 and 2-16 Option 2 under Existing plus Project conditions would be reduced to a less-than-significant level.	LTS
TR-P2-1q (combined Projects 2-1 and 2-16): Muni bus line 10 would experience significant delays as a result of combined Projects 2-1 and 2-16 Option 1 under 2025 Cumulative plus Project conditions.	Transit	**M-TR-P2-1q:** The implementation of combined Projects 2-1 and 2-16 Option 1, under 2025 Cumulative plus Project conditions, would add approximately 672 seconds (11.2 minutes) of delay for Muni bus line 10.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
		With mitigation as described for the 2nd Street/Harrison Street, and 2nd Street/Folsom Street intersections, (M-TR-P2-1c, M-TR-P2-1e, M-TR-P2-1f, M-TR-P2-1g, M-TR-P2-1h, M-TR-P2-1i; and M-TR-P2-1j) delay would be reduced by approximately 169 seconds (2.8 minutes) southbound with approximately 625 seconds (10.4 minutes) of delay added northbound to Muni bus line 10. The total added delay of 495 seconds (7.6 minutes) would be greater than the transit delay threshold of six minutes. Therefore, a significant transit impact to Muni bus line 10 would occur resulting from combined Projects 2-1 and 2-16 Option 1 under 2025 Cumulative plus Project conditions	
TR-P2-1r (combined Projects 2-1 and 2-16): Muni bus line 10 would experience significant delays as a result of combined Projects 2-1 and 2-16 Option 2 under 2025 Cumulative plus Project conditions.	Transit	**M-TR-P2-1r:** The implementation of combined Projects 2-1 and 2-16 Option 2, under 2025 Cumulative plus Project conditions, would add approximately 857 seconds (14.2 minutes) of delay for Muni bus line 10. With mitigation as described for the 2nd Street/Harrison Street, and 2nd Street/Folsom Street intersections (Mitigation Measures M-TR-P2-1c, M-TR-P2-1e, M-TR-P2-1f, M-TR-P2-1g, M-TR-P2-1h, M-TR-P2-1i, and M-TR-P2-1j), approximately 238 seconds (3.9 minutes) of delay southbound and approximately 402 seconds (6.7 minutes) of delay northbound would be added to Muni bus line 10. The total added delay of 640 seconds (10.6 minutes) would be greater than the transit delay threshold of six minutes. Therefore, a significant transit impact to	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
		Muni bus line 10 would occur resulting from combined Projects 2-1 and 2-16 Option 2 under 2025 Cumulative plus Project conditions.	
TR-P2-1s: A significant transit impact to Muni bus line 10 would occur as a result of individual Project 2-1 Option 1 under Existing plus Project conditions.	Transit	**M-TR-P2-1s:** The implementation of individual Project 2-1 Option 1 under Existing plus Project conditions would add approximately 845 seconds (14.1 minutes) of delay for Muni bus line 10. With mitigation as described for the 2nd Street/Harrison Street, and 2nd Street/Folsom Street intersections (Mitigation Measures M-TR-P2-1c, M-TR-P2-1e, M-TR-P2-1f, M-TR-P2-1g, M-TR-P2-1h, M-TR-P2-1i, and M-TR-P2-1j), approximately 27 seconds of delay southbound and 249 seconds (4.2 minutes) of delay northbound would be added to Muni bus line 10. The total added delay of 276 seconds (4.6 minutes) would be less than the transit delay threshold of six minutes. Therefore, impacts to Muni bus line 10 for individual Project 2-1 with Option 1 under Existing plus Project conditions would be reduced to a less-than-significant level.	LTS
TR-P2-1t: A significant transit impact to Muni bus line 10 would occur as a result of individual Project 2-1 Option 2 under Existing plus Project conditions.	Transit	**M-TR-P2-1t:** The implementation of individual Project 2-1 Option 2 under Existing plus Project conditions would add approximately 506 seconds (8.4 minutes) of delay for Muni bus line 10. With mitigation as described for the 2nd Street/Harrison Street, and 2nd Street/Folsom Street intersections (Mitigation Measures M-TR-P2-1c, M-TR-P2-1e, M-TR-P2-1f, M-TR-P2-1g, M-TR-P2-1h, M-TR-P2-1i, and M-TR-P2-1j), approximately 58 seconds of delay southbound and 21 seconds of delay northbound would be added to Muni	LTS

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TABLE ES-1 (CONTINUED) SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES			
Significant Impacts	**Impact Category**	**Mitigation Measures**	**Level of Significance With Mitigation**
		bus line 10. The total added delay of 79 seconds (1.3 minutes) would be less than the transit delay threshold of six minutes. Therefore, impacts to Muni bus line 10 for individual Project 2-1 with Option 2 under Existing plus Project conditions would be reduced to a less-than-significant level.	
TR-P2-1u: A significant transit impact would occur to Muni bus line 10 as a result of individual Project 2-1 Option 1 under 2025 Cumulative plus Project conditions.	Transit	**M-TR-P2-1u:** The implementation of individual Project 2-1 Option 1 under 2025 Cumulative plus Project conditions would add approximately 450 seconds (7.5 minutes) of delay for Muni bus line 10. With mitigation as described for the 2nd Street/Harrison Street, and 2nd Street/Folsom Street intersections, delay would be reduced by approximately 170 seconds (2.8 minutes) southbound with approximately 403 seconds (6.7 minutes) of delay added northbound to Muni bus line 10. The total added delay of 233 seconds (3.8 minutes) would be less than the transit delay threshold of six minutes. Therefore, impacts to Muni bus line 10 for individual Project 2-1 Option 1 under 2025 Cumulative plus Project conditions would be reduced to a less-than-significant level.	LTS
TR-P2-1v: A significant transit impact would occur to Muni bus line 10 as a result of individual Project 2-1 Option 2 under 2025 Cumulative plus Project conditions.	Transit	**M-TR-P2-1v:** The implementation of individual Project 2-1 Option 2 under 2025 Cumulative plus Project conditions would add approximately 857 seconds (14.2 minutes) of delay for Muni bus line 10. With mitigation as described for the 2nd Street/Harrison Street, and 2nd Street/Folsom Street intersections,	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
		approximately 238 seconds (3.9 minutes) of delay southbound and approximately 402 seconds (6.7 minutes) of delay northbound would be added to Muni bus line 10. The total added delay of 640 seconds (10.6 minutes) would be greater than the transit delay threshold of six minutes. Therefore, a significant transit impact to Muni bus line 10 would occur resulting from individual Project 2-1 Option 2 under 2025 Cumulative plus Project conditions.	
TR-P2-1w: A significant impact on passenger loading would occur on the east side of 2nd Street between Clementina and Folsom Streets as a result of Project 2-1 Option 1 under Existing plus Project conditions.	Passenger Loading	**M-TR-P2-1w:** To provide passenger loading for the hotel, on-street parking on Clementina Street (the alley north of the hotel) could be converted to a white passenger zone. This would eliminate double parking activities in the bicycle and/or travel lanes in front of the hotel. Hence, this mitigation measure would reduce project impacts on passenger loading for Project 2-1 Option 1 under Existing plus Project conditions to a less-than significant level.	LTS
TR-P2-1x: A significant impact on passenger loading would occur on the east side of 2nd Street between Clementina and Folsom Streets as a result of Project 2-1 Option 2 under Existing plus Project conditions.	Passenger Loading	**M-TR-P2-1x:** To provide passenger loading for the hotel, on-street parking on Clementina Street (the alley north of the hotel) could be converted to a white passenger zone. This would eliminate double parking activities in the bicycle and/or travel lanes in front of the hotel. Hence, this mitigation measure would reduce project impacts on passenger loading for Project 2-1 Option 2 under Existing plus Project conditions to a less-than significant level.	LTS

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P2-1y: A significant impact on passenger loading would occur on the east side of 2nd Street between Clementina and Folsom Streets as a result of Project 2-1 Option 1 under 2025 Cumulative plus Project conditions.	Passenger Loading	**M-TR-P2-1y:** To provide passenger loading for the hotel, on-street parking on Clementina Street (the alley north of the hotel) could be converted to a white passenger zone. This would eliminate double parking activities in the bicycle and/or travel lanes in front of the hotel. Hence, this mitigation measure would reduce project impacts on passenger loading for Project 2-1 with Option 1 under 2025 Cumulative plus Project conditions to a less-than significant level.	LTS
TR-P2-1z: A significant impact on passenger loading would occur on the east side of 2nd Street between Clementina and Folsom Streets as a result of Project 2-1 Option 2 under 2025 Cumulative plus Project conditions.	Passenger Loading	**M-TR-P2-1z:** To provide passenger loading for the hotel, on-street parking on Clementina Street (the alley north of the hotel) could be converted to a white passenger zone. This would eliminate double parking activities in the bicycle and/or travel lanes in front of the hotel. Hence, this mitigation measure would reduce project impacts on passenger loading for Project 2-1 Option 2 under 2025 Cumulative plus Project conditions to a less-than significant level.	LTS
TR-P2-1aa: A significant impact on commercial freight loading would occur along 2nd Street between Market and Bryant Streets as a result of Project 2-1 Option 1 under Existing plus Project conditions.	Commercial Freight Loading	**M-TR-P2-1aa:** No feasible mitigation measures have been identified to mitigate this freight loading impact. Hence, a significant commercial freight loading impact would result along 2nd Street, between Market Street and Bryant Street, with implementation of Project 2-1 Option 1 under Existing plus Project conditions.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P2-1bb: A significant impact on commercial freight loading would occur along 2nd Street between Market and Bryant Streets as a result of Project 2-1 Option 2 under Existing plus Project conditions.	Commercial Freight Loading	**M-TR-P2-1bb:** No feasible mitigation measures have been identified to mitigate this freight loading impact. Hence, a significant commercial freight loading impact would result along 2nd Street, between Market Street and Bryant Street, with implementation of Project 2-1 Option 2 under Existing plus Project conditions.	SUI
TR-P2-1cc: A significant impact on commercial freight loading would occur along 2nd Street between Market and Bryant Streets as a result of Project 2-1 Option 1 under 2025 Cumulative plus Project conditions.	Commercial Freight Loading	**M-TR-P2-1cc:** No feasible mitigation measures have been identified to mitigate this freight loading impact. Hence, a significant commercial freight loading impact would result along 2nd Street, between Market Street and Bryant Street, with implementation of Project 2-1 Option 1 under 2025 Cumulative plus Project conditions.	SUI
TR-P2-1dd: A significant impact on commercial freight loading would occur along 2nd Street between Market and Bryant Streets as a result of Project 2-1 Option 2 under 2025 Cumulative plus Project conditions.	Commercial Freight Loading	**M-TR-P2-1dd:** No feasible mitigation measures have been identified to mitigate this freight loading impact. Hence, a significant commercial freight loading impact would result along 2nd Street, between Market Street and Bryant Street, with implementation of Project 2-1 Option 2 under 2025 Cumulative plus Project conditions.	SUI
TR-P2-2a: The intersection of 5th Street/Bryant Street would operate at LOS F under Existing plus Project conditions for Option 1 of Project 2-2.	Traffic	**M-TR2-P2-2a:** Three seconds of green time shall be added to the eastbound Bryant Street approach and three seconds of green time shall be reduced from the southbound 5th Street approach. This will improve the 5th Street/Bryant Street intersection operations from LOS F to LOS D. Hence, this mitigation measure	LTS

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
		would reduce the impacts of Project 2-2 Option 1 to a less-than-significant level.	
TR-P2-2b: The intersection of 5th Street/Bryant Street would operate at LOS F under Existing plus Project conditions for Option 2 of Project 2-2.	Traffic	**M-TR2-P2-2b:** No feasible mitigation measures have been identified for the 5th Street/Bryant Street intersection under Existing plus Project conditions for Option 2. Hence, a significant impact would occur at the 5th Street/Bryant Street intersection with the implementation of Project 2-2 Option 2.	SUI
TR-P2-2c: The intersection of 5th Street/Bryant Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 2-2 Option 1.	Traffic	**M-TR-P2-2c:** No feasible mitigation measures have been identified for the 5th Street/Bryant Street intersection under 2025 Cumulative plus Project conditions for Option 1. Hence, a significant impact would occur at the 5th Street/Bryant Street intersection with the implementation of Project 2-2 Option 1.	SUI
TR-P2-2d: The intersection of 5th Street/Bryant Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 2-2 Option 2.	Traffic	**M-TR-P2-2d:** No feasible mitigation measures have been identified for the 5th Street/Bryant Street intersection under 2025 Cumulative plus Project conditions for Option 2. Hence, a significant impact would occur at the 5th Street/Bryant Street intersection with the implementation of Project 2-2. Option 2	SUI
TR-P2-2e: The intersection of 5th Street/Howard Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 2-2 Option 2.	Traffic	**M-TR-P2-2e:** No feasible mitigation measures have been identified for the 5th Street/Howard Street intersection under 2025 Cumulative plus Project conditions for Option 2. Hence, a significant impact would occur at the 5th Street/Howard Street intersection with the implementation of Project 2-2.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P2-2f: The intersection of 5th Street/Brannan Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 2-2 Option 2.	Traffic	**M-TR-P2-2f:** No feasible mitigation measures have been identified for the 5th Street/Brannan Street intersection under 2025 Cumulative plus Project conditions for Option 2. Hence, a significant impact would occur at the 5th Street/Brannan Street intersection with the implementation of Project 2-2 Option 2.	SUI
TR-P2-3b (Projects 2-3 and 2-11 combined): The intersection of Church Street/Market Street/14th Street would operate at LOS F under 2025 Cumulative plus Project conditions for combined Projects 2-3 Option 1 and 2-11 Modified Option 1.	Traffic	**M-TR-P2-3b:** No feasible mitigation measures have been identified for the Church Street/Market Street/14th Street intersection under 2025 Cumulative plus Project conditions for Option 1. Hence, a significant impact would occur at this intersection with the implementation of Option 1 of combined Project 2-3 and 2-11.	SUI
TR-P2-4a (Projects 2-4 and 2-6 combined): The intersection of 10th Street/Brannan Street/Potrero Avenue/Division Street would operate at LOS F under Existing plus Project conditions for Option 1 of combined Projects 2-4 and 2-6.	Traffic	**M-TR-P2-4a:** No feasible mitigation measures have been identified for the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection under Existing plus Project conditions for Option 1. Hence, a significant impact would occur at the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection with the implementation of Option 1 of Projects 2-4 and 2-6 combined.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P2-4b (Projects 2-4 and 2-6 combined): The intersection of 10th Street/Brannan Street/Potrero Avenue/Division Street would operate at LOS F under 2025 Cumulative plus Project conditions for Option 1 of combined Projects 2-4 and 2-6.	Traffic	**M-TR-P2-4b:** No feasible mitigation measures have been identified for the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection under 2025 Cumulative plus Project conditions for Option 1. Hence, a significant impact would occur at this intersection with the implementation of Option 1 of combined Projects 2-4 and 2-6.	SUI
TR-P2-4c: The intersection of Potrero Avenue/16th Street would operate at LOS E under Existing plus Project conditions for Project 2-4 Option 2.	Traffic	**M-TR-P2-4c:** No feasible mitigation measures have been identified for the Potrero Avenue/16th Street intersection under Existing plus Project conditions for Option 2. Hence, a significant impact would occur at the Potrero Avenue/16th Street intersection with the implementation of Project 2-4 Option 2.	SUI
TR-P2-4d: Under 2025 Cumulative plus Project conditions for Project 2-4 Option 2, the Potrero Avenue/16th Street intersection would operate at LOS F, and a significant impact would occur at this intersection with the implementation of Project 2-4 Option 2.	Traffic	**M-TR-P2-4d:** No feasible mitigation measures have been identified for the Potrero Avenue/16th Street intersection under 2025 Cumulative plus Project conditions for Option 2. Hence, a significant impact would occur at the Potrero Avenue/16th Street intersection with the implementation of Project 2-4 Option 2.	SUI
TR-P2-4e (Projects 2-4 and 2-6 combined): Muni bus line 9 would experience significant delays under 2025 Cumulative plus Project conditions for combined Projects 2-4 and 2-6 Option 2.	Transit	**M-TR-P2-4e:** No feasible mitigation measures have been identified for delay on Muni bus line 9 for combined Projects 2-4 and 2-6 Option 2 under 2025 Cumulative plus Project conditions. Hence, a significant impact would occur for Muni bus line 9 with implementation of combined Projects 2-4 and 2-6 Option 2.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P2-4f (Projects 2-4 and 2-6 combined): SamTrans bus line 292 would experience significant delays under 2025 Cumulative plus Project conditions for combined Projects 2-4 and 2-6 Option 2.	Transit	**M-TR-P2-4f:** No feasible mitigation measures have been identified for delay on SamTrans bus line 292 for combined Projects 2-4 and 2-6 Option 2 under 2025 Cumulative plus Project conditions. Hence, a significant impact would occur for SamTrans bus line 292 with implementation of Projects 2-4 and 2-6 combined with Option 2.	SUI
TR-P2-4g: Muni bus line 9 would experience significant delays under 2025 Cumulative plus Project conditions for individual Project 2-4 Option 2.	Transit	**M-TR-P2-4g:** No feasible mitigation measures have been identified for delay on Muni bus line 9 for individual Project 2-4 Option 2 under 2025 Cumulative plus Project conditions. Hence, a significant impact would occur for Muni bus line 9 with implementation of Project 2-4 Option 2.	SUI
TR-P2-4h: SamTrans bus line 292 would experience significant delays under 2025 Cumulative plus Project conditions for individual Project 2-4 Option 2.	Transit	**M-TR-P2-4h:** No feasible mitigation measures have been identified for delay on SamTrans bus line 292 for Project 2-4 Option 2 under 2025 Cumulative plus Project conditions. Hence, a significant impact would occur for SamTrans bus line 292 with implementation of individual Project 2-4 Option 2.	SUI
TR-P2-6a: The intersection of 10th Street/Brannan Street/Potrero Avenue/Division Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 2-6 Option 1.	Traffic	**M-TR-P2-6a:** No feasible mitigation measures have been identified for the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection under 2025 Cumulative plus Project conditions for Option 1. Hence, a significant impact would occur at the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection with the implementation of Project 2-6 Option 1.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P2-6b: The intersection of 11th Street/Bryant Street/Division Street would operate at LOS F under Existing plus Project conditions for Project 2-6 Option 1.	Traffic	**M-TR-P2-6b:** It is proposed that two seconds of green time be added to the northbound Bryant Street approach and two seconds of green time be reduced from the southbound 11th Street direction; and that 24 seconds of green time be added to the westbound Division Street direction and 24 seconds of green time be reduced from the eastbound 13th Street approach, in order to improve the intersection operations from LOS F to LOS D, with 54.9 seconds of delay. However, 54.9 seconds of delay is close to the threshold of 55 seconds of delay which is deemed unsatisfactory operation. Therefore, this mitigation measure would not reduce the project impacts of Project 2-6 Option 1 to a less-than-significant level for Existing plus Project conditions.	SUI
TR-P2-6c: The intersection of 11th Street / Bryant Street / Division Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 2-6 Option 1.	Traffic	**M-TR-P2-6c:** No feasible mitigation measures have been identified for the 11th Street/Bryant Street/Division Street intersection under 2025 Cumulative plus Project conditions for Option 1. Hence, a significant impact would occur at this intersection with the implementation of Project 2-6 Option 1.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P2-7a (Projects 2-7 and 2-9 combined): The intersection of Fremont Street/Howard Street would operate at LOS E under Existing plus Project conditions for combined Projects 2-7 and 2-9.	Traffic	**M-TR-P2-7a:** The cycle length at the Fremont Street/Howard Street intersection shall be increased by 35 seconds, so that the intersection will operate at LOS D with 54.9 seconds of delay. However, 54.9 seconds of delay is close to the threshold of 55 seconds of delay which is deemed unsatisfactory operation. Therefore, this mitigation measure would not reduce the project impacts of combined Projects 2-7 and 2-9 to a less-than-significant level for Existing plus Project conditions.	SUI
TR-P2-7b (Projects 2-7 and 2-9 combined): The intersection of Fremont Street/Howard Street would operate at LOS F under 2025 Cumulative plus Project conditions for combined Projects 2-7 and 2-9.	Traffic	**M-TR-P2-7b:** The Fremont Street/Howard Street intersection operates at LOS D with 54.9 seconds of delay under Existing plus Project conditions relative to Existing conditions, with mitigation shown in Mitigation Measure M-TR-P2-7a. This is determined to be a significant impact since it is close to the threshold of 55 seconds of delay which is deemed unsatisfactory operation. As a consequence, a corresponding LOS deterioration is expected at this intersection for 2025 Cumulative plus Project compared to 2025 Cumulative conditions. Therefore, a significant impact would occur at the Fremont Street/Howard Street intersection.	SUI
TR-P2-9a: The Fremont Street/Howard Street intersection would operate unsatisfactorily at LOS E under Existing plus Project conditions for Project 2-9.	Traffic	**M-TR-P2-9a:** It is proposed that the cycle length at the Fremont Street/Howard Street intersection be increased by 35 seconds. With this improvement, the intersection will operate at LOS D with 54.9 seconds of delay. However, 54.9 seconds of delay is close to the	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
		threshold of 55 seconds of delay which is deemed unsatisfactory operation. Therefore, this mitigation measure would not reduce the project impacts of Project 2-9 to a less-than-significant level for Existing plus Project conditions.	
TR-P2-11a: The Church Street/Market Street/14th Street intersection would operate at LOS F under Existing plus Project conditions and a significant impact would occur at this intersection with the implementation of individual Project 2-11 Option 1.	Traffic	**M-TR-P2-11a:** No feasible mitigation measures have been identified for the Church Street/Market Street/14th Street intersection under Existing plus Project conditions for Option 1. Hence, a significant impact would occur at the Church Street/Market Street/14th Street intersection with the implementation of Project 2-11 Option 1.	SUI
TR-P2-11b: The intersection of Church Street/Market Street/14th Street would operate at LOS F under 2025 Cumulative plus Project conditions for Project 2-11 Option 1 for the PM peak hour.	Traffic	**M-TR-P2-11b:** No feasible mitigation measures have been identified for the Church Street/Market Street/14th Street intersection under 2025 Cumulative plus Project conditions for Option 1. Hence, a significant impact would occur at the Church Street/Market Street/14th Street intersection with the implementation of Project 2-11 Option 1.	SUI
TR-P2-11c: A significant impact to loading would result on the north side of Market Street near Noe Street from implementation of Project 2-11 Option 1 under Existing plus Project conditions.	Loading	**M-TR-P2-11c:** No feasible mitigation measures have been identified. Therefore, a significant loading impact would occur on Market Street near Noe Street with implementation of Project 2-11 Option 1 under Existing plus Project conditions**.**	SUI
TR-P2-11d: A significant impact to loading would result on the north side of Market Street near Noe Street from implementation of Project 2-11 Option 1	Loading	**M-TR-P2-11d:** No feasible mitigation measures have been identified. Therefore, a significant loading impact would occur on Market Street near Noe Street with	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
under 2025 Cumulative plus Project conditions.		implementation of Project 2-11 Option 1 under 2025 Cumulative plus Project conditions.	
TR-P2-16a: The 2nd Street/Townsend Street intersection would operate unsatisfactorily at LOS E under 2025 Cumulative plus Project conditions and a significant impact would occur at this intersection with the implementation of Project 2-16 Option 1.	Traffic	**M-TR-P2-16a:** No feasible mitigation measures have been identified for the 2nd Street/Townsend Street intersection under 2025 Cumulative plus Project conditions for Option 1. Hence, a significant impact would occur at the 2nd Street/Townsend Street intersection with the implementation of Project 2-16 Option 1.	SUI
TR-P2-16b: The 2nd Street/Townsend Street intersection would operate unsatisfactorily at LOS E under 2025 Cumulative plus Project conditions for Option 2 and a significant impact would occur at this intersection with the implementation of Project 2-16 Option 2.	Traffic	**M-TR-P2-16b:** No feasible mitigation measures have been identified for the 2nd Street/Townsend Street intersection under 2025 Cumulative plus Project conditions for Option 2. Hence, a significant impact would occur at the 2nd Street/Townsend Street intersection with the implementation of Project 2-16 Option 2.	SUI
TR-P2-16c: The 7th Street/Townsend Street intersection would operate at LOS F under Existing plus Project conditions and a significant impact would occur at 7th Street/Townsend Street intersection with the implementation of Project 2-16 Option 1.	Traffic	**M-TR-P2-16c:** Six seconds of green time shall be added to the eastbound Townsend Street approach and six seconds of green time shall be reduced from the northbound 7th Street approach, to improve the 7th Street/Townsend Street intersection operations from LOS F to LOS D. Hence, this mitigation measure would reduce the project impacts of Project 2-16 Option 1 to a less-than-significant level.	LTS
TR-P2-16d: Under Existing plus Project conditions for Option 2, the 7th Street/Townsend Street intersection would operate at LOS F and a	Traffic	**M-TR-P2-16d:** Six seconds of green time shall be added to the eastbound Townsend Street approach and six seconds of green time shall be reduced from	LTS

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
significant impact would occur at this intersection with the implementation of Project 2-16 Option 2.		the northbound 7th Street approach, to improve the 7th Street/Townsend Street intersection operations from LOS F to LOS D. Hence, this mitigation measure would reduce the project impacts of Project 2-16 Option 2 to a less-than-significant level under Existing plus Project conditions.	
TR-P2-16e: Under 2025 Cumulative plus Project conditions the 7th Street/Townsend Street intersection would operate at LOS F and, a significant impact would occur at this intersection with the implementation of Project 2-16 Option 1.	Traffic	**M-TR-2-16e:** It is proposed that lane configuration adjustments be made to the eastbound Townsend Street direction to improve LOS and decrease the amount of average delay. However, the LOS would remain at LOS F. Therefore, a significant impact would occur at the 7th Street/Townsend Street intersection with the implementation of Project 2-16 Option 1 under 2025 Cumulative plus Project conditions.	SUI
TR-P2-16f: Under 2025 Cumulative plus Project conditions the 7th Street/Townsend Street intersection would operate at LOS F and a significant impact would occur at this intersection with the implementation of Project 2-16 Option 2.	Traffic	**M-TR-P2-16f:** It is proposed that lane configuration adjustments be made to the eastbound Townsend Street direction to improve LOS and decrease the amount of average delay. The LOS will remain at LOS F. Therefore, a significant impact would occur at 7th Street/Townsend Street intersection with the implementation of Project 2-16 Option 2 under 2025 Cumulative conditions.	SUI
TR-P2-16g: Under 2025 Cumulative plus Project conditions the 4th Street/Townsend Street intersection would operate at LOS F and a significant impact would occur at this intersection with the implementation of Project 2-16 Option 1.	Traffic	**M-TR-P2-16g:** The westbound Townsend Street approach shall be modified from a permitted phase to a protected signal phase. In addition, five seconds of green time shall be added to the westbound Townsend Street approach and five seconds of green time shall be	LTS

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
		reduced from the southbound 4th Street approach. This would improve the 4th Street/Townsend Street intersection operations from LOS F to LOS D. Hence, this mitigation measure would reduce the project impacts of Project 2-16 Option 1 to a less-than-significant level for 2025 Cumulative plus Project conditions.	
TR-P2-16h: A significant transit impact would occur to Muni bus line 30 under Existing plus Project conditions for Project 2-16 Option 1.	Transit	**M-TR-P2-16h:** Feasibility of the following mitigation measures has not yet been determined. There is a range of potential treatments to address the issue at this intersection. One would be repositioning of the bus zone along the south side of Townsend Street. Another treatment would be reconfiguring the approach lanes to the intersection of 4th and Townsend Streets. Finally, installation of discontinuous bicycle lanes at the approach of the 4th Street/Townsend Street intersection could also be considered. Therefore, a significant transit impact would occur with implementation of Project 2-16 Option 1 under Existing plus Project conditions.	SUI
TR-P2-16i: A significant transit impact would occur to Muni bus line 45 under Existing plus Project conditions for Project 2-16 Option 1.	Transit	**M-TR-P2-16i:** Refer to Mitigation Measure M-TR-P2-16h above for mitigation of this transit impact. However, without determination of the feasibility of these measures, a significant transit impact would occur to Muni bus line 45 under Existing plus Project conditions for Project 2-16 Option 1.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P2-16j: A significant transit impact would occur to Muni bus line 30 under Existing plus Project conditions for Project 2-16 Option 2.	Transit	**M-TR-P2-16j:** Refer to Mitigation Measure M-TR-P2-16h above for mitigation of this transit impact. However, without determination of the feasibility of these measures, a significant transit impact would occur to Muni bus line 30 under Existing plus Project conditions for Project 2-16 Option 2.	SUI
TR-P2-16k: A significant transit impact would occur to Muni bus line 45 under Existing plus Project conditions for Project 2-16 Option 2.	Transit	**M-TR-P2-16k:** Refer to Mitigation Measure M-TR-P2-16h above for mitigation of this transit impact. However, without determination of the feasibility of these measures, a significant transit impact would occur to Muni bus line 45 under Existing plus Project conditions for Project 2-16 Option 2.	SUI
TR-P2-16l: A significant transit impact would occur to Muni bus line 30 under 2025 Cumulative plus Project conditions for Project 2-16 Option 1.	Transit	**M-TR-P2-16l:** Refer to Mitigation Measure M-TR-P2-16h above for mitigation of this transit impact. However, without determination of the feasibility of these measures, a significant transit impact would occur to Muni bus line 30 under 2025 Cumulative plus Project conditions for Project 2-16 Option 1.	SUI
TR-P2-16m: A significant transit impact would occur to Muni bus line 45 under 2025 Cumulative plus Project conditions for Project 2-16 Option 1.	Transit	**M-TR-P2-16m:** Refer to Mitigation Measure M-TR-P2-16h above for mitigation of this transit impact. However, without determination of the feasibility of these measures, a significant transit impact would occur to Muni bus line 45 under 2025 Cumulative plus Project conditions for Project 2-16 Option 1.	SUI
TR-P2-16n: A significant transit impact would occur to Muni bus line 30 under 2025 Cumulative plus Project conditions for Project 2-16 Option 2.	Transit	**M-TR-P2-16n:** Refer to Mitigation Measure M-TR-P2-16h above for mitigation of this transit impact. However, without determination of the feasibility of	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
		these measures, significant transit impact would occur to Muni bus line 30 under 2025 Cumulative plus Project conditions for Project 2-16 Option 2.	
TR-P2-16o: A significant transit impact would occur to Muni bus line 45 under 2025 Cumulative plus Project conditions for Project 2-16 Option 2.	Transit	**M-TR-P2-16o:** Refer to Mitigation Measure M-TR-P2-16h above for mitigation of this transit impact. However, without determination of the feasibility of these measures, a significant transit impact would occur to Muni bus line 45 under 2025 Cumulative plus Project conditions for Project 2-16 Option 2.	SUI
Cluster 3			
TR-P3-1a (Projects 3-1 and 3-2 combined): The intersection of Masonic Avenue/Fell Street would operate at LOS E under Existing plus Project conditions for Option 1 of Projects 3-1 and 3-2 combined.	Traffic	**M-TR-P3-1a:** Four seconds of green time shall be added to the northbound and southbound directions of Masonic Avenue and four seconds of green time shall be reduced from the westbound Fell Street direction. With these adjustments, Masonic Avenue/Fell Street intersection operations would improve to LOS D. Hence, this mitigation measure would reduce impacts from combined Project 3-1 and 3-2 Option 1 to a less-than-significant level under Existing plus Project conditions.	LTS
TR-P3-1b (Projects 3-1 and 3-2 combined): The intersection of Masonic Avenue/Fell Street would operate at LOS E under 2025 Cumulative plus Project conditions for combined Projects 3-1 and 3-2 Option 1.	Traffic	**M-TR-P3-1b:** No feasible mitigation measures have been identified for the Masonic Avenue/Fell Street intersection under 2025 Cumulative plus Project conditions for Option 1. Hence, a significant impact would occur at the Masonic Avenue/Fell Street intersection with the implementation of combined Projects 3-1 and 3-2 Option 1.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P3-2a: Under 2025 Cumulative plus Project conditions the Masonic Avenue/Turk Street intersection would operate at LOS F in the AM Peak hour and a significant impact would occur at the Masonic Avenue/Turk Street intersection with the implementation of Project 3-2 Option 1.	Traffic	**M-TR-P3-2a:** No feasible mitigation measures have been identified for the Masonic Avenue/Turk Street intersection under 2025 Cumulative plus Project conditions for Project 3-2 Option 1. Hence, a significant impact would occur at the Masonic Avenue/Turk Street intersection in the AM Peak hour with the implementation of Project 3-2 Option 1.	SUI
TR-P3-2b: Under 2025 Cumulative plus Project conditions the Masonic Avenue/Turk Street intersection would operate at LOS F in the AM Peak hour and a significant impact would occur at this intersection with the implementation of Project 3-2 Option 2.	Traffic	**M-TR-P3-2b:** No feasible mitigation measures have been identified for the Masonic Avenue/Turk Street intersection under 2025 Cumulative plus Project conditions in the AM peak hour for Project 3-2 Option 2. Hence, a significant impact would occur at the Masonic Avenue/Turk Street intersection with the implementation of Project 3-2 Option 2.	SUI
TR-P3-2c: Under 2025 Cumulative plus Project conditions for the AM peak hour the Masonic Avenue/Fulton Street intersection would operate at LOS F and a significant impact would occur at the Masonic Avenue/Fulton Street intersection with the implementation of Project 3-2 Option 1.	Traffic	**M-TR-P3-2c:** No feasible mitigation measures have been identified for the Masonic Avenue/Fulton Street intersection under 2025 Cumulative plus Project conditions for the AM Peak hour. Hence, a significant impact would occur at the Masonic Avenue/Fulton Street intersection with the implementation of Project 3-2 Option 1.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P3-2d: Under 2025 Cumulative plus Project conditions for Option 2, the Masonic Avenue/Fulton Street intersection would operate at LOS F in the AM Peak hour and a significant impact would occur at the Masonic Avenue/Fulton Street intersection with the implementation of Project 3-2 Option 2.	Traffic	**M-TR-P3-2d:** No feasible mitigation measures have been identified for the Masonic Avenue/Fulton Street intersection under 2025 Cumulative plus Project conditions the AM Peak hour. Hence, a significant impact would occur at the Masonic Avenue/Fulton Street intersection with the implementation of Project 3-2 Option 2.	SUI
TR-P3-2e: Under Existing plus Project conditions the Masonic Avenue/Fell Street intersection would operate at LOS E and a significant impact would occur at the Masonic Avenue/Fell Street intersection with the implementation of Project 3-2 Option 1.	Traffic	**M-TR-P3-2e**: No feasible mitigation measures have been identified for the Masonic Avenue/Fell Street intersection under Existing plus Project conditions for Option 1. Hence, a significant impact would occur at the Masonic Avenue/Fell Street intersection with the implementation of Project 3-2 Option 1.	SUI
TR-P3-2f: Under Existing plus Project conditions the Masonic Avenue/Fell Street intersection would operate at LOS E and a significant impact would occur at the Masonic Avenue/Fell Street intersection with the implementation of Project 3-2 Option 2.	Traffic	**M-TR-P3-2f**: Four seconds of green time shall be added to the northbound and southbound Masonic Avenue directions, with a corresponding reduction in green time in the westbound Fell Street direction of four seconds. With these adjustments, the Masonic Avenue/Fell Street intersection operations would improve to LOS D. Hence, this mitigation measure would reduce the project impacts to a less-than-significant level for Project 3-2 with Option 2 under Existing plus Project conditions.	LTS

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P3-2g: Under 2025 Cumulative plus Project conditions the Masonic Avenue/Fell Street intersection would operate at LOS F and a significant impact would occur at the Masonic Avenue/Fell Street intersection with the implementation of Project 3-2 Option 1.	Traffic	**M-TR-P3-2g:** No feasible mitigation measures have been identified for the Masonic Avenue/Fell Street intersection under 2025 Cumulative plus Project conditions for Option 1. Hence, a significant impact would occur at the Masonic Avenue/Fell Street intersection with the implementation of Project 3-2 Option 1 under 2025 Cumulative plus Project conditions.	SUI
TR-P3-2h: Under 2025 Cumulative plus Project conditions the Masonic Avenue/Fell Street intersection would operate at LOS E and a significant impact would occur at the Masonic Avenue/Fell Street intersection with the implementation of Project 3-2 Option 2.	Traffic	**M-TR-P3-2h:** No feasible mitigation measures have been identified for the Masonic Avenue/Fell Street intersection under 2025 Cumulative plus Project conditions for Option 2. Hence, a significant impact would occur at the Masonic Avenue/Fell Street intersection with the implementation of Project 3-2 Option 2.	SUI
TR-P3-2i: Under 2025 Cumulative plus Project conditions the Masonic Avenue/Geary Boulevard intersection would operate at LOS E and a significant impact would occur at the Masonic Avenue/Geary Boulevard intersection with the implementation of Project 3-2 Option 1.	Traffic	**M-TR-P3-2i:** No feasible mitigation measures have been identified for Option 1 under 2025 Cumulative plus Project conditions. Hence, a significant impact would occur at the Masonic Avenue/Geary Boulevard intersection with the implementation of Project 3-2 Option 1.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P3-2j: Under 2025 Cumulative plus Project conditions the Masonic Avenue/Turk Street intersection would operate at LOS F and a significant impact would occur at the Masonic Avenue/Turk Street intersection with the implementation of Project 3-2 Option 1.	Traffic	**M-TR-P3-2j:** It is proposed that ten seconds of green time be added to the northbound Masonic Avenue direction, with a corresponding reduction of green time in the eastbound Turk Street direction of ten seconds, to improve intersection operations to LOS E. However, the Masonic Avenue/Turk Street intersection would continue to operate at an unacceptable LOS; therefore, the traffic impact would remain significant even after this mitigation measure is implemented for Project 3-2 Option 1.	SUI
TR-P3-2k (Projects 3-1 and 3-2 combined): Under Existing plus Project conditions combined Projects 3-1 and 3-2 Option 1 would result in a significant transit impact for Muni bus line 43 in the PM peak hour.	Transit	**M-TR-P3-2k:** No feasible mitigation measures have been identified to reduce the delay on Muni bus line 43 under Existing plus Project conditions for Option 1. Therefore, a significant transit impact would occur to Muni bus line 43 as a result of combined Projects 3-1 and 3-2 Option 1 under Existing plus Project conditions in the PM peak hour.	SUI
TR-P3-2l_(Projects 3-1 and 3-2 combined): Under 2025 Cumulative plus Project conditions, combined Projects 3-1 and 3-2 Option 1 would result in a significant transit impact for Muni bus line 43 in the PM peak hour.	Transit	**M-TR-P3-2l:** No feasible mitigation measures have been identified and a significant transit impact would occur to Muni bus line 43 as a result of combined Projects 3-1 and 3-2 Option 1 under 2025 Cumulative plus Project conditions in the PM peak hour.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P3-2m: Under Existing plus Project conditions individual Project 3-2 Option 1 would result in a significant transit impact for Muni bus line 43 in the PM peak hour.	Transit	**M-TR-P3-2m:** No feasible mitigation measures have been identified for Option 1 under Existing plus Project conditions in the PM peak hour. Therefore, a significant transit impact would occur to Muni bus line 43 as a result of individual Project 3-2 Option 1 under Existing plus Project conditions in the PM peak hour.	SUI
TR-P3-2n: Under 2025 Cumulative plus Project conditions, individual Project 3-2 Option 1 would result in a significant impact to transit for Muni bus line 43 in the PM peak hour.	Transit	**M-TR-P3-2n:** No feasible mitigation measures have been identified and a significant transit impact would occur to Muni bus line 43 as a result of individual Project 3-2 Option 1 under 2025 Cumulative plus Project conditions in the PM peak hour.	SUI
Cluster 4			
None identified.			
Cluster 5			
TR-P5-4a: Under Existing plus Project conditions the Bayshore Boulevard/Jerrold Boulevard/US 101 Off-Ramp intersection would operate at LOS F in the AM Peak hour and a significant impact would occur at this intersection with the implementation of Project 5-4 Option 1.	Traffic	**M-TR-P5-4a:** No feasible mitigation measures have been identified for the Bayshore Boulevard/Jerrold Boulevard/US 101 Off-Ramp intersection under Existing plus Project conditions for Option 1. Hence, a significant impact would occur at the Bayshore Boulevard/Jerrold Boulevard/US 101 Off-Ramp intersection with the implementation of Project 5-4 Option 1.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P5-4b: Under 2025 Cumulative plus Project conditions the Bayshore Boulevard/Jerrold Boulevard/US 101 Off-Ramp intersection would operate at LOS F in the AM Peak hour with a delay of more than 80 seconds. As a result a significant impact would occur at this intersection with the implementation of Project 5-4 Option 1.	Traffic	**M-TR-P5-4b:** No feasible mitigation measures have been identified for the Bayshore Boulevard/Jerrold Boulevard/US 101 Off-Ramp intersection under 2025 Cumulative plus Project conditions for Option 1. Hence, a significant impact would occur at the Bayshore Boulevard/Jerrold Boulevard/US 101 Off-Ramp intersection with the implementation of Project 5-4 Option 1.	SUI
TR-P5-4c: Under Existing plus Project conditions the Bayshore Boulevard/Jerrold Boulevard/US 101 Off-Ramp intersection would operate at LOS F and a significant impact would occur at this intersection with the implementation of Project 5-4 Option 1.	Traffic	**TR-P5-4c:** No feasible mitigation measures have been identified for the Bayshore Boulevard/Jerrold Boulevard/US 101 Off-Ramp intersection under Existing plus Project conditions for Option 1. Hence, a significant impact would occur at the Bayshore Boulevard/Jerrold Boulevard/US 101 Off-Ramp intersection with the implementation of Project 5-4 Option 1.	SUI
TR-P5-4d: Under 2025 Cumulative plus Project conditions the Bayshore Boulevard/Jerrold Boulevard/US 101 Off-Ramp intersection would operate at LOS and a significant impact would occur at this intersection with the implementation of Project 5-4 Option 1.	Traffic	**TR-P5-4d:** No feasible mitigation measures have been identified for the Bayshore Boulevard/Jerrold Boulevard/US 101 Off-Ramp intersection under 2025 Cumulative plus Project conditions for Option 1. Hence, a significant impact would occur at the Bayshore Boulevard/Jerrold Boulevard/US 101 Off-Ramp intersection with the implementation of Project 5-4 Option 1.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P5-4e: Under 2025 Cumulative plus Project conditions the Bayshore Boulevard/Oakdale Avenue intersection would operate at LOS E, and therefore a significant impact would occur at this intersection with the implementation of Project 5-4 Option 1.	Traffic	**M-TR-P5-4e:** Five seconds of green time shall be added to the northbound Bayshore Boulevard approach and five seconds of green time shall be reduced from the westbound Oakdale Avenue approach. This would improve the intersection operations from LOS E to LOS D, Thus, this mitigation measure would reduce the impacts of Project 5-4 Option 1 on the Bayshore Boulevard/Oakdale Avenue intersection to a less-than-significant level.	LTS
TR-P5-4f (Projects 5-2 and 5-4 combined): Muni bus lines 9, 9X, 9AX and SamTrans 292 would experience significant delays under 2025 Cumulative plus Project conditions for combined Projects 5-2 and 5-4 Option 1.	Transit	**M-TR-P5-4f:** Under 2025 Cumulative plus Project conditions combined Projects 5-2 and 5-4 Option 1 would add approximately 417 seconds (7.0 minutes) of total delay for Muni bus lines 9, 9X, 9AX and SamTrans 292. With Mitigation Measure M-TR-P5-4e described above, transit delay would be reduced to a less than significant level. Therefore, impacts to transit for Muni bus lines 9, 9X, 9AX and SamTrans 292 for combined Projects 5-2 and 5-4 Option 1 under 2025 Cumulative plus Project conditions would be reduced to a less-than-significant level.	LTS
TR-P5-4g: Muni bus lines 9, 9X, 9AX and SamTrans 292 would experience significant delays under 2025 Cumulative plus Project conditions for Project 5-4 Option 1.	Transit	**M-TR-P5-4g:** Under 2025 Cumulative plus Project conditions for individual Project 5-4 Option 1 Muni bus lines 9, 9X, 9AX and SamTrans 292 would experience significant delays. With Mitigation Measure M-TR-P5-4e described above, transit delay would be reduced to a less than significant level, Therefore, impacts to transit for Muni bus lines 9, 9X, 9AX and SamTrans 292 for Project 5-4 Option 1 under	LTS

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
		2025 Cumulative plus Project conditions would be reduced to a less-than-significant level.	
TR-P5-4h: A significant loading impact would occur on Bayshore Boulevard between Cesar Chavez and Industrial Streets as a result of Project 5-4 Option 2 under Existing plus Project conditions.	Loading	**M-TR-P5-4h:** No feasible mitigation measures have been identified. Therefore, a significant loading impact would occur on Bayshore Boulevard between Cesar Chavez and Industrial Streets with implementation of Project 5-4 Option 2 under Existing plus Project conditions.	SUI
TR-P5-4i: A significant loading impact would occur on Bayshore Boulevard between Cesar Chavez and Industrial Streets as a result of Project 5-4 Option 2 under 2025 Cumulative plus Project conditions.	Loading	**M-TR-P5-4i:** No feasible mitigation measures have been identified. Therefore, a significant loading impact would occur on Bayshore Boulevard between Cesar Chavez and Industrial Streets with implementation of Project 5-4 Option 2 under 2025 Cumulative plus Project conditions.	SUI
TR-P5-5a: Under Existing plus Project conditions the Evans Avenue/Cesar Chavez Street intersection would operate at LOS F, and therefore, a significant impact would occur at this intersection with the implementation of Project 5-5 Option 1.	Traffic	**M-TR-P5-5a:** No feasible mitigation measures have been identified for the Evans Avenue/Cesar Chavez Street intersection under Existing plus Project conditions for Option 1. Hence, a significant impact would occur at the Evans Avenue/Cesar Chavez Street intersection with the implementation of Project 5-5 Option 1 under Existing plus Project conditions.	SUI
TR-P5-5b: Under 2025 Cumulative plus Project conditions the Evans Avenue/Cesar Chavez Street intersection would operate at LOS F, and therefore, a significant impact would occur at this intersection with the implementation of Project 5-5 Option 1.	Traffic	**TR-P5-5b** No feasible mitigation measures have been identified for the Evans Avenue/Cesar Chavez Street intersection under 2025 Cumulative plus Project conditions for Option 1. Hence, a significant impact would occur at the Evans Avenue/Cesar Chavez Street intersection with the implementation of Project 5-5	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
		Option 1 under 2025 Cumulative plus Project conditions.	
TR-P5-6a: Under 2025 Cumulative plus Project conditions the Mission Street/Cesar Chavez Street intersection would operate at LOS F in the AM Peak hour, and therefore, a significant impact would occur at the Mission Street/Cesar Chavez Street intersection with the implementation of Project 5-6 Option 1.	Traffic	**M-TR-P5-6a:** Lane configuration adjustments to the eastbound and westbound directions on Cesar Chavez Street would improve LOS and reduce the delay at the Mission Street/Cesar Chavez Street intersection from LOS F to LOS E. The removal of on-street parking along Cesar Chavez Street (applying either Option 1 or 2 of proposed possible Mitigation Measure M-TR-P5-6w in conjunction with proposed possible Mitigation Measures M-TR-P5-6e, M-TR-P5-6h, M-TR-P 5-6j, M-TR-P 5-6k, M-TR-P 5-6l, M-TR-P 5-6m, M-TR-P 5-6o, and M-TR-P 5-6q for which feasibility has not yet been determined) is proposed which would provide an additional through lane along the eastbound and westbound Cesar Chavez Street approaches. However, because of the uncertainty regarding the feasibility of this mitigation measure, a significant impact may occur at the Mission Street/Cesar Chavez Street intersection in the AM Peak hour with the implementation of Project 5-6 Option 1.	SUI
TR-P5-6b: The Mission Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS E in the AM Peak hour under 2025 Cumulative plus Project conditions for Project 5-6 Option 2. Therefore, a significant impact would occur at the Mission Street/Cesar Chavez Street intersection with implementation of Project 5-6 Option 2.	Traffic	**M-TR-P5-6b:** Lane configuration adjustments to the eastbound and westbound directions on Cesar Chavez Street would improve LOS and reduce the delay at this intersection. The removal of on-street parking along Cesar Chavez Street (applying either Option 1 or 2 of proposed possible Mitigation Measure M-TR-P5-6w in conjunction with proposed possible Mitigation	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
		Measures M-TR-P5-6e, M-TR-P5-6h, M-TR-P 5-6j, M-TR-P 5-6k, M-TR-P 5-6l, M-TR-P 5-6m, M-TR-P 5-6o, and M-TR-P 5-6q for which feasibility has not yet been determined) is proposed which would provide an additional through lane along the eastbound and westbound Cesar Chavez Street approaches. However, because of the uncertainty regarding the feasibility of this mitigation measure, a significant impact would occur at this intersection with the implementation of Project 5-6 Option 2.	
TR-P5-6c: Under Existing plus Project conditions the Guerrero Street/Cesar Chavez Street intersection would operate at LOS F in the AM Peak hour, and therefore, a significant impact may occur at the Guerrero Street/Cesar Chavez Street intersection with the implementation of Project 5-6 Option 1.	Traffic	**M-TR-P5-6c:** Lane configuration adjustments to the westbound direction on Cesar Chavez Street would improve LOS and reduce the delay for this intersection. The removal of on-street parking along Cesar Chavez Street (applying either Option 1 or 2 of proposed possible Mitigation Measure M-TR-P5-6w in conjunction with proposed possible Mitigation Measures M-TR-P5-6e, M-TR-P5-6h, M-TR-P 5-6j, M-TR-P 5-6k, M-TR-P 5-6l, M-TR-P 5-6m, M-TR-P 5-6o, and M-TR-P 5-6q for which feasibility has not yet been determined) is proposed which would provide an additional through lane along the westbound Cesar Chavez Street approach. However, because of the uncertainty regarding the feasibility of this mitigation measure, a significant impact may occur at the Guerrero Street/Cesar Chavez Street intersection with the implementation of Project 5-6 Option 1.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P5-6d: Under Existing plus Project conditions the Guerrero Street/Cesar Chavez Street intersection would operate at LOS F, and therefore, a significant impact would occur at the Guerrero Street/Cesar Chavez Street intersection with the implementation of Project 5-6 Option 2,.	Traffic	**M-TR-P5-6d:** No feasible mitigation measures have been identified for the Guerrero Street/Cesar Chavez Street intersection under Existing plus Project conditions for Option 2. Hence, a significant impact would occur at the Guerrero Street/Cesar Chavez Street intersection with the implementation of Project 5-6 Option 2.	SUI
TR-P5-6e: Under 2025 Cumulative plus Project conditions the Guerrero Street/Cesar Chavez Street intersection would operate at LOS F, and therefore, a significant impact would occur at the Guerrero Street/Cesar Chavez Street intersection with the implementation of Project 5-6 Option 1.	Traffic	**M-TR-P5-6e:** Lane configuration adjustments to the westbound direction of Cesar Chavez Street would improve LOS and reduce the delay at the Guerrero Street/Cesar Chavez Street intersection. The removal of on-street parking along Cesar Chavez Street (applying either Option 1 or 2 of proposed possible Mitigation Measure M-TR-P5-6w in conjunction with proposed possible Mitigation Measures M-TR-P5-6e, M-TR-P5-6h, M-TR-P 5-6j, M-TR-P 5-6k, M-TR-P 5-6l, M-TR-P 5-6m, M-TR-P 5-6o, and M-TR-P 5-6q for which feasibility has not yet been determined) is proposed which would provide an additional through lane along the westbound Cesar Chavez Street approach. Nevertheless, this mitigation measure would not reduce the project impacts to a less-than-significant level for Project 5-6 Option 1.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P5-6f: Under 2025 Cumulative plus Project conditions the Guerrero Street/Cesar Chavez Street intersection would operate at LOS F, and therefore, a significant impact would occur at this intersection with the implementation of Project 5-6 Option 2.	Traffic	**M-TR-P5-6f:** No feasible mitigation measures have been identified for the Guerrero Street/Cesar Chavez Street intersection under 2025 Cumulative plus Project conditions for Option 2. Hence, a significant impact would occur at the Guerrero Street/Cesar Chavez Street intersection with the implementation of Project 5-6 Option 2.	SUI
TR-P5-6g: Under Existing plus Project conditions the Mission Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS F, and therefore, a significant impact would occur at this intersection with the implementation of Project 5-6 Option 1.	Traffic	**M-TR-P5-6g:** No feasible mitigation measures have been identified for the Mission Street/Cesar Chavez Street intersection under Existing plus Project conditions for Option 1. Hence, a significant impact would occur at the Mission Street/Cesar Chavez Street intersection with the implementation of Project 5-6. Option 1	SUI
TR-P5-6h: Under Existing plus Project conditions for Option 2 the Mission Street/Cesar Chavez Street intersection would operate unsatisfactorily at LOS E, and therefore, a significant impact may occur at this intersection with the implementation of Project 5-6 Option 2.	Traffic	**M-TR-P5-6h:** It is proposed that lane configuration adjustments be made to the eastbound and westbound directions on Cesar Chavez Street, to improve LOS and reduce the delay at the Mission Street/Cesar Chavez Street intersection. It is further proposed that on-street parking be removed (applying either Option 1 or 2 of proposed possible Mitigation Measure M-TR-P5-6w in conjunction with proposed possible Mitigation Measures M-TR-P5-6e, M-TR-P5-6h, M-TR-P 5-6j, M-TR-P 5-6k, M-TR-P 5-6l, M-TR-P 5-6m, M-TR-P 5-6o, and M-TR-P 5-6q for which feasibility has not yet been determined) along Cesar Chavez Street in the eastbound and westbound directions which would provide an additional through lane in both directions.	SUI

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**TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES**

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
		These lane adjustments would decrease the delay and improve LOS from E to D. However, because of the uncertainty of the feasibility of this mitigation measure, a significant impact may occur at the Mission Street/Cesar Chavez Street intersection with the implementation of Project 5-6 Option 2. In addition, bicycle lane discontinuity could occur at this location.	
TR-P5-6i: Under 2025 Cumulative plus Project conditions for Option 1, the Mission Street/Cesar Chavez Street intersection would operate at LOS F, and therefore, a significant impact would occur at this intersection with the implementation of Project 5-6 Option 1.	Traffic	**M-TR-P5-6i:** No feasible mitigation measures have been identified for the Mission Street/Cesar Chavez Street intersection under 2025 Cumulative plus Project conditions for Option 1. Hence, a significant impact would occur at the Mission Street/Cesar Chavez Street intersection with the implementation of Project 5-6 Option 1.	SUI
TR-P5-6j: Under 2025 Cumulative plus Project conditions for Option 2, the Mission Street/Cesar Chavez Street intersection would operate at LOS F, and therefore, a significant impact would occur at this intersection with the implementation of Project 5-6 Option 2.	Traffic	**M-TR-P5-6j:** Lane configuration adjustments to the eastbound and westbound directions on Cesar Chavez Street would improve LOS and reduce the delay at the Mission Street/Cesar Chavez Street intersection. It is proposed that on-street parking be removed (applying either Option 1 or 2 of proposed possible Mitigation Measure M-TR-P5-6w in conjunction with proposed possible Mitigation Measures M-TR-P5-6e, M-TR-P5-6h, M-TR-P 5-6j, M-TR-P 5-6k, M-TR-P 5-6l, M-TR-P 5-6m, M-TR-P 5-6o, and M-TR-P 5-6q for which feasibility has not yet been determined) along Cesar Chavez Street in the eastbound and westbound directions which would provide an additional through lane in both directions. These lane adjustments would	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
		decrease the delay and improve LOS from F to E. However, because of the uncertainty of the feasibility of this mitigation measure, a significant impact would occur at the Mission Street/Cesar Chavez Street intersection with the implementation of Project 5-6 Option 2.	
TR-P5-6k: Under Existing plus Project conditions for Option 1, the South Van Ness Avenue/Cesar Chavez Street intersection would operate at LOS F, and therefore, a significant impact may occur at this intersection with the implementation of Project 5-6 Option 1.	Traffic	**M-TR-P5-6k:** Lane configuration adjustments to the eastbound and westbound directions on Cesar Chavez Street would improve LOS and reduce the delay at this intersection. It is proposed that on-street parking along Cesar Chavez Street be removed (applying either Option 1 or 2 of proposed possible Mitigation Measure M-TR-P5-6w in conjunction with proposed possible Mitigation Measures M-TR-P5-6e, M-TR-P5-6h, M-TR-P 5-6j, M-TR-P 5-6k, M-TR-P 5-6l, M-TR-P 5-6m, M-TR-P 5-6o, and M-TR-P 5-6q for which feasibility has not yet been determined) in both the eastbound and westbound directions on Cesar Chavez Street which would provide an additional through lane along both approaches. These lane adjustments would decrease the delay and improve LOS from F to D. However, because of the uncertainty regarding the feasibility of this mitigation measure, a significant impact may occur at South Van Ness Avenue/Cesar Chavez Street intersection with the implementation of Project 5-6 Option 1.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P5-6l: Under Existing plus Project conditions for Option 2, the South Van Ness Avenue/Cesar Chavez Street intersection would operate at LOS E, and therefore, a significant impact may occur at the South Van Ness Avenue/Cesar Chavez Street intersection with the implementation of Project 5-6 Option 2.	Traffic	**M-TR-P5-6l:** Lane configuration adjustments to the westbound direction on Cesar Chavez Street would improve LOS and reduce the delay at this intersection. It is proposed that on-street parking along Cesar Chavez Street be removed (applying either Option 1 or 2 of proposed possible Mitigation Measure M-TR-P5-6w in conjunction with proposed possible Mitigation Measures M-TR-P5-6e, M-TR-P 5-6h, M-TR-P 5-6j, M-TR-P 5-6k, M-TR-P 5-6l, M-TR-P 5-6m, M-TR-P 5-6o, and M-TR-P 5-6q for which feasibility has not yet been determined) in the westbound direction on Cesar Chavez Street which would provide an additional through lane along this approach. This lane adjustment would decrease the delay and improve LOS from E to D. However, because of the uncertainty regarding the feasibility of this mitigation measure, a significant impact may occur at this intersection with the implementation of Project 5-6 Option 2.	SUI
TR-P5-6m: Under 2025 Cumulative plus Project conditions for Option 1, the Cesar Chavez Street/South Van Ness Avenue intersection would operate at LOS F, and therefore, a significant impact would occur at the South Van Ness Avenue/Cesar Chavez Street intersection with the implementation of Project 5-6 Option 1.	Traffic	**M-TR-P5-6m:** Lane configuration adjustments to the eastbound and westbound directions on Cesar Chavez Street would improve LOS and reduce the delay at the Cesar Chavez Street/South Van Ness Avenue intersection. It is proposed that on-street parking along Cesar Chavez Street be removed (applying either Option 1 or 2 of proposed possible Mitigation Measures M-TR-P5-6w in conjunction with proposed possible Mitigation Measures M-TR-P5-6e, M-TR-P5-6h, M-TR-P 5-6j, M-TR-P 5-6k, M-TR-P 5-6l, M-TR-P 5-6m, M-TR-P 5-6o, and M-TR-P 5-6q for which	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
		feasibility has not yet been determined) in both the eastbound and westbound directions on Cesar Chavez Street which would provide an additional through lane along both approaches. Nevertheless, this mitigation measure would not reduce Project 5-6 Option 1 impacts to a less-than-significant level.	
TR-P5-6n: Under 2025 Cumulative plus Project conditions for Option 2, the South Van Ness Avenue/Cesar Chavez Street intersection would operate at LOS F, and therefore, a significant impact would occur at the South Van Ness Avenue/Cesar Chavez Street intersection with the implementation of Project 5-6 Option 2.	Traffic	**M-TR-P5-6n:** No feasible mitigation measures have been identified for the South Van Ness Avenue/Cesar Chavez Street intersection under 2025 Cumulative plus Project conditions for Option 2. Hence, a significant impact would occur at the South Van Ness Avenue/Cesar Chavez Street intersection with the implementation of Project 5-6 Option 2.	SUI
TR-P5-6o: Under Existing plus Project conditions for Option 1, the Bryant Street/Cesar Chavez Street intersection would operate at LOS F, and therefore, a significant impact may occur at this intersection with the implementation of Project 5-6 Option 1.	Traffic	**M-TR-P6-5o:** Lane configuration adjustments to the eastbound direction and westbound directions on Cesar Chavez Street would improve LOS and reduce the delay at the Bryant Street/Cesar Chavez Street intersection. It is proposed that on-street parking be removed (applying either Option 1 or 2 of proposed possible Mitigation Measure M-TR-P5-6w in conjunction with proposed possible Mitigation Measures M-TR-P5-6e, M-TR-P5-6h, M-TR-P 5-6j, M-TR-P 5-6k, M-TR-P 5-6l, M-TR-P 5-6m, M-TR-P 5-6o, and M-TR-P 5-6q for which feasibility has not yet been determined) along Cesar Chavez Street along the eastbound and westbound directions which would provide an additional through lane in both directions. However, because of the uncertainty regarding the	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
		feasibility of this mitigation measure, a significant impact may occur at the Bryant Street/Cesar Chavez Street intersection with the implementation of Project 5-6 Option 1.	
TR-P5-6p: Under Existing plus Project conditions for Option 2, the Bryant Street/Cesar Chavez Street intersection would operate at LOS E, and therefore, a significant impact would occur at the Bryant Street/Cesar Chavez Street intersection with the implementation of Project 5-6 Option 2.	Traffic	**M-TR-P5-6p:** No feasible mitigation measures have been identified for the Bryant Street/Cesar Chavez Street intersection under Existing plus Project conditions for Option 2. Hence, a significant impact would occur at the Bryant Street/Cesar Chavez Street intersection with the implementation of Project 5-6 Option 2.	SUI
TR-P5-6q: Under 2025 Cumulative plus Project conditions for Option 1, the Bryant Street/Cesar Chavez Street intersection would operate at LOS F, and therefore, a significant impact would occur at this intersection with the implementation of Project 5-6 Option 1.	Traffic	**M-TR-P5-6q:** Lane configuration adjustments to the eastbound and westbound directions on Cesar Chavez Street would improve LOS and reduce the delay at this intersection. It is proposed that on-street parking be removed (applying either Option 1 or 2 of proposed possible Mitigation Measure M-TR-P5-6w in conjunction with proposed possible Mitigation Measures M-TR-P5-6e, M-TR-P5-6h, M-TR-P 5-6j, M-TR-P 5-6k, M-TR-P 5-6l, M-TR-P 5-6m, M-TR-P 5-6o, and M-TR-P 5-6q for which feasibility has not yet been determined) along Cesar Chavez Street in the eastbound and westbound directions which would provide an additional through lane along both approaches. Nevertheless, this mitigation measure would not reduce the impacts of Project 5-6 Option 1 to a less-than-significant level.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P5-6r: Under 2025 Cumulative plus Project conditions for Option 2, the Bryant Street/Cesar Chavez Street intersection would operate at LOS F, and therefore, a significant impact would occur at this intersection with the implementation of Project 5-6 Option 2.	Traffic	**M-TR-P5-6r:** No feasible mitigation measures have been identified for the Bryant Street/Cesar Chavez Street intersection under 2025 Cumulative plus Project conditions for Option 2. Hence, a significant impact would occur at the Bryant Street/Cesar Chavez Street intersection with the implementation of Project 5-6 Option 2.	SUI
TR-P5-6s: Muni bus line 12 would experience significant delays under Existing plus Project conditions for Project 5-6 Option 1.	Transit	**M-TR-P5-6s:** The implementation of Option 1 under Existing plus Project conditions would add 474 seconds (7.9 minutes) of total delay for Muni bus line 12 westbound. With mitigation as described in proposed possible Mitigation Measure M-TR-P5-6w in conjunction with proposed possible Mitigation Measures M-TR-P5-6e, M-TR-P5-6h, M-TR-P 5-6j, M-TR-P 5-6k, M-TR-P 5-6l, M-TR-P 5-6m, M-TR-P 5-6o, and M-TR-P 5-6q above, this delay would be reduced. This would reduce total delay below the transit delay threshold of six minutes. However, because of the uncertainty regarding the feasibility of this mitigation measure, a significant transit impact would occur for Muni bus line 12 for Project 5-6 Option 1 under Existing plus Project conditions.	SUI
TR-P5-6t: Muni bus line 27 would experience significant delays under Existing plus Project conditions for Project 5-6 Option 1.	Transit	**M-TR-P5-6t:** The implementation of Option 1 under Existing plus Project conditions would add 867 seconds (14.5 minutes) of total delay for Muni bus line 27. With mitigation as described in proposed possible Mitigation Measure M-TR-P5-6w in conjunction with proposed possible Mitigation Measures M-TR-P5-6e,	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
		M-TR-P5-6h, M-TR-P 5-6j, M-TR-P 5-6k, M-TR-P 5-6l, M-TR-P 5-6m, M-TR-P 5-6o, and M-TR-P 5-6q above, delay in the westbound direction would be reduced. Total transit delay would be below the transit delay threshold of six minutes. However, because of the uncertainty of the feasibility of this mitigation measure, a significant impact would occur to Muni bus line 27 for Project 5-6 Option 1 under Existing plus Project conditions.	
TR-P5-6u: Muni bus line 12 would experience significant delays under 2025 Cumulative plus Project conditions for Project 5-6 Option 1.	Transit	**M-TR-P5-6u:** The implementation of Option 1 under 2025 Cumulative plus Project conditions would add approximately 1,487 seconds (24.7 minutes) of total delay for Muni bus line 12 westbound. With mitigation as described in proposed possible Mitigation Measure M-TR-P5-6w in conjunction with proposed possible Mitigation Measures M-TR-P5-6e, M-TR-P5-6h, M-TR-P 5-6j, M-TR-P 5-6k, M-TR-P 5-6l, M-TR-P 5-6m, M-TR-P 5-6o, and M-TR-P 5-6qabove, this delay would not change. Therefore, a significant transit impact to Muni bus line 12 would occur with implementation of Project 5-6 Option 1 under 2025 Cumulative plus Project conditions.	SUI
TR-P5-6v: Muni bus line 27 would experience significant delays under 2025 Cumulative plus Project conditions for Project 5-6 Option 1.	Transit	**M-TR-P5-6v:** The implementation of Option 1 under 2025 Cumulative plus Project conditions would add approximately 2,429 seconds (40.5 minutes) of total delay for Muni bus line 27. With mitigation as described in proposed possible Mitigation Measure M-TR-P5-6w in conjunction with proposed possible	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
		Mitigation Measures M-TR-P5-6e, M-TR-P5-6h, M-TR-P 5-6j, M-TR-P 5-6k, M-TR-P 5-6l, M-TR-P 5-6m, M-TR-P 5-6o, and M-TR-P 5-6q: above, this delay would not be reduced westbound but would be reduced to 99 seconds (1.6 minutes) of delay eastbound. However, the total added delay of 1,897 seconds (31.6 minutes) would be greater than the transit delay threshold of six minutes. Therefore, a significant transit impact to Muni bus line 27 would occur with implementation of Project 5-6 Option 1 under 2025 Cumulative plus Project conditions.	
TR-P5-6a: Under 2025 Cumulative plus Project conditions for Project 5-6 Option 1, a significant impact would occur at the Mission Street/Cesar Chavez Street intersection in the AM peak hour. **TR-P5-6b:** Under 2025 Cumulative plus Project conditions for Project 5-6 Option 2. a significant impact would occur at the Mission Street/Cesar Chavez Street intersection in the AM peak hour. **TR-P5-6c:** Under Existing plus Project conditions for Project 5-6 Option 1. a significant impact would occur at the Guerrero Street/Cesar Chavez Street intersection. **TR-P5-6e:** Under 2025 Cumulative plus Project conditions for Project 5-6 Option 1. a significant impact would occur at the Guerrero Street/Cesar Chavez Street intersection. **TR-P5-6h:** Under Existing plus Project conditions		**M-TR-P5-6w:** As referenced in the above Mitigation Measures M-TR-P5-6e, M-TR-P5-6h, M-TR-P 5-6j, M-TR-P 5-6k, M-TR-P 5-6l, M-TR-P 5-6m, M-TR-P 5-6o, and M-TR-P 5-6q: The traffic analysis conducted for Project 5-6 included four study intersections along Cesar Chavez for the segment between Hampshire and Guerrero Streets. Analysis indicates that if the lane configurations corresponding to the No Project conditions can be provided, some impacts will be mitigated at these intersections. The following two options are part of proposed possible mitigation measures, for which feasibility has not yet been determined, to reinstate the lane configuration under No Project conditions. Option 1: Removal of parking – For the four study intersections analyzed, approximately 100 spaces would need to be removed on Cesar Chavez Street to mitigate the impacts at these locations. However,	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
for Project 5-6 Option 2. a significant impact would occur at the Mission Street/Cesar Chavez Street intersection. **TR-P 5-6j:** Under 2025 Cumulative plus Project conditions for Project 5-6 Option 2. a significant impact would occur at the Mission Street/Cesar Chavez Street intersection. **TR-P 5-6k:** Under Existing plus Project conditions for Project 5-6 Option 1 a significant impact would occur at the South Van Ness/Cesar Chavez Street intersection. **TR-P 5-6l:** Under Existing plus Project conditions for Project 5-6 Option 2 a significant impact would occur at the South Van Ness/Cesar Chavez Street intersection. **TR-P 5-6m:** Under 2025 Cumulative plus Project conditions for Project 5-6 Option 1 a significant impact would occur at the South Van Ness/Cesar Chavez Street intersection. **TR-P 5-6o:** Under Existing plus Project conditions for Project 5-6 Option 1 a significant impact would occur at the Bryant Street/Cesar Chavez Street intersection. And **TR-P 5-6q:** Under 2025 Cumulative plus Project conditions for Project 5-6 Option 1 a significant impact would occur at the Bryant Street/Cesar Chavez Street intersection.		additional parking spaces may need to be removed to reduce impacts along the entire corridor. Option 2: Implementing a discontinuous bicycle lane – The consultant recommends the bicycle lane be discontinued at selected intersection approaches along Cesar Chavez Street. This option may reduce the number of parking spaces that need to be removed on Cesar Chavez Street compared to Option 1.	

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P5-13a: Project 5-13 would result in a significant impact to loading on the west side of San Bruno Avenue between Paul Avenue and Silver Avenue with implementation of Option 1 under Existing plus Project conditions.	Loading	**M-TR-P5-13a:** No feasible mitigation measures have been identified for Option 1. Hence, a significant loading impact would occur on the west side of San Bruno Avenue between Paul Avenue and Silver Avenue with the implementation of Project 5-13 Option 1 under Existing plus Project conditions.	SUI
TR-P5-13b: Project 5-13 would result in a significant impact to loading on the west side of San Bruno Avenue between Paul Avenue and Silver Avenue with implementation of Option 2 under Existing plus Project conditions.	Loading	**M-TR-P5-13b:** No feasible mitigation measures have been identified for Option 2. Hence, a significant loading impact would occur on the west side of San Bruno Avenue between Paul Avenue and Silver Avenue with the implementation of Project 5-13 Option 2 under Existing plus Project conditions.	SUI
TR-P5-13c: Project 5-13 would result in a significant impact to loading on the west side of San Bruno Avenue between Paul Avenue and Silver Avenue with implementation of Option 1 under 2025 Cumulative plus Project conditions.	Loading	**M-TR-P5-13c:** No feasible mitigation measures have been identified for Option 1. Hence, a significant loading impact would occur on the west side of San Bruno Avenue between Paul Avenue and Silver Avenue with the implementation of Project 5-13 with Option 1 under 2025 Cumulative plus Project conditions.	SUI
TR-P5-13d: Project 5-13 would result in a significant impact to loading on the west side of San Bruno Avenue between Paul Avenue and Silver Avenue with implementation of Option 2 under 2025 Cumulative plus Project conditions.	Loading	**M-TR-P5-13d:** No feasible mitigation measures have been identified for Option 2. Hence, a significant loading impact would occur on the west side of San Bruno Avenue between Paul Avenue and Silver Avenue with the implementation of Project 5-13 with Option 2 under 2025 Cumulative plus Project conditions.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
Cluster 6			
TR-P6-2a (Projects 6-2 and 6-5 combined): Under Existing plus Project conditions for Option 1, the Burnett Avenue/Clipper Street/Portola Drive intersection would operate at LOS F, and therefore, a significant impact would occur at the Burnett Avenue/Clipper Street/Portola Drive intersection with the implementation of combined Projects 6-2 and 6-5 Option 1.	Traffic	**M-TR-P6-2a:** No feasible mitigation measures have been identified for the Burnett Avenue/Clipper Street/Portola Drive intersection under Existing plus Project conditions for Option 1. Hence a significant impact would occur at the Burnett Avenue/Clipper Street/Portola Drive intersection with the implementation of combined Projects 6-2 and 6-5 Option 1.	SUI
TR-P6-2b (Projects 6-2 and 6-5 combined): Under 2025 Cumulative plus Project conditions for Option 1, the Burnett Avenue/Clipper Street/Portola Drive intersection would operate at LOS F, and therefore, a significant impact would occur at the Burnett Avenue/Clipper Street/Portola Drive intersection with the implementation of combined Projects 6-2 and 6-5 Option 1.	Traffic	**M-TR-P6-2b:** No feasible mitigation measures have been identified for the Burnett Avenue/Clipper Street/Portola Drive intersection under 2025 Cumulative plus Project conditions for Option 1. Hence a significant impact would occur at the Burnett Avenue/Clipper Street/Portola Drive intersection with the implementation of combined Projects 6-2 and 6-5 Option 1.	SUI
TR-P6-2c: Under Existing plus Project conditions for Option 1, the Burnett Avenue/Clipper Street/Portola Drive intersection would operate at LOS F, and therefore, a significant impact would occur at this intersection with the implementation of Project 6-2 Option 1.	Traffic	**M-TR-P6-2c:** No feasible mitigation measures have been identified for the Burnett Avenue/Clipper Street/Portola Drive intersection under Existing plus Project conditions for Option 1. Hence a significant impact would occur at the Burnett Avenue/Clipper Street/Portola Drive intersection with the implementation of Project 6-2 for Option 1 for the PM peak hour.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P6-2d: Under 2025 Cumulative plus Project conditions for Option 1, the Burnett Avenue/Clipper Street/Portola Drive intersection would operate at LOS F, and therefore, a significant impact would occur at this intersection with the implementation of Project 6-2 Option 1.	Traffic	**M-TR-P6-2d:** No feasible mitigation measures have been identified for the Burnett Avenue/Clipper Street/Portola Drive intersection under 2025 Cumulative plus Project conditions for Option 1. Hence a significant impact would occur at the Burnett Avenue/Clipper Street/Portola Drive intersection with the implementation of Project 6-2 for Option 1 for the PM peak hour.	SUI
TR-P6-5a (Projects 6-5 and 6-6 combined): Under Existing plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F in the AM Peak hour, and therefore, a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of combined Projects 6-5 and 6-6 Option 1 for the AM peak hour.	Traffic	**M-TR-P6-5a:** No feasible mitigation measures have been identified for the Woodside Avenue/ O'Shaughnessy Boulevard/Portola Drive intersection under Existing plus Project conditions for Option 1. Hence a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/ Portola Drive intersection with the implementation of combined Projects 6-5 and 6-6 Option 1 for the AM peak hour.	SUI
TR-P6-5b (Projects 6-5 and 6-6 combined): Under 2025 Cumulative plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F in the AM Peak hour, and therefore, a significant impact would occur at this intersection with the implementation of combined Projects 6-5 and 6-6 Option 1 for the AM peak hour.	Traffic	**M-TR-P6-5b:** No feasible mitigation measures have been identified for the Woodside Avenue/ O'Shaughnessy Boulevard/Portola Drive intersection under 2025 Cumulative plus Project conditions for Option 1. Hence a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/ Portola Drive intersection with the implementation of combined Projects 6-5 and 6-6 for Option 1 for the AM peak hour.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P6-5c: Under Existing plus Project conditions for Option 1, the Woodside Avenue/ O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F in the AM Peak hour, and therefore, a significant impact would occur at the Woodside Avenue/ O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Project 6-5 Option 1.	Traffic	**M-TR-P6-5c:** No feasible mitigation measures have been identified for the Woodside Avenue/ O'Shaughnessy Boulevard/Portola Drive intersection under Existing plus Project conditions for Option 1. Hence a significant impact would occur at the Woodside Avenue/ O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Projects 6-5 Option 1 for the AM peak hour.	SUI
TR-P6-5d: Under 2025 Cumulative plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F in the AM peak hour, and therefore, a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Project 6-5 Option 1.	Traffic	**M-TR-P6-5d:** No feasible mitigation measures have been identified for the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection under 2025 Cumulative plus Project conditions for Option 1. Hence a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Projects 6-5 Option 1 for the AM peak hour.	SUI
TR-P6-5e (Projects 6-5 and 6-6 combined): Under Existing plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/ Portola Drive intersection would operate at LOS F ,and therefore, a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/ Portola Drive intersection with the implementation of combined Projects 6-5 and 6-6 Option 1.	Traffic	**M-TR-P6-5e:** No feasible mitigation measures have been identified for the Woodside Avenue/ O'Shaughnessy Boulevard/Portola Drive intersection under Existing plus Project conditions for Option 1. Hence a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of combined Projects 6-5 and 6-6 Option 1 for the PM peak hour.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P6-5f (Projects 6-5 and 6-6 combined): Under 2025 Cumulative plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F, and therefore, a significant impact would occur at this intersection with the implementation of combined Projects 6-5 and 6-6 Option 1	Traffic	**M-TR-P6-5f:** No feasible mitigation measures have been identified for the Woodside Avenue/ O'Shaughnessy Boulevard/Portola Drive intersection under 2025 Cumulative plus Project conditions for Option 1. Hence a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/ Portola Drive intersection with the implementation of combined Projects 6-5 and 6-6 Option 1 for the PM peak hour.	SUI
TR-P6-5g: Under Existing plus Project conditions for Option 1, the Woodside Avenue/ O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F, and therefore, a significant impact would occur at this intersection with the implementation of Project 6-5 Option 1.	Traffic	**M-TR-P6-5g:** No feasible mitigation measures have been identified for the Woodside Avenue/ O'Shaughnessy Boulevard/Portola Drive intersection under Existing plus Project conditions for Option 1. Hence a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Project 6-5 Option 1 for the PM peak hour.	SUI
TR-P6-5h: Under 2025 Cumulative plus Project conditions for Option 1, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate at LOS F, and therefore, a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Project 6-5 Option 1.	Traffic	**M-TR-P6-5h:** No feasible mitigation measures have been identified for the Woodside Avenue/ O'Shaughnessy Boulevard/Portola Drive intersection under 2025 Cumulative plus Project conditions for Option 1. Hence a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Project 6-5 for Option 1 for the PM peak hour.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P6-5i: Under 2025 Cumulative plus Project conditions for Option 1, the Burnett Avenue/Clipper Street/Portola Drive intersection would operate at LOS F, and therefore, a significant impact would occur at the Burnett Avenue/Clipper Street/Portola Drive intersection with the implementation of Project 6-5 Option 1.	Traffic	**M-TR-P6-5i:** No feasible mitigation measures have been identified for the Burnett Avenue/Clipper Street/Portola Drive intersection under 2025 Cumulative plus Project conditions for Option 1. Hence a significant impact would occur at the Burnett Avenue/Clipper Street/Portola Drive intersection with the implementation of Project 6-5 for Option 1 for the PM peak hour.	SUI
TR-P6-5j (Projects 6-2, 6-5, and 6-6 combined): Muni bus line 48 would experience significant delays under 2025 Cumulative plus Project conditions with Projects 6-2, 6-5, and 6-6 combined for Option 1.	Transit	**M-TR-P6-5j:** No feasible mitigation measure was identified and therefore the impact on Muni bus line 48 under 2025 Cumulative plus Project conditions would remain significant.	SUI
TR-P6-5k (Projects 6-2, 6-5, and 6-6 combined): Muni bus line 52 would experience significant delays under 2025 Cumulative plus Project conditions with implementation of combined Projects 6-2, 6-5, and 6-6 Option 1.	Transit	**M-TR-P6-5k:** No feasible mitigation measure was identified for this impact, and therefore the transit impact on Muni bus line 52 under 2025 Cumulative plus Project conditions would remain significant with the implementation of combined Projects 6-2, 6-5, and 6-6 Option 1.	SUI
TR-P6-6a: Under Existing plus Project conditions the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F in the AM Peak hour, and therefore, a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Project 6-6 Option 1.	Traffic	**M-TR-P6-6a:** No feasible mitigation measures have been identified for the Woodside Avenue/ O'Shaughnessy Boulevard/Portola Drive intersection under Existing plus Project conditions for Option 1. Hence a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/ Portola Drive intersection with the implementation of Project 6-6 Option 1 for the AM peak hour.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P6-6b: Under 2025 Cumulative plus Project conditions the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F in the AM peak hour, and therefore, a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Project 6-6 Option 1.	Traffic	**M-TR-P6-6b:** No feasible mitigation measures have been identified for the Woodside Avenue/ O'Shaughnessy Boulevard/Portola Drive intersection under 2025 Cumulative plus Project conditions for Option 1. Hence a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/ Portola Drive intersection with the implementation of Project 6-6 for Option 1 for the AM peak hour.	SUI
TR-P6-6c: Under Existing plus Project conditions the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, and therefore, a significant impact would occur at this intersection with the implementation of Project 6-6 Option 1.	Traffic	**M-TR-P6-6c:** No feasible mitigation measures have been identified for the Woodside Avenue/ O'Shaughnessy Boulevard/Portola Drive intersection under Existing plus Project conditions for Option 1. Hence a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/ Portola Drive intersection with the implementation of Project 6-6 for Option 1 for the PM peak hour.	SUI
TR-P6-6d: Under 2025 Cumulative plus Project the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection would operate unsatisfactorily at LOS F, and therefore, a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection with the implementation of Project 6-6 Option 1.	Traffic	**M-TR-P6-6d:** No feasible mitigation measures have been identified for the Woodside Avenue/ O'Shaughnessy Boulevard/Portola Drive intersection under 2025 Cumulative plus Project conditions for Option 1. Hence a significant impact would occur at the Woodside Avenue/O'Shaughnessy Boulevard/ Portola Drive intersection with the implementation of Project 6-6 Option 1 for the PM peak hour.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
TR-P6-6e: Under 2025 Cumulative plus Project conditions for Option 1, the Fowler Street/Portola Avenue intersection would operate at LOS F, and therefore, a significant impact would occur at , the Fowler Street/Portola Avenue intersection with the implementation of Project 6-6 Option 1.	Traffic	**M-TR-P6-6e:** No feasible mitigation measures have been identified for the Fowler Street/Portola Avenue intersection under 2025 Cumulative plus Project conditions for Option 1. Hence a significant impact would occur at the Fowler Street/Portola Avenue intersection with the implementation of Project 6-6 Option 1 for the PM peak hour.	SUI
Cluster 7			
No significant impacts identified.			
Cluster 8			
No significant impacts identified.			
SIGNIFICANT TRANSPORTATION IMPACTS OF MINOR IMPROVEMENTS			
No significant impacts identified.			
SIGNIFICANT TRANSPORTATION IMPACTS OF LONG-TERM IMPROVEMENTS			
Traffic Impacts			
TR-LT1: Both individually, and in a cumulative scenario, the implementation of long-term improvements could result in a reduction in roadway capacity and increased traffic delays. Reduction in the number of travel lanes could subject vehicles, including transit using the affected roadways, to increased congestion and delays.	Traffic	Measures that could potentially reduce significant traffic impacts to less-than-significant levels include: **M-TR-LT1.1:** Unsignalized intersections may be signalized, as appropriate. **M-TR-LT1.2:** Changes may be made to signal timing (including redistributing green time from one phase to another, lengthening of signal cycle times, changing permitted movements to protected movements, signal coordination/progression), as appropriate.	SUI

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TABLE ES-1 (CONTINUED)
SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Significant Impacts	Impact Category	Mitigation Measures	Level of Significance With Mitigation
		M-TR-LT1.3: Changes may be made to roadway geometry (e.g., changing shared lanes to exclusive turn lanes, proving exclusive right-turn or left-turn pockets), as appropriate. **M-TR-LT1.4:** Floating bicycle lanes may be implemented, where on-street parking is restricted during peak periods, to provide for additional vehicular capacity, as appropriate. **M-TR-LT1.5:** Parking may be eliminated to provide for additional vehicular capacity, as appropriate. In some instances, where either existing or projected cumulative conditions at intersections operate at LOS E or LOS F conditions, mitigation measures would not be available, and in these cases traffic impacts would remain significant and unavoidable.	
Transit Impacts			
TR-LT2: Both individually, and in a cumulative scenario, the implementation of long-term improvements may cause transit to experience increased travel time on streets where these improvements reduce capacity of roadways and result in significant increases in delay. Buses may experience increased difficulty pulling into and out of curb bus stops due to reconfiguration of bus stops to accommodate bicycle lanes.	Traffic	Potential mitigation measures that could reduce significant transit impacts to less-than-significant levels include: **M-TR-LT2.1:** Signal pre-emption or other transit priority techniques may be applied to reduce overall transit travel times, as appropriate. **M-TR-LT2.2:** Bicycle proposals may be modified to create discontinuities in bicycle treatment to avoid transit delays, as appropriate. **M-TR-LT2.3:** Bus stops may be reconfigured to facilitate bus operations, as appropriate.	SUI

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TABLE ES-1 (CONTINUED) SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES			
Significant Impacts	**Impact Category**	**Mitigation Measures**	**Level of Significance With Mitigation**
		M-TR-LT2.4: Parking may be eliminated to substitute for lane removal and/or increase roadway capacity, as appropriate. In some instances, where either existing or projected cumulative conditions at intersections operate at LOS E or LOS F conditions, feasible mitigation measures would not be available, and transit impacts would remain significant and unavoidable.	
Loading Impacts			
TR-LT3: Both individually, and in a cumulative scenario, the implementation of long-term improvements may result in elimination of curb space currently dedicated to yellow commercial vehicle freight loading zones, or active passenger loading/unloading zones.	Transit	The following mitigation measures could reduce significant loading impacts to less-than-significant levels. **M-TR-LT3.1:** Where feasible and required to respond to loading zone impacts, on-street parking layouts shall be modified to accommodate additional yellow commercial freight loading zones. **M-TR-LT3.2:** Traffic management strategies shall be developed and implemented, where feasible, to accommodate short-term passenger loading/unloading activities. In some locations, feasible mitigation measures would not be available, and loading impacts would remain significant and unavoidable.	SUI
Parking Impacts			
No significant impacts identified.	Parking		

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TABLE ES-1 (CONTINUED) SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES			
Significant Impacts	**Impact Category**	**Mitigation Measures**	**Level of Significance With Mitigation**
Pedestrian Impacts			
No significant impacts identified.	Pedestrians		
Bicycle Impacts			
No significant impacts identified.	Bicycles		
AIR IMPACTS OF NEAR-TERM IMPROVEMENT PROJECTS			
No significant impacts identified.			
NOISE IMPACTS OF NEAR-TERM IMPROVEMENT PROJECTS			
No significant impacts identified.			

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TABLE ES-2
SUMMARY OF IMPROVEMENT MEASURES

NEAR-TERM IMPROVEMENT PROJECTS		
Project 5-7a – For both Existing plus Project conditions and Cumulative plus Project conditions.	Parking	**I-P5-7a**: This improvement measure is recommended to improve parking conditions with implementation of Project 5-7. The second phase design study for the Glen Park Station area conducted by the SFMTA could further investigate parking management strategies in this area, such as parking pricing, better striping and potential expansion of the existing parking lot on the north side of Bosworth Street. The Glen Park neighborhood has been working closely with the City on the development of a transportation concept plan for this area. It should consider potential loss of an additional 56 to 59 parking spaces due to the proposed bicycle improvements and identify acceptable strategies with the neighborhood organizations to address the issue of parking loss.
LONG-TERM IMPROVEMENT PROJECTS		
Loading: Both individually, and in a cumulative scenario, the implementation of long-term improvements to accommodate bicycle lanes could result in elimination of curb space currently dedicated to yellow commercial vehicle freight loading zones or active passenger loading/ unloading zones.	Loading	Additional improvements should be made at some locations, where the potential significance is found to be less-than-significant. These changes may accommodate additional loading demand, although the impact was found less-than-significant in the given location. These additional improvements include: **I-TR-LT3.1:** Converting metered parking to yellow commercial freight loading zones, where feasible; and **I-TR-LT3.2:** Developing and implementing traffic management strategies to accommodate short-term passenger loading/unloading activities, where feasible.

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TABLE ES-3
SUMMARY OF POTENTIAL IMPACTS AND MITIGATION MEASURES IDENTIFIED IN THE INITIAL STUDY (SEE APPENDIX A)

CULTURAL AND PALEONTOLOGICAL RESOURCES	
Archaeological Resources: Accidental Discovery	**Mitigation Measure 1: Archaeological Resources: Accidental Discovery** The following mitigation measure is required to avoid any potential adverse effect from the Proposed Project on accidentally discovered buried or submerged historical resources as defined in CEQA Guidelines Section 15064.5(a)(c). The Project Sponsor shall distribute the Planning Department archeological resource "ALERT" sheet to the project prime contractor; to any project subcontractor (including demolition, excavation, grading, foundation, pile driving, etc. firms); or utilities firm involved in soils disturbing activities within the project site. Prior to any soils disturbing activities being undertaken each contractor is responsible for ensuring that the "ALERT" sheet is circulated to all field personnel including, machine operators, field crew, pile drivers, supervisory personnel, etc. The Project Sponsor shall provide the Environmental Review Officer (ERO) with a signed affidavit from the responsible parties (prime contractor, subcontractor(s), and utilities firm) to the ERO confirming that all field personnel have received copies of the Alert Sheet. Should any indication of an archeological resource be encountered during any soils disturbing activity of the project, the project Head Foreman and/or Project Sponsor shall immediately notify the ERO and shall immediately suspend any soils disturbing activities in the vicinity of the discovery until the ERO has determined what additional measures should be undertaken. If the ERO determines that an archeological resource may be present within the project site, the Project Sponsor shall retain the services of a qualified archeological consultant. The archeological consultant shall advise the ERO as to whether the discovery is an archeological resource, retains sufficient integrity, and is of potential scientific/historical/cultural significance. If an archeological resource is present, the archeological consultant shall identify and evaluate the archeological resource. The archeological consultant shall make a recommendation as to what action, if any, is warranted. Based on this information, the ERO may require, if warranted, specific additional measures to be implemented by the Project Sponsor. Measures might include: preservation in situ of the archeological resource; an archaeological monitoring program; or an archeological testing program. If an archeological monitoring program or archeological testing program is required, it shall be consistent with the Major Environmental Analysis (MEA) division guidelines for such programs. The ERO may also require that the Project Sponsor immediately implement a site security program if the archeological resource is at risk from vandalism, looting, or other damaging actions.

TABLE ES-3
SUMMARY OF POTENTIAL IMPACTS AND MITIGATION MEASURES IDENTIFIED IN THE INITIAL STUDY (SEE APPENDIX A)

	The project archeological consultant shall submit a Final Archeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archeological resource and describing the archeological and historical research methods employed in the archeological monitoring/data recovery program(s) undertaken. Information that may put at risk any archeological resource shall be provided in a separate removable insert within the final report. Copies of the Draft FARR shall be sent to the ERO for review and approval. Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archaeological Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Major Environmental Analysis division of the Planning Department shall receive three copies of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest or interpretive value, the ERO may require a different final report content, format, and distribution than that presented above.
BIOLOGICAL RESOURCES	
Biological Resources	**Mitigation Measure 3: Biological Resources** To implement California Fish and Game Code Section 3503, the Project Sponsor would conduct a field survey 14 to 21 days prior to construction activities that would result in vegetation removal during the breeding season (February 1 through August 31). A qualified biologist shall determine if active nests of native birds are present in the construction zone. In the event an active nest is discovered in areas to be disturbed, removal of the nesting substrate shall be postponed until the nest is vacated and juveniles have fledged (typically 3-4 weeks for most small passerines), as determined by the biologist, and there is no evidence of second nesting attempts, unless the California Department of Fish and Game (and the U.S. Fish and Wildlife Service for migratory birds) authorize otherwise. No surveys are required and no impact would occur if vegetation removal, grading or other heavy construction activities would occur between September 1 to January 31, outside the nesting season.
AIR QUALITY	
Construction-Related Air Quality	**Mitigation Measure 2: Construction-Related Air Quality** The Mitigation Measure identified in the Initial Study is no longer needed due to San Francisco's adoption of the Construction Dust Control Ordinance, Ordinance 176-08 (July 2008) which amends the San Francisco *Building Code* and *Health Code* to address this issue. Compliance with these codes, by the project sponsor, would reduce any potential construction air quality impacts to less-than-significant.

C. SUMMARY OF PROJECT ALTERNATIVES

As stated in Section 15126.6 (a) of the *CEQA Guidelines*, "an EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." These are presented in Section VII of this document.

Unlike most EIRs, this EIR contains no separate chapter analyzing alternatives to the proposed project. This is because this EIR does not analyze a preferred project. Instead, for many of the near-term improvements, this EIR evaluates two options as well as a future No-Project scenario (i.e., year 2025 Cumulative conditions, assuming that none of the bicycle facility options is adopted), at an equal level of detail, as EIR alternatives. These options, and analysis of their potential environmental impacts, are presented throughout this document, and constitute the basis for the project-level alternatives, namely the "Project-Level Impacts Alternative A" and the "Project-Level Impacts Alternative B."

For the program-level actions, this EIR presents two additional alternatives, which can be combined with either of the project-level alternatives. One program-level alternative is the full implementation of all program-level actions proposed, or the "Program-Level Improvements Alternative A." A second alternative, the "Program-Level Improvements Alternative B (Sharrows)," would limit the program-level actions to activities involved in locating, placing, and maintaining sharrows.

Separate policy action alternatives are not proposed, beyond the "No Project" alternative. This is because the combination of project-level and program-level alternatives, above, will automatically generate a lower impact or higher impact policy action scenario. The policy action alternatives will follow from the other project alternatives considered, and would not require separate analysis as the policy actions produce no significant impacts beyond their indirect impact in support of whichever of the aforementioned improvement projects and programs are adopted.

D. AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

The lead agency, responsible for reviewing and publishing the CEQA notices and documents, is the San Francisco Planning Department Major Environmental Review division (MEA). On June

5, 2007a Notice of Preparation of an Environmental Impact Report (NOP) and Notice of Public Scoping meeting for the Bicycle Plan Project was published, in accord with CEQA noticing procedures. A Public Scoping meeting was held on June 26, 2007, and the Initial Study for the Bicycle Plan Project was published on March 15, 2008. As noted above, the Bicycle Plan Project NOP and the Initial Study identified significant environmental effects with respect to transportation issues, and also transportation-related air quality and noise that may result from the project.

To date, the San Francisco Planning Department has received 32 comment letters or emails on the Bicycle Plan Project. These letters or emails express a variety of positions, requests, proposals, and concerns. Some of the opinions, requests, proposals, and concerns offered are presented by several authors, and some of which are presented by a single author. The positions presented in these comment letters generally included[4]:

- Public safety concerns about the mixing of bicycles with vehicles and pedestrians
- Concerns about the loss of parking in residential and commercial neighborhoods
- Concerns about the adequacy of the Initial Study Public Scoping Notice
- Concerns over potential loss of street trees
- Comments from other State and Federal agencies about how the Bicycle Plan Project would relate to their areas of jurisdiction
- Concerns and questions about potential effects on traffic signal timing and vehicle traffic speeds
- Concerns about the proposed elimination of vehicle traffic lanes
- Concerns about potential slow-downs at traffic signals and resultant vehicle emissions
- Requests for additional information to be included on Project maps or in the text of the DEIR
- Requests for greater bicycle route network segment connectivity
- Requests for further analysis of some Project options
- Concerns about allowing bicycles on sidewalks and other pedestrian impacts of the Bicycle Plan Project.

[4] This itemized list of comment letter concerns is not exhaustive. For a full understanding of all comments received, the comments letters may be reviewed. The complete record of all comment letters received is available for public review by appointment between 9:00 am and 4:00 pm on standard business days at the San Francisco Planning Department, which is located at 1650 Mission Street, Suite 400, San Francisco, California 94103.

III. INTRODUCTION

A. HISTORY OF PROJECT

The San Francisco City Charter Section 16.102 and Section 8A.113 state that San Francisco should develop, "a safe, interconnected bicycle circulation network" and that travel, "…by bicycle and on foot must be an attractive alternative to travel by private automobile." In order to facilitate travel by bicycle within San Francisco, the City adopted its first bicycle plan in 1997. The goal of the 1997 Bicycle Plan was to provide a comprehensive guide for efforts to make San Francisco a more "bicycle-friendly" city. In conjunction with multiple City agencies, the San Francisco Bicycle Program (Bicycle Program) within the San Francisco Municipal Transportation Agency (SFMTA) is responsible for implementing the policies, programs, and physical improvements to achieve this goal.

An update of the existing 1997 Bicycle Plan was initiated by the Bicycle Program staff in 2002. The 2002 planning process resulted in the development of the Bicycle Plan Policy Framework (May 2005), which updated the goals and objectives from the existing 1997 Bicycle Plan and added action items to better define the necessary steps to achieve the stated goals and objectives, and the drafting of the Bicycle Plan Network Improvement Document (NID) (April 2005), which described the existing bicycle route network (a series of interconnected streets and pathways on which bicycling is encouraged), and identified specific potential projects, both near-term[1] and long-term, to improve the bicycle route network. These documents were published by SFMTA in 2005.

The San Francisco Board of Supervisors' (BOS) approval of the Bicycle Plan Policy Framework relied in part on the City's determination that the 2005 Bicycle Plan Policy Framework was exempt under the California Environmental Quality Act (CEQA) Guidelines Section 15061(b)(3), the General Rule Exclusion (GRE). Under a GRE, no CEQA review is required; thus no Negative Declaration, Mitigated Negative Declaration or Environmental Impact Report (EIR) was prepared.

[1] Near-term refers to bicycle improvement projects which would be implemented within five years of project approval. The time line for the implementation of these near-term improvements is dependent upon completion of environmental review and the lifting of the current California Superior Court injunction prohibiting installation of bicycle facilities.

This 2005 Bicycle Plan Policy Framework was a component of the Bike Plan. Other components were a Network Improvement Document, *San Francisco General Plan (General Plan)* and *Planning Code* amendments, and an implementation phasing plan. The SFMTA brought this Bicycle Plan to the Planning Commission in early 2005. The Planning Commission approved the *General Plan* amendments, notwithstanding public comments that the project's potential environmental impacts should be fully reviewed and analyzed, and presented in an environmental impact report (EIR) prior to the City's granting approvals. The environmental determination was appealed to the San Francisco Board of Supervisors. Again, an argument was presented that the Bike Plan Policy Framework should not be approved without an EIR. The Board of Supervisors affirmed the Planning Department General Rule Exclusion (GRE). Subsequently, the Board of Supervisors, by unanimous action, adopted the Bike Plan Policy Framework and the *General Plan* Amendments.

In response to the approval of the 2005 Bicycle Plan Policy Framework, a concerned citizen sued the City, charging that the City did not conduct adequate environmental review of the project. In November 2006, a Superior Court judge ruled that the City must immediately stop all Bicycle Plan activity, including any improvements and policies approved and adopted under the plan. This injunction was to remain in effect until the City prepared an EIR on the Bicycle Plan Policy Framework, Network Improvement Document, and implementation phasing plan. In January 2007, the SFMTA Board of Directors (SFMTA Board) directed its staff to perform the necessary environmental review of the Bicycle Plan Project. The EIR you are reading is, therefore, the City's response to that November 2006 Court injunction. If this EIR is deemed adequate by the City's decision-making body (here, the Planning Commission or the Board of Supervisors, on appeal), it will vote to certify the EIR. This EIR will then form a part of the basis for the City's new consideration of, and decision on, the Bicycle Plan.

Since the imposition of the injunction in 2006, City Staff have worked to refine the Bicycle Plan. Based on public input and dialogue with City staff and the SFMTA Board, the Bicycle Plan has been further refined and now includes the Network Improvement Document. Therefore, the 2005 Bicycle Plan is no longer under consideration by the City, and is not the project considered as the subject of this environmental analysis. It is the updated and refined Bicycle Plan (2008) that is analyzed and discussed in this environmental document, and it is this updated and refined Bicycle Plan that could be approved by the City, upon certification of this EIR.

B. PROJECT SUMMARY

The Bicycle Plan currently under consideration maps out a five-year strategy and includes other policies and long-term goals to satisfy eight goals to improve conditions for the San Francisco bicycle community:

- Refine and expand the existing bicycle route network;
- Ensure plentiful, high-quality bicycle parking to complement the bicycle route network;
- Expand bicycle access to transit and bridges;
- Educate the public about bicycle safety;
- Improve bicycle safety through targeted enforcement;
- Promote and encourage safe bicycling;
- Adopt bicycle-friendly practices and policies;
- Prioritize and increase bicycle funding.

The Bicycle Plan would accomplish these goals through four mechanisms:

- The adoption of policy actions including, but not limited to, amending sections of the *San Francisco General Plan*, *San Francisco Planning Code* and *San Francisco Transportation Code* to reflect the Bicycle Plan, providing bicycle safety and parking information, and working with other agencies to further the Bicycle Plan goals through coordinated multi-agency policies and actions;
- The implementation of 60 specific near-term bicycle route network improvement projects (near-term improvements) to address gaps and deficiencies in the bicycle route network, including, but not limited to, signal timing changes, travel lane removals, and parking space realignment at specific intersections;
- The implementation of a program of minor improvements including, but not limited to, the installation of sharrows (shared bicycle and automobile travel lanes), installation of bicycle parking racks on sidewalks, on-street bicycle parking, bicycle boxes, minor pavement marking changes, colored pavement, bicycle route signage changes, traffic signal changes, and on-street vehicle parking reconfiguration;
- The future development and implementation of long-term improvements which would address gaps and deficiencies in the bicycle route network to provide a comprehensive network of bicycle facilities with Citywide coverage. The goal is to improve bicycling

conditions and facilities for identified areas or neighborhoods that would complete the bicycle route network.

C. PURPOSE OF THIS EIR

As noted above, this EIR would be evaluated and, if it is deemed that it adequately identifies and analyzes potential Bicycle Plan Project impacts on the physical environment, this EIR would be certified by the City. This action would allow the City to use this EIR as part of their foundation for a decision to approve or disapprove the Bicycle Plan in its current form. No action may be taken on the Bicycle Plan project until this EIR is certified. In more general terms, this EIR functions as a thorough environmental review of all potential impacts that the Bicycle Plan project may produce on the physical environment in order that decision-makers and the community may fully understand and comment on these ramifications before any decision is taken on the Bicycle Plan project itself.

In accord with requirements of the California Environmental Quality Act (CEQA), most discretionary projects that may result in significant environmental impacts shall be subject to further evaluation and analysis of these potential environmental impacts. An Initial Study document may be prepared, to examine the entire range of potential environmental impacts. The Initial Study may eliminate some potential areas of impact from further review, if the Initial Study's abbreviated analysis concludes that there is no possible potential for significant impact to any of these "scoped out" areas of environmental significance. These "scoped out" areas are thus eliminated from further review in the CEQA process. Those areas that are not "scoped out" must be reviewed further, in either a Negative Declaration (ND) or an Environmental Impact Report (EIR). In the case of the Bicycle Plan, the Initial Study determined that the only potentially significant impacts would be in the areas of Transportation, and transportation-related Air and Noise quality, and the City is studying these areas in an EIR as directed by the Court. Whether a project's environmental impacts are considered in an ND or an EIR, there is a mandatory minimum period provided for public review of the draft environmental document, and public comment is solicited and allowed throughout this period. In this case, the draft EIR will be circulated and available for public review for a period of no less than 45 days. Any public comments received will be addressed, and both the comments and responses will be included with the final EIR that is brought to the Planning Commission for consideration, after the close of the public review period.

In an EIR, all potential impacts must be identified as either significant, less-than-significant, or significant but able to be mitigated to a less-than-significant level by imposition of mitigation measures onto the project. Any project environmental impacts which cannot be mitigated to a level of less-than-significant, are identified as significant and unavoidable impacts. The decision-making body that reviews the EIR may adopt the Bicycle Plan even if significant and unavoidable impacts are identified, by citing “overriding considerations” which they believe to justify the approval of the Bicycle Plan even in light of the Plan’s potential to create significant and unavoidable impacts on the environment.

D. TYPE OF EIR

The Bicycle Plan Project has been analyzed, under CEQA, at both a project level and a program level.

PROGRAM-LEVEL REVIEW

Under CEQA, program-level environmental review is used in environmental analyses for a series of actions that can be characterized as one large project because they are logically related. The series of actions can be related geographically or can be logical parts in a chain of contemplated actions.

Program-level review is used in connection with issuance of rules, plans, or other general criteria, to govern the conduct of a continuing or proposed program. For some site-specific purposes, a program-level environmental document may provide enough detail to enable an agency to make informed site-specific decisions within the program, allowing an agency to carry out an entire program without having to prepare additional site-specific environmental documents. In other cases, the formulation of details regarding site-specific issues is unknown until subsequent design development and the preparation of later project-level environmental documents. In such situations the program-level EIR may properly focus on “broad policy alternatives and programmatic mitigation measures,” as well as “regional influences, secondary effects, cumulative impacts…and other factors that apply to the program as a whole,” [CEQA Guidelines, §15168, subds. (b)(4), (d)(2)]. Program-level review is also appropriate for individual activities carried out under the same authorizing statutory or regulatory authority, having generally similar environmental effects that can be mitigated in similar ways. [CEQA Guidelines, Section 15168.]

The San Francisco Bicycle Program is an ongoing program to facilitate and increase the safe use of bicycles as a mode of transportation with the City. The updated Bicycle Plan sets the foundation for the associated near-term, long-term, and minor improvements to the existing bicycle route network. These improvement projects are a logically related series of actions to achieve the overall goal of increasing bicycle use within the City.

The program-level review in this document will provide program-level transportation impact analysis of the following elements of the Bicycle Plan Project: the Bicycle Plan's goals, objectives and action items including the existing system-wide bicycle route network, minor improvements, and long-term improvements. All of these further the goals of the Bicycle Plan and Program. These elements are described in more detail above and in Subsections V.A.2, V.A.4, and V.A.5 of the Transportation section.

PROJECT-LEVEL REVIEW

Under CEQA, project-level environmental analysis examines the environmental impacts of an individual project, and examines phases of the project including construction and operation. Project-level analysis may be conducted once a sufficient level of detail is known regarding a proposed project. With a detailed project description and an understanding of the existing environmental conditions, the potential environmental effects of the proposed project may be understood and analyzed.

E. ENVIRONMENTAL REVIEW ACTIONS AND PUBLIC RESPONSES

The lead agency, responsible for reviewing and publishing the CEQA notices and documents, is the San Francisco Planning Department Major Environmental Review division (MEA). On June 5, 2007, MEA published a Notice of Preparation of an Environmental Impact Report (NOP) and Notice of Public Scoping meeting for the Bicycle Plan Project, in accord with CEQA noticing procedures. The MEA held a Public Scoping meeting on June 26, 2007, and published the Initial Study for the Bicycle Plan Project on March 15, 2008. As noted above, the Bicycle Plan Project NOP and the Initial Study identified significant environmental effects with respect to transportation issues, and also transportation-related air quality and noise that may result from the project.

To date, MEA has received 32 comment letters or emails on the Bicycle Plan Project. These letters or emails express a variety of positions, requests, proposals, and concerns. Some of the opinions, requests, proposals, and concerns offered are presented by several authors, and some of which are presented by a single author. The contents of these comment letters are summarized below[2]:

- Public safety concerns related to the mixing of drivers, pedestrians, and cyclists on roadway segments with high traffic volumes, or heavy pedestrian crossing activities, or vehicle speed limits of 35 miles per hour and more
- Concerns about the removal of on-street parking in residential neighborhoods, including a statement that this action would violate property owners' rights
- Concerns over the adequacy of the Bicycle Plan Project and EIR maps and route network
- A concern about the loss of street trees as a result of the installation of bicycle lanes
- A concern that the Bicycle Plan Project generally respect San Francisco Bay Conservation and Development Commission (BCDC) jurisdiction and comply with BCDC regulations related to bay fill, bicycle and non-motorized Bay access and connections to the Bay Trail, and that the Bicycle Plan Project should address opportunities to connect existing Bayside bicycle recreational and transportation routes to the proposed Bicycle Plan Project improvements
- A concern that the Bicycle Plan Project Initial Study did not identify a project that would perform the dual goals of restricting inter-area vehicle travel while encouraging bicycling inter-area use; that some references to sharrows and related restrictions on installation of bicycle lanes in certain areas should be deleted from the document; that bicycle facilities and network improvements on certain streets and street segments and tunnels should be altered to improve bicycle network connectivity or bicyclist safety; and that other improvements such as additional sharrows should be added to the bicycle route network under the Bicycle Plan Project
- A concern that the June 5, 2007 Scoping Notice did not contain an accurate Project description, made erroneous claims about street changes already implemented, included an inaccurate map, incorrectly concluded that the Project would have "little direct impact on land use in the City," did not properly establish Project baseline and existing conditions, and that any EIR carried out will therefore not comply with CEQA; further

[2] This itemized list of comment letter concerns is not exhaustive. For a full understanding of comments received, the reader should review the complete text of the comment letters. A complete record of comment letters received, and the text of each letter, is available for public review by appointment between 9:00 am and 4:00 pm on standard business days at San Francisco Planning Department, Major Environmental Analysis, which is located at 1650 Mission Street, Suite 400, San Francisco, California 94103.

concerns were that the EIR analyze the Project's impacts on parking, air quality, transit, emergency vehicles, pedestrians, and the City's General Plan and other codes; further note was made that the EIR should evaluate the Project's proposed elimination of LOS[3] and proposed creation of bicycle boulevards and "traffic calming" impediments; additional areas of concern identified by this particular author were that the EIR must offer a full range of alternatives to the Project, rather than just two alternatives, that the public, residents, and businesses affected by the Bicycle Plan Project on any street must be given notice of Project scoping and analysis of conditions on the affected streets, and that the EIR not proceed under a "done-deal premise"

- Several concerns over the removal of parking immediately in front of and near businesses
- Concerns about changes to traffic signal timing that would result under implementation of this Project
- A concern that certain long-term improvements be implemented in the near future, to allow for the legitimate imposition of lower speed limits in the vicinity of a proposed long-term bicycle route extension
- Opposition to the removal of parking and traffic lanes around San Francisco City College
- Concerns that the elimination of traffic lanes could produce greater vehicle stacking at some intersections, and result in greater than normal (perhaps greater than acceptable) levels of air pollution
- Opposition to the replacement of existing sharrows with bicycle lanes, in some areas, and a related concern that neighbors in the author's neighborhood were not notified of this proposed plan
- Opposition to the Bicycle Plan Project's elimination of parking spaces for the benefit of installing bicycle paths in certain areas, and related disagreement with the required timeline under which public comment letters must be submitted
- Requests for the Draft EIR (DEIR) to provide clear drawings of existing and proposed Bay Trail bicycle facilities within the Bayview Transportation Improvements Project area, a request that the Bay Trail be clearly and completely depicted in the DEIR, a confirmation that air quality modeling will occur at selected locations where lane

3 This is not a part of the current Bicycle Plan Project.

configuration changes will occur with a note that overall emissions impacts should also be modeled, and a request that the Bicycle Plan Project make reference to anticipated minor changes to the Bay Trail through the San Francisco Marina Rehabilitation Project

- A request for more analysis of the linkages of the bicycle route network to new Mission Bay development
- Requests for bicycle lanes and improvements to be considered on streets and in locations not considered for bicycle lanes in the Initial Study (Appendix A)
- A copy of a New York Time “blog” that observes, among other things, that bicyclists cannot truly be separated from other traffic on the roadways, that the key is whether the bicycle/vehicle interactions will be safer or more dangerous, as a result of the adoption of any citywide bicycle plan
- A request for the Bicycle Plan Project to discuss the Transit First policy, to study the impacts, interfaces and possible mitigations of bicycles moving through crosswalks and along bus bulbs, to study bicyclist parking needs, and to define rules for bicyclists to obey in the right-of-way
- A request for the update of the Bicycle Plan Project’s name to exclude the Proposition K 5-Year Prioritization Plan which is no longer a separate document associated with the Plan
- A concern over the removal of parking with the specific reference to author’s estimate of the average age on the southwestern side of the City, namely, 45 to 80 years, and the suggestion that it is unreasonable to expect these residents to bicycle to accomplish their daily tasks
- A request for thorough exploration of potential impacts of allowing bicycles on sidewalks in limited circumstances and locations, and a request for thorough evaluation of pedestrian impacts under Projects 2-10, 2-11, 3-4, 5-10, and 8-1 under the Bicycle Plan Project, and a further request that the Plan EIR thoroughly analyze proposed guidelines for how bicycle racks may be installed
- A letter of support for Option 2 of the Bicycle Plan for Project 6-6, and opposing Option 1 of the Plan’s Project 6-6
- Several additional letters of support, some of which included requests for changes in graphic representations on Bicycle Plan Project maps, requests for additional coordination with other agency plans, such as the Presidio Trails and Bikeways Master Plan, and other agencies, such as the National Park Service, requests that Option 2 be

selected for Project 4-4, instead of Option 1, and requests for focused analysis of transit routes and impacts on transit service under the Bicycle Plan Project

F. TO LEARN MORE

Copies of this EIR and the updated Bicycle Plan are available for review by appointment between 9:00 a.m. and 4:00 p.m. on standard business days at the address below. Please contact Debra Dwyer at 415-575-9031 to make an appointment.

San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, California 94103

Any interested party may submit written comments or questions on this EIR. Comments should be submitted to Bill Wycko, Environmental Review Officer, at the above address. The public comment period on this EIR will extend from November 27, 2008 to 5:00 p.m. on January 13, 2009. All comments received during this time, will receive responses prior to final certification of the EIR.

IV. PROJECT DESCRIPTION

A. PROJECT OBJECTIVES

The vision of the San Francisco Bicycle Plan (Bicycle Plan) is to make bicycling an integral part of daily life in the City, and the overall objectives are to (1) increase the daily number of bicycle trips in San Francisco; (2) develop improved methods for tracking bicycle usage; and (3) reduce the rate of bicycle collisions as bicycle usage increases. The Bicycle Plan's overall goal is to increase safe bicycle use; the Bicycle Plan's specific goals are to (1) refine and expand the existing bicycle route network; (2) ensure plentiful, high-quality bicycle parking; (3) expand bicycle access to transit and bridges; (4) educate the public about bicycle safety; (5) improve bicycle safety through targeted enforcement; (6) promote and encourage safe bicycling; (7) adopt bicycle-friendly practices and policies; and (8) prioritize and increase bicycle funding. In order to achieve these goals, the Bicycle Plan would amend existing objectives and policies to encourage bicycle use in the City, would describe the existing bicycle route network (a series of interconnected streets and pathways on which bicycling is encouraged), and would identify improvements to achieve the established objectives. Another objective is that adoption of the Bicycle Plan would also satisfy California State funding requirements and enhance the image of San Francisco as a City supporting the benefits of bicycling by providing safe and accessible bicycle facilities.

The Project Sponsor is the San Francisco Municipal Transportation Agency (SFMTA), and the San Francisco Planning Department (Planning Department) is the California Environmental Quality Act (CEQA) reviewing agency. If the project is approved, the SFMTA, the San Francisco Recreation and Park Department (RPD), and the San Francisco Department of Public Works (DPW), under the direction of SFMTA or RPD, would implement improvements depending on which entity has jurisdiction.

An update of the existing 1997 San Francisco Bicycle Plan was initiated in 2002. The 2002 planning process resulted in the development of the Bicycle Plan Policy Framework (May 2005), which updated the goals and objectives from the existing 1997 Bicycle Plan and added action items to better define the necessary steps to achieve the stated goals and objectives, and the drafting of the Bicycle Plan Network Improvement Document (NID) (April 2005), which described the existing bicycle route network, and identified specific potential projects, both near-term and long-term, to improve the bicycle route network. These documents were published by SFMTA in 2005. Adoption and implementation of the Bicycle Plan would qualify the City for funding from the State Bicycle Transportation Account for bicycle facilities and programs. In June 2005, the San Francisco Board of Supervisors (BOS) approved the Bicycle Plan Policy Framework, which had been determined to be exempt under the CEQA Guidelines Section 15061(b)(3), the General Rule Exclusion (GRE). Under a GRE, no CEQA review is required; thus, no Mitigated Negative Declaration or Environmental Impact Report (EIR) was prepared. An injunction to stop implementation of the Bicycle Plan improvements was issued in June 2006 by the Superior Court of California at the request of groups seeking greater environmental review of the proposed Bicycle Plan Policy Framework and the April 2005 Draft NID. In November 2006, the Superior Court of California found that the City failed to properly evaluate the Bicycle Plan under CEQA and determined that an injunction would remain in effect until the City complies with CEQA. The current EIR has been prepared in compliance with that injunction.

THE BICYCLE PLAN PROJECT

The proposed project ("Proposed Project") consists of the San Francisco Bicycle Plan; the phasing of implementation of near-term, long-term, and other minor improvements to the bicycle route network; as well as amendments to the *San Francisco General Plan* (*General Plan*), the *San Francisco Planning Code (Planning Code),* and the *San Francisco Transportation Code (Transportation Code).* Near-term bicycle route network improvement projects (near-term improvements) have been designed and are anticipated to be constructed within the next five years following completion of environmental review and approval of the specific project. Long-term bicycle route network improvement projects (long-term improvements) are either proposed along the existing bicycle route network, or consist of potential additions to the bicycle route network at a future date. Specific designs for these long-term projects have not been developed at this time. Minor improvements would include minor pavement marking and signage changes to improve bicycle travel, such as the installation of colored pavement materials, the installation of sharrows (shared roadway bicycle markings),[1] minor changes to parking and traffic lane configurations, minor changes to intersection traffic signal timing plans,

[1] Sharrows are a traffic control device which consists of pavement markings within the traffic lane. The markings are intended to alert drivers that bicyclists share the traffic lane and also to reduce the chance of bicyclists impacting the open doors of parked vehicles. For more information on sharrows, please see http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd/ CAMUTCD-Part 9.pdf.

the installation of bicycle boxes[2] at certain intersections, and bicycle parking within the public right-of-way, including bicycle racks on sidewalks meeting certain criteria.

This environmental review for the Bicycle Plan includes project-level review of specific near-term improvements to the bicycle route network, and program-level review of the proposed *General Plan* amendments, *Planning Code* amendments, *Transportation Code* amendments, long-term improvements, and minor improvements that may be made to further the goals of the Bicycle Plan.

The Initial Study, attached as Appendix A,[3] assessed the following environmental factors:

- Land Use and Land Use Planning
- Aesthetics
- Population and Housing
- Cultural and Paleontological Resources
- Transportation and Circulation
- Noise
- Air Quality
- Wind and Shadow
- Recreation
- Utilities and Service Systems
- Public Services
- Biological Resources

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[2] Bicycle boxes are striped waiting areas for bicyclists situated behind a crosswalk and in front of a motor vehicle stop bar where a bicycle lane approaches a signalized intersection. Bicycle boxes allow bicyclists approaching an intersection in a bicycle lane to move to the front of a queue of motor vehicles and position themselves for turning movements at the intersection. Bicycle boxes include a stenciled bicycle marking and are generally accompanied by signs communicating where bicycles and motor vehicles should stop.

[3] The Initial Study for the Bicycle Plan Project EIR was published on March 15, 2008 with an Appendix of Project Drawings (Appendix A of the Initial Study). Some of the project drawings have been modified. A current set of project drawings for the near-term improvements is being provided here as Appendix B. Therefore, Appendix A of the Initial Study is not being attached to this document. These drawings are available online at the Planning Department Web site, www.sfplanning.org/mea, or may be viewed by appointment at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case file 2007.0347E.

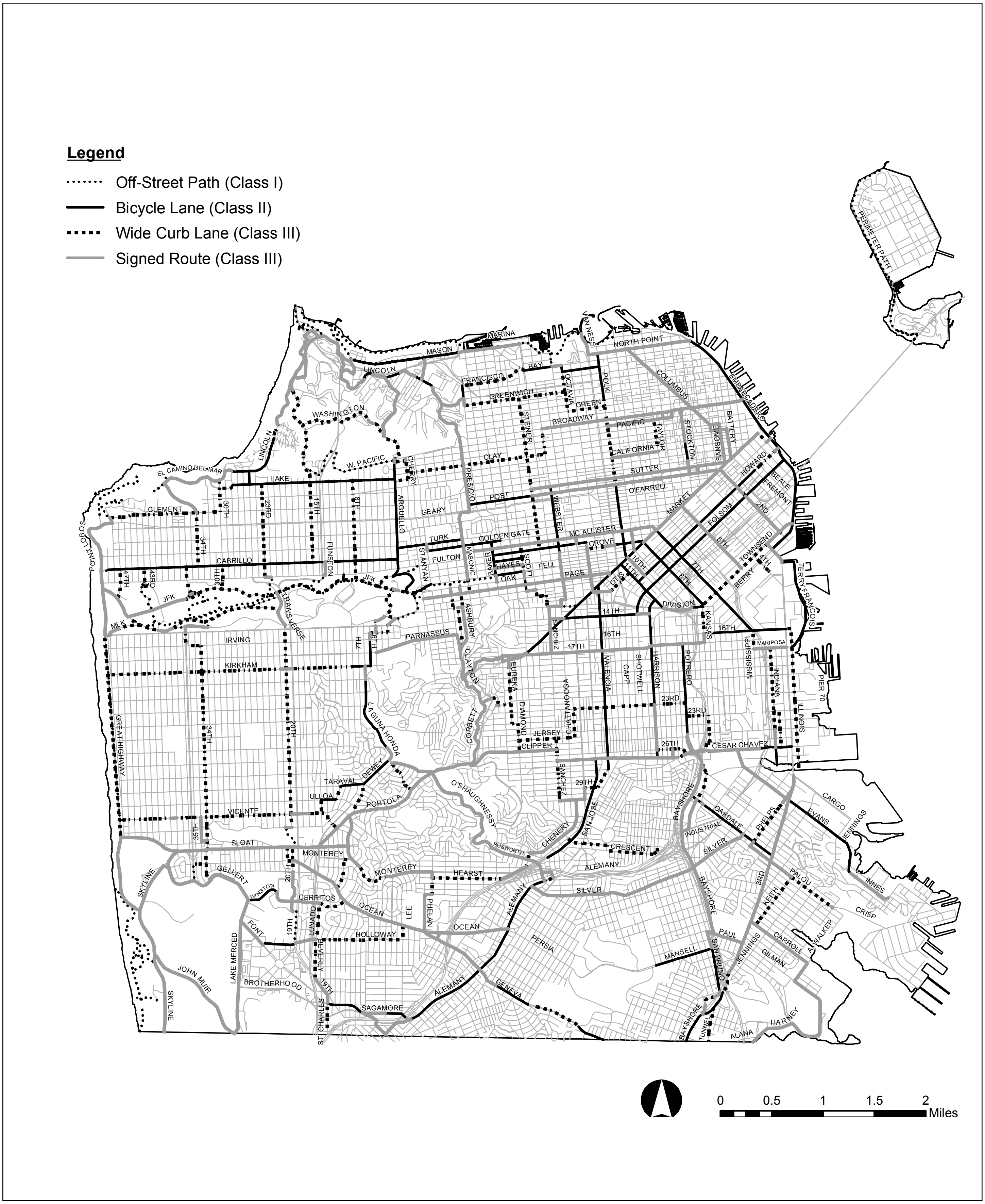
- Geology and Soils
- Hydrology and Water Quality
- Hazards and Hazardous Materials
- Mineral and Energy Resources
- Mandatory Findings of Significance

The Initial Study concluded that the Proposed Project would have a less-than-significant impact with mitigation measures in most of these areas, except Transportation and Circulation, Noise, and Air Quality, which the Initial Study identified as requiring additional environmental review and analysis in an EIR. These environmental factors are addressed in the EIR. The Proposed Project's potential effects regarding the other environmental factors from the Initial Study checklist are adequately addressed in that document and, therefore, will not be addressed in this EIR.

As stated in the Notice of Preparation and in the Initial Study, attached as Appendix A, the Planning Department has determined an EIR must be prepared for the Proposed Project prior to any final decision regarding whether to approve the project. The purpose of this EIR is to provide information about potential significant physical environmental effects of the Proposed Project, to identify possible ways to minimize the significant effects, and to describe and analyze possible alternatives to the Proposed Project.

B. PROJECT LOCATION

The Proposed Project would include improvements to the bicycle route network that would be located on public land, primarily within the public right-of-way on streets throughout San Francisco. Many of the project-specific changes to the existing bicycle route network would be located within the City's right-of-way under DPW jurisdiction. However, some segments of the bicycle route network and potential future additions to the network would be in parks or on other public land under the jurisdiction of these other local, state, and federal agencies: RPD, the Port of San Francisco (the Port), the San Francisco Public Utilities Commission (the PUC), the San Francisco Redevelopment Agency, San Francisco State University, the California Department of Transportation (Caltrans), and the National Park Service (The Presidio). The project location, as described above, is shown in Figure IV.B.1-1: Project Location and Site Plan, on p. IV.B-5.



SOURCE: Wilbur Smith Associates, 2008.

SAN FRANCISCO BICYCLE PLAN

FIGURE IV.B.1-1: PROJECT LOCATION AND SITE PLAN

EXISTING SITE CONDITIONS

As described above and illustrated in Figure IV.B.1-1: Project Location and Site Plan, on p. IV.B-5, the project site consists of various locations throughout San Francisco. The project site is primarily along the public street right-of-way, but also includes bicycle facilities on other public land. The existing site conditions consist of the existing bicycle route network that is lain out primarily along streets and thoroughfares throughout the City. For those segments within park land, many are within street rights-of-way such as the bicycle routes along Lincoln Boulevard in the Presidio, or John F. Kennedy Drive in Golden Gate Park. Other bicycle network routes located in parks are typically paved paths such as the bicycle paths through the Panhandle near Golden Gate Park or around Lake Merced.

San Francisco's neighborhood districts are conducive to neighborhood bicycle trips. There are also opportunities to access recreational resources, employment, schools and public services throughout the City. As described in the Bicycle Plan, unique City resources, such as Golden Gate Park, Crissy Field, the Presidio, Ocean Beach, Lake Merced, Candlestick Point Recreation Area, John McLaren Park, and the Golden Gate Bridge provide bicycle-friendly recreation opportunities in or near most neighborhoods. Commercial activities and employment districts are scattered across the City, attracting bicycle commuters and creating many bicycle-friendly shopping opportunities. Major public buildings, such as City Hall and the Main Library, are near the center of the City where traffic and parking are difficult; consequently, a comprehensive network of bicycle facilities provides another viable option to access these public services.

San Francisco has approximately 740,000 residents within approximately 47 square miles and an average population density of 15,700 persons per square mile. According to the Bicycle Plan, San Francisco has the highest bicycle-to-work mode share of major US cities having more than 500,000 inhabitants. According to the US Census Bureau American Community Survey 2006, 2.5 percent of all San Francisco residents cycle to work, five times the national average of 0.5 percent, and about three times the state average of 0.8 percent.[4] According to the Rides for Bay Area Commuters 2003 Commute Profile, 22 percent of all Bay Area residents surveyed consider bicycling a viable option for their commute choice, while 32 percent of those surveyed cited that travel distance was the greatest obstacle for them to bicycle to work.[5] The average

4 October 2003 Commuter Profile, accessed online at http://rideshare.511.org/research/ commuter profile2003.asp on February 11, 2008.

5 October 2003 Commuter Profile, accessed online at http://rideshare.511.org/research/ commuter profile2003.asp on February 11, 2008.

San Francisco resident travels 10 miles to work in 29 minutes and three out of four residents live and work in the City.

The City's topography and high traffic volumes are among the existing obstacles to bicycle use. San Francisco's densely built urban environment sometimes constrains the ability to provide exclusive right-of-way to many competing transportation modes, including pedestrians, motor vehicles, transit, and bicyclists. When transportation-related improvements are made, the impacts to other modes must be taken into consideration and balanced with the overall transportation system in the City.

C. PROJECT CHARACTERISTICS

PROJECT FEATURES

The Proposed Project, the San Francisco Bicycle Plan (Bicycle Plan), identifies gaps in the bicycle route network and provides for transportation network improvement Projects to address these gaps and otherwise improve bicycle movement and safety in and around the City and County of San Francisco. The Bicycle Plan also includes policy goals, objectives, and actions to support these improvements, and minor and long-term improvements to the bicycle route network. In addition, the Proposed Project would include amendments to the *General Plan,* the *Planning Code*, and the *Transportation Code* to reflect the Bicycle Plan or implement its policies.

In addition to the overall goal of increasing safe bicycle use, the Bicycle Plan identifies eight major goals: (1) refine and expand the existing bicycle route network; (2) ensure plentiful, high-quality bicycle parking; (3) expand bicycle access to transit and bridges; (4) educate the public about bicycle safety; (5) improve bicycle safety through targeted enforcement; (6) promote and encourage safe bicycling; (7) adopt bicycle-friendly practices and polices; and (8) prioritize and increase bicycle funding.

The Bicycle Plan sets objectives and identifies policy changes to the existing 1997 Bicycle Plan that would further enhance and encourage bicycling within the City. It establishes a framework for the continued development and implementation of future bicycle route network improvements that may be required in order to meet the City's goals of improving and increasing bicycle travel within the City. Adoption of the Bicycle Plan would also satisfy California State funding requirements and enhance the image of San Francisco as a City supporting the benefits of bicycling by providing safe and accessible bicycle facilities.

The existing bicycle route network and potential improvements were initially analyzed in April 2005, yet have been, and continue to be, subject to further refinement based upon modifications that the SFMTA Board of Directors has authorized and the project-level analysis provided in this environmental review process. Figure IV.B.1-1: Project Location and Site Plan, p. IV.B-5, graphically illustrates proposed improvements to the bicycle route network. The Site Plan shows the location of the existing bicycle route network (both inside and outside the City's jurisdiction), as well as the location of proposed near-term improvements, long-term improvements, and minor improvements.

EXISTING BICYCLE ROUTE NETWORK

As shown in Figure IV.B.1-1, Project Location and Site Plan, p. IV.B-5, the existing San Francisco bicycle route network includes bicycle routes in the public right-of-way and on some park land both within and outside of the City's jurisdiction, as described above. Bicycle routes that are outside of the City's permitting jurisdiction are not subject to the City's review and approval procedures. However, these routes form part of the San Francisco bicycle route network; therefore, they will be included as part of the existing conditions for the purposes of this analysis.

In addition, there are two areas in San Francisco in which specific proposed bicycle routes received environmental clearance and were approved prior to the 2005 Bicycle Plan, but these improvements have not yet been constructed. Those areas are the Redevelopment Areas at Phase I of the Hunters Point Shipyard and at Mission Bay. Construction of these bicycle routes is expected to occur, and these routes have also been included as part of the existing conditions for the purposes of this analysis.

PROJECT-LEVEL REVIEW

This EIR provides project-level CEQA review for specific near-term physical improvements to portions of the bicycle route network where sufficient project detail is available to allow for such environmental review. No further environmental analysis would be required to implement these improvements.

SFMTA has continued to refine the projects evaluated in the Draft EIR based upon stakeholder and City agency input. Although some projects have been modified through this process, the preferred project design for the following 31 projects corresponds directly with a particular project design option analyzed in the Draft EIR. Table C&R-8 (Near-term Improvements for which the Preferred Project is an Option Analyzed in the Draft EIR) below identifies the preferred project option as well as the pages from the Draft EIR where the preferred project option is analyzed.

Table C&R-8
Near-term Improvements for which
Preferred Project Design is the Draft EIR Design Option Indicated

PROJECT		DEIR OPTION 1	DEIR OPTION 2	DRAFT EIR PAGE REFERENCES
1-2	Broadway Tunnel Signage Improvements	ü		IV.B-9, V.A.3-21 to V.A.3-23, V.A.3-26 to V.A.3-28, , V.A.3-198, V.A.3-199, V.A.3-627, and Appendix B
2-3	14th Street Bicycle Lane, Dolores Street to Market Street	ü		IV.B-12, IV.B-13, V.A.3-31, V.A.3-33, V.A.3-34, V.A.3-37, V.A.3-51 to V.A.3-53, V.A.3-64, V.A.3-250 to V.A.3-255, V.A.3-257, V.A.3-258, V.A.3-297 to V.A.3-300, V.A.3-303 to V.A.3-305, V.A.3-347, V.A.3-627, and Appendix B
2-5	Beale Street Bicycle Lane, Bryant Street to Folsom Street	ü		IV.B-15 - 16, V.A.3-31, V.A.3-33, V.A.3-39, V.A.3-56-57, V.A.3-275, V.A.3-276, V.A.3-627,and Appendix B
2-6	Division Street Bicycle Lanes, 9th Street to 11th Street		ü	IV.B-16, V.A.3-39-40, V.A.3-57, V.A.3-262-264, V.A.3-266, V.A.3-270-272, and V.A.3-276-284, V.A.3-628, and Appendix B
2-7	Fremont Street southbound Bicycle Lane, Harrison Street to Howard Street	ü		IV.B-16, V.A.3-33, V.A.3-40, V.A.3-58, V.A.3-59, V.A.3-60, V.A.3-61, V.A.3-285, V.A.3-286, V.A.3-287, V.A.3-288, V.A.3-351, V.A.3-352, V.A.3-353, V.A.3-627, and Appendix B
2-8	Howard Street westbound Bicycle Lane, short extension at 9th Street	ü		IV.B-17, V.A.3-33, V.A.3-34, V.A.3-40, V.A.3-60, V.A.3-61, V.A.3-289, V.A.3-290, V.A.3-627, and Appendix B
2-9	Howard Street westbound Bicycle Lane, The Embarcadero to Fremont Street	ü		IV.B-17, V.A.3-33, V.A.3-34, V.A.3-41, V.A.3-61-62, V.A.3-285-287, V.A.3-290-294, V.A.3-351-355, V.A.3-627, and Appendix B
2-12	Market Street Bicycle Lanes, Octavia Boulevard to Van Ness Avenue	ü		IV.B-19, V.A. 3-33, V.A. 3-34, V.A. 3-42, V.A. 3-66 to V.A. 3-68, , V.A. 3-211,V.A.3-297 to V.A. 3-303, V.A. 3-309, V.A. 3-310 V.A. 3-311, V.A. 3-312, V.A.3-628, and Appendix B
2-13	McCoppin Street Bicycle Path, Market Street to Valencia Street	ü		IV.B-19, V.A. 3-33, V.A. 3-34, V.A. 3-43 V.A. 3-69, V.A.3-211, V.A.3-312, V.A.3-313, V.A.3-627, and Appendix B
2-15	Otis Street westbound Bicycle Lane, Gough Street to South Van Ness Avenue	ü		IV B-20,V.A.3-33, V.A.3-34, V.A.3-43, V.A.3-70, V.A.3-71, V.A.3-314, V.A.3-315, V.A.3-316, V.A.3-628, and Appendix B

Table C&R-8
Near-term Improvements for which
Preferred Project Design is the Draft EIR Design Option Indicated

PROJECT		DEIR OPTION 1	DEIR OPTION 2	DRAFT EIR PAGE REFERENCES
3-1	Fell Street and Masonic Avenue Intersection Improvements	ü		IV B-21, IV B-22, V.A. 3-75 to V.A. 3-77, V.A. 3-83, V.A. 3-84, V.A. 3-363 to V.A. 3-375, V.A. 3-383 to V.A. 3-386, V.A. 3-400, V.A. 3-401, V.A.3-628, and Appendix B
3-3	McAllister Street Bicycle Lane, Market Street to Masonic Avenue	ü		I.V.B-24,V.A. 3-75, V.A. 3-76, V.A. 3-79, V.A. 3-88, V.A. 3-89, V.A. 3-363, V.A. 3-389, V.A. 3-390, V.A. 3-391, V.A.3-628, and Appendix B
3-4	Polk Street Bicycle Lane, Market Street to McAllister Street	ü		I.V. B-24, I.V. B-25, V.A. 3-76, V.A. 3-79, V.A. 3-80, V.A. 3-89 to V.A. 3-91, V.A. 3-363, V.A. 3-391, V.A. 3-392, V.A. 3-393, V.A. 3-394, V.A. 3-395, V.A. 3-396, V.A. 4-12, V.A.3-628, and Appendix B
3-5	Scott Street Bicycle Lane, Fell Street to Oak Street	ü		I.V. B-26, V.A. 3-76, V.A. 3-80, V.A. 3-91, V.A. 3-363, V.A. 3-397, V.A. 3-398, V.A.3-628, and Appendix B
3-6	The "Wiggle" Improvements	ü		I.V. B-26, V.A. 3-76, V.A. 3-81, V.A. 3-92, V.A. 3-93, V.A. 3-363, V.A. 3-398, V.A. 3-399, V.A. 3-400, V.A.3-629, and Appendix B
4-1	16th Street Bicycle Lanes, 3rd Street to Terry Francois Boulevard	ü		I.V. B-27, V.A. 3-94 to V.A. 3-96, V.A. 3-98, V.A. 3-407, V.A. 3-408, V.A.3-629, and Appendix B
4-2	Cargo Way Bicycle Lanes, 3rd Street to Jennings Street	ü		I.V.B-27, V.A. 3-94, V.A. 3-95, V.A. 3-96, V.A. 3-100, V.A. 3-101, V.A. 3-407 to V.A. 3-410, V.A.3-629, V.A. 5-11, and Appendix B
4-3	Illinois Street Bicycle Lanes, 16th Street to Cargo Way	ü		I.V. B-28, V.A. 3-94, V.A. 3-95, V.A. 3-96, V.A. 3-101, V.A. 3-102, V.A. 3-407, V.A. 3-410, V.A. 3-411, V.A. 3-412, V.A. 3-413, V.A. 3-414, V.A.3-629, and Appendix B
4-5	Mississippi Street Bicycle Lanes, 16th Street to Mariposa Street	ü		I.V. B-29,V.A.3-95, V.A. 3-97, V.A. 3-104, V.A. 3-407, V.A. 3-416, V.A. 3-417,V.A.3-629, and Appendix B

Table C&R-8
Near-term Improvements for which
Preferred Project Design is the Draft EIR Design Option Indicated

PROJECT		DEIR OPTION 1	DEIR OPTION 2	DRAFT EIR PAGE REFERENCES
5-3	Alemany Boulevard Bicycle Lanes, Rousseau Street to San Jose Avenue	ü		I.V. B-30, V.A.3-107, V.A.3-109, V.A.3-123, V.A.3-124, V.A.3-125, V.A.3-136, V.A.3-418, V.A.3-430, V.A.3-431, V.A.3-432, V.A.3-433, V.A.3-434, V.A.3-435, V.A.3-436, V.A.3-484, V.A.3-490, V.A.3-630, V.A.3-631, and Appendix B
5-5	Cesar Chavez Street Bicycle Lanes, I-280 to US 101 Freeways	ü		I.V. B-31, V.A. 3-108, V.A.3-111, V.A.3-126, V.A.3-128, V.A.3-129, V.A.3-130, V.A.3-450, V.A.3-451, V.A.3-452, V.A.3-453, V.A.3-454, V.A.3-455, V.A.3-456, V.A.3-517, V.A.3-516, V.A.3-518, V.A.3-631, and Appendix B
5-11	Potrero Avenue and Bayshore Boulevard Bicycle Lanes, 25th Street to Cesar Chavez Street	ü		I.V. B-38,V.A. 3-107, ,V.A. 3-109, V.A. 3-117, ,V.A. 3-139 ,V.A. 3-140, ,V.A. 3-141,V.A. 3-418, ,V.A. 3-502, ,V.A. 3-503, ,V.A. 3-504, V.A. 3-631, and Appendix B
5-13	San Bruno Avenue Bicycle Lanes, Paul to Silver Avenues	ü		I.V. B-39, I.V. B-40, V.A. 3-107, V.A. 3-109, V.A. 3-119, V.A. 3-142, V.A. 3-143, V.A. 3-509, V.A. 3-510, V.A. 3-511, V.A. 3-512, V.A. 3-536 V.A. 3-537, V.A. 3-538, V.A. 3-631, and Appendix B.
6-2	Clipper Street Bicycle Lanes, Douglass Street to Portola Drive	ü for Segment I	ü for Segment II	I.V. B-40, I.V. B-41, V.A. 3-144, V.A. 3-145, V.A. 3-146, V.A. 3-151, V.A. 3-152, V.A. 3-157, V.A. 3-539, V.A. 3-540, V.A. 3-541, V.A. 3-542, V.A. 3-543, V.A. 3-544, V.A. 3-545, V.A. 3-546, V.A. 3-547, V.A. 3-563, V.A. 3-568, V.A. 3-569, V.A. 3-570, V.A. 3-571, V.A. 3-588, V.A. 3-589, V.A. 3-594, V.A. 3-595, V.A. 3-632, and Appendix B
7-2	7th Avenue Bicycle Lanes, Lawton Street to Lincoln Way	ü		I.V. B-44, V.A. 3-161, V.A. 3-163, V.A. 3-164, V.A. 3-168, V.A. 3-169, V.A. 3-170, V.A. 3-171, V.A. 3-597, V.A. 3-598, V.A. 3-599, V.A. 3-600, V.A. 3-601, V.A. 3-602, V.A. 3-603, V.A. 3-604, V.A. 3-632,and Appendix B

Table C&R-8
Near-term Improvements for which
Preferred Project Design is the Draft EIR Design Option Indicated

PROJECT		DEIR OPTION 1	DEIR OPTION 2	DRAFT EIR PAGE REFERENCES
7-5	Kirkham Street Bicycle Lanes, 9th Avenue to Great Highway	ü		I.V. B-45, I.V. B-46, V.A. 3-163, V.A. 3-165, V.A. 3-176, V.A. 3-596, V.A. 3-610, V.A. 3-611, V.A. 3-612, V.A. 3-632, and Appendix B
7-6	Page and Stanyan Streets Intersection Traffic Signal Improvements	ü		I.V. B-47, V.A. 3-163, V.A. 3-167, V.A. 3-176, V.A. 3-177, V.A. 3-612, V.A. 3-613, V.A. 3-632, V.A. 4-11, and Appendix B
8-1	19th Avenue Mixed-use Path, Buckingham Way to Holloway Avenue		ü	I.V. B-48, V.A. 2-10, V.A.3-178, V.A.3-180, V.A.3-181, V.A.3-183, V.A.3-184, V.A.3-614, V.A.3-615, V.A.3-616, V.A.3-633, and Appendix B
8-3	Holloway Avenue Bicycle Lanes, Junipero Serra Boulevard to Varela Avenue	ü		I.V. B-48, I.V. B-49, V.A.3-178, V.A.3-180, V.A.3-181, V.A.3-185, V.A.3-186, V.A.3-614, V.A.3-618, V.A.3-619, V.A.3-620, .A.3-621, V.A.3-622, V.A.3-623, V.A.3-633, V.A.5-10, V.A.5-12, V.A. 4-12, and Appendix B
8-4	John Muir Drive Bicycle Lanes, Lake Merced Blvd to Skyline Boulevard	ü		I.V. B-49, V.A.3-180, V.A.3-181, V.A.3-182, V.A.3-186, V.A.3-187, V.A.3-623, V.A.3-623, V.A.3-633, and Appendix B
8-5	Sloat Boulevard Bicycle Lanes, Great Highway to Skyline Boulevard	ü		I.V. B-49, I.V. B-50, V.A.3-180, V.A.3-182, V.A.3-188, V.A.3-189, V.A.3-624, V.A.3-623, V.A.3-625, V.A.3-633, and Appendix B

The following near-term improvements could be implemented within the next five years and are specifically evaluated as part of the Proposed Project (see Appendix B, Near-term Improvement Project Drawings, for project drawings).

PROJECT 1-1: BROADWAY BICYCLE LANES, POLK STREET TO WEBSTER STREET

Project 1-1 would involve the installation of Class II bicycle lanes in both directions on Broadway between Polk Street and Webster Street. Project 1-1 is divided into three segments.

Segment I would extend on Broadway from Polk Street to Van Ness Avenue and would install Class II bicycle lanes in both directions. The proposal for Segment I would remove approximately 14 parking spaces on the south side of the street. Also, between Larkin Street and Van Ness Avenue, this proposal would change the existing Tow-Away No Stopping 4:00 p.m. to 6:00 p.m. regulation along the north side of Broadway to a Tow-Away Lane Must Turn Right 4:00 p.m. to 6:00 p.m. regulation.

Segment II would extend on Broadway from Van Ness Avenue to Franklin Street and would install Class II bicycle lanes in both directions. The proposal for Segment II would remove a travel lane in the westbound direction of Broadway from approximately 100 feet west of Van Ness Avenue to Franklin Street, remove a travel lane in the eastbound direction from Franklin Street to approximately 280 feet easterly, and add a two-way center left turn lane from Franklin Street to approximately 140 feet easterly. The proposal for Segment II would remove approximately 12 parking spaces on the south side of the street.

Segment III would extend on Broadway from Franklin Street to Webster Street and would install Class II bicycle lanes in both directions. The proposal for Segment III would remove one travel lane in both directions and add a two–way center left-turn lane. No parking removal would be required along this segment.

PROJECT 1-2: BROADWAY TUNNEL SIGNAGE IMPROVEMENTS

Project 1-2 would involve the installation of an electronic bicycle warning sign with lighted beacons at the eastbound approach of the Broadway Tunnel to alert motorists when bicyclists are present in the tunnel. Sharrows[6] would be added to the existing Class III bicycle route within the tunnel. The proposed sign would be activated by a pushbutton and a loop detector, which would be located near the intersection of Larkin Street. The proposed sign would be mounted on the Hyde Street overpass approximately 400 feet east of Larkin Street.

Project 1-2 would also involve the installation of a warning sign advising westbound bicyclists not to use the Broadway tunnel. The sign would route cyclists onto the Broadway frontage road, where sharrows would be added to the existing Class III bicycle route.

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[6] Sharrows are a traffic control device which consists of pavement markings within the traffic lane. The markings are intended to alert drivers that bicyclists share the traffic lane and also to reduce the chance of bicyclists impacting the open doors of parked vehicles. For more information on sharrows, please see http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd/ CAMUTCD-Part 9.pdf.

PROJECT 1-3: NORTH POINT STREET BICYCLE LANES, THE EMBARCADERO TO VAN NESS AVENUE

Project 1-3 would involve the installation of Class II bicycle lanes in both directions on North Point Street between The Embarcadero and Van Ness Avenue.

Modified Project 1-3 would remove one westbound travel lane on North Point Street between Stockton Street and Van Ness Avenue, and remove one eastbound travel lane between Stockton Street and The Embarcadero. Modified Project 1-3 would extend the existing six bus zones along North Point Street by approximately 5-50 feet for each bus zone for a total of approximately 170 feet along this segment of North Point Street. Parking changes to accommodate bus zone changes would result in the net loss of eight parking spaces.

PROJECT 2-1: 2ND STREET BICYCLE LANES, KING STREET TO MARKET STREET

Project 2-1 Modified Option 1 would add a northbound Class II bicycle lane on 2nd Street between King and Market Streets and would add a southbound Class II bicycle lane on 2nd Street between Market Street and Townsend Street. It would add sharrows in the northbound direction on 2nd Street between Stevenson and Market Streets in the travel lane, which is right-turn only at Market Street per existing regulations, and would permit bicycles to turn either left or right at Market Street. It would also add sharrows in the northbound direction on 2nd Street between Stillman and Harrison Streets in the shared through-right turn lane and to the existing Class III bicycle route on 2nd Street between Townsend and King Streets in the southbound direction. This project would remove a northbound travel lane between Townsend Street and 230’ south of Brannan Street, between Harrison Street and 100’ south of Folsom Street, and between Folsom Street and 100’ south of Mission Street. Northbound right-turn pockets would be added at Mission and Folsom Streets. This project would remove a southbound travel lane between Mission and 100’ north of Howard Street, Howard Street and 100’ north of Harrison Street, and Harrison Street and 230’ south of Brannan Street. Southbound right-turn pockets would be added at Mission, Howard, and Harrison Streets.

A southbound left turn pocket would be provided on Hawthorne Street at Folsom Street. This project would include traffic engineering elements, such as left-turn restrictions, designed to permit better traffic flow through the single lane of traffic on 2nd Street. The locations are: southbound at Mission (except Muni), northbound at Mission, Minna, and Howard Streets, and southbound at Clementina, Natoma, Folsom, Harrison, Bryant, and Brannan Streets. Finally, this project would convert an existing through travel lane to a left-turn only lane on northbound 2nd Street at Harrison Street.

To better accommodate passenger loading at more appropriate locations such as in front of a restaurant and a large downtown office building, the project design for Modified Project 2-1 would include the conversion of three metered parking spaces in front of the 101 2nd Street office building into a passenger loading zone and conversion of a metered parking space just north of the proposed right turn pocket at Howard Street into a part-time passenger loading zone to serve the nearby businesses.

Project 2-1 would involve the installation of Class II and Class III bicycle facilities in both directions on 2nd Street between King and Market Streets. Project 2-1 includes two design options:

- **Option 1**
  Option 1 would add Class II bicycle lanes on 2nd Street in both directions between King Street and Market Street, except in the following segments: Northbound approaching Market Street (mid-block between Stevenson Street and Market Street), northbound between Bryant Street and Harrison Street, and southbound approaching King Street (mid-block between Townsend Street and King Street). Sharrows[7] would be added to the existing Class III bicycle route along these segments.

  Option 1 would remove one southbound travel lane between Market Street and Mission Street, remove one travel lane in both directions between Mission Street and Harrison Street, remove one northbound travel lane between Townsend Street and Harrison Street, add a northbound right-turn pocket at Mission Street, add northbound left-turn pockets at Mission Street, Howard Street, and Harrison Street, add southbound right-turn pockets at Mission Street, Howard Street, and Harrison Street, and add southbound left-turn pockets at Mission Street, Folsom Street, and Harrison Street

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[7] Sharrows are a traffic control device which consists of pavement markings within the traffic lane. The markings are intended to alert drivers that bicyclists share the traffic lane and also to reduce the chance of bicyclists impacting the open doors of parked vehicles. For more information on sharrows, please see http://www.dot.ca.gov/traffops/signtech/mutcdsupp/pdf/camutcd/CAMUTCD-Part9.pdf

Option 1 would remove 64 parking spaces on the east side and 33 parking spaces on the west side of 2nd Street. The anticipated parking loss would include both metered and un-metered spaces, metered and un-metered commercial loading spaces, passenger loading spaces, accessible parking spaces, and metered motorcycle spaces.

- **Option 2**
  Option 2 would add Class II bicycle lanes on 2nd Street in both directions between King Street and Market Street, except in the following segments: Northbound approaching Market Street (mid-block between Stevenson Street and Market Street), northbound between Bryant Street and Harrison Street, and southbound approaching King Street (mid-block between Townsend Street and King Street). Sharrows would be added to the existing Class III bicycle route along these segments.

  Option 2 would remove one southbound travel lane between Market Street and Mission Street, remove one travel lane in both directions between Mission Street and Harrison Street, remove one southbound travel lane between Harrison Street and Townsend Street, add a northbound right-turn pocket at Mission Street, add northbound left-turn pockets at Mission Street, Howard Street, and Harrison Street, add southbound right-turn pockets at Mission Street, Howard Street, and Harrison Street, and add southbound left-turn pockets at Mission Street, Folsom Street, and Harrison Street.

  Option 2 would remove 64 parking spaces on the east side and 24 parking spaces on the west side of 2nd Street. The anticipated parking loss would include both metered and un-metered spaces, metered and un-metered commercial loading spaces, passenger loading spaces, accessible parking spaces, and metered motorcycle spaces.

PROJECT 2-2: 5TH STREET BICYCLE LANES, MARKET STREET TO TOWNSEND STREET

Project 2-2 would involve the installation of Class II and Class III bicycle facilities in both directions on 5th Street between Market Street and Townsend Street. The preferred project design is Modified Option 2. Transit, pedestrian, bicycle and freight loading impacts for Modified Option 2 are the same as those described on p. V.A.3-246 through p. V.A.3-250 of the Draft EIR. Supplemental text required as a result of the preferred project design is presented below.

This project includes two design options in the Draft EIR. The preferred design option in consistent with Option 2, with the following changes: this project would add a northbound and southbound bicycle lane on 5th Street, between Mission and Townsend Streets, and add sharrows in both the northbound and southbound directions on 5th Street between Market and Mission Streets. This project would remove one northbound travel lane between Howard and Mission Streets and one southbound travel lane between Natoma and Clara Streets. This project would add a southbound left-turn lane onto Folsom Street. This project would remove one northbound and one southbound travel lane in each direction between Townsend to Bryant Streets. Finally, this project would add left-turn lanes in both directions at Brannan Street and at Bluxome Streets. No additional left turn restrictions are proposed at any 5th Street intersections compared to the existing condition. This option is referred to as Modified Option 2.

Project 2-2 includes two design options:

- **Option 1**
  Option 1 would add Class II bicycle lanes on 5th Street in both directions between Market Street and Townsend Street, except in the following segments: both directions between Market Street and Mission Street and between Howard Street and Tehama Street. Sharrows would be added to the existing Class III bicycle route along these segments.

Option 1 would remove one northbound travel lane between Harrison Street and Howard Street and between Townsend Street and Bryant Street, add a northbound right-turn pocket at Folsom Street, add northbound left-turn pockets at Howard Street, Harrison Street, and Brannan Street, and add southbound right-turn pockets at Howard Street, Harrison Street, and Brannan Street.

Option 1 would remove 13 parking spaces on the east side and 27 parking spaces on the west side of 5th Street. The anticipated parking loss would includes both metered and un-metered spaces, metered and un-metered commercial loading spaces, passenger loading spaces, accessible parking spaces, and metered motorcycle spaces.

- **Option 2**

  Option 2 would add Class II bicycle lanes on 5th Street in both directions between Market Street and Townsend Street, except in the following segments: both directions between Market Street and Mission Street, both directions between Folsom Street and approximately 100 feet northerly and northbound between Harrison Street and approximately 100 feet northerly. Sharrows would be added to the existing Class III bicycle route along these segments.

  Option 2 would remove one northbound travel lane between Townsend Street and Brannan Street, remove one southbound travel lane between Natoma Street and Folsom Street, remove one southbound travel lane between Harrison Street and Bryant Street, add a northbound left-turn pocket at Brannan Street, add southbound right-turn pockets at Howard Street and Brannan Street, and add a southbound left-turn pocket at Folsom Street.

  Option 2 would remove three parking spaces on the east side and 68 parking spaces on the west side of 5th Street. The anticipated parking loss would include both metered and un-metered spaces, metered and un-metered commercial loading spaces, passenger loading spaces, accessible parking spaces, and metered motorcycle spaces.

PROJECT 2-3: 14TH STREET BICYCLE LANE, DOLORES STREET TO MARKET STREET

Project 2-3 was partially implemented on March 27, 2006 prior to the Bicycle Plan injunction. Project 2-3 involved adding a Class II bicycle lane on eastbound 14th Street between Market Street and Dolores Street and the conversion of 14th Street from two-way operation to one-way eastbound operation between Market Street and Dolores Street.

Although Project 2-3 has already been implemented, a second design option is being evaluated in the Bicycle Plan EIR. Project 2-3 includes two design options:

- **Option 1**
  Option 1, implemented prior to the Bicycle Plan injunction, involved converting 14th Street from two-way operation to one-way eastbound operation between Market Street and Dolores Street, and installing an eastbound bicycle lane. Option 1 included minor modifications to the existing median island at the intersection of 14th Street and Market Street. Further modifications to this median island proposed under Option 1, but not yet implemented, include connecting it to the existing sidewalk on the southeast corner of the intersection, in order to prevent vehicles traveling westbound on 14th Street from accessing Market Street, and to reduce the crossing distance for pedestrians crossing the east side of 14th Street at Market Street.

- **Option 2**
  Option 2 would involve restoring this block of 14th Street to two-way operation, removing one eastbound travel lane and installing an eastbound Class II bicycle lane between Market Street and Dolores Street.

PROJECT 2-4: 17TH STREET BICYCLE LANES, CORBETT AVENUE TO KANSAS STREET, INCLUDING CONNECTIONS TO THE 16TH STREET BART STATION VIA HOFF STREET OR VALENCIA STREET, AND 17TH STREET TO DIVISION STREET VIA POTRERO AVENUE

This project includes two design options in the Draft EIR. The preferred design is consistent with Project 2-4 Option 1, with the following changes: this project would not add a westbound bicycle lane on 17th Street between Eureka and Douglass Streets, and the areas where parking is removed within the center and east segments are different than what was originally proposed. This option is referred to as Modified Option 1.

In the west end segment (Corbett Avenue to Church Street) Modified Option 1 would provide sharrows in the eastbound direction of 17th Street between Castro and Hartford Streets and would add Class II bicycle lanes on eastbound 17th Street between Hartford and Church Streets by narrowing traffic lanes. In the westbound direction, it would move the existing westbound segment of existing Bicycle Route on 17th Street between Sanchez and Market Streets onto a new proposed route in the northbound direction on Sanchez Street from 17th to 16th Streets, and in the westbound direction on 16th Street from Sanchez to Market Streets, as in Option 2. Sharrows would be added on northbound Sanchez Street. A westbound left-turn bicycle lane would be added for the entire length of 16th Street, from Sanchez Street to Market Street.

In the center segment of 17th Street (Church Street to Potrero Avenue) Modified Option 1 would provide Class II bicycle lanes in both directions by removing parking on one or both sides of the street. Between Valencia and HarrisonTreat Streets parking would be removed on the north side of 17th Street. Between Treat Street and Potrero Avenue, parking would be removed on both sides of 17th Street. Between Hampshire Street and Potrero Avenue, parking would be removed on the south side of the street.

In the east end segment of 17th Street (Potrero Avenue to Kansas Street), Modified Option 1 would provide Class II bicycle lanes in both directions by removing parking on the north side of 17th Street. This is consistent with Option 1 in the Draft EIR, except that parking would be removed on the north side instead of the south side of 17th Street.

Project 2-4 would involve the installation of Class II and Class III bicycle facilities primarily on 17th Street between Corbett Avenue and Kansas Street, with several possible branches onto adjacent streets.

The primary component of Project 2-4 is located on 17th Street and is divided into three sections: West End (Corbett Avenue to Church Street), Center Segment (Church Street to Potrero Avenue), and East End (Potrero Avenue to Kansas Street).

All options for Project 2-4 would provide an enhanced connection to the 16th Street BART Station by adding a new Class III bicycle route and sharrows on Hoff Street between 16th Street and 17th Street and on 16th Street between Mission and Valencia Streets in both directions. All options for Project 2-4 would also include minor striping and signage improvements on 17th Street between Corbett Avenue and Market Street. Additionally, all options for Project 2-4 would add a new bicycle route and Class II bicycle lanes on Potrero Avenue in both directions between 17th Street and Division Street by removing one travel lane in both directions between

17th Street and Division Street and adding a two-way center left turn lane between 17th Street and Alameda Street.

The West End section of 17th Street includes two design options:

Both West End options would add sharrows to the existing Class III bicycle route on eastbound 17th Street between Corbett Avenue and Eureka Street, and would add a Class II bicycle lane in the westbound direction on 17th Street between Castro Street and Corbett Avenue by removing three parking spaces.

- **Option 1**
  West end Option 1 would add sharrows to the existing Class III bicycle route in both directions on 17th Street between Castro and Hartford Streets and add Class II bicycle lanes in both directions on 17th Street between Hartford and Church Streets by narrowing travel lanes. West End Option 1 would remove approximately two parking spaces on each side of 17th Street near Church Street.

- **Option 2**
  West End Option 2 would move the existing westbound segment of Route #40 on 17th Street from Sanchez to Market Streets onto a new proposed route in the northbound direction on Sanchez Street from 17th to 16th Streets, and in the westbound direction on 16th Street from Sanchez to Market Streets. West End Option 2 would add sharrows on these segments of Sanchez and 16th Streets. West End Option 2 would add a westbound Class II bicycle lane on 17th Street between Church and Sanchez Streets, and would add sharrows in the eastbound direction on the existing 17th Street Class III bicycle route between Sanchez Street and Church Street. West End Option 2 would remove approximately two parking spaces on the north side of 17th Street near Church Street.

The Center Segment of 17th Street includes two design options:

- **Option 1**
  Center Segment Option 1 would add Class II bicycle lanes on 17th Street in both directions between Church Street and Potrero Avenue. Center Segment Option 1 would not involve removing any travel lanes or parking between Church Street and Harrison Street.

- **Option 2**
  Center Segment Option 2 would add a Class II bicycle lane in the westbound direction between Harrison Street and Church Street, and add sharrows in the eastbound

direction on the existing Class III bicycle route between Church Street and Harrison Street. Center Segment Option 2 would not involve removing any travel lanes or parking between Church Street and Harrison Street.

Both Center Segment Options 1 and 2 would add Class II bicycle lanes on 17th Street between Harrison Street and Potrero Avenue in both directions by narrowing travel lanes and by removing approximately 49 parking spaces on the north side of 17th Street. Some parking spaces would be added on adjacent streets by converting parallel parking to perpendicular parking.

The East End section of 17th Street includes two design options:

- **Option 1**
  East End Option 1 would add Class II bicycle lanes on 17th Street in both directions between Kansas Street and Potrero Avenue by removing approximately 37 parking spaces on the south side of 17th Street. East End Option 1 would also add Class II bicycle lanes on Kansas Street in both directions between 16th and 17th Streets by narrowing travel lanes.

- **Option 2**
  East End Option 2 would move the existing Bicycle Route 40 off of 17th Street between Kansas Street and Potrero Avenue onto Potrero Avenue between 16th Street and 17th Street, and onto 16th Street between Kansas Street and Potrero Avenue. East End Option 2 would add bicycle lanes on 16th Street in both directions between Kansas Street and Potrero Avenue by removing one westbound travel lane between San Bruno Avenue and Potrero Avenue. On the eastbound 16th Street approach to Potrero Avenue, East End Option 2 would establish a “Right Lane Must Turn Right Except for Muni” regulation.

PROJECT 2-5: BEALE STREET BICYCLE LANE, BRYANT STREET TO FOLSOM STREET

Project 2-5 would add a new route to the City's existing bicycle route network.

Project 2-5 would involve the installation of a Class II bicycle lane in the southbound direction on Beale Street between Folsom Street and Bryant Street.

The reopening of Beale Street as a through street in 2006, after it was closed as a post-9/11 security measure for the Bay Bridge, involved converting the street from one-way southbound operation to two-way operation, with one travel lane in both directions. This conversion resulted in parking layout changes on both sides of the street with a net loss of 42 parking spaces. Project 2-5 would add a southbound Class II bicycle lane between Folsom Street and Bryant Street and would not involve any travel lane or parking removal.

PROJECT 2-6: DIVISION STREET BICYCLE LANES, 9TH STREET TO 11TH STREET

Project 2-6 would involve the installation of Class II bicycle lanes in both directions on Division Street between 9th Street and 11th Street. Project 2-6 includes two design options:

- **Option 1**
  Option 1 would remove a travel lane in the eastbound direction from approximately 200 feet east off 11th Street to 10th Street, and in the westbound direction, from approximately 200 feet west of 10th Street to 11th Street and remove approximately 20 total parking spaces between 10th and 11th Streets. Project 2-6 would also narrow travel lanes between 9th and 10th Streets, and add Class II bicycle lanes in both directions between 9th and 11th Streets.

- **Option 2**
  Option 2 would remove approximately 65 total parking spaces between 10th and 11th Streets, narrow travel lanes between 9th and 10th Streets, and add Class II bicycle lanes in both directions between 9th Street and 11th Street.

PROJECT 2-7: FREMONT STREET BICYCLE LANE, FOLSOM STREET TO HARRISON STREET

Project 2-7 would add a new route to the City's existing bicycle route network.

Project 2-7 would involve the installation of Class II and Class III bicycle facilities in both directions on Fremont Street between Howard Street and Harrison Street.

Project 2-7 would add a new Class III bicycle route with sharrows, on northbound Fremont Street between Harrison Street and Howard Street, and would add a Class II bicycle lane on southbound Fremont Street between Folsom Street and Harrison Street by narrowing northbound travel lanes and removing one southbound travel lane. Sidewalks on both sides of Fremont Street are proposed to be widened to 15' in accordance with the already approved Rincon Hill Area Plan, an area plan of the San Francisco General Plan.

PROJECT 2-8: HOWARD STREET BICYCLE LANE, EXTENSION AT 9TH STREET

Project 2-8 would involve the installation of a Class II bicycle lane in the westbound direction on Howard Street for approximately 200 feet approaching 9th Street. Project 2-8 would close an existing gap in the Howard Street bicycle lane.

Project 2-8 would change one shared through/right-turn lane on westbound Howard Street approaching 9th Street to a through-only lane, and would change an existing 200-foot tow-away 4:00 p.m. to 6:00 p.m. zone along the north side of Howard Street to a permanent tow-away zone (creating a full-time right-turn only lane in place of the existing 4:00 p.m. to 6:00 p.m. right-turn only lane). Project 2-8 would add a westbound Class II bicycle lane for approximately 200 feet east of 9th Street between a thru-lane and a right-turn only lane. Project 2-8 would remove three metered parking spaces on the north side of Howard Street.

PROJECT 2-9: HOWARD STREET BICYCLE LANE, THE EMBARCADERO TO FREMONT STREET

Project 2-9 would involve the installation of a Class II bicycle lane in the westbound direction on Howard Street between The Embarcadero and Fremont Street.

Project 2-9 would add a westbound Class II bicycle lane between The Embarcadero and Fremont Street by narrowing travel lanes in both directions on Howard Street from The Embarcadero to Steuart Street, removing one eastbound travel lane between Spear Street and Steuart Street, converting one of the two eastbound travel lanes between Main Street and Spear Street to a right-turn only lane (excepting Muni), and removing one westbound travel lane between Main Street and Fremont Street during the AM and PM peak hours. Project 2-9 would result in a gain of 17 parking spaces on the north side of Howard Street during the afternoon peak hours and a gain of 10 parking spaces during the morning peak hours. Project 2-9 also would establish a part-time bus zone on the southeast corner of Howard Street and Spear Street, which would result in a loss of four parking spaces from 6:00 a.m. to 10:00 a.m.

PROJECT 2-10: MARKET STREET AND VALENCIA STREET INTERSECTION IMPROVEMENTS

Modified Project 2-10 would involve traffic signal modifications at the intersection of Market Street and Valencia Street.

Modified Project 2-10 would facilitate bicycle left turns from westbound Market Street to southbound Valencia Street by installing a bicycle traffic signal head at the intersection of Market Street and Valencia Street.

Project 2-10 would reduce the width of a 40-foot long section of the sidewalk along the north side of Market Street by 5 feet to create a queuing area for westbound bicyclists waiting for the signal to cross Market Street and continue onto southbound Valencia Street. The sidewalk width in this affected area would be reduced to 10 feet.

PROJECT 2-11: MARKET STREET BICYCLE LANES, 17TH STREET TO OCTAVIA BOULEVARD

Project 2-11 would involve the installation of short segments of Class II bicycle lanes in both directions on Market Street between 17th Street and Octavia Boulevard to close gaps in otherwise continuous Class II bicycle lanes. Project 2-11 includes two design options:

- **Option 1**
  Modified Option 1 would add Class II bicycle lanes by removing right-turn lanes in the eastbound direction approaching Noe Street, Sanchez Street, and Dolores Street, and in the westbound direction approaching Sanchez Street. In the eastbound direction, Modified Option 1 would remove five parking spaces approaching Noe Street, five parking spaces approaching Sanchez Street, two parking spaces approaching Dolores Street, and eight parking spaces approaching Guerrero Street. In the westbound direction, Modified Option 1 would remove seven parking spaces approaching Laguna Street, seven parking spaces approaching Buchanan Street, approaching Sanchez Street, and nine parking spaces approaching Noe Street. Modified Option 1 would reduce the width of the sidewalk bulb-outs by 5 feet at the intersections of Market Street with Laguna Street, Buchanan Street, Noe Street and Guerrero Street.

- **Option 2**
  Option 2 would reduce the sidewalk widths approaching all of the intersections in both directions by 5 feet to add Class II bicycle lanes. Option 2 would narrow the sidewalk at certain areas from 15 feet to 10 feet, and would relocate traffic signal hardware and other sidewalk fixtures. Option 2 would remove approximately four parking spaces on the south side of Market Street near Guerrero Street.

PROJECT 2-12: MARKET STREET BICYCLE LANES, OCTAVIA BOULEVARD TO VAN NESS AVENUE

Project 2-12 was implemented on May 15, 2006 prior to the Bicycle Plan injunction. Project 2-12 involved the installation of Class II and Class III bicycle facilities in both directions on Market Street between Octavia Boulevard and Van Ness Avenue.

A Class II bicycle lane was added in the westbound direction on Market Street between Van Ness Avenue and Octavia Boulevard and in the eastbound direction on Market Street between Gough Street and 12th Street. Class II bicycle lanes existed on eastbound Market Street between Octavia Boulevard and Valencia Street and between 12th Street and Van Ness Avenue prior to the implementation of Project 2-12. Project 2-12 involved adding sharrows to the existing Class III bicycle route on eastbound Market Street between Valencia Street and Gough Street. One westbound travel lane was removed between Van Ness Avenue and Rose Street to add a Class II bicycle lane in the westbound direction. Thirty metered parking spaces and six metered motorcycle spaces were removed from Market Street between 12th Street and Octavia Boulevard as part of Project 2-12. Six metered parking spaces were added to the north side of Market Street between Franklin Street and Rose Street. Twenty metered parking spaces were added on 12th Street between Market Street and Van Ness Avenue by converting parallel parking spaces to perpendicular parking spaces. Four metered parking spaces were added to the east side of Gough Street between Market Street and Colton Street by converting parallel parking spaces to angle parking spaces and by removing one northbound travel lane on Gough Street approaching Market Street.

PROJECT 2-13: MCCOPPIN STREET BICYCLE PATH, MARKET STREET TO VALENCIA STREET

Project 2-13 would involve the addition of a bi-directional Class I bicycle path connecting the intersection of Market Street and Octavia Boulevard to the western terminus of McCoppin Street, and the addition of Class II bicycle lanes on McCoppin Street in both directions between Valencia Street and the western terminus of McCoppin Street.

The construction of the Class I bicycle path was completed on September 9, 2005 as part of the Central Freeway Project. Approximately four parking spaces would be removed from the north side of McCoppin Street between Valencia Street and the western terminus of McCoppin Street to accommodate the Class II bicycle lanes.

PROJECT 2-14: MCCOPPIN STREET BICYCLE LANE, GOUGH STREET TO VALENCIA STREET

Project 2-14 would involve the installation of a Class II bicycle lane in the westbound direction on McCoppin Street between Gough Street and Valencia Streets.

Modified Project 2-14 would remove one westbound travel lane on McCoppin Street from Gough Street to 125' east of Valencia Street. Four parking spaces would be added on the south side of McCoppin Street between Jessie and Stevenson Streets by converting parallel parking to 60-degree back-in angle parking. Modified Project 2-14 would result in a net gain of approximately four parking spaces.

PROJECT 2-15: OTIS STREET BICYCLE LANE, GOUGH STREET TO SOUTH VAN NESS AVENUE

Project 2-15 would involve the installation of a Class II bicycle lane in the westbound direction on Otis Street between South Van Ness Avenue and Gough Street.

Project 2-15 would not involve removal of travel lanes or parking, but would narrow existing travel lanes.

PROJECT 2-16: TOWNSEND STREET BICYCLE LANES, 8TH STREET TO THE EMBARCADERO

Project 2-16 would involve the installation of Class II or Class III bicycle facilities in both directions on Townsend Street between The Embarcadero and 8th Street. Sharrows would be provided in both directions on Townsend Street between 2nd Street and The Embarcadero. Class II bicycle lanes would be provided in both directions between 2nd and 4th Streets by removing one westbound travel lane. The project would provide Class II bicycle lanes on both directions between 4th and 7th Streets by narrowing travel lanes and reconfiguring existing parking. The project would add Class II bicycle lanes between 7th and 8th Streets by narrowing travel lanes and adding a right turn pocket on eastbound Townsend Street approaching 7th Street. This project includes two design options in the Draft EIR. The preferred design is consistent with design Option 1, with the following changes: this project would not add a two-way left-turn lane on Townsend Street between 4th and 3rd Streets, and this project would convert the angled parking on the south side of Townsend Street from 150 feet west of 5th Street to 4th Street to parallel parking. The two-way left-turn lane is between the intersections and ends before either intersection. The refinement of Project 2-16 is referred to as Modified Option 1. Modified Option 1 would result in the loss of 113 parking spaces.

Project 2-16 would involve the installation of Class II and Class III bicycle facilities in both directions on Townsend Street between 8th Street and The Embarcadero.

Sharrows would be added in both directions on Townsend Street between 2nd Street and The Embarcadero, which is an existing Class III bicycle route. The existing front-in-angled parking spaces on both sides of the street would be converted to back-in-angled parking.

Project 2-16 would add Class II bicycle lanes on Townsend Street in both directions between 2nd Street and 4th Street. Project 2-16 would remove one travel lane in both directions between 2nd Street and 4th Street and add a two-way center left-turn lane between 2nd Street and 4th Street, including left-turn pockets eastbound at 2nd Street and 3rd Street and westbound at 4th Street. Project 2-16 would add parking along a portion of the south side of Townsend Street between 3rd Street and Lusk Street.

Project 2-16 would add Class II bicycle lanes on Townsend Street in both directions between 7th Street and 8th Street by narrowing travel lanes and adding a right-turn pocket on eastbound Townsend Street approaching 7th Street. No travel lane or parking removals would be required along this segment.

The segment of Project 2-16 between 4th Street and 7th Street includes two design options:

Both options would add Class II bicycle lanes on Townsend Street in both directions between 4th Street and 7th Street by narrowing travel lanes and reconfiguring existing parking. Both options would provide space for the construction of continuous sidewalks on both sides of Townsend Street between 4th and 7th Streets, and would require travel lane configuration changes on 4th Street approaching Townsend Street, including the removal of one northbound right-turn lane, the conversion of one southbound left-turn lane into a thru-lane, and the conversion of one southbound thru-lane into a right-turn lane.

- **Option 1**
  Option 1 one would convert the existing front-in-angled parking on the south side of Townsend Street to back-in-angled parking between 4th Street and 7th Street and would convert the existing perpendicular parking on the north side of Townsend Street to parallel parking between 4th Street and 7th Street. Option 1 would result in a loss of approximately 80 parking spaces and six part-time parking spaces that are currently restricted to truck loading during certain hours.

- **Option 2**
  Option 2 would convert the existing angled parking on the south side of Townsend Street to parallel parking between 4th Street and 7th Street and would convert the existing parallel and perpendicular parking on the north side of Townsend Street to back-in-perpendicular parking between 4th Street and Townsend Street, except for approximately 200 feet east of 7th Street, which would remain parallel parking. Option 2 would result in a loss of approximately 26 parking spaces and a gain of 16 part-time parking spaces that are currently restricted to truck loading during certain hours.

PROJECT 3-1: FELL STREET AND MASONIC AVENUE INTERSECTION IMPROVEMENTS

In response to the large number of reported collisions and in order to improve pedestrian and bicycle safety at the intersection of Fell Street and Masonic Avenue, the City requested relief from the injunction to implement Project 3-1 prior to the completion of the Bicycle Plan EIR. In May 2008, the court granted the City's motion to modify the injunction so as to allow implementation of the recommended safety improvements at the intersection of Fell Street and Masonic Avenue. SFMTA has implemented Project 3-1 as of September 16, 2008.

The Fell/Masonic intersection traffic signal phasing would be changed to provide exclusive phases for westbound Fell Street left turns and for Panhandle Pathway traffic. Pedestrians and bicyclists crossing the south leg of Masonic Avenue would receive the WALK/GREEN BIKE signal during the Fell Street through traffic phase. During the WALK/GREEN BIKE phase to cross Masonic Avenue on the south side of Fell Street, traffic on westbound Fell Street wishing to make a left turn onto southbound Masonic Avenue would receive a red left-turn arrow signal, restricting them from making this left turn. Before the Fell Street through phase, vehicles on Fell Street waiting to turn left onto Masonic Avenue would receive a green left-turn arrow, while pedestrians and bicyclists waiting to use the south crosswalk across Masonic Avenue would see a solid DON'T WALK/RED BIKE signal.

PROJECT 3-2: MASONIC AVENUE BICYCLE LANES, FELL STREET TO GEARY BOULEVARD

Project 3-2 would involve the installation of Class II and Class III bicycle facilities in both directions on Masonic Avenue between Fell Street and Geary Boulevard. Project 3-2 is divided into four segments.

Segment I would extend from Fell Street to Hayes Street and includes two design options:

- **Option 1**
  Segment I Option 1 would install a Class II bicycle lane in both directions by removing one travel lane in the northbound direction, and two travel lanes in the southbound direction. PM tow-away would be rescinded on the west side of the street, resulting in the increase of five parking spaces during the PM peak. A two-way center turn lane would also be installed.

- **Option 2**
  Segment I Option 2 would install Class II bicycle lanes in both directions by removing a travel lane in both directions, removing approximately six parking spaces, and rescinding the afternoon tow-away zone. This option would result in a gain of approximately five parking spaces during afternoon hours.

Segment II would extend from Hayes Street to Grove Street and includes two design options:

- **Option 1**
  Segment II Option 1 would install a center turn lane with floating bicycle lanes in both directions. During off-peak hours, there would be one travel lane in both directions. During the AM peak, there would be two travel lanes in the northbound direction, and one travel lane in the southbound direction. During the PM peak, there would be two travel lanes in the southbound direction, and one travel lane in the northbound direction. Existing tow-away restrictions would remain.

- **Option 2**
  Segment II Option 2 would convert one travel lane in both directions into a transit/bicycle-only lane from 7:00 a.m. to 6:00 p.m., Monday through Friday, by removing approximately 14 parking spaces during this time period. Segment II Option 2 would add sharrows[8] to the existing Class III bicycle route that would be in effect at all other times. Segment II Option 2 reduces the travel lanes and parking from 7:00 a.m. to 6:00 p.m., Monday through Friday only.

Segment III would extend from Grove Street to Anza/O'Farrell Streets and includes two design options:

- **Option 1**
  Segment III Option 1 would be similar to Segment II Option 1.

- **Option 2**
  Segment III Option 2 would be similar to Segment II Option 2, but would remove 107 parking spaces on both sides of the street.

Segment IV would extend from Anza/O'Farrell Streets to Geary Boulevard and includes two design options:

- **Option 1**
  Segment IV Option 1 would install Class II bicycle lanes in both directions by removing a travel lane in one direction and approximately 15 parking spaces. This option would

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8 Sharrows are a traffic control device which consists of pavement markings within the traffic lane. The markings are intended to alert drivers that bicyclists share the traffic lane and also to reduce the chance of bicyclists impacting the open doors of parked vehicles. For more information on sharrows, please see http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd/ CAMUTCD-Part 9.pdf.

establish a “Tow-Away Lane Must Turn Right” regulation from 4:00 p.m. to 7:00 p.m., Monday through Friday.

- **Option 2**
  Segment IV Option 2 would install Class II bicycle lanes in both directions by removing approximately 25 parking spaces. This option does not remove any travel lanes.

PROJECT 3-3: MCALLISTER STREET BICYCLE LANE, MARKET STREET TO MASONIC AVENUE

Project 3-3 would involve the installation of Class II and Class III bicycle facilities in the westbound direction on McAllister Street between Market Street and Masonic Avenue. Project 3-3 is divided into three segments.

Segment I would extend from Market Street to Franklin Street and would add sharrows to the existing Class III bicycle route in the westbound direction. The proposal for Segment I would not involve travel lane or parking removal.

Segment II would extend from Franklin Street to Fillmore Street and would install a Class II bicycle lane in the westbound direction. The proposal for Segment II would not involve travel lane or parking removal. Project 3-3 would shift the existing centerline south by approximately two and one-half feet.

Segment III would extend from Fillmore Street to Masonic Avenue and would add sharrows to the existing Class III bicycle route in the westbound direction. The proposal or Segment III would not involve travel lane or parking removal.

In addition, sharrows would be added to northbound Charles J. Brenham Place from Market Street to McAllister Street, and this block would be added to existing Bicycle Route #20. This block would aid in the connection from existing Bicycle Route #23 on 7th Street to the proposed improvements on McAllister Street.

PROJECT 3-4: POLK STREET BICYCLE LANE, MARKET STREET TO MCALLISTER AVENUE

This project would involve moving a portion of the existing northbound Bicycle Route #25 from Market Street, Larkin Street, and McAllister Street onto Polk Street.

This project would involve the installation of a Class II bicycle lane in the northbound direction on Polk Street between Market Street and McAllister Street. A segment of this Class II bicycle lane would be contra-flow (it would allow northbound bicycle travel on an otherwise one-way southbound street). Polk Street is a one-way southbound street between Grove Street and Market Street. Polk Street (Dr. Carlton B. Goodlett Place) is a two-way street between Grove Street and McAllister Street.

This project would install a northbound Class II bicycle lane between McAllister Street and Grove Street, by narrowing travel lanes. The existing angled parking on the east side of Polk Street would be converted from front pull-in to back-in.

The segment between Grove Street and Market Street includes two design options.

- **Option 1**
  Option 1 would establish a northbound contra-flow Class II bicycle lane on the east side of Polk Street from Market Street to Grove Street. This bicycle lane would be separated from traffic by a concrete median. The concrete median would have openings where truck loading docks currently exist, on the east side of Polk Street north and south of Hayes Street. Option 1 would narrow travel lanes, narrow sidewalk and median widths on Polk Street near Market Street, remove 11 metered parking spaces, and remove one metered loading space. The existing white zone on the east side of Polk Street between Market Street and Hayes Street would be moved from the curb to the west side of the proposed median. Option 1 would remove approximately 12 parking spaces.

- **Option 2**
  Option 2 would convert the segment of Polk Street, from Market Street to Hayes Street, to two-way operation; narrow travel lanes; narrow sidewalk and median widths; and add a northbound travel lane on Polk Street, between Market Street and Hayes Street. Northbound Polk Street traffic would be forced to turn left onto westbound Hayes Street, except for bicycle traffic. Option 2 would add sharrows to the new northbound travel lane between Market Street and Hayes Street, and add a northbound Class II bicycle lane approaching Hayes Street. One metered loading space would be removed. The design for Option 2 between Hayes Street and Grove Street would be the same as for Option 1, including the removal of 11 metered parking spaces. Option 2 would remove approximately 12 parking spaces.

PROJECT 3-5: SCOTT STREET BICYCLE LANE, FELL STREET TO OAK STREET

Project 3-5 would involve the installation of a Class II left-turn bicycle lane in the northbound direction on Scott Street between Oak Street and Fell Street. Project 3-5 includes two design options:

- **Option 1**
  Option 1 would add a northbound Class II left-turn bicycle lane by removing the left-turn lanes on northbound Scott Street approaching Fell Street and on southbound Scott Street approaching Oak Street. No parking spaces would be removed under Option 1.

- **Option 2**
  Option 2 would add a northbound Class II left-turn bicycle lane by narrowing travel lanes and removing approximately three parking spaces from the west side of Scott Street between Fell Street and Oak Street. The existing left-turn lanes approaching Fell Street and Oak Street would not change under Option 2.

PROJECT 3-6: THE "WIGGLE" IMPROVEMENTS, DUBOCE AVENUE BETWEEN MARKET AND STEINER STREETS, STEINER STREET BETWEEN DUBOCE AVENUE AND WALLER STREET, WALLER STREET BETWEEN STEINER AND PIERCE STREETS, PIERCE STREET BETWEEN WALLER AND HAIGHT STREETS, HAIGHT STREET BETWEEN PIERCE AND SCOTT STREETS, AND SCOTT STREET BETWEEN HAIGHT AND FELL STREETS.)

Project 3-6 was implemented on May 13, 2006 prior to the Bicycle Plan injunction. Project 3-6 added sharrows in both directions to portions of existing Bicycle Route 30 in the following locations: Duboce Avenue between Market Street and Steiner Street, Steiner Street between Duboce Avenue and Waller Street, Waller Street between Steiner Street and Pierce Street, Pierce Street between Waller Street and Haight Street, and Haight Street between Pierce Street and Scott Street. On Haight Street between Pierce Street and Scott Street, travel lane widths were also modified. On Scott Street between Haight Street and Fell Street, sharrows were added to the existing Class III bicycle route in the southbound direction. On northbound Scott Street between Haight Street and Oak Street, a Class II bicycle lane was added to the existing Class III bicycle route. On northbound Scott Street at Oak Street, a bicycle box was added, and a "No Turn On Red" restriction was added. No travel lane or parking removals was required to implement Project 3-6.

PROJECT 4-1: 16TH STREET BICYCLE LANES, 3RD STREET TO TERRY FRANCOIS BOULEVARD

Project 4-1 would add a new route to the City's existing bicycle route network on 16th Street between Illinois Street and Terry François Boulevard.[9]

Project 4-1 would involve the installation of Class II bicycle lanes in both directions on 16th Street between 3rd Street and Illinois Street by narrowing travel lanes. Class II bicycle lanes would be added in both directions on 16th Street between Illinois Street and Terry François Boulevard when that segment of 16th Street is constructed.

Project 4-1 would not involve travel lane or parking removal.

PROJECT 4-2: CARGO WAY BICYCLE LANES, 3RD STREET TO JENNINGS STREET

Project 4-2 would add a new route to the City's existing bicycle route network.

Project 4-2 would involve the installation of Class I or Class II bicycle facilities on Cargo Way between 3rd Street and Jennings Street. The resulting bicycle facilities would connect to the existing Bay Trail at the eastern terminus of Cargo Way at Heron's Head Park. Project 4-2 includes two design options:

- **Option 1**
  Option 1 would install Class II bicycle lanes in both directions by removing approximately 160 under-utilized parking spaces on the south side of Cargo Way. Option 1 would not involve travel lane removal.

- **Option 2**
  Option 2 would involve the installation of a Class I two-way bicycle path on the south side of Cargo Way between Illinois Street and Jennings Street. Option 2 would not involve travel lane or parking removal.

Both Options 1 and 2 would install a Class II left-turn bicycle lane on eastbound Cargo Way approaching Illinois Street and Amador Street.

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9 Bicycle lanes on 16th Street between 3rd Street and Terry François Boulevard were included in the Mission Bay Subsequent EIR (SEIR) dated September 17, 1988. However, the bicycle lanes included in the Mission Bay SEIR were proposed to be 6 feet in width. The bicycle lanes included in Project 4-1 are proposed to be 5 feet in width and so are included as part of this analysis.

PROJECT 4-3: ILLINOIS STREET BICYCLE LANES, 16TH STREET TO CARGO WAY

Project 4-3 would involve the installation of Class II bicycle lanes in both directions on Illinois Street between 16th Street and Cargo Way.

Project 4-3 would install Class II bicycle lanes in both directions on Illinois Street from 16th Street to Cargo Way, including a floating bicycle lane in the southbound direction between 18th and 19th Streets, by changing parking configurations. The existing perpendicular parking, mainly on the east side of the street, would be reconfigured to either back-in-angled parking or parallel parking. Project 4-3 would result in the loss of approximately 45 parking spaces on Illinois Street. Additional parking spaces would be provided on Tennessee Street, 22nd Street, and 24th Street, resulting in a net gain of approximately 99 parking spaces near the project area. One travel lane would be removed in each direction from 25th to Marin Streets. The proposed Class II bicycle lanes on Illinois Street would connect to the proposed bicycle facilities on Cargo Way via the recently completed Islais Creek Bridge.

PROJECT 4-4: INNES AVENUE BICYCLE LANES, DONAHUE STREET TO HUNTERS POINT BOULEVARD

Project 4-4 would involve the installation of Class II or Class III bicycle facilities in both directions on Innes Avenue between Donahue Street and Hunters Point Boulevard. Project 4-4 includes two design options:

- **Option 1**
  Option 1 would remove approximately 75 parking spaces on the south side of Innes Avenue from Hunters Point Boulevard to Earl Street, and install Class II bicycle lanes in both directions. From Earl Street to Donahue Street, Class II bicycle lanes would be installed by removing approximately 60 parking spaces and adding a planted median in the center of the roadway. There would be no travel lane removal associated with Option 1.

- **Option 2**
  Option 2 would be similar to Option 1, except for the segment from Hunters Point Boulevard to Earl Street, where sharrows would be added to the existing Class III bicycle route in both directions. There would be no parking or travel lane removal associated with Option 2 between Hunters Point Boulevard and Earl Street.

The two options described above are consistent with DPW led Bayview Transportation Improvement Project (BTIP). The future lane configuration on Innes Avenue depends on whether a new football stadium for the San Francisco 49ers is built. If a new stadium is built, Innes Avenue could serve as an important access/egress route, and the Class II bicycle lanes proposed on Innes Avenue could be re-routed as either Class I or Class II bicycle facilities on a proposed new roadway (Hudson Street).

PROJECT 4-5: MISSISSIPPI STREET BICYCLE LANES, 16TH STREET TO MARIPOSA STREET

Project 4-5 would involve the installation of Class II bicycle lanes in both directions on Mississippi Street between 16th Street and Mariposa Street.

Class II bicycle lanes would be added without travel lane or parking removal.

PROJECT 5-1: 23RD STREET BICYCLE LANES, KANSAS STREET TO POTRERO AVENUE

Project 5-1 includes one design option in the Draft EIR. The preferred design is consistent with that option, with the following changes: the modified project would remove parking on the north side of 23rd Street between Kansas Street and Potrero Avenue, resulting in a loss of 36 parking spaces. This differs from the option analyzed in the Draft EIR in that no parking removal would have resulted from the original proposal. Modified Project 5-1 would not require travel lane removal.

Modified Project 5-1 would install a Class II bicycle lane in the eastbound direction on 23rd Street from Utah Street to Kansas Street. This is a decrease of one block from the project design limits analyzed in the Draft EIR, which extended the entire project length from Potrero Avenue to Kansas Street. This project would also add sharrows to the existing Class III bicycle route in the eastbound direction on 23rd Street from Potrero Avenue to Utah Street. This project would install a Class II bicycle lane in the westbound direction of 23rd Street from Kansas Street to 50 feet west of Utah Street. This is a decrease of approximately 200 feet from the project analyzed in the Draft EIR, which extended from Kansas Street to Potrero Avenue. This project would add sharrows to the existing Class III bicycle route on 23rd Street in the westbound direction from 50 feet west of Utah Street to Potrero Avenue, a total of approximately 200 feet. In addition, 36 parking spaces would be removed on the north side of 23rd Street between Kansas Street and Potrero Avenue as a result of Modified Project 5-1.

Project 5-1 would involve the installation of Class II and Class III bicycle facilities on 23rd Street between Kansas Street and Potrero Avenue adjacent to San Francisco General Hospital.

Project 5-1 would involve the installation of a Class II bicycle lane in the eastbound direction and the addition of sharrows[10] to the existing Class III bicycle route in the westbound direction. Project 5-1 would not involve travel lane or parking removal. However, travel lanes would be narrowed to create space for the eastbound bicycle lane.

PROJECT 5-2: ALEMANY BOULEVARD BICYCLE LANES, BAYSHORE BOULEVARD TO ROUSSEAU STREET

Project 5-2 provides a combination of Class II and Class III bicycle facilities in both directions on Alemany Boulevard between Bayshore Boulevard and Rousseau Street. This project includes one design option in the Draft EIR. The preferred design is consistent with that option, with the following change:

Modified Project 5-2 would remove one eastbound travel lane from Trumbull Street to 300 feet west of Putnam Street to create space for a striped buffer area to the left of the proposed Class II bicycle lane. The modified project would provide Class II bicycle lanes in both directions of Alemany Boulevard between Putnam and Rousseau Streets by removing one eastbound travel lane between Rousseau and Trumbull Streets, removing one westbound travel lane between Putnam and Ellsworth Streets, removing parking on the north side of Alemany Boulevard between Ellsworth and Rousseau Streets, and removing parking on the south side of Alemany Boulevard between Rousseau and Putnam Streets. As described in the Draft EIR, Project 5-2 would remove a total of approximately 375 under-utilized parking spaces on Alemany Boulevard. This would still occur with Modified Project 5-2. In addition, Modified Project 5-2 would add sharrows in both directions on Alemany Boulevard between Bayshore Boulevard and Putnam Street and would add a left-turn Class II bicycle lane on eastbound Alemany Boulevard approaching Bayshore Boulevard.

Project 5-2 would add a new route to the City's existing bicycle route network.

Project 5-2 would involve the installation of Class II and Class III bicycle facilities in both directions on Alemany Boulevard between Bayshore Boulevard and Rousseau Street.

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[10] Sharrows are a traffic control device which consists of pavement markings within the traffic lane. The markings are intended to alert drivers that bicyclists share the traffic lane and also to reduce the chance of bicyclists impacting the open doors of parked vehicles. For more information on sharrows, please see http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd/ CAMUTCD-Part 9.pdf.

Project 5-2 would involve the installation of Class II bicycle lanes in both directions on Alemany Boulevard between Putnam and Rousseau Streets by removing one eastbound travel lane between Rousseau and Trumbull Streets, removing one westbound travel lane between Putnam Street and Ellsworth Street, removing parking on the north side of Alemany Boulevard between Ellsworth Street and Rousseau Street, and removing parking on the south side of Alemany

Boulevard between Rousseau Street and Putnam Street. A total of approximately 375 under-utilized parking spaces would be removed. Project 5-2 would add sharrows in both directions on Alemany Boulevard between Bayshore Boulevard and Putnam Street. Project 5-2 would add a left-turn Class II bicycle lane on eastbound Alemany Boulevard approaching Bayshore Boulevard.

PROJECT 5-3: ALEMANY BOULEVARD BICYCLE LANES, ROUSSEAU STREET TO SAN JOSE AVENUE

Project 5-3 was implemented on April 28, 2006 prior to the Bicycle Plan injunction. Project 5-3 involved the installation of a mixed Class II and Class III bicycle facility on Alemany Boulevard between Rousseau Street and San Jose Avenue.

Project 5-3 involved adding bicycle lanes on Alemany Boulevard in both directions between Rousseau Street and San Jose Avenue by removing a travel lane in each direction, except for the following segments: Northbound Alemany Boulevard between Niagara Avenue and Geneva Avenue, and southbound Alemany Boulevard between Seneca Avenue and Geneva Avenue. No travel lanes were removed along these segments, and sharrows were added to the existing Class III bicycle route along these segments. On westbound Alemany Boulevard approaching San Jose Avenue, travel lanes were narrowed to install a bicycle lane, but no westbound travel lanes were removed. On eastbound Alemany Boulevard approaching San Jose Avenue, travel lanes were narrowed to install a bicycle lane and one travel lane was converted to a right-turn only lane. Approximately two parking spaces were removed on southbound Alemany Boulevard at Ocean Avenue to create a southbound right-turn only lane.

PROJECT 5-4: BAYSHORE BOULEVARD BICYCLE LANES, CESAR CHAVEZ STREET TO SILVER AVENUE

Project 5-4 would provide bicycle facilities in both directions on the Bayshore Boulevard corridor between Cesar Chavez Street and Silver Avenue. As described in the Draft EIR, there are two segments for this project, and for each segment two options are analyzed in the Draft EIR. The two options analyzed would provide Class II bicycle lanes on Bayshore Boulevard through either removing one lane of travel in each direction or through a combination of travel lane and parking removals. Both options also include moving the southbound portion of Bicycle Route #25 from Jerrold Avenue, Barneveld Avenue, Loomis Street and Industrial Street onto Bayshore Boulevard. The modified project is a combination of the two options and differs in that in some places instead of bicycle lanes the modified project would add sharrows, Class III bicycle facilities.

The refinement of Project 5-4 is referred to as Modified Option 2. In the portion of the Bayshore Boulevard corridor between Oakdale and Jerrold Avenues, the modified project would retain the existing southbound Class III bicycle facility on Jerrold Avenue, Barneveld Avenue, and Loomis Street and relocate the northbound Class III bicycle facility on northbound Bayshore Boulevard to Oakdale Avenue, Loomis Street, Barneveld Avenue and Jerrold Avenue. Modified Option 2 would provide sharrows in both directions along Oakdale Avenue, Loomis Street, Barneveld Avenue and Jerrold Avenue. It would also provide a shared transit and bicycle lane on northbound Bayshore Boulevard between Helena and Marengo Streets. Vehicular right-turns would be allowed from this lane. In order to provide this shared lane, Modified Option 2 would remove 27 parking spaces on the east side of Bayshore Boulevard from Boutwell Street to Helena Street.

Modified Option 2 would replace the existing right turn bicycle lane with a left turn bicycle lane on west bound Oakdale Avenue between Loomis Street and Bayshore Boulevard. A left-turn bicycle lane would be added on west bound Oakdale Avenue As part of this change, the dual-left turn for vehicles would be removed at this location. The vehicular lane configuration would have one left-turn lane and one right-turn lane. Parking would not be removed.

Project 5-4 would involve the installation of Class II bicycle lanes in both directions on Bayshore Boulevard between Cesar Chavez Street and Silver Avenue. Project 5-4 would involve moving portions of existing southbound Bicycle Route #25 from Jerrold Avenue, Barneveld Avenue, Loomis Street, and Industrial Street onto Bayshore Boulevard.

Project 5-4 is divided into two segments:

Segment I would extend between Cesar Chavez Street and Industrial Street, and has two design options:

- **Option 1**
  Segment I Option 1 would install Class II bicycle lanes in both directions on Bayshore Boulevard by removing a travel lane in each direction.

- **Option 2**
  Segment I Option 2 would install Class II bicycle lanes in both directions on Bayshore Boulevard by removing parking on both sides of the street. This option would remove a total of approximately 220 parking spaces.

Segment II would extend between Industrial Street and Silver Avenue, and has two design options:

- **Option 1**
  Segment II Option 1 would install Class II bicycle lanes in both directions on Bayshore Boulevard by removing a northbound travel lane from approximately 150 feet north of Silver Avenue to Industrial Street and by removing approximately 15 parking spaces on the east side of Bayshore Boulevard between Silver Avenue and Boutwell Street.

- **Option 2**
  Segment II Option 2 would install Class II bicycle lanes in both directions on Bayshore Boulevard by removing a northbound travel lane from Helena Street to approximately 320 feet northerly and by establishing a northbound right-turn lane from 320 feet north of Helena Street to Industrial Street. This option would remove approximately 40 parking spaces on the east side of Bayshore Boulevard between Silver Avenue and Helena Street.

Both Segment II options above would remove approximately 70 under-utilized parking spaces on the west side of Bayshore Boulevard between Industrial Street and Silver Avenue.

PROJECT 5-5: CESAR CHAVEZ STREET BICYCLE LANES, I-280 TO US 101 FREEWAYS

Project 5-5 would involve the installation of Class II bicycle lanes in both directions on Cesar Chavez Street between Kansas Street (near US 101 Freeway) and Mississippi Street (near I-280 Freeway). Project 5-5 includes two design options:

- **Option 1**
  Option 1 would remove a travel lane in either the eastbound or the westbound direction and install Class II bicycle lanes in both directions. The eastbound and westbound lane removals would be analyzed separately and the least impactful scenario would be carried forward and be included in the plan. Depending on which direction is chosen

for the travel lane removal the resulting lane configuration would be: a) two lanes eastbound and one lane westbound, plus the turn lanes approaching Evans Avenue; or b) one lane eastbound and two lanes westbound, plus the turn lanes approaching Evans Avenue. Option 1 would not involve parking removal.

- **Option 2**
  Option 2 would involve the installation of Class II bicycle lanes in both directions by removing approximately 94 parking spaces on the north side of Cesar Chavez Street. The estimated parking loss does not account for existing curb cuts or red zones, therefore the actual number of parking spaces removed would likely be lower. This option would not involve travel lane removal.

PROJECT 5-6: CESAR CHAVEZ STREET/26TH STREET BICYCLE LANES, SANCHEZ STREET TO US 101

The Cesar Chavez Street section of Project 5-6 would involve the installation of Class II and Class III bicycle facilities in both directions between Hampshire Street (near US 101 Freeway) and Sanchez Street as well as street trees along this same segment.

The Cesar Chavez Street section of Project 5-6 would be divided into three segments.

Segment I of the Cesar Chavez Street section of Project 5-6 would extend between Hampshire Street and Valencia Street and includes two design options:

- **Option 1**
  Segment I Option 1 would remove one travel lane in each direction, maintain or widen the existing median, and install Class II bicycle lanes in both directions. This option would remove up to 40-45 spaces, typically at corners where bulbouts may be constructed to widen the sidewalk.

- **Option 2**
  Segment I Option 2 would remove one travel lane in each direction, remove the existing median, and install Class II bicycle lanes in both directions and a center two-way left-turn lane. This option would not involve parking removal.

Segment II of the Cesar Chavez Street section of Project 5-6 would extend between Valencia Street and Guerrero Street and includes two design options:

- **Option 1**
  Segment II Option 1 would remove one through travel lane in each direction, remove or relocate the existing median, and install Class II bicycle lanes in both directions. This option would remove 5-8 parking spaces, typically at corners where bulbouts may be constructed to widen the sidewalk.

- **Option 2**
  Segment II Option 2 would remove one through travel lane in the eastbound direction and a left turn lane in the westbound direction, maintain or widen the existing median, and install Class II bicycle lanes in both directions. This option would also install a Class II bicycle left turn lane in the eastbound intersection approach to Valencia Street. This option would not involve parking removal.

Segment III of the Cesar Chavez Street section of Project 5-6 would extend from Guerrero Street to Sanchez Street, and has two design options.

- **Option 1**
  Segment III Option 1 would install sharrows in both directions to the existing Class III bicycle route along Segment III. This option would not change the lane configuration and would not involve travel lane or parking removal.

- **Option 2**
  Segment III Option 2 would install sharrows in both directions to the existing Class III bicycle route along Segment III. This option would change the lane configuration in the eastbound intersection approach to Guerrero Street to a left turn lane and a through-right turn lane. This option would not involve travel lane or parking removal.

  The 26th Street section of Project 5-6 would establish a new Class III bicycle route with sharrows in both directions on 26th Street between Hampshire Street and Sanchez Street. Project 5-6 would result in the loss of approximately four parking spaces per block (approximately 76 total spaces), typically at the corners, where bulb-outs and chokers would be installed to calm traffic. This option would not involve travel lane removal.

PROJECT 5-7: GLEN PARK AREA BICYCLE LANES, (A) CONNECTION BETWEEN ALEMANY BOULEVARD AND SAN JOSE AVENUE AND (B) CONNECTION BETWEEN MONTEREY BOULEVARD AND SAN JOSE AVENUE

a. Connection between Alemany Boulevard and San Jose Avenue via Arlington Street, Bosworth Street, Lyell Street, Milton Street, Rousseau Street, and Still Street

Project 5-7a would add a new route to the City's existing bicycle route network on northbound Milton Street between Bosworth Street and San Jose Avenue.

Project 5-7a would involve the installation of Class II and Class III bicycle facilities along portions of existing Bicycle Route 45 and existing Bicycle Route 55 to close a gap between the existing bicycle lanes on San Jose Avenue and Alemany Boulevard on both sides of the I-280 Freeway and to provide a better connection for bicyclists to the Glen Park BART Station. Project 5-7a includes two design options:

Both options would add a southbound Class II bicycle lane on Arlington Street between Wilder Street and Bosworth Street by removing approximately 11 parking spaces on the east side of the street, add sharrows on eastbound Bosworth Street between Diamond Street and the I-280 on-ramp, add an eastbound Class II bicycle lane on Bosworth Street between the I-280 on-ramp and Lyell Street by removing approximately 36 parking spaces on the west side of the street, add a westbound Class II bicycle lane on Bosworth Street between Lyell Street and Arlington Street by narrowing the travel lanes, add a westbound Class II bicycle lane on Bosworth Street between Arlington Street and Diamond Street by removing nine metered parking spaces, add sharrows on westbound Bosworth Street approaching Diamond Street, add a northbound Class II bicycle lane on Lyell Street between Still Street and Bosworth Street by narrowing the travel lanes and the medians as needed, add an eastbound Class II bicycle lane on Bosworth Street between Lyell Street and Milton Street, including a left-turn bicycle lane approaching Milton Street, by narrowing the travel lanes, and add sharrows on northbound Milton Street between Bosworth Street and San Jose Avenue.

- **Option 1**
  Project 5-7a Option 1 would add a southbound Class II bicycle lane on Lyell Street between Still Street and Cayuga Avenue by narrowing travel lanes, and add southbound Class II bicycle lanes on Lyell Street between Cayuga Avenue and Alemany Boulevard

by removing one of the two southbound left-turn lanes approaching Alemany Boulevard.

Project 5-7a Option 1 would also add a northbound Class II bicycle lane on Rousseau Street between Alemany Boulevard and Cayuga Avenue by narrowing travel lanes, add a northbound Class II bicycle lane on Rousseau Street between Cayuga Avenue and Still Street by removing approximately three parking spaces on the east side of Rousseau Street, and add a westbound Class II bicycle lane on Still Street between Rousseau Street and Lyell Street by narrowing travel lanes. Option 1 would remove a total of approximately 59 parking spaces.

- **Option 2**

  Project 5-7a Option 2 would move northbound Bicycle Route #45 from Alemany Boulevard between Lyell Street and Rousseau Street, Rousseau Street between Alemany Boulevard and Still Street, and Still Street between Rousseau Street and Lyell Street to northbound Lyell Street between Alemany Boulevard and Still Street. Option 2 would add a southbound Class II bicycle lane on Lyell Street between Still Street and Cayuga Avenue by removing approximately seven parking spaces on the west side of Lyell Street, and add sharrows on southbound Lyell Street between Cayuga Avenue and Alemany Boulevard.

  Project 5-7a Modified Option 2 would also add a left-turn bicycle lane on eastbound Alemany Boulevard approaching Lyell Street by narrowing the median and changing the existing left-turn restriction to allow bicycle left-turns, remove the existing left-turn bicycle lane on eastbound Alemany Boulevard approaching Rousseau Street and add approximately seven parking spaces along the south side of Alemany Boulevard, add a northbound contra-flow Class II bicycle lane on Lyell Street between Alemany Boulevard and Still Street by removing one of the two southbound left-turn lanes approaching Alemany Boulevard, and create a channel in the median island at the intersection of Lyell and Still Streets to allow northbound bicycle travel. Project 5-7a Modified Option 2 would add stop controls on eastbound Still Street approaching Lyell Street. Project 5-7a Option 2 would remove a total of approximately 66 parking spaces.

b. Connection between Monterey Boulevard and San Jose Avenue via Monterey Boulevard and San Jose Avenue ramps

Project 5-7b would add a new route to the City's existing bicycle route network.

Project 5-7b would involve the installation of Class I, Class II, and Class III bicycle facilities to close a gap between the existing bicycle lanes on San Jose Avenue, existing Bicycle Route 45, and the existing Class III bicycle Route 70 on Circular Avenue.

In the southbound direction, Project 5-7b would extend the existing Class II bicycle lane on San Jose Avenue approaching the Arlington Street off-ramp to Diamond Street by installing a Class II bicycle lane along the Arlington Street off-ramp, installing a Class I bicycle path across the median island of San Jose Avenue to connect the Arlington Street and Monterey Boulevard off-ramps, and installing a Class II bicycle lane along the Monterey Boulevard off-ramp approaching Diamond Street. Sharrows would be added to the existing Class III bicycle route on Monterey Boulevard from Diamond Street to Circular Avenue.

In the northbound direction, Project 5-7b would install Class II bicycle lanes on Monterey Boulevard and San Jose Avenue from Circular Avenue to Milton Street by removing one travel lane from Circular Avenue to the San Jose Avenue freeway overpass. There would be no parking removal associated with Project 5-7b.

PROJECT 5-8: KANSAS STREET BICYCLE LANES, 23RD STREET TO 26TH STREET

Project 5-8 would involve the installation of Class II bicycle lanes in both directions on Kansas Street between 23rd Street and 26th Street.

Modified Project 5-8 would involve the installation of Class II bicycle lanes in both directions on Kansas Street between 23rd Street and 25th Street and a Class II bicycle lane in the northbound direction from 25th to 26th Streets. This project would add sharrows to the existing Class III bicycle route in the southbound direction from 25th Street to 26th Street.

PROJECT 5-9: OCEAN AVENUE BICYCLE LANES, ALEMANY BOULEVARD TO LEE AVENUE

Project 5-9 would involve the installation of Class II and Class III bicycle facilities in both directions on Ocean Avenue between Alemany Boulevard and Lee Avenue.

Project 5-9 is divided into two segments.

Segment I would extend from Alemany Boulevard to San Jose Avenue. Project 5-9 would install Class II bicycle lanes in both directions without parking or lane removal along Segment I.

Segment II would extend from San Jose Avenue to Lee Avenue. Segment II includes two design options:

- **Option 1**
  Segment II Option 1 would add a Class II bicycle lane in the westbound direction from San Jose Avenue to Phelan Avenue by removing approximately 24 parking spaces on the north side of the street and removing one of the westbound travel lanes from the I-280 Freeway southbound off-ramp to Phelan Avenue.

  Segment II Option 1 would add a Class II bicycle lane in the eastbound direction from Lee Avenue to the I-280 Freeway southbound on-ramp by removing approximately 25 parking spaces on portions of the south side of the street and removing one of the eastbound travel lanes from Geneva Avenue to 330 feet west of the I-280 Freeway northbound on-ramp. This option also would reconfigure the optional eastbound through/right turn lane approaching Geneva Avenue to a dedicated right-turn lane.

- **Option 2**
  Project 5-9 would provide a combination of Class II and Class III bicycle facilities on Ocean Avenue between Alemany Boulevard and Lee Avenue. The project design has been divided into two segments. Segment I extends between Alemany Boulevard and San Jose Avenue. Segment II extends between San Jose Avenue and Lee Avenue. One design option was analyzed in the Draft EIR for Segment I, and two design options were analyzed in the Draft EIR for Segment II. The preferred design for Project 5-9 is discussed below.

  Segment I – Ocean Avenue between Alemany Boulevard and San Jose Avenue
  The preferred design for Segment I of Project 5-9 is consistent with the option analyzed in the Draft EIR with the following changes. Sharrows would be implemented instead of bicycle lanes in the eastbound direction from San Jose Avenue to Cayuga Avenue and in the westbound direction from Alemany Boulevard to Cayuga Avenue. Bicycle lanes would be added to the remainder of this segment as presented in the Draft EIR.

  Segment II – Ocean Avenue between San Jose Avenue and Lee Avenue
  The preferred design for Segment II of Project 5-9 is consistent with the Option 2 analyzed in the Draft EIR with the following changes. Project 5-9 Segment II Modified Option 2 would not remove parking in the eastbound direction from Geneva Avenue to

the I-280 on-ramp except for seven spaces just east of Geneva Avenue. Project 5-9 Segment II Modified Option 2 would remove one eastbound travel lane from 135 feet east of Geneva Avenue to Howth Street and would add sharrows in the eastbound direction from Howth Street to San Jose Avenue. Project 5-9 Segment II Modified Option 2 would not remove parking in the westbound direction between San Jose Avenue and the I-280 on-ramp.

Project 5-9 Segment II Modified Option 2 would provide Class II bicycle lanes on Ocean Avenue in the eastbound direction from Lee Avenue to Harold Avenue, from Geneva Avenue to Howth Street, and from Cayuga Avenue to Alemany Boulevard, and in the westbound direction from Cayuga Avenue to approximately 115 feet east of the I-280 off-ramp. The modified project would provide sharrows in the remaining portions of Ocean Avenue within the project limits. The modified project would remove one eastbound travel lane from 135 feet east of Geneva Avenue to Howth Street. The modified project would remove parking on the south side of Ocean Avenue between Lee Avenue and Harold Avenue, between Geneva Avenue and 135 feet easterly, and would remove parking on the north side of Ocean Avenue between San Jose Avenue and 150 feet easterly, and between Geneva Avenue and 135 feet easterly.

Segment II Option 2 would add a Class II bicycle lane in the westbound direction from San Jose Avenue to the I-280 Freeway southbound off-ramp by removing approximately 20 parking spaces on the north side of the street. From the I-280 Freeway southbound off-ramp to Lee Avenue sharrows would be added in the westbound direction to the existing Class III bicycle route.

Segment II Option 2 would add a Class II bicycle lane in the eastbound direction by removing approximately 70 parking spaces from Lee Avenue to the I-280 northbound on-ramp. No travel lane would be removed under Segment II Option 2.

PROJECT 5-10: PHELAN AVENUE BICYCLE LANES, JUDSON AVENUE TO OCEAN AVENUE

Project 5-10 would involve the installation of Class II bicycle lanes in both directions on Phelan Avenue between Judson Avenue and Ocean Avenue. Project 5-10 would include installation of traffic signals at the intersections of Phelan Avenue and South Cloud Circle, Phelan Avenue and North Cloud Circle, and the new intersection of Phelan Avenue and Lee Avenue. Project 5-10 also would include adding bulb-outs and raised crosswalks along Phelan Avenue. Project 5-10 includes two design options:

- **Option 1**
  Option 1 would remove a travel lane in each direction and install Class II bicycle lanes in both directions and build raised median islands with left-turn pockets at intersections from Ocean Avenue to Judson Avenue. This design option is consistent with the Balboa Park Station Area Plan Draft EIR, which was released in October 2007.

- **Option 2**
  Option 2 would remove approximately 140 parking spaces and approximately 30 motorcycle parking spaces on Phelan Avenue to install Class II bicycle lanes in both directions. This option would not provide sidewalk bulb-outs at crosswalks. There would be no travel lane removal under Option 2.

PROJECT 5-11: POTRERO AVENUE AND BAYSHORE BOULEVARD BICYCLE LANES, 25TH TO CESAR CHAVEZ STREETS

Project 5-11 would involve the installation of Class II bicycle lanes in both directions on Potrero Avenue and Bayshore Boulevard between 25th Street and Cesar Chavez Street.

In the northbound direction, travel lanes would be narrowed to add a curbside Class II bicycle lane along Bayshore Boulevard from approximately 200 feet south of the intersection of Potrero Avenue and the US 101 off-ramp to this intersection. A northbound Class II bicycle lane exists on Potrero Avenue, beginning approximately 300 feet south of 25th Street. This Class II bicycle lane would be extended southerly to the intersection of Potrero Avenue and the US 101 off-ramp by removing approximately 20 parking spaces. In the southbound direction, a Class II bicycle lane exists on Potrero Avenue, but ends approximately 120 feet south of 25th Street. This Class II bicycle lane would be extended southerly to Cesar Chavez Street by narrowing travel lanes. No parking removal would be required to extend the southbound Class II bicycle lane.

PROJECT 5-12: SAGAMORE STREET AND SICKLES AVENUE BICYCLE LANES, ALEMANY BOULEVARD TO BROTHERHOOD WAY

Two design options were analyzed for Project 5-12 in the Draft EIR. The project would provide Class II bicycle lanes in both directions on Sagamore Street and Sickles Avenue between Alemany Boulevard and Brotherhood Way. The preferred design is consistent with design Option 1, with the following changes. The Project 5-12 Modified Option 1 would remove one westbound travel lane on Sagamore Street from 250 feet west of Plymouth Avenue to Orizaba Avenue, and add a two-way center left turn lane from Plymouth Avenue to Capitol Avenue. Project 5-12 Modified Option 1 would add a painted median from Capitol Avenue to 430 feet westerly. Project 5-12 Modified Option 1 would remove one eastbound travel lane on Sagamore Street from Capitol Avenue to 50 feet west of San Jose Avenue. Project 5-12 Modified Option 1 would remove nine parking spaces on the south side of Sagamore Street, east of Capitol Avenue.

Project 5-12 would involve the installation of Class II bicycle lanes in both directions on Sagamore Street and Sickles Avenue, between Alemany Boulevard and Brotherhood Way. Project 5-12 includes two design options:

- **Option 1**
  Option 1 would add a Class II bicycle lane in the westbound direction on Sagamore Street from Plymouth Avenue to Orizaba Avenue by narrowing the travel lanes from Plymouth Avenue to Capitol Avenue and removing one westbound travel lane from 250 feet west of Capitol Avenue to Orizaba Avenue. The westbound lane configuration approaching Orizaba Avenue would change to include a dedicated right turn lane onto Orizaba Avenue, a westbound lane approaching Brotherhood Way, and a westbound lane approaching Alemany Boulevard. The angled parking on the north side of Sagamore Street between Capitol Avenue and Orizaba Avenue would be converted to back-in-angled parking and would not result in parking loss.

Option 1 would add a Class II bicycle lane in the eastbound direction on Sagamore Street from Orizaba Avenue to Capitol Avenue by removing eight parking spaces just west of Capitol Avenue. There is an existing Class II bicycle lane on Sagamore Street in the eastbound direction from Capitol Avenue to 130 feet west of Plymouth Avenue. A Class II bicycle lane would be added on Sagamore Street from 130 feet west of Plymouth Avenue to Plymouth Avenue by removing an eastbound travel lane along that segment. In addition, a Class II bicycle lane would be added in the eastbound direction along Sickles Avenue from Plymouth Avenue to Alemany Boulevard by narrowing the traffic lane.

- **Option 2**
  Option 2 would add a Class II bicycle lane in the westbound direction from Plymouth Avenue to Capitol Avenue, similar to Option 1. From Capitol Avenue to Orizaba Avenue, a westbound Class II bicycle lane would be added by changing the parking layout and removing 15 parking spaces on the north side of Sagamore Street and creating a westbound right-turn pocket approaching Orizaba Avenue. In the eastbound direction from Orizaba Avenue to Alemany Boulevard a Class II bicycle lane would be added by removing 15 parking spaces on the south side of Sagamore Street. In addition, a Class II bicycle lane would be added in the eastbound direction along Sickles Avenue from Plymouth Avenue to Alemany Boulevard by narrowing the traffic lane.

PROJECT 5-13: SAN BRUNO AVENUE BICYCLES LANES, PAUL AVENUE TO SILVER AVENUE

Project 5-13 would involve moving a portion of the existing Bicycle Route #25 from Bayshore Boulevard onto San Bruno Avenue.

Project 5-13 would involve the installation of Class II bicycle lanes in both directions on San Bruno Avenue between Paul Avenue and Silver Avenue. Project 5-13 is divided into two segments.

Segment I would extend from Paul Avenue to Silliman Street and includes two design options:

- **Option 1**
  Segment I Option 1 would install Class II bicycle lanes in both directions between Paul Avenue and Silliman Street. The bicycle lanes would be provided between eight-foot wide parking and ten-foot wide travel lanes.

- **Option 2**
  Segment I Option 2 would install Class II bicycle lanes in both direction between Paul Avenue and Silliman Street. The bicycle lanes would be provided between seven-foot wide parking and eleven-foot wide travel lanes.

Segment II would extend from Silliman Street to Silver Avenue and includes one design option:

Class II bicycle lanes would be installed in both directions along Segment II by removing 22 parking spaces.

PROJECT 6-1: CLAREMONT BOULEVARD BICYCLE LANES, DEWEY BOULEVARD TO ULLOA STREET

Modified Project 6-1 would install a Class II bicycle lane in the northbound direction from Ulloa Street to Dewey Boulevard. In the southbound direction, Modified Project 6-1 would add sharrows to the existing Class III bicycle route from Dewey Boulevard to approximately 190 feet south of Ulloa Street and add a Class II bicycle lane from Ulloa Street to Portola Drive.

This project would remove parking on the west side of Claremont Boulevard from Portola Drive to approximately 85 feet northerly. A total of four parking spaces would be removed. Modified Project 6-1 would not involve travel lane removal.

PROJECT 6-2: CLIPPER STREET BICYCLE LANES, DOUGLASS STREET TO PORTOLA DRIVE

Project 6-2 would involve the installation of Class II and Class III bicycle facilities in both directions on Clipper Street and Diamond Heights Boulevard between Douglass Street and Portola Drive. Project 6-2 is divided into two segments.

Segment I would extend along Clipper Street between Diamond Heights Boulevard and Douglass Street and includes one design option:

Project 6-2 would install Class II bicycle lanes in both directions along Segment I by removing one travel lane in each direction and establishing a center two-way left-turn lane.

Segment II would extend along Diamond Heights Boulevard between the intersection of Clipper Street and Diamond Heights Boulevard and Portola Drive and includes one design option~~s~~:

> Segment II Option 1 would replace one westbound left-turn lane on Clipper Street approaching Portola Drive with a Class II left-turn bicycle lane. This option would also install a westbound Class II bicycle lane along the north curb on Clipper Street approaching Portola Drive. Sharrows would be added to the existing Class III bicycle route in the eastbound direction. This option would not involve parking removal.

> Segment II would add sharrows in both directions to the existing Class III bicycle route. This option would not involve travel lane or parking removal.

PROJECT 6-3: LAGUNA HONDA BOULEVARD BICYCLE LANES, PLAZA STREET TO WOODSIDE AVENUE

Two design options were analyzed for Project 6-3 in the Draft EIR. The preferred design is consistent with design Option 2, with the following changes. The limits of this project are now on Laguna Honda Boulevard between Clarendon Avenue and Woodside Avenue. This project would remove one travel lane in each direction on Laguna Honda Boulevard between Clarendon Avenue and Plaza Street, and remove one southbound travel lane from Forest Hill Station to Woodside Avenue. The project would also remove eight vehicular parking spaces and two motorcycle spaces. The refinement of Project 6-3 is referred to as Modified Option 2.

Project 6-3 would involve the installation of Class II bicycle lanes in both directions on Laguna Honda Boulevard between Plaza Street and Woodside Avenue. Project 6-3 includes two design options:

- **Option 1**
  Option 1 would install a Class II bicycle lane on Laguna Honda Boulevard in the northbound direction by removing one northbound travel lane from Woodside Avenue to approximately 320 feet north of Plaza Street. Option 1 would install a Class II bicycle lane in the southbound direction on Laguna Honda Boulevard by removing one southbound travel lane from 115 feet south of Plaza Street to Dewey Boulevard. Option 1 would also install a Class II left-turn bicycle lane on southbound Laguna Honda Boulevard approaching the Laguna Honda Boulevard/Dewey Boulevard intersection. Option 1 does not involve parking removal.

- **Option 2**
  Option 2 would install Class II bicycle lanes in both directions on Laguna Honda Boulevard by widening the roadway and narrowing portions of the median. Option 2 does not involve travel lane or parking removal.

PROJECT 6-4: LAGUNA HONDA BOULEVARD BICYCLE LANES, PORTOLA DRIVE TO WOODSIDE AVENUE

Modified Project 6-4 would narrow travel lanes and establish Class II bicycle lanes in both directions by removing approximately four parking spaces.

Modified Project 6-4 would also involve consolidation of three Muni bus stops on Laguna Honda Boulevard at Idora Avenue, Balceta Avenue, and Hernandez Avenue into one 80-foot bus zone in each direction resulting in a loss of eight parking spaces. Modified Project 6-4 would remove a total of 12 parking spaces.

Project 6-4 would narrow travel lanes and establish Class II bicycle lanes in both directions by removing approximately five parking spaces. Project 6-4 would also involve consolidation of three Muni bus stops on Laguna Honda Boulevard at Idora Avenue, Balceta Avenue, and Hernandez Avenue into one 80-foot bus zone in each direction. The proposed bus stop modification would remove approximately eight parking spaces.

PROJECT 6-5: PORTOLA DRIVE BICYCLE LANES, CORBETT AVENUE TO O'SHAUGHNESSY BOULEVARD

Project 6-5 would involve the installation of Class II bicycle lanes in both directions on Portola Drive between Corbett Avenue and the intersection of O'Shaughnessy Boulevard and Woodside Avenue.

This project would install a combination of bicycle lanes and sharrows on Portola Drive in both directions between Corbett Avenue and O'Shaughnessy Boulevard. One design option was analyzed in the Draft EIR. The preferred design is consistent with that option with the following changes. The modified project would install a Class II bicycle lane in the eastbound direction from approximately 350 feet east of O'Shaughnessy Boulevard to approximately 260 feet west of Corbett Avenue. Sharrows would be installed in the 350 foot and 260 foot-long segments at each end of the project limits where there would not be bicycle lanes.

In the eastbound direction, a Class II bicycle lane would be added to Portola Drive by narrowing travel lanes from 350 feet east of O'Shaughnessy Boulevard to approximately 260 feet west of Corbett Avenue.

In the westbound direction, a Class II bicycle lane would be added to Portola Drive by removing approximately four parking spaces and narrowing travel lanes from Corbett Avenue to Burnett Avenue. Project 6-5 would remove one westbound lane approaching Clipper Street. From Burnett Avenue to Twin Peaks Boulevard, a Class II bicycle lane would be added by narrowing travel lanes and adding sharrows. From Twin Peaks Boulevard to Woodside Avenue, a Class II bicycle lane would be added by removing one westbound left-turn lane approaching O'Shaughnessy Boulevard and adding sharrows.

Project 6-5 would remove approximately four parking spaces on the west side of Portola Drive on the far-side of Corbett Avenue, at a location where parking occupancy is relatively moderate.

This project would establish bus zones on Portola Drive at the following existing pole stop locations:

- South side, from 575 feet to 625 feet east of O'Shaughnessy Boulevard (mid-block);
- South side, from Glenview Drive to 80 feet easterly (far side, southeast corner);
- North side, from the east end of the driveway of 110 Portola Drive to 80 feet easterly (mid-block);
- North side, from Burnett Avenue to 80 feet westerly (far side, northwest corner); and
- North side, from Glenview Drive to 80 feet westerly (far side, northwest corner).

PROJECT 6-6: PORTOLA DRIVE BICYCLE LANES, O'SHAUGHNESSY BOULEVARD/WOODSIDE AVENUE TO SLOAT BOULEVARD/ST. FRANCIS BOULEVARD

Project 6-6 would provide a combination of Class II and Class III bicycle facilities in both directions of Portola Drive between O'Shaughnessy Boulevard/Woodside Avenue and Sloat Boulevard/ St. Francis Boulevard. Two design options were presented in the Draft EIR. The preferred design is consistent with design Option 2, with the following changes. The modified project would install a Class II bicycle lane in the northeast direction on Portola Drive from Sloat Boulevard to O'Shaughnessy Boulevard by narrowing the travel lanes and by removing approximately six parking spaces on the south side of Portola Drive along the traffic island at Miraloma Drive. The modified project would install a Class II bicycle lane in the southwest direction on Portola Drive from Woodside Avenue to Waithman Way by removing one left-turn lane approaching Fowler Avenue and by narrowing travel lanes between Sydney Way and Waithman Way. Sharrows would be installed to the existing Class III bicycle route in the southwest direction on Portola Drive between Waithman Way and Sloat Boulevard.

Project 6-6 would involve the installation of Class II and Class III bicycle facilities in both directions between the intersections of O'Shaughnessy Boulevard/Woodside Avenue and Sloat Boulevard/St. Francis Boulevard. Project 6-6 includes two design options:

- **Option 1**
  Option 1 would install a Class II bicycle lane in the northeast direction on Portola Drive as follows: from St. Francis Boulevard to Evelyn Way by removing approximately 240 parking spaces and from Evelyn Way to O'Shaughnessy Boulevard by removing one travel lane in the northeast direction.

  Option 1 would install a Class II bicycle lane in the southwest direction on Portola Drive as follows: from Woodside Avenue to Sydney Way/Fowler Avenue by removing one left-turn lane approaching Fowler Avenue from Sydney Way to Evelyn Way by narrowing travel lanes; and from Laguna Honda Boulevard to Waithman Way by narrowing travel lanes.

  Option 1 would add sharrows to the existing Class III bicycle route on Portola Drive in the southwest direction as follows: from Evelyn Way to Laguna Honda Boulevard and from Waithman Way to Sloat Boulevard.

- **Option 2**

  Option 2 would install a Class II bicycle lane in the northeast direction on Portola Drive from St. Francis Boulevard to Evelyn Way by narrowing travel lanes.

  Option 2 would install sharrows on the existing Class III bicycle route in the northeast direction on Portola Drive from Evelyn Way to Woodside Avenue.

  Option 2 would install sharrows on the existing Class III bicycle route in the southwest direction on Portola Drive as follows: from Woodside Avenue to Laguna Honda Boulevard and from Waithman Way to Sloat Boulevard.

  Option 2 would install a Class II bicycle lane in the southwest direction by narrowing travel lanes from Laguna Honda Boulevard to Waithman Way.

PROJECT 7-1: INTERSECTION IMPROVEMENTS AT 7TH AVENUE AND LINCOLN WAY

Modified Project 7-1 would involve further modifications at the intersection of 7th Avenue and Lincoln Way to allow northbound bicyclists to cross Lincoln Way. These modifications would involve the installation of a cut-through in the center of the raised median for northbound bicyclists, the installation of a 40 foot-long northbound bicycle-only-lane to the south of the intersection of 7th Avenue and Lincoln Way, and the installation of a bicycle loop detector and a bicycle traffic signal for northbound bicyclists. The bicycle lane would be implemented by restriping the existing travel lanes. There would be no travel lane removal associated with Modified Project 7-1.

PROJECT 7-2: 7TH AVENUE BICYCLE LANES, LAWTON STREET TO LINCOLN WAY

Project 7-2 would add a new route to the City's existing bicycle route network.

Project 7-2 would involve the installation of Class II and Class III bicycle facilities in both directions on 7th Avenue between Lawton Street and Lincoln Way.

Project 7-2 would install Class II bicycle lanes in both directions on 7th Avenue between Lawton Street and Judah Street by removing one southbound travel lane. From Lincoln Way to Judah Street, one travel lane would be converted to a center two-way left turn lane and sharrows[11] would be added in both directions.

PROJECT 7-3: GREAT HIGHWAY AND POINT LOBOS AVENUE BICYCLE LANES, EL CAMINO DEL MAR TO CABRILLO STREET

The limits of the modified project are from 48th Avenue/El Camino Del Mar to Fulton Street. The modified project would provide a Class II bicycle lane on Great Highway and Point Lobos Avenue, in the northbound and eastbound directions, respectively, from Fulton Street to 48th Avenue. Modified Project 7-3 would provide a Class II bicycle lane on Point Lobos Avenue in the westbound direction from El Camino Del Mar to approximately 725 feet westerly (at entrance to Sutro Heights parking lot). Modified Project 7-3 would provide a Class II bicycle lane on Great Highway in the southbound direction from approximately 575 feet north of Balboa Street (at entrance to parking lot on west side of street) to Balboa Street. Modified

[11] Sharrows are a traffic control device which consists of pavement markings within the traffic lane. The markings are intended to alert drivers that bicyclists share the traffic lane and also to reduce the chance of bicyclists impacting the open doors of parked vehicles. For more information on sharrows, please see http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd/ CAMUTCD-Part 9.pdf.

Project 7-3 would provide a Class III bicycle route on Balboa Street in both directions between Great Highway and La Playa Street, and on La Playa Street in both directions between Balboa Street and Cabrillo Street. The modified project is referred to as Modified Project 7-3.

Project 7-3 would involve the installation of Class II and Class III bicycle facilities in both directions on Great Highway and Point Lobos Avenue between Cabrillo Street and El Camino Del Mar.

Project 7-3 is divided into two segments:

Segment I would extend along Point Lobos Avenue to Great Highway from 48th Avenue/El Camino Del Mar to Balboa Street. Project 7-3 would install Class II bicycle lanes in both directions by removing one travel lane in each direction along Segment I. The southbound Class II bicycle lane would be discontinued approaching the downhill section of Point Lobos Avenue from approximately the Sutro Heights Parking lot to approximately 600 feet north of Balboa Street. The Class II southbound bicycle lane would continue on Great Highway from approximately 600 feet north of Balboa Street to Balboa Street. Sharrows would be added on the travel lane at this downhill section of the road. Project 7-3 would remove approximately ten parking spaces along Segment I.

Segment II would extend on Great Highway from Balboa Street to Cabrillo Street. Project 7-3 would install Class II bicycle lanes in both directions by narrowing the northbound travel lanes along Segment II. Project 7-3 would convert the painted buffer area between the southbound travel lanes and the parking area into a southbound Class II bicycle lane. Project 7-3 would provide a connection to the existing Class II bicycle lanes on Cabrillo Street through the Cabrillo Plaza. There would be no travel lane or parking removals along Segment II.

PROJECT 7-4: JOHN F. KENNEDY DRIVE AND KEZAR DRIVE BICYCLE LANES, FROM STANYAN STREET TO TRANSVERSE DRIVE

Project 7-4 would involve the installation of Class II bicycle lanes in both directions on John F. Kennedy Drive from Kezar Drive to Transverse Drive and on eastbound Kezar Drive between John F. Kennedy Drive and Stanyan Street in Golden Gate Park.

Modified Project 7-4 would add Class II bicycle lanes in both directions on John F. Kennedy Drive by narrowing existing travel lanes. A limited number of parking spaces would be removed along portions of John F. Kennedy Drive where the narrowing of travel lanes would not provide sufficient space to add Class II bicycle lanes. With the exception of striping for bicycle lanes, parking and travel lane changes that are required to create this bicycle lane have already been implemented by the Recreation and Park Department and the Golden Gate Park Concourse Authority as part of the John F. Kennedy Drive Bicycle & Pedestrian Improvements project after completion of a separate environmental review process and certification of an EIR.

Project 7-4 would convert the existing left-side shoulder next to the median on eastbound John F. Kennedy Drive approaching Kezar Drive to a left-side Class II bicycle lane. Project 7-4 would also convert the existing left-side shoulder next to the median on eastbound Kezar Drive between John F. Kennedy Drive and Stanyan Street to a left-side Class II bicycle lane.

PROJECT 7-5: KIRKHAM STREET BICYCLE LANES, 9TH AVENUE TO GREAT HIGHWAY

Project 7-5 would involve the installation of Class II bicycle lane s in both directions on Kirkham Street between 9th Avenue and Great Highway. Project 7-5 would be divided into six segments.

Segment I would include Kirkham Street between 9th Avenue and Funston Avenue, Kirkham Street between 17th Avenue and 18th Avenue, Kirkham Street between 20th Avenue and 36th Avenue, and Kirkham Street between 37th Avenue and Great Highway. The proposed option for this segment would involve installation of Class II bicycle lanes in both directions. The proposed option would not involve travel lane or parking removal.

Segment II would include Kirkham Street between Funston Avenue and 17th Avenue. The proposed option for this segment would involve installation of Class II bicycle lane s in both directions, with painted or raised pedestrian refuges added at the intersections. The proposal for this segment would not involve travel lane or parking removal. However, the travel lanes would be narrowed at the intersections to create the pedestrian refuge areas.

Segment III would include Kirkham Street between 18th Avenue and 19th Avenue. There are two design options for this segment:

- **Option 1**
  Segment III Option 1 would involve removal of approximately 10 parking spaces on the north side of Kirkham Street and installation of Class II bicycle lanes in both directions. This option would not involve travel lane removal.

- **Option 2**
  Segment III Option 2 would involve installation of a Class II bicycle lane in the eastbound direction and installation of sharrows along the existing Class III bicycle route in the westbound direction on Kirkham Street. This option would not involve travel lane or parking removal.

Segment IV would include Kirkham Street between 19th Avenue and 20th Avenue. There are two design options for this segment:

- **Option 1**
  Segment IV Option 1 would involve removal of approximately 12 parking spaces on the south side of Kirkham Street and installation of Class II bicycle lane s in both directions. This option would not involve travel lane removal.

- **Option 2**
  Segment IV Option 2 would involve installation of a Class II bicycle lane in the westbound direction and installation of sharrows along the existing Class III bicycle route in the eastbound direction on Kirkham Street. This option would not involve travel lane or parking removal.

Segment V would include Kirkham Street between 36th Avenue and Sunset Boulevard. There are two design options for this segment:

- **Option 1**
  Segment V Option 1 would involve removal of approximately four parking spaces on the north side of Kirkham Street and installation of Class II bicycle lane s in both directions. This option would not involve travel lane removal.

- **Option 2**
  Segment V Option 2 would involve installation of a Class II bicycle lane in the eastbound direction and installation of sharrows along the existing Class III bicycle route in the westbound direction on Kirkham Street. This option would not involve travel lane or parking removal.

Segment VI would be Kirkham Street between 37th Avenue and Sunset Boulevard. There are two design options for this segment:

- **Option 1**
  Segment VI Option 1 would involve removal of approximately four parking spaces on the south side of Kirkham Street and installation of Class II bicycle lane s in both directions. This option would not involve travel lane removal.

- **Option 2**
  Segment VI Option 2 would involve installation of a Class II bicycle lane in the westbound direction and installation of sharrows along the existing Class III bicycle facility route in the eastbound direction of Kirkham Street. This option would not involve travel lane or parking removal.

PROJECT 7-6: PAGE AND STANYAN STREETS INTERSECTION TRAFFIC SIGNAL IMPROVEMENTS

Project 7-6 would involve signalization of the intersection of Page and Stanyan Streets and would include other improvements, as described below.

The proposed signal at this intersection would facilitate pedestrian and bicycle access to the existing Class I pedestrian and bicycle multi-use path in Golden Gate Park, west of Stanyan Street. Improvements would include new traffic signals and improved curb ramps. Project 7-6 would not remove any travel lanes or parking.

PROJECT 8-1: 19TH AVENUE MIXED-USE PATH, BUCKINGHAM WAY TO HOLLOWAY AVENUE

Project 8-1 would add a new route to the City's existing bicycle route network.

Project 8-1 would involve the installation of a two-way Class I bicycle path between Buckingham Way and Holloway Avenue, either along the west side of 19th Avenue or through the San Francisco State University (SFSU) campus. Project 8-1 includes two design options:

- **Option 1**
  Option 1 would add a two-way Class I bicycle path along the west side of 19th Avenue between Buckingham Way and Holloway Avenue by removing approximately 45 vehicle and 35 motorcycle parking spaces and by shifting the existing sidewalk westerly into the SFSU campus right-of-way. Approximately 300 feet north of Holloway Avenue, the path would shift westerly into the campus to avoid conflicts with the existing transit stop and main pedestrian entrance to campus, and would terminate at Holloway Avenue near Cardenas Avenue.

- **Option 2**
  Option 2 would add a two-way Class I bicycle path through the SFSU campus between Buckingham Way and Holloway Avenue, as called for in the SFSU Campus Master Plan. Long-term SFSU plans include building a new bicycle and pedestrian bridge with a 32-foot wide deck through SFSU. The proposed bridge would connect the student housing complex University Park North, with the north side of Thornton Hall. The proposed bridge would provide two 10-foot sidewalks for pedestrians and two 6-foot Class I unidirectional bicycle paths for bicyclists.

PROJECT 8-2: BUCKINGHAM WAY BICYCLE LANES, 19TH AVENUE TO 20TH AVENUE

Modified Project 8-2 would involve the installation of sharrows to the existing Class III bicycle route in the westbound direction on Buckingham Way between 19th Avenue and 20th Avenue.

Project 8-3: Holloway Avenue Bicycle Lanes, Junipero Serra Boulevard to Varela Avenue

Project 8-3 would involve the installation of Class II bicycle lanes in both directions on Holloway Avenue between Junipero Serra Boulevard and Varela Avenues. Project 8-3 includes two design options:

- **Option 1**
  Option 1 would remove one travel lane in each direction and install Class II bicycle lanes in both directions on Holloway Avenue.

- **Option 2**
  Option 2 would install Class II bicycle lanes in both directions by removing approximately 50 parking spaces on Holloway Avenue between Junipero Serra Boulevard and 19th Avenue and removing approximately seven parking spaces on the south side of Holloway Avenue between 19th and Varela Avenues. The eastbound Holloway Avenue approach to 19th Avenue would be striped with a Class II bicycle lane, one shared through-right traffic lane, and one left-turn only lane.

PROJECT 8-4: JOHN MUIR DRIVE BICYCLE LANES, LAKE MERCED BOULEVARD TO SKYLINE BOULEVARD

Project 8-4 would involve the installation of Class II bicycle lanes in both directions on John Muir Drive between Lake Merced Boulevard and Skyline Boulevard.

Project 8-4 would add continuous Class II bicycle lanes in both directions. Project 8-4 would involve modifying the existing parking on the south side of John Muir Drive by implementing back-in angled parking. Project 8-4 would not involve travel lane or parking removal.

PROJECT 8-5: SLOAT BOULEVARD BICYCLE LANES, GREAT HIGHWAY TO SKYLINE BOULEVARD

Project 8-5 would involve the installation of Class II bicycle lanes in both directions on Sloat Boulevard between Great Highway and Skyline Boulevard.

Project 8-5 would remove one travel lane in the westbound direction between Skyline Boulevard and Lower Great Highway and remove one travel lane in the eastbound direction from Lower Great Highway to 41st Avenue. There would be no parking loss associated with Project 8-5.

Project 8-5 would include the installation of a bicycle box at the intersection of Sloat Boulevard at Great Highway in the westbound direction. A bicycle box is a striping treatment that includes a Class II bicycle lane leading to a box situated in advance of a crosswalk, with an advance stop limit bar for motor vehicles to allow bicyclists to move in front of a queue of motor vehicle traffic and position themselves for a through or left-turn movement during a red signal.

On the eastbound approach to Skyline Boulevard, Project 8-5 would establish a “Right Lane Must Turn Right Except for Muni” regulation on Sloat Boulevard from 350 feet west of Skyline Boulevard to Skyline Boulevard. Project 8-5 would convert a Muni bus stop on eastbound Sloat Boulevard at Skyline Boulevard into a bus zone and would relocate the westbound mid-block bus zone at Sloat Boulevard and Lower Great Highway to 47th Avenue.

Project 8-5 would establish a “Right Lane Must Turn Right Except for Muni” regulation for westbound Sloat Boulevard between 37th Avenue and 39th Avenue, reducing the through movement to one travel lane. This would allow the addition of a westbound bicycle lane on Sloat Boulevard beginning at 37th Avenue.

PROGRAM-LEVEL REVIEW

Program-level review is used in environmental analyses for a series of actions that can be characterized as one large project because they are logically related. The series of actions can be related geographically or be logical parts in the chain of contemplated actions. Program-level review is used in connection with issuance of rules, plans, or other general criteria to govern the conduct of a continuing program.

Programmatic review also is appropriate for individual activities carried out under the same authorizing statutory or regulatory authority, that have generally similar environmental effects which can be mitigated in similar ways (CEQA Guidelines, Section 15168).

Program-level review has been selected as the appropriate level of CEQA review for this revision to the San Francisco Bicycle Plan, as well as amendments to the *General Plan, Planning Code*, and the *Transportation Code,* because the Bicycle Plan generally promulgates policies and goals that would result in a logical series of contemplated actions to further enhance and encourage bicycling within the City. Adoption and implementation of the Bicycle Plan would be accompanied by amendments to the *General Plan, Planning Code*, and the *Transportation Code* to reflect the updated Bicycle Plan and implement its policies.

1. Policy Actions

Program-level review has been used to analyze proposed policy actions that would be adopted as part of the approvals of the Bicycle Plan. These policies would have an impact on the future direction and implementation of improvements throughout the City’s bicycle route network, and would also affect areas currently outside of the bicycle network, which could be affected by future bicycle route network changes. The implementation of specific projects, which may be carried out in response to these policies, may require future project-level review and environmental analysis. While the adoption of the policy may not appear to have the potential to cause direct or indirect impacts to the physical environment, future policy-based projects could include alterations with a potential to affect the environment. Such projects would require environmental analysis prior to their approval, unless the specific project in question has been analyzed as a part of the current Bicycle Plan EIR, or as a part of some other approved environmental plan document.

2. Long-Term Improvements

Program-level review has been used to analyze proposed long-term improvements that would be adopted as part of the Bicycle Plan. Long-term improvement projects are either major improvements to segments of the existing bicycle route network or are potential future additions of new streets and pathways to the bicycle route network and may require additional environmental review in the future. Specific designs for these projects have not been developed as of publication of this document. These proposed long-term improvements include a wide range of potential design features that would, in accordance with the goals of the Bicycle Plan, enhance the overall connectivity and safety of the bicycle route network for bicyclists and help increase bicycle use. Development of the proposed long-term improvements takes into account ongoing efforts being conducted by SFMTA (such as the Transit Effectiveness Project, the Better Streets Plan, and the Traffic Calming Program) to accommodate the needs of all modes of travel within the street network.

The impacts of these future improvements are evaluated at a program level in this analysis with regard to the Proposed Project footprint (the affected street right-of-way and park land, as indicated in Figure IV.B.1-1: Project Location and Site Plan, p. IV.B-5) and may require further project-level analysis that would consider the potential environmental impacts of these improvements in a separate environmental review process, once specific project designs are developed.

The anticipated long-term improvements, which are encompassed by the present environmental review, include elements such as the following:

- Installation of bicycle lanes, pathways or other bicycle facilities, including those created in conjunction with the narrowing or removal of travel lanes;
- Signage changes;
- Pavement marking such as the installation of colored pavement materials and the installation of sharrows;

- Modifications to bus zones;
- Modifications to parking configurations such as changes to the location, configuration, and number of metered and unmetered parking spaces and loading zones;
- Changes to the locations and configurations of curb cuts sidewalks and medians;
- Widening of roadways;
- Reconfiguration of intersections to improve bicycle crossings, including installation of bicycle traffic signals;
- The installation of traffic calming devices, including designation of bicycle boulevards that prioritize bicycle travel over other transportation modes; and,
- Designation of shared bicycle and transit lanes.

The street segments included as part of the long-term improvements, in relation to the existing bicycle route network and proposed near-term improvements, are indicated on p. V.A.5-1. The long-term improvements include the following street segments (numbered according to the sequence of their discussion in this document):

- L-1: Battery Street between Clay Street and The Embarcadero
- L-2: Fisherman's Wharf Bay Trail Improvements in the vicinity of Fisherman's Wharf and Hunters Point
- L-3: Hunters Point Bay Trail Improvements
- L-4: Bayview Transportation Improvement Project (BTIP)
- L-5: Brotherhood Way between Arch Street and Lake Merced Boulevard
- L-6: Capp Street between 15th Street and 26th Street
- L-7: Geary Boulevard Corridor between 25th Avenue and Divisadero Street
- L-8: Golden Gate Avenue between Baker Street and Market Street
- L-9: Harold Avenue between Holloway Avenue and Ocean Avenue
- L-10: Holloway Avenue between Harold Avenue and Junipero Serra Boulevard
- L-11: Industrial Street between Loomis Street and Oakdale Avenue
- L-12: Jennings Street between Cargo Way and Evans Street
- L-13: Lee Avenue between Holloway Avenue and Phelan Avenue

- L-14: Mansell Street/Persia Avenue between Ocean Avenue and University Street
- L-15: Mendell Street between Oakdale Avenue and Palou Avenue
- L-16: Mission Creek Bikeway between Fourth Street and Harrison Street
- L-17: Monterey Boulevard Corridor between Circular Avenue and Gennessee Street
- L-18: Monterey Boulevard between Junipero Serra Boulevard and San Benito Way
- L-19: Oak Street between Baker Street and Scott Street
- L-20: O'Farrell Street between Market Street and Polk Street
- L-21: Pier 70 between 18th Street and 22nd Street
- L-22: Shotwell Street between 14th Street and 26th Street
- L-23: Stanyan Street between Frederick Street and Fulton Street
- L-24: Connection to Transbay Transit Center

The City is currently working with the Bayview Hunters Point community (BVHP) to develop plans to reduce truck traffic along Third Street and in the surrounding residential areas. This effort has resulted in development of the Bayview Transportation Improvements Project (BTIP) which is listed above.[12] Currently, the BTIP includes consideration of several truck route alternatives referred to as Build Alternatives. Each Build Alternative consists of one (1) northern and one (1) southern truck route alignment. Preliminary analysis has resulted in four (4) southern and two (2) northern build alternatives, which are undergoing environmental review in a separate process from this one. The BTIP Build Alternatives propose several changes to the bicycle route network to reduce conflicts between bicyclists and trucks on streets that are proposed as designated truck routes. The bicycle route network changes associated with the BTIP will be analyzed at a program-level in this analysis and are summarized below.

For all BTIP Northern Build Alternatives:

Proposed relocation of Bicycle Route #805:

From: Arelious Walker Drive (between Carroll and Gilman Avenues) and Carroll Avenue (between Arelious Walker Drive and Jennings Street).

To: Gilman Avenue (between Arelious Walker Drive and Jennings Street) and Jennings Street (between Gilman and Carroll Avenues).

[12] For more information regarding the BTIP, please see http://www.bayviewtrans.org.

For all BTIP Southern Build Alternatives:

Proposed bicycle lanes on Gilman Avenue between Donahue Street and Arelious Walker Drive.

Proposed bicycle lanes on Harney Way Extension between Jamestown Avenue and Gilman Avenues.

Proposed bicycle lanes on Jamestown Avenue Extension and Hunters Point Expressway.

Proposed bicycle lanes on Alana Way between US 101 and Harney Way.

Proposed bicycle lanes on Harney Way between Alana Way and Jamestown Avenue.

For BTIP S1-Walker Bridge Build Alternative:

Proposed bicycle lanes on Arelious Walker Drive Extension between Bancroft Avenue and Crisp Avenue.

Proposed bicycle lanes on Crisp Avenue between Arelious Walker Drive Extension and Spear Street.

Proposed bicycle path along Crisp Avenue right-of-way between the intersection of Palou/Griffith and Arelious Walker Drive Extension.

For BTIP S2-Griffith Bridge and S3-Ingalls Street Build Alternatives:

Proposed bicycle lanes on Crisp Avenue between the intersection of Palou Avenue/Griffith Street and Spear Street.

For BTIP S4-Underwood Avenue Build Alternative:

Proposed bicycle lanes on Underwood Avenue between Hawes Street and Arelious Walker Drive Extension.

Proposed bicycle lanes on Crisp Avenue between Arelious Walker Drive Extension and Spear Street.

Proposed bicycle path along Crisp Avenue right-of-way between the intersection of Palou Avenue/Griffith Street and Arelious Walker Drive Extension.

As indicated above, specific designs of these long-term improvement projects have not been developed, and no schedule currently exists for implementation. Implementation of the long-term improvements would include developing preliminary designs and options, public comment on the options, assessment of potential impacts of the designs, appropriate environmental review, and implementation. The impacts of the long-term improvements are evaluated in this chapter at a program level, and may require additional project-level analysis prior to approval.

3. Minor Improvements

Program-level review also is provided for minor improvements. Minor improvements would include minor pavement marking and signage changes to improve bicycle travel, such as the installation of colored pavement materials, the installation of sharrows (shared roadway bicycle markings illustrated in Figure IV.D.1-1, Illustration of Sharrows, p. IV.B-56),[13] minor changes to parking and traffic lane configurations, minor changes to intersection traffic signal timing plans, the installation of bicycle boxes[14] at certain intersections, and bicycle parking within the public right-of-way, including bicycle racks on sidewalks meeting certain criteria. These improvements would require minimal physical modifications to the roadway. The aim of this analysis is to provide program-level environmental review of these types of minor physical modifications such that they may be implemented with minimal, if any, additional CEQA documentation.

PROJECT SCHEDULE

Near-term improvements would be implemented within the five years following approval of the San Francisco Bicycle Plan and project-specific approvals, which cannot occur until completion of the environmental review process and the lifting of the Superior Court's injunction. No schedule currently exists for the long-term improvements or minor improvements. However, it is anticipated that minor improvements would be implemented as necessary, following approval of the Proposed Project and the lifting of the Superior Court's injunction.

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13 Sharrows are a traffic control device which consists of pavement markings within the traffic lane. The markings are intended to alert drivers that bicyclists share the traffic lane and also to reduce the chance of bicyclists impacting the open doors of parked vehicles. For more information on sharrows, please see http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd/CAMUTCD-Part 9.pdf.

14 Bicycle boxes are striped waiting areas for bicyclists situated behind a crosswalk and in front of a motor vehicle stop bar where a bicycle lane approaches a signalized intersection. Bicycle boxes allow bicyclists approaching an intersection in a bicycle lane to move to the front of a queue of motor vehicles and position themselves for turning movements at the intersection. Bicycle boxes include a stenciled bicycle marking and are generally accompanied by signs communicating where bicycles and motor vehicles should stop.

SAN FRANCISCO BICYCLE PLAN PROJECT

FIGURE IV.D.1-1: ILLUSTRATION OF SHARROWS

D. INTENDED USES OF THE EIR

The Proposed Project would not require any variances, special authorizations, or changes to the City zoning maps. After certification of the EIR by the San Francisco Planning Commission (CPC), and any appeal to the San Francisco Board of Supervisors (BOS), approvals would be required for the Proposed Project. These approvals are listed here:

- Approval of Bicycle Plan by the San Francisco Municipal Transportation Agency (SFMTA) Board of Directors and the BOS
- Recommendation by the CPC and approval by the BOS of amendments to the *General Plan* and *Planning Code*
- Recommendation by the SFMTA Board of Directors and approval by the BOS of amendments to the *Transportation Code*
- Legislation from BOS and/or SFMTA action to implement specific projects
- Approval of the Recreation and Park Commission for implementation of certain bicycle improvements on RPD lands
- Certification by the Metropolitan Transportation Commission (MTC) that the Bicycle Plan complies with state requirements and approval by Caltrans that would qualify San Francisco to receive state Bicycle Transportation Account Funds

As noted above, long-term improvements are evaluated in this EIR at a program-level. Impacts of these improvements are evaluated with regard to the Proposed Project footprint, and may require further project-level analysis in separate environmental review processes once specific project descriptions are developed. Near-term improvements analyzed at a project-level would not require further environmental analysis.

E. PLANS AND POLICIES

This section provides a summary of the plans and policies of the City and County of San Francisco (City), and regional, state, and federal agencies that have policy and regulatory control over the project site, namely, the City of San Francisco. These plans and policies include the *San Francisco Planning Code*, the *San Francisco General Plan* and applicable *San Francisco Area Plans*, the *Better Streets Plan*, the *Sustainability Plan for the City of San Francisco*, the *Bay Area Air Quality Plan*, the *San Francisco Regional Water Quality Control Board Basin Plan*, the *San Francisco Transportation Code*, area-wide waste treatment plans, regional housing allocation plans, local and regional habitat conservation plans and natural community conservation plans, the *San Francisco Bay Plan*, and coastal zone protection plans.

SAN FRANCISCO PLANS AND POLICIES

SAN FRANCISCO PLANNING CODE

The San Francisco *Planning Code* (*Planning Code*), which incorporates by reference the City's Zoning Maps, implements the *General Plan* and governs permitted uses, densities, and configuration of buildings within the City. Permits to construct new buildings (or to alter or demolish existing ones) may not be issued unless (1) the proposed project conforms to the *Planning Code*, (2) allowable exceptions are granted pursuant to provisions of the *Planning Code*, or (3) amendments to the *Planning Code* are included as part of the project.

The Bicycle Plan Project would not change any zoning, height or bulk district provisions under the *Planning Code*. However, the San Francisco Planning Code includes parking provisions which would be altered under the Bicycle Plan Project. These include required parking ratios for new construction, specification of the modes of transportation (e.g., automobiles, bicycles, or other) for which parking must be provided under new development projects, provisions for the location of bicycle parking in projects, and allowances for parking reductions based on various project parameters. The Bicycle Plan Project would require amendments to the *Planning Code*, to alter the requirement for new development. Among other changes, under the *Planning Code* amendments, a certain level of bicycle parking would be required in new development projects; bicycle parking would be distributed more evenly across large development projects instead of centralized in a single location; and automobile parking ratios may be reduced if bicycle parking is provided in lieu of some vehicle parking. The Bicycle Plan Project does not contradict provisions of the *Planning Code*, but does propose these amendments, so does vary from the *Planning Code.* These variances are not so substantial as to alter the overall intent, purpose, and meaning of the *Planning Code.*

SAN FRANCISCO GENERAL PLAN

The *San Francisco General Plan (General Plan)* is the comprehensive, long-term plan containing general policies and objectives to guide land use decisions. The *General Plan* includes the following elements: *Air Quality; Arts; Commerce and Industry; Community Facilities; Community Safety; Environmental Protection; Housing; Recreation and Open Space;* and *Transportation and Urban Design*. In addition to the *General Plan*, some areas of the City are also addressed in Area Plans adopted as part of the *General Plan*. Area Plans exist for eleven areas, including Bayview

Hunters Point, Central Waterfront, Chinatown, Civic Center, Downtown, Market and Octavia, Northeastern Waterfront, South of Market, Rincon Hill, Van Ness Avenue, and Western Shoreline.

The compatibility of the proposed project with *General Plan* policies that do not relate to physical environmental issues will be considered by decision-makers as part of their decision whether to approve or disapprove the proposed project. Any potential conflicts identified as part of the process would not alter the physical environmental effects of the proposed project. Applicable objectives and policies of the *General Plan* are presented below.

Air Quality Element

The *Air Quality Element* is intended to serve as a guide to ensure that air quality is given high priority in San Francisco, and that the City's population is thereby protected from adverse health and other impacts of air pollution.[15] This Bicycle Plan Project EIR includes a detailed analysis of potential air impacts, and finds that this project would have no significant impacts on air quality. Therefore, this project would not contradict the goals of the *Air Quality Element* of the *General Plan*.

Arts Element

The *Arts Element* is intended to strengthen the arts in San Francisco; validate and increase the role of the arts as a major economic force in the region; and otherwise identify, guide, legitimize, protect, and strengthen the arts and the future of the arts in the City.[16] The Bicycle Plan Project would have no effect on the arts, and is therefore consistent with the goals of the *Arts Element* of the *General Plan*.

Commerce and Industry Element

The *Commerce and Industry Element* focuses on supporting the City's overall economic development activities, to achieve economic vitality, social equity, and environmental quality.[17] There are no bicycle-related goals or objectives in the *Commerce and Industry Element*, and the Bicycle Plan Project would not have direct effects on commerce or economic development in the City. The Bicycle Plan Project would not contradict any of the goals or policies of this element of the *General Plan*.

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15 City and County of San Francisco, Air Quality Element, as amended through May 2008.

16 City and County of San Francisco, Arts Element, as amended through May 2008.

17 City and County of San Francisco, Commerce and Industry Element, as amended through May 2008.

Community Facilities Element

The *Community Facilities Element* summarizes City goals and priorities for Police services, Neighborhood Center facilities, Fire services, Libraries, Public Health facilities, Educational facilities, Institutional facilities, Wastewater, and Solid Waste facilities.[18] The Bicycle Plan Project would not increase or otherwise alter the form or level of demand on any of these facilities or services. The Bicycle Plan Project is therefore consistent with this *Community Facilities Element.*

Community Safety Element

The *Community Safety Element* is established to protect citizens from loss of life, injury, property loss, environmental damage, and social or economic disruption as a result of natural or technological disasters.[19] The Bicycle Plan Project would neither induce, nor affect the severity of natural or technological disasters (e.g. earthquakes). The implementation of a City-wide Emergency Operations Plan (specifically, movement of emergency vehicles around the City) is the only part of the *Community Safety Element* with the potential to be affected by implementation of the Bicycle Plan Project. Where intersection levels-of-service and signal timing would be affected by this Bicycle Plan Project, emergency vehicles would take precedence over both signalization and existing traffic flows, so could travel around any slowing at particular intersections. Therefore, the Bicycle Plan Project would not be inconsistent with the *Community Safety Element* of the *General Plan.*

Environmental Protection Element

The *Environmental Protection Element* has the goal of protecting what is not man-made in the environment. This element identifies several specific goals, including the elimination of pollution, and the conservation and management of energy in the City's transportation sector.[20] As is established in the analysis provided in this EIR, the Bicycle Plan Project would attempt to reduce personal automobile use, and replace this use with a combination of alternative modes with a particular emphasis on bicycling for commute and other transportation purposes. This could lead to a reduction in air pollution, as reduced vehicle use will lead to a reduction in vehicle-produced air pollutants. The conservation and management of transportation-related energy would also be accomplished by the Bicycle Plan Project's goal of replacing automobile

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18 City and County of San Francisco, Community Facilities Element, as amended through May 2008.
19 City and County of San Francisco, Community Safety Element, as amended through May 2008.
20 City and County of San Francisco, Environmental Protection Element, as amended through May 2008.

travel with bicycle travel. The Bicycle Plan Project would support, and could help to effectuate, the goals of the *Environmental Protection Element* of the *General Plan*.

Housing Element

San Francisco's *Housing Element* attempts to identify existing housing need, and propose ways to fill that need.[21] Implementation of the Bicycle Plan Project would have no effect on the level of the City's housing needs, or on the manner in which these needs are satisfied.

Recreation and Open Space Element

The *Recreation and Open Space Element* summarizes goals and policies that will provide for the repair, renovation, and maintenance of the City's parks, recreation facilities, and open space, both in park areas with a regional draw (such as Golden Gate Park), and in neighborhood park areas.[22] The Bicycle Plan Project would have no detrimental effect on the City's ability to retain, repair, maintain, and otherwise renovate existing or future park facilities. The Bicycle Plan Project would provide for the maintenance of open space alongside bicycle pathways and would, thereby, help to ensure the maintenance of some open spaces within the City.

Transportation Element

The *Transportation Element* has nine objectives, all of which focus on building a balanced, multi-modal transportation system that includes public transit, ridesharing, automobiles, bicycles, and pedestrians.[23] These nine objectives are discussed below.

Objective 1: Meet the needs of all residents and visitors for safe, convenient and inexpensive travel within San Francisco and between the City and other parts of the region while maintaining the high quality living environment of the Bay Area.

Objective 1 support transit use, safe pedestrian circulation, and includes several bicycle-specific policies:

Policy 1.3: "Give priority to **public transit and other alternatives to the private automobile as the means of meeting** San Francisco's transportation needs…" [text bolded by EIR author].

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21 City and County of San Francisco, Housing Element, as amended through May 2008.

22 City and County of San Francisco, Recreation and Open Space Element, as amended through May 2008.

23 City and County of San Francisco, Transportation Element, as amended through May 2008.

Policy 1.6: "Ensure choices among modes of travel and accommodate each mode when and where it is most appropriate…" Policy 1.3 notes that bicycling should be given priority for trips including (a) in parks, on trails, and on roads of particular scenic beauty; (b) for work trips generally within San Francisco; (c) where concentration of activity is high, such as where streets are narrow; (d) in neighborhood commercial districts; (e) for trips to sports, cultural, or other heavily attended events; (f) as a connector to and from transit, especially regional transit; and (g) where large numbers of people with limited means or low auto ownership arrive as a destination.

Policy 1.9 more generally supports the development of a multi-modal emergency transportation plan for the city.

The Bicycle Plan Project is consistent with Objective 1 of the *Transportation Element*.

Objective 2: Use the transportation system as a means for guiding development and improving the environment.

This objective focuses on matching the transportation system (road widths, potential traffic volumes on giving road segments, and transportation modes) with land uses (e.g. residential vs. downtown office uses). Bicycling is not explicitly discussed under Objective 2 policies, although Policy 2.2 is to, "Reduce pollution, noise and energy consumption." This goal is accomplished to the extent that bicycles replace automobiles for some travel in and around San Francisco.

The Bicycle Plan Project is consistent with Objective 2 of the *Transportation Element*.

Objective 3: Maintain and enhance San Francisco's position as a regional destination without inducing a greater volume of through automobile traffic.

The policies under Objective 3 address methods for keeping automobile traffic from entering the City in greater numbers than currently exist. The sole policy that addresses bicyclists is Policy 3.1, which states that, among other things, "Changes, retrofits or replacement to existing bridges and highways should include dedicated priority for high-occupancy vehicles and transit, and all bridges should feature access for bicyclists and pedestrians" The Bicycle Plan Project includes the goal of allowing bicycle traffic on bridges both within and leading to/from San Francisco, including the Golden Gate bridge.

The Bicycle Plan Project is consistent with Objective 3 of the *Transportation Element*.

Objective 4: Maintain and enhance San Francisco's position as the hub of a regional, city-centered transit system.

The policies under Objective 4 strongly support transit use and transit priority into and out of San Francisco, and particularly the downtown area. Policy 4.6 is to, "Facilitate transfers between different transit modes and services by establishing simplified and coordinated fares and schedules, and by employing design and technology features to make transferring more convenient, **and increasing accommodations of bicycles on transit**" [text bolded by EIR author]. The Bicycle Plan Project includes specific goals and policies to increase accommodations and otherwise facilitate the movement of bicycles to and from the City, on public transit.

The Bicycle Plan Project is consistent with Objective 4 of the *Transportation Element*.

Objective 5: Support and enhance the role of San Francisco as a major destination and departure point for travelers making interstate, national and international trips.

The policies under Objective 5 neither support nor oppose the implementation of Bicycle Plan Project goals, actions, or policies. The Bicycle Plan Project is, therefore, not inconsistent with Objective 5 of the *Transportation Element*.

Objective 6: Develop regional, multi-modal facilities for the efficient movement of freight and goods.

The policies under Objective 6 neither support nor oppose the implementation of any Bicycle Plan Project goals, actions, or policies. The Bicycle Plan Project is, therefore, not inconsistent with Objective 6 of the *Transportation Element*.

Objective 7: Develop a parking strategy that encourages short-term parking at the periphery of downtown and long-term intercept parking at the periphery of the urbanized

Bay Area to meet the needs of long-distance commuters traveling by automobile to San Francisco or nearby destinations.

The policy emphasis under Objective 7 is the provision of long-term commuter parking outside of the downtown area, with the allowance for short-term parking, only, in the downtown. This Objective does not directly address bicycle use, but the Bicycle Plan Project does emphasize the provision of bicycle parking places in office buildings, such as the buildings downtown. This policy is entirely in keeping with the spirit of the Objective 7 parking provisions, which focus on minimizing the number of automobiles traveling to, and parking within, the downtown area on an average workday.

The Bicycle Plan Project is not inconsistent with Objective 7 of the *Transportation Element,* and may indirectly support this objective.

Objective 8: Clearly identify the Citywide Pedestrian and Bicycle Networks where they intersect with the Coast, Bay and Ridge trails.

The Bicycle Plan Project includes a clear identification of the bicycle route network, including an identification of points where the network meets with the Bay Trail, Coast Trail, and Ridge Trails. The project would also expand that network to increase linkages, thus allow for greater access to these trails.

The Bicycle Plan Project is consistent with Objective 8 of the *Transportation Element*.

Objective 9: Improve bicycle access to San Francisco from all outlying corridors.

The Bicycle Plan Project includes actions, goals, and policies that would increase bicycle access to San Francisco by way of various transit modes, and that would increase bicycle access to San Francisco by way of bridges and other surface modes.

The Bicycle Plan Project is, therefore, consistent with Objective 9 of the *Transportation Element* of the *General Plan*.

Urban Design Element

The *Urban Design Element* of the *General Plan* includes policies with regard to city pattern, conservation, major new development, and neighborhood environment. This element also contains design guidelines related to height, bulk, building form, view corridors and streetscape measures.[24] The Bicycle Plan Project would not have any effect on land use patterns, nor building patterns, nor historic preservation, but would have a minor impact on streetscape. Some street trees may be removed or relocated in the process of installing bicycle facilities. Some streetscape may be improved as part of the City's expanded efforts to maintain the bicycle pathways and facilities. Bicycle Plan Project implementation would result in improved maintenance levels along streets with bicycle facilities, as roadway and path area maintenance are integral parts of the Bicycle Plan Project. The project would, therefore, not conflict with the *Urban Design Element* of the *General Plan*.

SAN FRANCISCO AREA PLANS

There are a total of eleven area plans within San Francisco. Because the Bicycle Plan Project would be implemented throughout the City, all eleven area plans were reviewed for consistency with the Bicycle Plan Project's goals, actions, and policies. None of the area plans would conflict with the Bicycle Plan Project.

Of the eleven area plans, bicycles are not mentioned in:

1. Chinatown Area Plan
2. Civic Center Area Plan
3. Downtown Area Plan
4. Van Ness Avenue Area Plan
5. South of Market Area Plan, although this area plan emphasizes the importance of using transit and non-automobile modes of transit (which would include bicycles)
6. Western Shoreline Area Plan, although this area plan emphasizes the importance of providing pedestrian circulation and access to Ocean Beach; the Bicycle Plan Project would improve bicycle circulation and access in these areas, which accomplishes a similar and compatible goal
7. Northeast Waterfront Area Plan, although this area plan emphasizes the importance of developing a transportation system that improves access for people and goods to and around Fisherman's Wharf (which would be accomplished through improvement of the bicycle route network so that people could bicycle to and from this area)

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24 City and County of San Francisco, Urban Design Element, as amended through May 2008.

8. Central Waterfront Area Plan, although this area plan emphasizes the importance of improving transportation accessibility to this area and of providing public access to the waterfront (both of which goals would be partially met through the Bicycle Plan Project implementation)

The three remaining area plans make explicit mention of bicycles, and all three of them are consistent with the Bicycle Plan Project:

1. The Rincon Hill Area Plan Objective 5.7 calls for the maintenance of a potential Bay Bridge bicycle/pedestrian/maintenance path, and Objective 5.5 calls for the management of area parking supplies so as to encourage travel by foot, public transportation, or bicycle.
2. The Market and Octavia Area Plan's overriding principal is that, "Streets that support and invite multiple uses, including safe and ample space for pedestrians, bicycles, and public transit are a more conducive setting for the public life on an urban hill than streets designed primarily to move vehicles." The Bicycle Plan Project proposed goals, policies, and actions are therefore consistent with the Rincon Hill Area Plan and the Market and Octavia Area Plan.
3. The Bayview Hunters Point Area Plan Objective 4 is to develop and maintain a system for the easy movement of people and goods, taking into account the needs of both local and through traffic. Policy 4.5 then specifies that a comprehensive system shall be created for pedestrian and bicycle circulation.

OTHER PLANS AND POLICIES

San Francisco Transportation Code

Similar to the *San Francisco Planning Code*, the Bicycle Plan Project would require amendments to the *San Francisco Transportation Code (Transportation Code)*. These amendments would allow for issuance of "fix-it" tickets to bicyclists in the right-of-way, for driver's education with a focus on bicycle safety, and for the distribution of bicycle safety-related materials as part of the standard enforcement activities under the *Transportation Code*. While these amendments would alter the current form of the *Transportation Code*, they would not fundamentally alter the intent, goals, or function of this code. In this sense the Bicycle Plan Project would be inconsistent with the current language of, and enforcement under, the *Transportation Code*, but only insofar as it would be altered to allow for increased safety, for all modes of transportation, on City roads. Therefore, the Bicycle Plan project would not alter the *Transportation Code* in a manner that would conflict with any of the fundamental goals or policies of the *San Francisco Transportation Code*.

Better Streets Plan

The *Better Streets Plan* (draft June, 2008) focuses on creating a positive pedestrian environment through measures such as careful streetscape design, and traffic calming to increase pedestrian safety. The Bicycle Plan Project was designed to safely accommodate multi-modal transportation in the City of San Francisco. Particular attention was paid to designing improvements that would support safe and smooth interaction between pedestrians, automobiles, and bicycles, at intersections where all three modes may collect. The Bicycle Plan Project is consistent with the *Better Streets Plan*.

Sustainability Plan for the City of San Francisco

The *Sustainability Plan for the City of San Francisco* focuses on environmental impacts of development and of City projects. The topics studied include (1) Air Quality; (2) Biodiversity; (3) Energy, Climate Change and Ozone Depletion; (4) Food and Agriculture; (5) Hazardous Materials; (6) Human Health; (7) Parks, Open Spaces and Streetscapes; (8) Solid Waste; (9) Transportation; and (10) Water and Wastewater. Additional topics include the Economy and Economic Development; Environmental Justice; Municipal Expenditures; Public Information and Education; and Risk Management. The Bicycle Plan Project would not create any significant impacts in any of the aforementioned areas, except as otherwise discussed in this document. To the extent that some transportation improvements have been found to generate significant and unavoidable impacts (see discussion in Section V of this EIR), the Bicycle Plan Project may be somewhat inconsistent with any "zero impact" goals. However, any potential impacts of the Bicycle Plan Project would be more than offset by the benefits generated by increase bicycle use, thus improved regional air quality (through a reduction in vehicle emissions generated, when the Bicycle Plan Project is compared with the No Project scenario). Taken as a whole, the Bicycle Plan Project is not inconsistent with the goals of the *Sustainability Plan for the City of San Francisco.*

Bay Area Air Quality Plan, Water and Wastewater Resources and Treatment Plans, Habitat Conservation Plans, and Housing Plans and Policies

The Bicycle Plan Project impacts on air quality have been analyzed in this EIR (see Section V) and found to be less-than-significant. The Bicycle Plan Project therefore would not conflict with the Bay Area Air Quality Plan, or any other air quality management plan. In the Initial Study published on March 15, 2008 (see Appendix A), the Bicycle Plan Project was found to have no potential to impact water or wastewater resources, and to have no potential to impact local ecology, flora, and fauna. Therefore, the Bicycle Plan Project would not conflict with the *San Francisco Regional Water Quality Control Board Basin Plan* or any area-wide waste treatment plans, and would also not conflict with any local and regional habitat conservation plans and natural community conservation plans, the *San Francisco Bay Plan*, or coastal zone protection plans. Finally, the Initial Study found that the Bicycle Plan Project would have no potential to impact Population and Housing in the City of San Francisco, or surrounding region. Therefore, the Bicycle Plan Project would not conflict with regional housing allocation plans, or the City of San Francisco's housing policies.

V. ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

A. TRANSPORTATION

1. OVERVIEW AND ORGANIZATION

This Transportation section of the Environmental Impact Report (EIR) presents both program-level and project-level analysis of the potential transportation-related impacts resulting from the Bicycle Plan Project. This Introduction subsection provides an overview of the Bicycle Plan as well as a description of the Plan's elements. In addition, this section provides information about the *San Francisco Bicycle Plan Update Transportation Impact Study* (TIS), prepared by Wilbur Smith Associates for the San Francisco Bicycle Plan Update, and published on October 28, 2008. The TIS provides the basis for the transportation analysis in this EIR and an explanation regarding program-level review and project-level review for potential transportation impacts has also been provided. Subsection V.A.2, Program-Level Review, on p. V.A.2-1, provides program-level review of the updated Bicycle Plan including its goals, objectives, and action items to further the plan goals. Subsection V.A.3, Project-Level Review, on p. V.A.3-1, presents the complete project descriptions as well as the project-level analysis for the 60 design-ready near-term bicycle improvements. Project drawings for the near-term improvements are provided in Appendix B. Many of these drawings are the same as those attached to the Initial Study for this project. However, there have been some minor revisions so there are drawings in this Appendix B which differ from those attached to the Initial Study.[1] These near-term improvements are anticipated to be implemented within five years of project approval. Subsections V.A.4 and V.A.5, minor improvements and long-term improvements, which begin on p. V.A.4-1 and p. V.A.5-1, respectively, provide program-level review of the minor improvements and long-term improvements anticipated as part of the ongoing or future activities of the Bicycle Program, and provide a summary of the conclusions regarding the

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1 The Initial Study for the Bicycle Plan Project EIR was published on March 15, 2008 with an Appendix of Project Drawings (Appendix A of the Initial Study). Some of the project drawings have been modified. A current set of project drawings for the near-term improvements is attached to this as Appendix B. Therefore, Appendix A of the Initial Study is not attached to this document. The old project drawings are available online at the Planning Department Wed site, *www.sfplanning.org/mea* as part of the Initial Study, or they may be viewed by appointment at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File 2007.0347E.

transportation-related potential environmental effects resulting from the implementation of the Bicycle Plan Project.

PURPOSE OF THE TRANSPORTATION IMPACT STUDY

The Transportation Impact Study[2] (TIS) completed by Wilbur Smith Associates provides a comprehensive analysis of the potential environmental impacts of the project on the transportation system, which is herein incorporated into the Draft Environmental Impact Report (DEIR).

A comprehensive local transportation system considers overlapping segments related to regional transportation, congestion management, vehicle circulation, transit, pedestrians, bicycles, citywide parking, and goods movement. Under the California Vehicle Code, bicycles are permitted on any street in the local street network. However, conditions for cyclists within the City's street network vary. The Bicycle Plan includes a network of interconnected streets on which bicycling is encouraged, through the implementation of bicycle facilities and other treatments that improve conditions for cyclists. Although some bicycle facilities were implemented in San Francisco prior to 1997, the City's first defined bicycle route network was developed as part of the 1997 Bicycle Plan.

The Bicycle Plan continues to strive for a comprehensive bicycle route network that provides safe access for bicyclists to all areas of the City. As described above in Section IV. Project Description, on p. IV.A-1, the 2002 planning process identified gaps in the network and suggested improvement projects, both near-term and long-term, to address these gaps. In addition, the Bicycle Plan has identified a set of minor improvement treatments that would be used, as necessary, to improve conditions for cyclists throughout the City. The intention of the ongoing Bicycle Program is to refine and expand the bicycle route network and to achieve its vision of making bicycling an integral part of daily life in San Francisco.

Environmental review of transportation impacts of the Bicycle Plan, and its ongoing programs, has been conducted at a program level. Near-term improvements have been reviewed at the project level, because these have specific project designs and are proposed for adoption and implementation when the environmental review process is complete and the injunction has been lifted. This transportation section presents the existing transportation conditions and assesses the transportation impacts associated with the Bicycle Plan Project. The following

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[2] Wilbur Smith Associates – *San Francisco Bicycle Plan Update Transportation Impact Study*, October 28, 2008; available for viewing as part of Case File No. 2007.0347E.

transportation elements are addressed in this study: traffic impacts, transit impacts, parking impacts, pedestrian impacts, bicycle impacts, and loading impacts.[3]

ORGANIZATION OF THE TRANSPORTATION IMPACT STUDY

This document has been organized to provide the project-level and program-level review of transportation and transportation-related impacts in four primary subsections. Each of these subsections is followed by a checklist which shows the project or action contemplated, and indicates the potential for that project or action to create a significant impact for the physical environment. These impacts are separated into potential impacts on traffic, parking, transit, pedestrians, bicycles, and loading facilities.

THE BICYCLE PLAN (policies) (Subsection V.A.2)

The Bicycle Plan policies discussed in V.A.2 consist of eight goals, namely, (1) refine and expand the existing bicycle route network; (2) ensure plentiful, high-quality bicycle parking to complement the bicycle route network; (3) expand bicycle access to transit and bridges (4) educate the public about bicycle safety; (5) improve bicycle safety through targeted enforcement; (6) promote and encourage safe bicycling; (7) adopt bicycle-friendly practices and policies; and (8) prioritize and increase bicycle funding, all of which are analyzed at a program level (see Subsection V.A.2, p. V.A.2-1) in order to assess the transportation impacts resulting from their implementation. Many of the goals, objectives and action items would not directly change conditions within the environment, but are still discussed in this report. For those that may result in potential environmental impacts, an analysis is being provided to identify what the potential effects are, as well as the level of significance of those effects.

NEAR-TERM IMPROVEMENTS (Subsection V.A.3)

Each of the segments proposed for improvement is part of a transportation network, the goal of which is to promote safe access via travel by bicycle to all areas of the City. The project-level transportation analysis for the 60 near-term improvements must consider the potential impacts of each project, including the variations encompassed by the alternative options being considered. However, as alterations to a city-wide transportation network, the analysis of these near-term improvements must also address the combined impacts of multiple projects within the same vicinity. For this reason, the near-term improvements have been grouped by geographic proximity into eight clusters in order to evaluate and understand the potential

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3 As required by the San Francisco Planning Department Guidelines.

combined transportation-related impacts related to the implementation of projects in close proximity to one another. When a specific project is referred to by number in this EIR, the first number represents the analysis cluster in which the project is located. The second number represents an identifier to distinguish projects within an analysis cluster.

This EIR provides information regarding the extent of potential environmental impacts resulting from the Bicycle Plan. It also covers several options for the near-term improvements so that decision makers may decide between several near-term options based on full disclosure of likely impacts on all modes of transportation. These near-term improvements are identified and discussed in Subsection V.A.3, p. V.A.3-1.

MINOR IMPROVEMENTS (Subsection V.A.4)

The Bicycle Program staff has also identified a set of minor improvement treatments which may be used to address issues as they arise. The Bicycle Program would benefit from the ability to implement these minor improvements on an as-needed basis to further the goals of the Bicycle Plan. These treatments would result in minor modifications to the physical environment, wherever implemented. These treatments are analyzed at a program level (see Subsection V.A.4, p. V.A.4-1). The transportation impact analysis provided here addresses the potential environmental impacts resulting from the implementation of these treatments. Upon completion of the environmental review process, it is anticipated that these treatments may be utilized in appropriate locations throughout the City to improve conditions for cyclists and further the Bicycle Plan goals.

LONG-TERM IMPROVEMENTS (Subsection V.A.5)

The segments proposed for long-term improvements have been identified to address gaps within the City bicycle route network. Specific designs for these segments are unknown at this time. However, potential design elements for these projects have been identified. The program-level transportation impact analysis for the long-term improvements addresses the role of these segments in the network as well as how they facilitate the goals of the ongoing program (see Subsection V.A.5, p. V.A.5-1). The analysis discusses the program-level effects of including these segments in the network.

PROGRAM-LEVEL VS. PROJECT-LEVEL ANALYSIS OF TRANSPORTATION IMPACTS

PROGRAM-LEVEL REVIEW

Under CEQA, program-level environmental review is used in environmental analyses for a series of actions that can be characterized as one large project because they are logically related. The series of actions can be related geographically or can be logical parts in a chain of contemplated actions.

Program-level review is used in connection with issuance of rules, plans, or other general criteria, to govern the conduct of a continuing or proposed program. For some site-specific purposes, a program-level environmental document may provide enough detail to enable an agency to make informed site-specific decisions within the program, allowing an agency to carry out an entire program without having to prepare additional site-specific environmental documents. In other cases, the formulation of details regarding site-specific issues is unknown until subsequent design development and the preparation of later project-level environmental documents. In such situations, the program-level EIR may properly focus on "broad policy alternatives and programmatic mitigation measures," as well as "regional influences, secondary effects, cumulative impacts…and other factors that apply to the program as a whole," [CEQA Guidelines, Section 15168, subds. (b)(4), (d)(2).] Program-level review is also appropriate for individual activities carried out under the same authorizing statutory or regulatory authority, having generally similar environmental effects that can be mitigated in similar ways. [CEQA Guidelines, Section 15168.]

The San Francisco Bicycle Program is an ongoing program to facilitate and increase the safe use of bicycles as a mode of transportation with the City. The updated Bicycle Plan sets the foundation for the associated near-term, long-term, and minor improvements to the existing bicycle route network. These improvement projects are a logically related series of actions to achieve the overall goal of increasing bicycle use within the City.

The program-level review in this section will provide program-level transportation impact analysis of the following elements of the Bicycle Plan Project: the Bicycle Plan's goals, objectives and action items including the existing bicycle route network, minor improvements, and long-term improvements. All of these further the goals of the Bicycle Plan and Program. These elements are described in more detail above and in Subsections V.A.2, V.A.4, and V.A.5 of this Transportation section.

PROJECT-LEVEL REVIEW

Under CEQA, project-level environmental analysis examines the environmental impacts of an individual project, and examines phases of the project including construction and operation. Project-level analysis may be conducted once a sufficient level of detail is known regarding a proposed project. With a detailed project description and an understanding of the existing environmental conditions, the potential environmental effects of the proposed project may be understood and analyzed.

As previously described, the Bicycle Plan Project proposes 60 near-term improvements for the bicycle route network. These projects are fully described in Subsection V.A.3, Project-Level Review, on p. V.A.3-1 of this Transportation section of this EIR. The implementation of these design-ready projects would close network gaps and improve bicyclists' safety and experience, increasing ridership to meet the overall Bicycle Program goal. The analysis provides an assessment of traffic, transit, parking, pedestrian, bicycle, and loading impacts resulting from the near-term improvements. Most of these projects include two potential alternatives: one alternative that offers an option that would affect one or more modes (e.g., removal of mixed traffic lanes and/or greatest potential to impede transit operations), and another alternative that would be less likely to impact other modes (e.g., parking removals instead of traffic lane removals, changes to sidewalks, installation of sharrows, or alternate routing of bicycle routes). The existing conditions for each area of project effect are provided as well as an evaluation of the changes that would result following implementation of each project, including those resulting from implementation of proposed alternative options.

The project-level transportation analysis in Subsection V.A-3, p. V.A.3-1 of this chapter is intended to provide project-level environmental clearance for these 60 design-ready near-term improvements. Following certification of the Bicycle Plan Project EIR, no further environmental review would be required to implement these 60 near-term improvements. Implementation of these near-term improvements is anticipated within five years of project approval.

TRANSPORTATION SETTING

The geographic setting of San Francisco is a fundamental part of its celebrated quality of life. The City is challenged to accommodate the transportation needs of its residents, while preserving and enhancing the qualities that make it a desirable place to live, despite its being surrounded on three sides by water and having a varied topography. As mandated by its Transit First Policy, the City's transportation system seeks to achieve balance between travel modes, in order to control and reshape the impact of automobiles on the City. To that end, the City's goals include improvements to and promotion of alternative transportation modes such as public transit, ridesharing, bicycling and walking. Below is a general summary and overview of transportation conditions in San Francisco.

Roadway Network

Most San Francisco roadways are aligned on a grid system. The typical block in the South of Market area is four times as large as the typical block North of Market. The grid offers multiple route options for getting from place to place, although aberrations in the grid (particularly along Market Street and in the vicinity of hills) can offer connectivity challenges. The *San Francisco General Plan (General Plan)* contains definitions and regulatory requirements for a variety of roadway classifications that make up the City's grid.

City roadway designations include (listed in order of potential capacity) Freeways, Major Arterials, Transit Conflict Streets, Secondary Arterials, Recreational Streets, Collector Streets, and Local Streets. Each of these roadways has a different potential capacity for traffic, and for changes that may alter traffic patterns on the given roadway. The *General Plan* also recognizes certain Transit Preferential Streets from among the City's various roadways, each of which is identified as a Primary Transit Street – Transit Oriented, a Primary Transit Street – Transit Important, or a Secondary Transit Street. The Pedestrian Network is a classification of streets throughout the City used to identify streets devoted to or primarily oriented to pedestrian use, and include Citywide Pedestrian Network Streets, and Neighborhood Network Streets.[4]

Regional Access

San Francisco is well-served by regional facilities, including Interstate 80 (I-80), United States Highway 101 (US 101), and Interstate 280 (I-280). In addition, State Highways 1 and 35 also serve portions of the City.

US 101 serves San Francisco and the Peninsula/South Bay and extends north via the Golden Gate Bridge to the North Bay. Within the City, portions of US 101 follow the local street network, primarily along Van Ness Avenue and Lombard Street west of Van Ness Avenue. I-80 connects San Francisco to the East Bay and points east, via the San Francisco-Oakland Bay Bridge. I-280 provides regional access to western San Francisco and the South Bay/Peninsula.

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4 *San Francisco General Plan*, 2007 Transportation Element, Table 1. Classification of Elements in Vehicle Circulation Plan.

In addition, state highways on local streets include the following: California Highway 1 follows along 19th Avenue, Cross Over Park Drive through Golden Gate Park, Park Presidio Boulevard, Veterans Boulevard, and Doyle Drive in the Presidio. California Highway 35 follows along Skyline Boulevard and Sloat Boulevard.

In general, bicycles and pedestrians are not allowed on freeways, but are permitted on the state highways within San Francisco. Additionally, the Golden Gate Bridge has both bicycle/pedestrian facilities, and the new eastern span of the San Francisco Oakland Bay Bridge will add a Class I Bike facility that will terminate at Treasure Island.

Local Roadway Network

San Francisco has over 880 lane miles of streets in its roadway network.[5] As described in *General Plan* (and discussed above) there are a variety of types of roadways in the City, and the function and design of each street are consistent with the character and use of adjacent land. These roadway classifications also consider desired travel speed and appropriate provision of access. Pursuant to the California Vehicle Code, bicycles are allowed on any street within the local street system. However, the existing bicycle route network identifies a series of interconnected streets and pathways on which bicycling is encouraged. The particular local street setting, for near-term and long-term improvements proposed by the Bicycle Plan, are more specifically described in the analysis in Subsections V.A.4 and V.A.5 of this report.

Local Access and Circulation

Portions of the City's roadway network have a regular grid pattern with north-to-south and east-to-west roadways such as that found in the Sunset, the Richmond, much of the area north of Market Street in North Beach, Chinatown, and Nob Hill, Castro/Noe Valley, the Mission, and portions of Potrero Hill. However, in a number of areas, roadway development has been influenced by the hilly terrain. These areas include Twin Peaks, Glen Park, Forest Hill, Diamond Heights, and Bernal Heights, among others. In addition, the area south of Market Street was aligned in a grid oriented as Market Street in a southwest to northeast orientation with much larger blocks.

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5 San Francisco Municipal Transportation Agency, 2008. Traffic. Online at http://www.sfmta.com/cms/vhome/hometraffic.htm_[Accessed August 24, 2008].

Intersection Control

The City maintains more than 1,100 traffic signals to manage intersection operations.[6] These operations are measured in terms of a grading system called Level of Service (LOS), which is based on the average motor vehicle delay experienced at a given intersection. That delay is a function of motor vehicle volumes, lane configuration, and signal timing, among other factors. Intersection operating conditions are provided in Subsection V.A.3 of this report, the project-level analysis of the near-term improvements.

Transit Network

This section describes the transit network within San Francisco. Generally, the City is well-served by public transit; however, there are isolated areas without nearby transit service, and/or with infrequent service. Due to topography constraints and discontinuity of the street network in places, portions of neighborhoods can be isolated from convenient transit service.

Local service is provided by the San Francisco Municipal Railway (Muni), the transit division of the San Francisco Municipal Transportation Agency (SFMTA). Muni bus, cable car and light rail lines can be used to access regional transit operators. Service to and from the East Bay is provided by BART, AC Transit and ferries; service to and from the North Bay is provided by Golden Gate Transit buses and ferries; and service to and from the Peninsula and South Bay is provided by Caltrain, SamTrans, and BART.

Local Muni Service

Specific information regarding conditions of the local Muni service for the near-term improvements is provided in the analysis in Subsection V.A.3. In addition, general information regarding local Muni service is provided for the long-term improvements in Subsection V.A.4. In general, bicycles may be placed on the front rack of Muni buses. Bicycles are not allowed on Muni light rails vehicles or cable cars.

Regional Providers

Five principal regional transit providers serve San Francisco: BART from the East Bay and Peninsula; SamTrans and Caltrain from the Peninsula; AC Transit from the East Bay, and Golden Gate Bridge, Highway and Transportation District (GGBHTD) from the North Bay.

[6] San Francisco Municipal Transportation Agency (SFMTA 2008). Traffic. Online at http://www.sfmta.com/cms/vhome/hometraffic.htm [Accessed August 17, 2008].

There are two additional ferry providers, besides GGBHTD, and these are discussed in the section on ferry service.

BART

BART operates regional rail transit service in the metropolitan Bay Area. BART provides service along Market and Mission Streets. BART currently operates six lines: Pittsburg/Bay Point to Millbrae, Fremont to Daly City, Richmond to Daly City, Fremont to Richmond, Dublin/Pleasanton to San Francisco International Airport (SFIA), and Millbrae to SFIA. During the weekday p.m. peak period, headways are generally 5 to 15 minutes for each line.

Bicycles are allowed on most trains, except those highlighted in the BART schedule, which are peak commute times morning and evening. Bicycles are never allowed on crowded cars and bicyclists must yield to all other passengers and yield priority seating to seniors and persons with disabilities.[7]

Caltrain

Caltrain provides rail passenger service on the Peninsula, between Gilroy and San Francisco. The Peninsula Corridor Joint Powers Board (JPB), a joint powers agency consisting of San Francisco, San Mateo, and Santa Clara Counties, operates the service. Caltrain currently operates 86 trains each weekday, with a combination of baby bullet, express, and local services. Headways during the PM peak period are approximately ten to thirty minutes. The San Francisco Caltrain terminal is located on Fourth Street, between King and Townsend Streets. The 22nd Street Caltrain station is located at 22nd Street and Pennsylvania Street. Caltrain also is planned to run to the new Transbay Terminal on Mission Street through an underground tunnel. This project is anticipated to be constructed after reconstruction of the Transbay Terminal and when project funding becomes available.

Bicycles are allowed on designated cars on Caltrain trains. Should a designated bicycle car be full, waiting bicyclists must wait to board the next train. The number of bicycles is limited to 32 per gallery car train and 16 per Baby Bullet train.[8]

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7 BART. 2008. Bikes on BART. Online at http://www.bart.gov/guide/bikes/index.aspx [accessed August 17, 2008].

8 Caltrain. 2008. Caltrain's Bicycle Program. Online at http://www.caltrain.com/info_bicycle_program.html [accessed August 17, 2008].

SamTrans

SamTrans operated by the San Mateo County Transit District, provides bus service between San Mateo County and San Francisco. SamTrans operates 12 diesel bus lines that serve San Francisco, including nine routes into the downtown area. Nine of these routes operate as peak-only commute routes, one route operates as an express route, and two routes provide service throughout the day. Headways during the PM peak period are approximately 20 to 30 minutes per line.

In general, SamTrans service to downtown San Francisco operates along Mission Street to the Transbay Terminal located at first and Mission Streets. It should be noted that SamTrans cannot pick up northbound passengers at San Francisco stops, and southbound passengers boarding in San Francisco may not disembark in San Francisco. SamTrans buses are equipped with bicycle racks, which hold two bicycles. Two additional bicycles are allowed inside the bus, depending on passenger loads.[9]

AC Transit

AC Transit is the primary bus operator for the East Bay, including Alameda and western Contra Costa Counties. AC Transit operates 37 routes between the East Bay and San Francisco, all of which terminate at the Transbay Transit Terminal, located on Mission Street, between First and Fremont Streets. Most transbay service is peak-hour and peak-direction (to San Francisco during the AM peak period and from San Francisco during the PM peak period), with headways of 15 to 30 minutes per route. All AC Transit buses are equipped with front-mounted racks that hold two bicycles. On commuter coaches, two additional bicycles can be stored in the cargo bays (one bicycle per bay) when the front rack is full.[10]

Golden Gate Transit (bus service)

Golden Gate Transit, operated by the GGBHTD, provides bus service between the North Bay (Marin and Sonoma Counties) and San Francisco. Golden Gate Transit operates 18 commute bus routes and two basic routes, with service between cities in the North Bay and San Francisco. Most routes serve either the Civic Center (via Van Ness Avenue and Mission Streets) or the Financial District (via Battery and Sansome Streets). Basic bus routes operate at 15 to 90 minute

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9 SamTrans. 2008. Bikes on SamTrans. Online at http://www.samtrans.org/bikes.html [accessed August 17, 2008].

10 AC Transit. 2008. Bikes on Buses. Online at http://www2.actransit.org/riderinfo/bikes.wu [accessed August 17, 2008].

intervals, depending on the time and day of the week. Commute and ferry feeder bus routes operate at more frequent intervals in the mornings and evenings. Golden Gate Transit does not provide local service within San Francisco. On buses from the North Bay to San Francisco, beyond the Golden Gate Bridge toll booth and Richardson Transfer Center, only alighting is allowed at stops within downtown San Francisco. Conversely, on buses from San Francisco to the North Bay, only boarding is allowed at stops within downtown San Francisco. All GGT buses are equipped with bicycle racks. Articulated buses, and buses that are 40-feet long or less are equipped with exterior bicycle racks at the front of the bus. Luggage bay bicycle racks are installed on all 45-foot MCI buses.[11]

Golden Gate Transit (ferry service)

The GGBHTD also provides ferry service between the North Bay and San Francisco. During the AM and PM peak periods, ferries operate between Larkspur and San Francisco and between Sausalito and San Francisco. The San Francisco ferry terminal is located at the Ferry Building, on the Embarcadero at Market Street. Approximately 1,400 passengers ride the ferry to Larkspur and approximately 340 passengers ride the ferry to Sausalito during the PM peak hour. Bicycles are welcome aboard all Golden Gate Ferries on a first-come, first-served basis. GGF vessels can accommodate a limited number of bicycles depending on the destination and vessel type.[12]

Other Ferry Service

Ferry terminals in San Francisco are located at the Ferry Building, at the foot of Market Street, and at Pier 41 at Fisherman's Wharf. Alameda Harbor Bay Ferry connects Harbor Bay Isle with the Ferry Building on weekdays during the AM and PM peak periods, and has bicycle racks on board.[13] The Blue & Gold Fleet operates ferries between San Francisco and Vallejo, via the Vallejo Baylink that operates daily from approximately 5:30 a.m. to 9:50 p.m. The Blue & Gold Tiburon Ferries travel from Tiburon to the Ferry Building from 6:00 a.m. to 8:30 a.m. and from 4:30 p.m. to 7:30 p.m. peak hours weekdays. The company also operates mid-day and weekend service in both directions, between Tiburon and San Francisco's Pier 41. Alameda/Oakland Ferry Service operates approximately hourly each day from Oakland's Jack London Square, via

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11 Golden Gate Transit. 2008. Bikes & Buses. Online at http://goldengatetransit.org/services/bikes.php [accessed August 17, 2008].

12 Golden Gate Ferries. 2008. Bikes & Ferries. Online at http://goldengateferry.org/services/bikes.php [accessed August 17, 2008].

13 Alameda Harbor Bay Ferry. 2008. http://www.alamedaharborbayferry.com/index1.php [accessed August 17, 2008].

Alameda Gateway Ferry Terminal, to the Ferry Building. Bicycles are allowed on ferries subject to the specific restrictions of each ferry provider.

Pedestrian

San Francisco is a pedestrian-oriented city as a result of its high density of development, the low level of resident automobile ownership, the widespread availability of transit, the existence of large areas of parkland, and the provision of extensive pedestrian amenities. In addition, the City's temperate climate makes year-round walking possible. Out of all US cities with at least 250,000 people, San Francisco has the 3rd highest percentage (9.6 percent) of commuters that walk to work for cities, just behind Boston and Washington D.C.[14]

There are few locations throughout the city where sidewalks are not provided. Sidewalks and walkways vary, but generally range from 7 to 15 feet in width. Some boulevards, such as the Embarcadero, have widths up to 25 feet. Market Street also has wider than average sidewalks for much of its length. A number of roadways include street trees and planting strips, between the sidewalk and curb, to separate pedestrians from vehicular traffic and provide aesthetic benefit. Most of the City's major intersections have crosswalks and pedestrian signals. Over 50 intersections have Accessible Pedestrian Signal (APS)[15] installed.[16] In addition, 740 of 1155 signalized intersections (65 percent) have pedestrian countdown signals for all crosswalks.[17]

There are approximately 5,300 square blocks of sidewalks citywide. The fronting property owners are responsible for the maintenance of a majority (97 percent) of these sidewalks. In 2007, the Department of Public Works (DPW) implemented the Sidewalk Inspection and Repair Program (SIRP), with a goal of inspecting and repairing approximately 200 square blocks each year. This ongoing facility maintenance and management process would systematically evaluate the city's sidewalks for hazardous conditions such as vertical displacement, cracks or

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14 United States Census. 2005. 2005 American Community Survey. Walk to Work, 50 Cities with The Most Workers Age 16 and Over, by Percentage. Online at http://www.census.gov/Press-Release/www/2007/Pub_Trans_Tables.xls [Accessed August 25, 2008.].

15 An Accessible Pedestrian Signal (APS) is a pedestrian pushbutton that communicates when to cross the street in a non-visual manner, such as audible tones, speech messages, and vibrating surfaces.

16 San Francisco Municipal Transportation Agency. 2008. Accessible Pedestrian Signals. Online at http://www.sfmta.com/cms/wproj/aps.htm [Accessed August 25, 2008].

17 San Francisco. Draft Better Streets Plan. 2008. Online at http://www.sfgov.org/site/uploadedfiles/planning/Citywide/Better_Streets/index.htm [Accessed August 25, 2008].

voids among other conditions.[18] Work areas would be prioritized and needed work scheduled.[19]

Bicycle

San Francisco has had a bicycle route network since the adoption of the 1997 Bicycle Plan. The goal of the Bicycle Program is to provide bicycle facilities to promote the use of bicycles so that they can successfully be used for most transportation needs, including commuting, shopping, errands, and recreation. Bikeways are typically classified as Class I, Class II, or Class III facilities. Class I bikeways are bicycle paths with exclusive right-of-way for use by bicyclists or pedestrians. Class II bikeways are bicycle lanes striped with the paved areas of roadways, and established for the preferential use of bicycles, while Class III bikeways are signed bicycle routes that allow bicycles to share streets or sidewalks with vehicles or pedestrians. Bicycle parking, both within the public right-of-way and within parking structures and other buildings, support bicycle travel in the city. Some deficiencies and gaps in the City's bicycle infrastructure have been identified and would be addressed through the implementation of the updated Bicycle Plan.

Existing bikeways are described in Chapter 2 of this EIR. Currently, San Francisco has 23 miles of Class I facilities, 45 miles of Class II facilities, 79 miles of Class III facilities, 53 miles of Class IIIA[20] facilities, and eight miles of other facilities that do not have official Caltrans designation. The public right-of-way throughout San Francisco also includes over 3,500 parking spaces for cyclists. The Municipal Transportation Agency issues permits for bicycle rack installation in the public right-of-way. Although the bicycle racks would be installed by the SFMTA Bicycle Program free of charge, a permit is required. In addition, more than 50 garages have been brought into compliance with the City Ordinance requiring bicycle parking. SFMTA's Bicycle Program administers over 60 bicycle lockers in various locations, and makes them available for rent by bicycle commuters.

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[18] San Francisco Department of Public Works. 2008. Good Neighbor Guidelines for the Repair of Sidewalk Defects (DPW Order 177, 526) and Guidelines for Inspection of Sidewalk Defects (DPW Order 177,525). These documents are available for review by appointment at the Planning Department, 1650 Mission Street, Suite 400, San Francisco as part of Case File 2007.0347E.

[19] San Francisco Mayor's Office on Disability and Department of Public Works. 2008. Americans with Disabilities Act Transition Plan for Curb Ramps and Sidewalks, Updates and Revisions, 2007-2008. Online at http://www.sfgov.org/site/uploadedfiles/mod/RampSidewalk08.pdf. [Accessed August 25, 2008].

[20] Class III bikeways are signed bicycle routes that allow bicycles to share streets or sidewalks with vehicles or pedestrians.

Parking

Provision of parking varies depending upon the location within the City. Most San Francisco streets include curbside parking, and metered parking is typical in the downtown area and in commercial districts throughout the City. Downtown, and in some local shopping areas, where demand is highest, parking is also available in above-ground and below-ground parking structures, as well as in surface lots. Most, if not all, of these facilities charge a fee for the provision of parking. San Francisco's streets with on-street parking allow for a range of parking configurations, including parallel parking, diagonal parking, and perpendicular parking. Un-metered (or otherwise unrestricted) on-street parking is generally available in residential areas, except for those area with residential parking permits (RPP). RPP regulations generally restrict on-street parking to a one-hour or two-hour period except for residents, but vary on the days of week and the time of day that the regulations are in effect. Residential properties may include garages, or may require on-street parking.

OTHER PLANNING EFFORTS

In addition to changes resulting from implementation of the Bicycle Plan, there are several current planning efforts that would also affect the design of streets and facilities within them in San Francisco. These are the Better Streets Plan, Livable Streets (particularly the Traffic Calming component), and Transit Effectiveness Project (TEP). The Better Streets Plan is a multi-agency effort to comprehensively plan for streets that was initiated by the adoption of the City's Better Streets Policy in 2006.[21] The draft Better Streets Plan was published in June 2008. The Better Streets Plan seeks to develop street design concepts that balance the needs of all street users, but has a focus on the pedestrian environment, generally the areas of sidewalks and crosswalks. A supporting principle of the Better Streets Policy is to support and invite streets with multiple uses including safe, active, ample space for pedestrians, bicycles and public transit. Such streets are more conducive to the public life of an urban neighborhood, and the efficient movement of people and goods, than streets designed to move automobiles. Decisions regarding the design and use of the City's limited public street space shall prioritize space for pedestrians, bicycles, and public transit over space for automobiles.[22]

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21 San Francisco Administrative Code, Chapter 98, Better Streets Policy. Adopted February 2006.

22 San Francisco Planning Department. 2008. Better Streets San Francisco. Online at: http://www.sfgov.org/site/uploadedfiles/planning/Citywide/Better_Streets/index.htm [Accessed August 24, 2008].

SFMTA's Traffic Calming Program, is part of the City's Livable Streets effort to improve safety on San Francisco's streets. Livable Streets was launched in 2000 to address some of the traffic problems associated with the growing number of cars in San Francisco. A goal of the Traffic Calming Program is to make neighborhood streets friendlier for pedestrians, children, bicyclists, and motorists. The Traffic Calming Program uses innovative tools and methods to address traffic problems such as speeding, reckless driving, pedestrian safety, traffic spillover from main arterials to local roads, excessive noise and traffic levels, road rage, and the impact of crowded highways and main streets on driver behavior. The goal of the Traffic Calming Program is safer streets for everyone, without restricting access to anyone.[23]

The TEP is a partnership between the SFMTA and the Controller's Office, to increase the effectiveness of the City's public transit system. The TEP was launched in May 2006 and is the first comprehensive effort in over 25 years to review Muni and recommend ways to transform it into a faster, more reliable and more efficient public transit system for San Francisco. Challenges which Muni hopes to address through the TEP include changing travel patterns, increasing costs, and operational and physical constraints that affect on-time performance. These challenges highlight the need for system-wide improvements. The collection of ridership data, and proposals from the public, city staff, and many community organizations, inform the TEP staff in this process.[24]

All of these programs look to improve the function of San Francisco streets as a system for travel, but seek also to maintain public space and open space. These programs overlap in their ultimate goal of improving the conditions of San Francisco's streets for transportation by all modes of travel. While each program or project has a slightly different focus, all consider the compatible implementation of improvements to balance and facilitate multiple travel modes within San Francisco's streetscape.

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23 San Francisco Municipal Transportation Agency. 2008. Livable Streets: Traffic Calming. Online at http://www.sfmta.com/cms/ocalm/indxlicalm.htm [accessed August 24, 2008].

24 San Francisco Municipal Transportation Agency. 2008. The Transit Effectiveness Project. Online at http://www.sfmta.com/cms/mtep/tepover.htm [Accessed August 24, 2008].

2. BICYCLE PLAN PROGRAM-LEVEL REVIEW

INTRODUCTION

This section discusses the program-level impacts that would result from the revised policies, goals, objectives, and action items of the Bicycle Plan. Subsections V.A.3, V.A.4, and V.A.5 of this document provide further environmental analysis of improvements and physical changes proposed under these policies.

Program-level analysis of impacts under CEQA, for policies such as those discussed in this chapter, requires two primary levels of review. The actions resulting from the goals and objectives of the Bicycle Plan, discussed in this section, result from policies that would be adopted as part of the Bicycle Plan. Under CEQA, the given policy must therefore be analyzed to establish the extent to which the act of adopting the policy might create physical environmental impacts and the significance of those impacts, if any.

In addition to analyzing the impacts of the primary action, indirect or secondary impacts of that action, such as whether the adoption of a policy would lead to physical environmental impacts, must also be identified and evaluated for their potential to have a significant impact on the physical environment. In this case, the actions supported by Bicycle Plan policies, such as creation of new bicycle paths, must be analyzed for their potential to have a significant impact on the environment.

The following discussion is organized to coincide with Chapter 2 of the Wilbur Smith Associates *San Francisco Bicycle Plan Update Transportation Impact Study*[1] (TIS). This CEQA analysis reviews and discusses each proposed policy Action in sequence.

OVERALL BICYCLE PLAN GOALS, OBJECTIVES, AND ACTION ITEMS

Chapter 2 of the transportation impact study includes the program-level review for the revised policies of the Bicycle Plan to be incorporated into the San Francisco *General Plan, Planning Code*, and *Transportation Code*. These Bicycle Plan Goals, Objectives and Action Items are described in this Subsection V.A.2, and evaluated for their potential to affect physical change to the environment through the proposed changes to the transportation network. In sum, the Bicycle

[1] Wilbur Smith Associates. 2008. *San Francisco Bicycle Plan Update Transportation Impact Study*. This document is available for review by appointment at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA as part of Case File No. 2007.0347E.

Plan Goals, Objectives and Action items are intended to achieve the following goals and objectives:

Overall Plan Goal:

- Increase Safe Bicycle Use

Overall Plan Objectives:

- Increase the daily number of bicycle trips in San Francisco;
- Develop improved methods for tracking bicycle usage; and
- Reduce the rate of bicycle collisions as bicycle usage increases.

The overall goal of the Bicycle Plan is to provide safe conditions for cyclists through provision of a network of bicycle facilities. This network is designed to connect bicyclists safely and conveniently with their destinations by providing the routes with the least geographic impediments balanced by the routes with the best opportunities for road sharing between bicyclists and other modes. Projects and treatments proposed for the Bicycle Plan are designed to reduce conflicts between bicyclists and other vehicles, and, thereby, safely accommodate increased bicycle use in the City. The actions proposed to meet the objective of increasing bicycle use in San Francisco and a determination of their impacts to the environment are included in Subsection V.A.2.

Developing improved methods for tracking bicycle usage would provide the Bicycle Program and other City agencies with the data needed to refine and improve the bicycle network as needs change. This action is not likely to result in significant transportation impacts. Data collection activities, which do not result in a serious or major disturbance to an environmental resource, are exempt from environmental review [CEQA Guidelines Section 15358 (b)].

With improved roadway conditions for cyclists as well as increased road safety education and enforcement, there may be fewer bicycle collisions even as bicycle usage increases. This objective would not by itself lead to a physical change in the environment. It may be achieved by the implementation of specific Bicycle Plan projects and programs discussed and analyzed in this Environmental Impact Report (EIR).

The overall goal and objectives of the Bicycle Plan would be achieved by meeting the more specific goals, objectives, and action items outlined in the Bicycle Plan. The analysis of potential transportation impacts that would result from the more specific goals, objectives, and action items is included in this Subsection of the report.

The following analysis of these goals and objectives reveals that, the policies, goals, objectives, and action items would not lead to direct impacts. Analysis of other proposed changes to the transportation network that may result from the implementation of these policies, goals, objectives, and action items, and their potential environmental impacts, are presented in either the project-level analysis for the 60 near-term improvements, Subsection V.A.3 of this report, or in the program-level analysis in Subsections V.A.4 and V.A.5 of this report.

BICYCLE ROUTE NETWORK GOALS, OBJECTIVES AND ACTION ITEMS

This Bicycle Route Network discussion in Chapter 1 of the Bicycle Plan defines the action items to fulfill the following goals and objectives:

Chapter 1 Goal:

- Refine and Expand the Existing Bicycle Route Network

Chapter 1 Objectives:

- Establish a comprehensive network of bikeways that are appropriately signed, marked, and/or traffic-calmed and that provide convenient and direct connections to all of San Francisco's neighborhoods - the facilities along the bicycle route network should include conventional treatments depending on the design of the bicycle improvements and conditions:
    - on-street signed bicycle routes,
    - shared roadway bicycle markings,
    - bicycle lanes, and
    - off-street bicycle and mixed-use paths; and,
    - traffic-calmed streets
- Utilize innovative designs, where appropriate, to improve bicycle usage and safety; and
- Ensure that the bicycle route network:
    - provides bicycle access to all commercial and residential areas;
    - provides bicycle access to all San Francisco Municipal Railway (Muni) metro, Bay Area Rapid Transit (BART), and Caltrain stations, ferry terminals, and other major transit hubs; and
    - is well signed, well striped, and well paved.

Network gaps have been identified by the public and staff at City agencies. The Bicycle Plan's goal is to fill these gaps and provide a comprehensive network of bikeways which offer convenient and direct connections between all of San Francisco's neighborhoods. Improvements would be implemented over time to address the identified gaps. The network is evaluated as a whole in this environmental review process considering the potential impacts from the Bicycle Plan to the complete transportation system and on all modes. The proposed improvements fall into three major categories, namely, near-term improvements, long-term improvements, and minor improvements. These improvements are discussed in detail in Subsections V.A.3, V.A.4, and V.A.5 of this document. The action items in this Bicycle Route Network Goals, Objectives and Action Items discussion, including those related to near-term, long-term, and minor improvements, as well as informational and maintenance projects, have been recommended to complete the bicycle network in San Francisco. The potential for any element or improvement resulting from the Bicycle Plan Project to cause a significant environmental impact is identified and discussed below as well as in the other sections of this report.

Action 1.1
Implement improvements to streets and paths identified as proposed near-term bicycle improvement projects and implement minor improvements to other streets and paths on the existing bicycle route network, if feasible.

The act of adopting a policy to implement improvements to streets and paths proposed as near-term bicycle improvement projects, and to implement minor improvements to other streets and paths on the existing bicycle route network, would have no direct significant effect on the physical environment. Predictable indirect impacts from the implementation of this policy would include construction of the aforementioned improvements. The impacts of constructing these improvements are analyzed at a project level in Subsection V.A.3 of this EIR with respect to traffic, transit, parking, pedestrians, bicycles, and loading for the near-term improvements, and at a program level in Subsection V.A.4 of this EIR with respect to traffic, transit, parking, pedestrians, bicycles, and loading for the minor improvements.

Subsection V.A.3 identifies project-level impacts including both potentially-significant impacts, and significant and unavoidable impacts, including a potential reduction of traffic levels of service, potential slowing of transit movement in the City, and potential reduction of truck loading spaces. Of the remaining elements reviewed in Subsection V.A.3 project-level review, all impacts were identified as being less-than-significant or as having no potential to impact the physical environment. Subsection V.A.4 recognizes no significant program-level impacts for either the individual minor improvements, or for those minor improvements in a cumulative context. Although no direct environmental impacts would result from adoption of this policy, some of the indirect impacts noted above would be potentially significant and unavoidable.

Significant Impact TR-A1.1

Predictable indirect impacts from approval of a policy to implement improvements to streets and paths proposed as near-term bicycle improvement projects, and to implement minor improvements to other streets and paths on the existing bicycle route network, or in the case of bicycle parking, to implement minor improvements within the street right-of-way, would include construction of the aforementioned improvements. The indirect results of Action 1.1 would, therefore, include all of those environmental impacts identified under the sections of the transportation study for the Bicycle Plan related to the project-level impacts of the near-term improvements with respect to traffic, transit, parking, pedestrians, bicycles, and loading and the program-level impacts resulting from implementation of minor improvements with respect to traffic, transit, parking, pedestrians, bicycles, and loading. The results of this analysis are summarized in Subsections V.A.3 and V.A.4 of this report. No significant impacts were identified from the minor improvements in V.A.4. The mitigation measures identified in Subsection V.A.3 would lessen some of the impacts that may result from implementation of the near-term improvements to a less-than-significant level. However, there would be some environmental impacts from the near-term improvements that would remain significant and unavoidable as described in Subsection V.A.3 of this report.

Action 1.2
Complete the required design and engineering for improvements to streets and paths identified as proposed long-term bicycle improvement projects and implement these improvements, if feasible.

Long-term improvements are either major improvements to segments of the existing bicycle route network or are potential future additions to the streets and pathways that comprise the bicycle route network. Completion of the design and engineering for the proposed long-term improvements would have no direct impact on the physical environment. Similarly, the act of adopting the policy allowing for the implementation of these improvements is a purely administrative activity, and would have no direct impact on the physical environment. The potential subsequent implementation of bicycle facilities, such as installation of colored paving, installation of bicycle lanes, installation of sharrows, and related design changes, have been analyzed in Subsection V.A.5 of this document with respect to traffic, transit, parking, pedestrians, bicycles, and loading. Subsection V.A.5 recognizes four potentially-significant and unavoidable impacts that could result from long-term improvements. These potential impacts were identified at the program level and include the following:

- Potential reduction in roadway capacity and increased traffic delays; reduction in the number of travel lanes could subject vehicles, including transit using the affected roadways, to increased congestion and delays; increased delays could result in drivers diverting to other, potentially less convenient, routes to access their destinations.
- Potential to cause the level of service at an intersection’s worst approach, to deteriorate from LOS D or better to LOS E or F with Caltrans signal warrants met; and/or potential to have significant adverse impacts at intersections that operate at LOS E or F under existing conditions.[2]
- Potential to cause transit to experience increased travel time on streets where these improvements reduce capacity of roadways and result in significant increases in delay.
- Potential to result in elimination of curb space currently dedicated to yellow commercial vehicle freight loading zones or active passenger loading/unloading zones.

Significant Impact TR-A1.2

Predictable indirect impacts from approval of a policy to implement improvements to streets and paths proposed as long-term improvements on the existing bicycle route network as well as additions to the network would include construction of the aforementioned improvements. The indirect results of Action 1.2 would, therefore, include all of those environmental impacts identified under the sections of the transportation impact study for the Bicycle Plan related to the program-level impacts of the long-term improvements. The results of this analysis are summarized in Subsection V.A.5 of this report and include potentially significant and significant and unavoidable impacts. As has been previously stated, the specific designs for the long-term improvements are unknown at this time. The mitigation measures identified in Subsection V.A.5 would lessen some of the impacts that may result from implementation of the long-term improvements. However, there would be some environmental impacts that would remain significant and unavoidable.

2 California Manual on Uniform Traffic Control Devices, for Streets and Highways, Part 4: Highway Traffic Signals. Sept 26, 2006. http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd/CAMUTCD-Part4.pdf

Action 1.3

Maintain a San Francisco Municipal Transportation Agency (SFMTA) Geographic Information System (GIS) database of the bicycle route network, and update the database whenever route changes occur.

The maintenance, and updating, of a SFMTA Geographic Information System (GIS) database of the bicycle network would result only in the sharing of information. There would be no significant transportation impacts on the physical environment from this action.

Action 1.4

Work with other City agencies to ensure that San Francisco continues to implement the Transit First Policy.

Collaboration between the SFMTA and other agencies, to ensure that San Francisco continues to implement the Transit-First Policy,[3] would result only in the sharing of information, and not a physical change subject to CEQA analysis. This collaboration, however, could lead to the construction of improvements or implementation of other changes to meet Transit-First Policy goals. Physical improvements known at this time are analyzed in Subsections V.A.3, V.A.4, and V.A.5 of this document, with respect to potential impacts on traffic, transit, pedestrians, bicycles, and loading. As analyzed in Subsections V.A.3, V.A.4, and V.A.5, these improvements have the potential to create significant impacts to the physical environment. Implementation of the mitigation measures identified in the transportation study would reduce some of these impacts to less-than-significant. However, there are some significant impacts for which no feasible mitigation measures have been identified. These would remain significant and unavoidable. Future projects that may result from this action are not yet known, and would be subject to separate technical review, analysis, and mitigation under CEQA.

Significant Impact TR-A1.4

Predictable indirect impacts from the collaboration between the SFMTA and other agencies to ensure that San Francisco continues to implement the Transit-First Policy could include the construction of improvements or implementation of other changes to meet Transit-First Policy goals. The indirect impacts of Action 1.4 would, therefore, include potential impacts identified under environmental review for all sections of the Bicycle Plan such as those discussed in the analysis of the potential impacts of the near-term improvements, long-term improvements, and

[3] The City's Transit-First Policy states, "The primary objective of the transportation system must be the safe and efficient movement of people and goods." In addition to promoting transit as an attractive alternative to travel by private vehicle, travel by bicycle and on foot must be attractive in the City. To this end, the City should encourage safe streets for bicycle riding, convenient access to transit, bicycle lanes, and secure bicycle parking. San Francisco City Charter Section 16.102.

minor improvements, as well as impacts that may result from future projects which would be similar to those discussed in this analysis. Physical improvements known at this time are analyzed in Subsections V.A.3, V.A.4, and V.A.5 of this document. As discussed in Subsection V.A.4, no significant impacts would result from implementation of the minor improvements. Mitigation measures have been identified in Subsections V.A.3 and V.A.5 that would address some of the significant impacts for near-term and long-term improvements. However, there are some impacts that would remain significant and unavoidable and those are also discussed in the above referenced Subsections.

Action 1.5
Conduct a before and after study on the impacts of allowing bicycles in exclusive bus/taxi lanes.

The study of impacts from allowing bicycles in exclusive bus/taxi lanes would be conducted in two stages to understand conditions before and after bicycles are allowed in these lanes. This study might require the placement of observers or mechanical equipment adjacent to locations at which these temporary mixed-mode lanes would be created. These observers would be involved in short-term data collection and recordation of traffic flow rates, safety levels for bicyclists, and other significant information. The presence of observers or monitoring equipment could be a temporary distraction for drivers, pedestrians, and cyclists in the areas under study. Such distraction could indirectly cause a slight worsening in local air quality, as motorists slow to observe the study activity. However, citizens using the public right-of-way regularly pass by a variety of similar distractions. They may slow slightly to observe the activity or navigate around it in a cautious manner but the increase in emissions released by driver-observer vehicle slowing is not appreciable to the casual observer. Furthermore, the study would be conducted for a limited duration so the increase in emissions from slowing drivers would also be temporary. The environmental impacts from conducting this study would, therefore, be less-than-significant.

It is possible that the observers or observational equipment could occupy one or more parking spaces in the area in which the study is being conducted. This minor loss of parking spaces would not result in a significant impact and would be temporary in nature. The total environmental impact of the use of parking spaces for stationing observers or observation equipment would be less than significant.

As an indirect result of this action, this study could lead to a proposal that bicyclists receive the permanent right to use bus/taxi lanes. Should this project eventually be proposed, it would be subjected to separate environmental review. Such a project is not included in the current project scope, and is therefore not subject to project-specific environmental review at this time but rather program-level review of this policy. There would be no indirect impact from this policy to study multi-mode bicycle/bus/taxi shared lanes.

Action 1.6
Review multi-lane streets for excess capacity, and explore travel lane removals where excess capacity exists to accommodate bicycle lanes or other bicycle-friendly treatments.

A review of multi-lane streets for excess capacity and exploration of travel lane removals to allow for bicycle lanes or bicycle-friendly treatments on streets where excess capacity is found, might require the placement of observers or mechanical equipment adjacent to locations being studied. These observers would be involved in short-term information gathering on traffic flow rates and other relevant information. The presence of observers or monitoring equipment could be a temporary distraction for drivers, pedestrians, and cyclists in the areas under study. Such distraction could indirectly cause a slight worsening in local air quality, as motorists slow to observe the study activity and therefore generate a slight increase in vehicle emissions in the area in which they have slowed. However, citizens using public right-of-way encounter a variety of distractions on a regular basis, and often slow slightly to observe the activity or navigate around it in a cautious manner. The resulting increase in emissions is minimal and generally unnoticeable to the casual observer, and the study would be conducted on a temporary basis, so any potential increase in emissions from slowing drivers would be temporary. Therefore, this Action would have a less-than-significant impact on local air quality.

Placement of observation equipment or observers also could occupy some parking spaces, temporarily reducing parking in the area around the studied site. The environmental impact of stationing observation equipment or crews in a limited number of parking spaces would be less than significant.

The completion of this review and analysis could lead to a proposal to create additional bicycle lanes on additional City streets. Any new projects proposed would require separate environmental review, after the projects were defined and streets and specific improvements were developed. There would be no significant indirect environmental impact from the current policy to study multi-lane streets for opportunities to create bicycle lanes and other bicycle facilities.

Action 1.7
Work with the California Department of Transportation (Caltrans) to analyze and add bicycle facilities where appropriate on current State highways within San Francisco.

The act of cooperation between the San Francisco Municipal Transportation Agency (SFMTA) and Caltrans, to analyze and add bicycle facilities on existing State highways within San Francisco would not directly effect the physical environment. This cooperative arrangement would involve a sharing of information. Any proposed transportation improvements for State highways selected by SFMTA and Caltrans would require environmental review. SFMTA and Caltrans may agree to implement treatments already studied at the program level, as minor improvements, and discussed in Subsection V.A.4. No significant impacts would result from the implementation of these treatments.

There is only one near-term improvement proposed for a State highway in San Francisco, Project 8-1, 19th Avenue mixed-use path Buckingham Way to Holloway Avenue, Option 1. Option 1 would occur on the right-of-way on 19th Avenue, which is also California State Highway 1. The extent of project impacts has been analyzed and is presented in Subsection V.A.3. No significant impacts would result from this project. In addition, minor improvements may be implemented on Sloat Boulevard between Skyline Boulevard and 19th Avenue (State Highway 35) which would require SFMTA coordination with Caltrans. The extent of project impacts resulting from minor improvements has been analyzed and is presented in Subsection V.A.4. No significant impacts would result from this project.

Subsection V.A.5, the analysis of long-term improvements, has not identified any potential improvements on State highways. However, any projects not analyzed in Subsections V.A.3, V.A.4, and V.A.5 of this document would be studied through separate environmental analysis.

Therefore, the policy to continue the cooperative arrangement with Caltrans would have no definable direct impact on the physical environment. There would be no significant impact as a result of Action 1.7.

It should be noted that SFMTA also consults with Caltrans for improvements to the bicycle route network constructed in proximity to Caltrans facilities, but which are not on State highways in San Francisco. This coordination would not result in any direct environmental impacts. Any such known improvements are discussed in Subsections V.A.3 and V.A.5 of this report and considered as part of Actions 1.1 and 1.2, but are not within the actions anticipated as part of this action item.

Action 1.8
Work with the responsible San Francisco agencies to develop revisions to San Francisco's level of service (LOS) standards and methodologies such that they better respond to the multimodal nature of San Francisco's transportation system, specifically addressing bicycles.

Collaboration between SFMTA and responsible San Francisco agencies to develop revisions to level of service (LOS) policies and methodologies would not, in itself, create change in the physical environment. Therefore, it would not constitute an environmental impact under CEQA. However, the specific changes to these policies and methodologies have not yet been defined and cannot be analyzed in this document. Therefore, this collaboration and proposal to revise LOS policies and methodologies would have no direct or indirect impact on the physical environment.

Action 1.9
Define "bicycle boulevards" and develop criteria for identifying streets that could be designated as bicycle boulevards.

The definition of "bicycle boulevards," and criteria for designating streets as bicycle boulevards, would require information gathering through research and the sharing of information between departments in the City of San Francisco and other jurisdictions that contain bicycle boulevards. Gathering of information and drafting of bicycle boulevard street designation definitions would have no direct impact on the physical environment.

The definition of "bicycle boulevards" and designation criteria would ultimately provide potentially long-lasting guidance on, and influence over, circulation patterns on San Francisco streets. This definition would affect the use of those streets that would be defined as "bicycle boulevards," or could be so designated under the definition formulated under this policy. Therefore, this policy could indirectly impact the physical environment, with potential impacts that could arise from temporary activities such as bicycle lane striping, the elimination of parking spaces, or lane reconfiguration to allow right-of-way space for bicyclists. Streets not designated, or meeting the criteria for designation, also could be physically affected if vehicle traffic moves to those streets to avoid sharing the designated bicycle boulevard streets with cyclists. The ultimate designation of specific bicycle boulevards would require environmental analysis once the City has arrived at a definition, so that affected streets could be identified and studied for project-level impacts. In the current absence of such a definition, there is no way to ascertain the level of indirect impacts that would result from the policy to adopt this new definition nor are these impacts yet authorized (pending separate environmental analysis) by adoption of the policy here considered. That which is currently contemplated is only the adoption of this policy, and this action would have no direct or indirect impact on the physical environment.

Action 1.10
Review international best practices and implement innovative design treatments along the bicycle route network with an appropriate level of analysis and study.

A review and analysis of international best practices for ideas on design treatments along the bicycle network and of the innovative design treatments themselves, would involve research and analysis, and would have no impact on the physical environment. The implementation of innovative design treatments such as the installation of colored paving, installation of directional signage, installation of sharrows, and related design changes, have been analyzed in Subsection V.A.4 of this document, and have been found to have no potentially-significant environmental impacts. Separate environmental analysis would be required for any design treatments not yet proposed and analyzed in this environmental document. Adoption of this policy, therefore, would have no significant direct or indirect impact on the physical environment.

Action 1.11
Prioritize installation of shared roadway bicycle markings where safety could be improved.

Action 1.11 would result in assigning priority to certain streets over others for the installation of shared roadway markings where bicycle travel-related safety could be improved. The act of prioritizing certain street on the bicycle route network over others for the implementation of sharrows would have no direct effect on the physical environment. However, the indirect effect would be the installation of the sharrows. Analysis of potential environmental impacts for the installation of sharrows is provided in Subsection V.A.4. Sharrows have been determined not to result in significant environmental effects. Thus, the prioritization of shared roadway bicycle markings, to improve safety, would have no significant effect on the physical environment.

Action 1.12
Work with the Department of Public Works (DPW) to develop and enforce a set of standards that must be strictly adhered to by contractors for street excavation restoration.

The coordination of work between SFMTA and the Department of Public Works (DPW), to develop and enforce a set of standards for street excavation restoration by contractors, would have no impacts on the physical environment. This policy could encourage and allow DPW to secure a higher level of workmanship by street excavation and restoration contractors. The physical impact of this improved workmanship would be positive, and would result in longer time periods between street repairs, and therefore, fewer traffic disruptions and reduced emissions arising from cars backed up in traffic behind street repair crews. This policy would have no direct or indirect impact on the physical environment.

Action 1.13
Work with the responsible San Francisco agencies to create a prioritized citywide bicycle and mixed-use pathway inventory that includes: surface condition; signage and lighting status; required maintenance or improvements needed; and the agency responsible for each pathway.

Work between the SFMTA and other San Francisco agencies would, be an activity involving the cooperative exchange and management of information. This collaboration would not have an impact on the physical environment. The result of this collaboration would be the creation of a prioritized bicycle and mixed-use pathway inventory, including surface and other amenity status, required improvements and maintenance, and the associated responsible agency. Creation of such a list also would be an essentially administrative task and would have no impact on the physical environment. The ultimate indirect result of adopting this policy would be two-fold, namely:

Maintenance and improvement levels on the bicycle and mixed-use pathway system are an aspect of the physical environment, and poor pathway systems could erode pathway use and undermine the Bicycle Plan's goal of promoting bicycle use in the City. Poor pathway maintenance levels may result in some cyclists or pedestrians diverting their travel from designated pathways to nearby streets. However, this would be an unusual circumstance. A commitment to maintain the pathway system would have a less-than-significant impact on the environment, as it would ensure that the pathway system is kept relatively unchanged, and in the optimal usable condition.

The indirect result of the proposed policy to maintain the bicycle pathways would be the execution of related maintenance tasks and construction of improvements. These activities could temporarily block and slow pedestrians or bicycle travel depending on the pathway in question. As the maintenance and improvements work would be temporary, likely to last no more than a few days to a week, the impact of the total potential increase in vehicle emissions arising from maintenance or repair activities would be less-than-significant. These actions would have no significant impact under the current project.

Action 1.14
Work with the DPW and the Recreation and Parks Department to maintain a regular sweeping schedule of bicycle routes on City-accepted streets and City-maintained off-street paths that are not currently cleaned on a regular schedule – in addition to sweeping bikeways whenever there is an accumulation of debris such as gravel, glass, and sand.

Collaboration between the SFMTA, DPW, and Recreation and Park Department to maintain a regular sweeping schedule of bicycle routes would not affect the physical environment as the collaborative process would consist solely of information sharing and coordination of ideas. The indirect result of this collaboration would be the execution of scheduled sweeping, possibly with increased frequency. Sweeping activities can affect the physical environment in two ways: They can make paths safer for use and travel, and they can create temporary obstruction to pathway users and individuals temporarily sharing the path of travel with the sweeping equipment. The sweeping equipment may slow movement of vehicles, transit, bicycles and pedestrians on paths being swept, and on roads that the sweeping equipment uses to reach the sweeping location. This potential impact would occur on a temporary basis and only at the time of sweeping, a periodic activity. Therefore, the indirect environmental impact of this policy would be less than significant.

Action 1.15
Work with the DPW to prioritize streets on the bicycle route network within the DPW's street resurfacing program.

The SFMTA's decision to work collaboratively with DPW to prioritize streets on the bicycle route network for DPW's street resurfacing program would have no impact on the environment. This action would result in some streets being repaved before other streets. The level of prioritization would only change the order in which streets would be repaved. It would not result in an increased in street repaving. Therefore, no environmental impacts would result from the imposition of this prioritization scheme.

Action 1.16
Work with the DPW to inspect streets on the bicycle route network on a yearly basis.

No direct physical impact would result from the SFMTA's work with DPW to inspect streets on the bicycle routes on an annual basis. An inspection process already occurs, and the policy currently proposed would potentially add more observers or a new focus to the process, but would involve no new or additional traffic slowing or other impact with potential environmental implications. The inspection of streets could indirectly lead to additional maintenance, but it is likely that this maintenance would be called for by DPW under normal working procedures. Therefore, there would be no direct or indirect impacts from these inspections.

Action 1.17

Create an inventory of locations along the bicycle route network that intersect or run parallel to railroad tracks and light-rail transit tracks. If future crossings are needed, they shall be designed in consultation with the California Public Utilities Commission (CPUC) Railroads Crossing Engineering Section and built to CPUC standards.

The creation of an inventory of bicycle route locations that intersect or run parallel to railroad tracks would be an information gathering exercise. The compilation of information would have no physical impact on the environment. The subsequent identification of measures to mitigate impacts of track crossings on bicyclists could lead to plans for new improvements, but any new improvement projects, arising as a result of the compilation of this inventory, would require separate environmental review and clearance. This policy, therefore, would have no direct or indirect significant impact on the environment.

Additional Action

The Bicycle Program anticipates utilizing bicycle detectors to facilitate bicycle traffic through signalized intersections that are traffic-actuated where existing detector devices cannot adequately detect bicycles. Bicycle detectors are devices used at traffic-actuated signalized intersections to ensure that signal phase actuation can be triggered by bicycles in addition to motor vehicles.

In general, bicycle detectors allow bicyclists to actuate a traffic signal when they arrive at an intersection. These devices provide a function similar to pedestrian crosswalk systems where a pedestrian manually triggers the detector system by pressing a button. These devices would prevent bicyclists from waiting at a traffic-actuated traffic signal for extended periods of time when no other vehicles are present in order to cross the intersection legally. The installation of such devices may involve minor excavation in the roadway. Once implemented, these devices would limit unnecessary waiting by cyclists at intersections but would have no other environmental effects. Therefore, the use of bicycle detectors would not result in direct or indirect significant environmental impacts.

BICYCLE PARKING GOALS, OBJECTIVES AND ACTION ITEMS

This Bicycle Parking discussion relates to Chapter 2 of the Bicycle Plan, and defines action items that would fulfill the following goals and objectives:

Chapter 2 Goal:

- Ensure Plentiful, High-Quality Bicycle Parking

Chapter 2 Objectives:

- Provide secure short-term and long-term bicycle parking, including support for bicycle stations and attended bicycle parking facilities at major events and destinations; and
- Provide current and relevant information to bicyclists regarding bicycle parking opportunities through a variety of formats.

Despite recent progress toward providing ample secure bicycle parking throughout the City, many office buildings, commercial districts, public transit stations, and tourist attractions still lack adequate bicycle parking. The unavailability of bicycle parking, with protections against theft, vandalism, and the weather, discourages people from cycling. The Bicycle Program therefore desires to implement bicycle parking within the public right-of-way, where appropriate, whenever a need is identified. The action items in this Bicycle Parking Goals, Objectives and Action Items discussion have been recommended to ensure a protected and ample supply of bicycle parking facilities throughout the City. These action items would have no significant impact on the environment.

Action 2.1
Work with the Planning Department to consolidate Sections 155.1-155.5 of the *Planning Code* to provide clearer regulations, guidance, and exemptions related to bicycle parking.

No direct impacts would result from collaboration between the SFMTA and the Planning Department to consolidate Sections 155.1-155.5 of the *Planning Code,* for the purpose of providing clearer regulation, guidance, and exemptions related to bicycle parking. This collaboration would involve meetings, sharing of information and recommendations, and proposed amendments to the text of the *Planning Code* in accord with the conclusions reached through this collaborative process. None of these actions would have a direct physical component. However, while the goal is to provide greater clarity and guidance for the application of existing bicycle parking requirements, it is possible that more bicycle parking would be constructed as a result of Action 2.1. Therefore, an indirect result of this collaboration could be the creation of additional bicycle parking in the City. The provision of more bicycle parking could displace vehicular parking or other uses including residential floor area. The potential level of impact would be minor. An increase in bicycle parking and any coincident impacts would not constitute a significant impact under CEQA.

Action 2.2
Work with the Planning Department to modify the *Planning Code's* requirements for bicycle parking so that they are less dependent on automobile parking provisions.

Action 2.2 would result in collaboration between SFMTA and the Planning Department to modify *Planning Code* requirements for bicycle parking so that they are less dependent on automobile parking provisions. The collaborative effort itself would have no impact on the physical environment. One indirect impact of this collaboration could be the implementation of policies allowing for a greater provision of bicycle parking spaces to residential units. This would have no detrimental effect on the physical environment. It may result in a greater rate of cycling among San Francisco residents. To the extent that these increased bicycle trips replace vehicle trips, this may lead to a reduction in vehicle emissions. A secondary impact of this collaboration could be the allowance of more bicycle parking. This could influence vehicle parking requirements and result in a decrease in the space for vehicle parking required for some development projects.

The exact reduction in automobile parking spaces resulting from the implementation of Action 2.2 is unknown. Parking deficits are considered to be social effects, rather than impacts on the physical environment, as defined by CEQA. Under CEQA, a project's social effects need not be treated as significant impacts on the environment. Environmental documents should address any secondary impacts that could be triggered by a social impact. (CEQA Guidelines Section 15131(a)). The social inconvenience of parking deficits, such as having to hunt for scarce parking spaces, is not an environmental impact, but there may be secondary physical environmental impacts, such as increased traffic congestion at intersections, air quality impacts, safety impacts, or noise impacts caused by congestion. In the experience of San Francisco transportation planners, however, the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g., transit service, taxis, bicycles or travel by foot) and a relatively dense pattern of urban development, induces many drivers to seek and find alternatives parking facilities, shift to other modes of travel, or change their overall travel habits. Any such resulting shifts to transit service in particular, would be in keeping with the City's "Transit First Policy." The City's Transit First Policy, established in the City's Charter Section 16.102, provides that "parking policies for areas well served by public transit shall be designed to encourage travel by public transportation and alternative transportation." Projects and treatments proposed for the Bicycle Plan are designed to reduce conflicts between bicyclists and other vehicles, and, thereby, safely accommodate increased bicycle use in the City. Therefore, Action 2.2 is not likely to result in significant transportation impacts. Therefore, Action 2.2 would have no potential significant direct or indirect impact on the physical environment under CEQA.

Action 2.3
Work with the Planning Department to amend the *Planning Code* to increase required bicycle parking for new residential development and base this requirement on a proportion of dwelling units.

The work of the SFMTA and Planning Department to amend the *Planning Code* to increase the required bicycle parking for new residential developments would have impacts similar to those discussed under Action 2.2. As noted above, the act of collaboration would have no impact on the environment. The indirect impact of creating more bicycle parking, whatever the basis for the proposed analysis used to define the number of spaces required, could lead to a concomitant reduction in the provision of vehicle parking spaces. As discussed in Action 2.2, above, parking deficits are considered to be social effects and not physical impacts on the environment. Therefore, the potential loss of vehicle parking, to make way for more bicycle parking would not be considered an impact under CEQA. By indirectly causing a reduction in the parking provided in new residential projects, this policy also could indirectly lead to a reduction in total vehicle travel in the City, and thus a reduction in vehicle emissions. There would be no significant environmental impact as a result of Action 2.2.

Action 2.4
Work with the responsible San Francisco agencies and entities to ensure that all garage bicycle parking is secure, well monitored, and well advertised at garage entrances and other appropriate locations.

A policy of multi-agency cooperation to ensure that garage bicycle parking is secure, well monitored, and well advertised at garage entrances and other appropriate locations would not have a direct impact on the environment, in itself. If these provisions are enforced, they could result in an indirect effect of encouraging more bicycling due to the availability of secure bicycle parking. Projects and treatments proposed for the Bicycle Plan are designed to reduce conflicts between bicyclists and other vehicles, and, thereby, safely accommodate increased bicycle use in the City Therefore, an increase in bicycle use resulting from the enforcement of bicycle parking provisions as specified in the *Planning Code* is not likely to result in significant transportation impacts. Thus, there would be no significant environmental impacts with implementation of Action 2.4.

Action 2.5
Work with the Planning Department to increase monitoring and enforcement of bicycle parking provisions in the *Planning Code*, especially when issuing building permits.

An increase in monitoring and enforcement of bicycle parking provisions in the *Planning Code*, particularly when the City issues building permits, would lead to impacts similar to those described for Action 2.1, which contemplates the clarification of bicycle parking provisions. Any increased attention to the provision of bicycle parking may indirectly exert pressure on the allocation of square footage for other uses including vehicle parking. However, both vehicle parking and residential floor area would have to remain consistent with *Planning Code* requirements. The impact of reducing vehicle parking and residential floor area for other uses to allow for more bicycle parking would be minimal and less than significant. Therefore, the policy to increase monitoring and enforcement of bicycle parking provisions would not constitute a significant impact under CEQA.

Action 2.6
Hold meetings as needed between SFMTA and Planning Department staff to update citywide bicycle parking compliance status and review bicycle parking information posted on the SFMTA website.

The conduct of meetings between SFMTA and Planning Department staff, to update citywide bicycle parking compliance status and review bicycle parking information on the SFMTA's website would be an administrative activity without the potential to impact the physical environment. The focus of this activity is to ensure that both agencies have the most current information to effectively address bicycle parking issues in the City. Indirect impacts that may result from this action, such as the anticipated installation of additional bicycle parking facilities, are analyzed in Subsection V.A.4, and also have been found to have no significant impacts on the physical environment.

Action 2.7
Conduct the SFMTA's bicycle parking training for new Planning Department personnel, as needed.

Provision of bicycle parking training for new Planning Department personnel, by SFMTA, would involve the exchange of information. This action would have no direct impact on the physical environment. Any indirect impact of this action would arise from the new staff member's direct implementation of bicycle parking provisions of the *Planning Code* as discussed in Actions 2.1 to 2.5 above. There would be no significant environmental impact related to Action 2.7.

Action 2.8
Ensure that all City leases are negotiated to include the required level of bicycle parking by cooperative efforts of the City Real Estate Department and SFMTA.

There would be no direct environmental impact from the act of adopting a policy that all City leases (leases of buildings by the City) include a requirement to provide the required level of bicycle parking. Indirect impacts would include the potential encouragement of bicycle riding in the City, to and from these City buildings. This could correspond to a reduction in vehicle use, which may result in reduced vehicle emissions. This policy could also indirectly cause the subject buildings to offer nominally fewer vehicle parking spaces because they may require floor area in which to install bicycle parking. Should this be the case, vehicle parking stalls might be eliminated to provide more floor area in which more bicycle parking could be installed to meet this need. Some drivers could be displaced by any removal of vehicle parking stalls to allow for the addition of bicycle parking. The displacement of cars from parking spaces could lead to more circling and greater vehicle emissions that arise from cars circling and seeking alternative parking spaces. Such greater emissions levels would qualify as an impact to the physical environment. Notwithstanding this concern, as discussed in Action 2.2, above, San Francisco transportation planners' experience indicates that the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g. transit, bicycles, taxis or travel by foot) and a relatively dense pattern of urban development, induces many drivers to seek and find alternative parking facilities, shift to other modes of travel, or change their overall travel habits. Thus, the impacts of reducing the number of parking spaces would likely not lead directly to more circling behavior on a scale that would generate new vehicle emissions. Action 2.8 would not generate either a significant direct or indirect impact on the physical environment.

A further indirect impact could be that Action 2.8 would encourage greater bicycle use in the City. The Bicycle Plan proposes projects and treatments designed to reduce conflicts between bicyclists and other vehicles, and thereby safely accommodate increased bicycle use in the City. Therefore, an increase in bicycle use resulting from Action 2.8 would have no significant impact on the environment.

Action 2.9
Pursue a citywide policy to provide secure bicycle parking at all City buildings in areas to be specified by the individual agencies, subject to safety regulations and available space, by cooperative efforts of the City Real Estate Department, the Planning Department, and the SFMTA.

Requirements for bicycle parking for City-owned and leased buildings are specified in Section 155.1 and 155.2 of the *Planning Code*. The pursuit of a citywide policy to provide secure bicycle parking in City buildings subject to safety regulations and available space would have a similar effect as the multi-agency efforts to ensure secure garage bicycle parking discussed in Action 2.4 above. While the pursuit of the policy would have no impact on the physical environment, the policy could lead to the increased use of bicycles as cyclists find that their bicycles can be stored safely and easily in City buildings. The Bicycle Plan proposes projects and treatments designed to reduce conflicts between bicyclists and other vehicles, and thereby safely accommodate increased bicycle use in the City. Therefore, an increase in bicycle use resulting from Action 2.9 would have no significant impact on the environment.

Action 2.10
Work with the Planning Department to amend the *Planning Code* to lower the number of automobile parking spaces required in buildings where Class I bicycle parking is provided.

Collaboration between SFMTA and the Planning Department, to amend the *Planning Code* to lower the number of automobile parking space required in buildings where Class I bicycle parking is provided, would not have any impacts on the physical environment. The act of collaboration would have no significant impact on the physical environment. This collaboration would potentially indirectly affect the availability of vehicle parking spaces in buildings because availability of Class I bicycle parking would reduce requirements for vehicle parking spaces in the those buildings that contain Class I bicycle parking.

The exact reduction in automobile parking spaces resulting from the implementation of Action 2.10 is unknown. However, parking deficits are considered to be social effects, rather than impacts on the physical environment as defined by CEQA. Under CEQA, a project's social impacts need not be treated as significant impacts on the environment. Environmental documents should, however, address the secondary physical impacts that could be triggered by a social impact. (CEQA Guidelines Section 15131(a)). The social inconvenience of parking deficits, such as having to hunt for scarce parking spaces, is not an environmental impact, but there may be secondary physical environmental impacts, such as increased traffic congestion at intersections, air quality impacts, safety impacts, or noise impacts caused by congestion. In the experience of San Francisco transportation planners, however, the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g., transit service, taxis, bicycles or travel by foot) and a relatively dense pattern of urban development, induces many drivers to seek and find alternative parking facilities, shift to other modes of travel, or change their overall travel habits. Any such resulting shifts to transit service in particular, would be in keeping with the City's "Transit First" policy. The City's Transit First Policy, established in the City's Charter Section 16.102 provides that "parking policies for areas well served by public transit shall be designed to encourage travel by public transportation and alternative transportation."

Projects and treatments proposed for the Bicycle Plan are designed to reduce conflicts between bicyclists and other vehicles and thereby safely accommodate increased bicycle use in the City. Therefore, an increase in bicycle use that may result from the provision of bicycle parking in City-owned and City-leased buildings would not likely result in significant transportation impacts. Therefore, there would be no significant direct or indirect impact on the physical environment, as a result of Action 2.10.

Action 2.11
Work with the Planning Department to amend the *Planning Code* to require bicycle parking in each individual building of large, multiple-building developments.

An amendment of the *Planning Code* that would require bicycle parking in each individual building of large multiple-building developments would have no direct impact on the physical environment as the amendment process would be a procedural activity involving the exchange of information and collaboration. The indirect impact of the policy to create more localized bicycle parking locations, rather than allowing all bicycle parking to be centralized in a single building in a multiple-building development, would likely be an increased rate of bicycle riding among residents of the multiple-building complex. All residents would presumably be able to store their bicycles in their own buildings, where they would be more conveniently accessible and therefore easier to use for local trips. The potential increase in bicycle use among residents of multiple-building complexes could be accompanied by a matching decrease in resident use of cars for short trips.

Projects and treatments proposed for the Bicycle Plan are designed to reduce conflicts between bicyclists and other vehicles and thereby safely accommodate increased bicycle use in the City. Therefore, an increase in bicycle use that may result from the provision of bicycle parking in all buildings of multiple-building development would not likely result in significant transportation impacts. Therefore, there would be no significant direct or indirect impact on the physical environment, as a result of Action 2.11.

Action 2.12
Work with the Planning Department to amend the *Planning Code* to require building owners to allow tenants to bring their bicycles into buildings unless Class I bicycle parking is provided.

Work between the SFMTA and Planning Department to amend the *Planning Code* to require building owners to allow tenants to bring their bicycles into buildings unless Class I bicycle parking is provided would have no significant impact on the physical environment. The adoption of a provision for tenants to carry bicycles into the safety of their rental units would have no significant indirect impact on the physical environment aside from potentially encouraging more bicycling. An indirect result may be a decrease in vehicle trips which may lead to reduced vehicle emissions.

Projects and treatments proposed for the Bicycle Plan are designed to reduce conflicts between bicyclists and other vehicles and thereby safely accommodate increased bicycle use in the City. Therefore, an increase in bicycle use that may result from allowing tenants to bring their bicycles into buildings unless Class I bicycle parking is provided would not likely result in significant transportation impacts. Therefore, there would be no significant direct or indirect impact on the physical environment, as a result of Action 2.12.

Action 2.13
Work with the responsible San Francisco agencies to prepare additional guidelines for the placement and design of bicycle parking within City rights-of-way, including curbside on-street bicycle parking where feasible, and "sleeve" ring racks on parking meters.

Collaboration by SFMTA with responsible San Francisco agencies to prepare guidelines for the design and placement of bicycle parking in City rights-of-way would have no direct impact on the environment as the preparation of guidelines is an administrative function involving only the exchange of ideas, writing and analytical functions. The indirect effect of the preparation of these guidelines would be the possible implementation of new bicycle parking policies and ultimately the possible installation of new bicycle parking racks along City sidewalks and elsewhere in the City right-of-way. The installation of bicycle racks is analyzed at the program-level in Subsection V.A.4, which determines that there would be no significant impact as a result of the placement of these bicycle racks. Therefore, no potential direct or indirect impact on the physical environment would result from Action 2.13.

Action 2.14
Develop and maintain an SFMTA bicycle parking outreach campaign in various formats to provide relevant bicycle information such as garage locations with bicycle parking and bicycle locker availability.

The maintenance of an SFMTA bicycle parking outreach campaign to provide information on bicycle parking and locker locations would be an administrative task without the potential to impact the physical environment. The indirect result of the maintenance of this information would likely include increased bicycle ridership as this information would allow riders to move around the City knowing that they would not have trouble locating a bicycle parking spot at or near their destination. This impact could indirectly lead to reduced reliance on auto transportation, as bicycle riding might be seen as a more viable alternative, thanks to the availability of bicycle parking information. With the potential reduction in auto use there may be a potential reduction in auto emissions, which would be a positive impact on the physical environment. Projects and treatments proposed for the Bicycle Plan are designed to reduce conflicts between bicyclists and other vehicles and thereby safely accommodate increased bicycle use in the City. Therefore, an increase in bicycle use that may result from increased awareness of bicycle parking opportunities would not likely result in significant transportation impacts. Therefore, there would be no significant direct or indirect impact on the physical environment as a result of Action 2.14.

Action 2.15
Work with the San Francisco Police Department (SFPD) to make bicycle theft investigation a higher priority and create a better system for returning recovered bicycles to their owners.

Collaboration between SFMTA and SFPD to prioritize bicycle theft investigations is an administrative and outreach function that would have no impact on the physical environment. The indirect result of this action would be a change in SFPD operating procedures to focus additional attention on bicycle theft. This refocusing of police resources is not anticipated to require an addition of officers beyond SFPD's current approved capacity, or to require the addition of more police patrol (pollutant-emitting) vehicles on City streets. Should the SFPD increased priority of bicycle crime investigation, this indirect result of Action 2.15 would have no significant environmental impact.

TRANSIT AND BRIDGE ACCESS GOALS, OBJECTIVES AND ACTION ITEMS

This Transit and Bridge Access section refers to Chapter 3 of the Bicycle Plan, and defines action items that would accomplish the following goals and objectives:

Chapter 3 Goal:

- Expand Bicycle Access to Transit and Bridges

Chapter 3 Objectives:

- Provide bicycle access to transit vehicles whenever feasible;
- Provide convenient bicycle access and bicycle parking at transit stations; and
- Provide bicycle access to all local bridges wherever feasible.

The integration of bicycle and transit use at the local and regional level enhances the role of each in providing convenient transportation and is essential in maximizing the bicycle's transportation utility for medium-range and long-range trips. Access to transit vehicles through the provision of bicycle parking at transit stations, for example, provides an inter-modal link that improves the efficiency and range to both transit and bicycling that could ensure maximum connectivity between destinations. The action items in this Transit and Bridge Access Goals, Objectives and Action Items discussion would support the integration of bicycle and transit use, and the Bicycle Plan bridge access goals. As discussed below, these action items would have no significant impact on the environment.

Action 3.1
Create an SFMTA policy that explicitly permits folded bicycles on all SFMTA transit vehicles.

The creation of an SFMTA policy to allow folded bicycles on all SFMTA transit vehicles would have no environmental impact as the creation of policies is an administrative act involving only the exchange of information, writing, and analysis. The indirect results of implementing such a policy would be the allowance of folded bicycles[4] on SFMTA transit vehicles. Currently, Muni does not have a limitation on the baggage carried on board by passengers either as backpacks, suitcases, baby strollers or packages. However, folded bicycles are explicitly excluded as acceptable carry-ons. While allowing folded bicycles within Muni transit vehicles may impact their carrying capacity for passengers, this impact would not differ from the impacts that now occur as a result of current policies regarding other allowable baggage on board. Implementation of Action 3.1 could potentially make combined bicycle-transit use more convenient. The added convenience of combined bicycle-transit travel may cause some people

[4] The dimensions of folded bicycles differ by manufacturer and bicycle style. Dimensions range from 22"x22"x10" at the smaller size to 36"x28"x12" at the larger size.

to discontinue driving which could result in a potential decrease in vehicle emissions. Thus, Action 3.1 would not have significant impacts on the environment.

Action 3.2
Develop a pilot program to provide bicycle access on SFMTA light rail vehicles for a trial period that would be monitored for potential future implementation.

Similar to Action 3.1, the development of a pilot program to provide bicycle access on SFMTA light rail vehicles for a trial period would have no environmental impact as the creation of policies is an administrative act involving only the exchange and analysis of information and the writing of documents. Indirect environmental impacts would include the temporary allowance of bicycles on SFMTA light rail vehicles (LRV). The added convenience of combined bicycle-LRV travel may cause some people to discontinue driving, which could result in a potential decrease in vehicle emissions. However, any indirect environmental impacts under this pilot program would last for the duration of the pilot program only. Permanent implementation of the program would require environmental review of the proposed project. Thus, Action 3.2 would not have significant impacts on the environment.

Action 3.3
Update the SFMTA's bicycle accessibility guidelines and widely distribute and publicize these guidelines.

The SFMTA's update, distribution, and publicizing of its bicycle accessibility guidelines would involve the analysis of current accessibility guidelines, setting of accessibility goals, and research on other potential bicycle accessibility measures, followed by the preparation and printing of documents. These activities would have minimal impacts on the physical environment. The update and publicizing of the bicycle accessibility guidelines would have the indirect impact of encouraging more bicycle riding within the City and may lead to increased use of both bicycle and transit modes on a single trip. Increased bicycle use may lead to a corresponding decrease in vehicle trips. Projects and treatments proposed for the Bicycle Plan are designed to reduce conflicts between bicyclists and other vehicles and thereby safely accommodate increased bicycle use in the City. Therefore, an increase in bicycle use that may result from increased awareness of bicycle accessibility guidelines would not likely result in significant transportation impacts. Therefore, there would be no significant direct or indirect impact on the physical environment as a result of Action 3.3.

Action 3.4
Create a SFMTA policy that allows bicyclists with disabled bicycles to bring them aboard SFMTA transit vehicles, interior space permitting and at the vehicle operator's discretion, when the SFMTA transit vehicle either does not have bicycle racks or when the racks are full.

The creation of an SFMTA policy to allow bicyclists to bring disabled bicycles aboard SFMTA vehicles, when space permits and at the transit vehicle operator's discretion, would have no significant environmental impact insofar as the creation of a policy involves the exchange of information. The indirect environmental impact of this policy would be the actual transportation of disabled bicycles on the interior of SFMTA transit vehicles rather than on outside racks or in equivalent "designated" locations. Since this new policy would allow disabled bicycles on board Muni vehicles only when interior space is available and the buses are not overly crowded as determined by the vehicle operator, there would be no impact on Muni capacity. Thus, the implementation of Action 3.4 would have a less-than-significant environmental impact.

Action 3.5
Install bicycle racks on all SFMTA-operated buses, and work with other transit operators with buses operating in San Francisco to install bicycle racks on their bus fleets.

The installation of bicycle racks on SFMTA-operated buses and efforts to work with other bus operators to install bicycle racks on their fleets would require (a) the use of hand tools and power tools to install nuts, bolts and other attachment devices, to hold the bicycle racks to the buses, and (b) outreach efforts to other bus providers, by the SFMTA. The outreach efforts would only involve communication so would have no impact on the physical environment. This action would not result in a significant impact on the environment.

Upon installation these new bicycle racks may encourage increased bicycle ridership which may result in a potential reduction in total automobile emissions in the City. Projects and treatments proposed for the Bicycle Plan are designed to reduce conflicts between bicyclists and other vehicles and thereby safely accommodate increased bicycle use in the City. Therefore, an increase in bicycle use that may result from additional bicycle racks on transit vehicles would not likely result in significant transportation impacts. Therefore, there would be no significant direct or indirect impact on the physical environment as a result of Action 3.5.

Action 3.6
Work with Bay Area Rapid Transit (BART) to analyze existing bicycle policies, identify expanded bicycle access times, and create a trial program for non-folding bicycle access in both directions on Transbay peak period trains.

Collaboration between SFMTA and Bay Area Rapid Transit (BART) would involve the exchange of information and would not have a direct impact on the physical environment. This collaboration would be for the purpose of analyzing existing bicycle policies, expanding times for bicycle access to BART, and creating a trial program for non-folding bicycle access on BART through the Transbay tube on peak period trains. Were the collaboration to accomplish the three goals outlined above, one would expect greater rates of bicycle movement through the BART system including at peak commute hours Indirect environmental effects of this collaboration may result in increased BART-bicycle trips which may lead to fewer Transbay vehicle trips.

Concerns with bicycles on-board peak hour trains include impacts on train capacity and conflicts with passengers in crowded stations, stairwells, and escalators. However, the impacts of a pilot study are temporary and as such, there would be no significant impacts to transportation. The consideration of potential impacts to the environment that may result from permanent adoption of increased bicycle access to BART would be the responsibility of BART, and would be addressed when policy or operational changes related to bicycles on BART are made. Therefore, there would be no significant direct or indirect impact on the physical environment as a result of Action 3.6

Action 3.7
Work with Caltrain to expand bicycle access on its trains and to its San Francisco stations by promoting bicycling to stations and by providing secure bicycle parking at station areas.

Collaboration between SFMTA and Caltrain would not have a direct impact on the physical environment as this collaboration would only involve the exchange of information. However, if the collaborative effort is successful, it may lead to the expansion of bicycle access to the San Francisco Caltrain stations and the potential increase in secure bicycle parking provided at station areas. Such changes could encourage bicyclists to complete more trips using Caltrain-bicycle transport in lieu of automobiles. This may lead to fewer vehicle trips from San Francisco to the Peninsula. Action 3.7 also could have the indirect effect of encouraging more bicycling due to the improved access to Caltrain stations and increased availability of bicycle parking at the stations. Projects and treatments proposed for the Bicycle Plan are designed to reduce conflicts between bicyclists and other vehicles, and, thereby, safely accommodate increased bicycle use in the City. Therefore, Action 3.7 would not result in significant environmental impacts.

Action 3.8
Ensure that all San Francisco transit stations, including the new Transbay Terminal, provide barrier-free bicycle access and state-of-the-art bicycle parking facilities, and work with the California High-Speed Rail Authority to ensure bicycles are accommodated on its long-distance trains.

As previously discussed, access to transit for bicyclists provides an inter-modal link that improves the efficiency and range for both bicycling and transit. Bicycle parking at transit stations is an important aspect of this connectivity as is the ability of bicyclists to get to transit vehicles and bicycle parking facilities at the station. Barrier-free bicycle access with the inclusion of adequate and convenient stairways, elevators, ramps, and stair channels, are especially important in multi-level facilities.

Under Action 3.8, SFMTA would cooperate with responsible City agencies to ensure that all transit stations in San Francisco, including the new Transbay Terminal (Transbay Transit Center), would be bicycle-accessible and include secure bicycle parking facilities. In addition, SFMTA would work with the California High Speed Rail Authority to ensure bicycle access on its long distance trains that will serve the new Transbay Terminal (Transbay Transit Center) on Mission Street between Beale and 2nd Streets. This action represents a request for cooperation between City and non-City agencies and, as such, is not likely to result in a physical change to the environment. Implementation of Action 3.8 could result in an indirect effect of encouraging more bicycling and multi-mode trips in San Francisco due to improved access to transit stations and future high speed rail service. Projects and treatments proposed for the Bicycle Plan are designed to reduce conflicts between bicyclists and other vehicles, and, thereby, safely accommodate increased bicycle use in the City. Therefore, Action 3.8 would not result in significant environmental impacts.

Action 3.9
Work with the San Francisco Bay Area transit operators and the Metropolitan Transportation Commission (MTC) to develop, implement, maintain, expand, and enforce improved inter-modal bicycle access.

In recent years MTC has been working for improved transit connectivity within the nine county San Francisco Bay Area. The MTC Transit Connectivity Plan[5] studied many issues of transit

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5 Refer to MTC website for copy of this plan at http://www.mtc.ca.gov/planning/connectivity/index.htm

connectivity including 'last mile' connections for bicyclists. In addition, MTC sponsors the Safe Routes to Transit Program, authorized by Regional Measure 2 in 2004. The City of San Francisco has been directly involved in both these and other efforts to improve bicycle access within and to/from San Francisco. Under Action 3.9, the SFMTA would continue to work with MTC and other transit operators on on-going efforts to improve inter-modal access. This action represents the sharing of information and cooperation between City and non-City agencies in support of improved bicycle access in the Bay Area and, as such, is not likely to result in changes to the physical environment. The indirect result of this collaboration, if successful, would be the development, implementation, maintenance, expansion, and enforcement of improved inter-modal bicycle access. The indirect results of improving multi-modal bicycle access could be the replacement of some automotive trips with multi-modal bicycle-transit trips. Therefore, Action 3.9 would not result in significant environmental impacts.

Action 3.10
Promote bicycle parking stations at major transit hubs that provide secure, monitored bicycle parking, bicycle commuter information, and bicycle maintenance services.

The act of promoting bicycle parking stations would have no significant impact on the environment. The promotion of bicycle parking stations in major transit hubs would facilitate regional residents' use of bicycles as a mode of transportation. These parking stations would make efficient use of space within transit hubs and be more efficient than current bicycle lockers. It is unlikely that transit hubs would lose any amenities such as vehicle parking spaces or transit operation and circulation area. Therefore, the indirect impact of this policy would potentially be limited to an increase in bicycle use from an increased supply of secure bicycle parking and bicycle-related information and a possible reduction in personal vehicle use. Projects and treatments proposed for the Bicycle Plan are designed to reduce conflicts between bicyclists and other vehicles, and, thereby, safely accommodate increased bicycle use in the City. Therefore, there would be no significant environmental impacts as a result of Action 3.10.

Action 3.11
Work with Caltrans and the Golden Gate Bridge, Highway and Transportation District (GGBHT) to provide improved bicycle access to and upon all San Francisco bridges wherever feasible and appropriate.

SFMTA collaboration with Caltrans and the GGBHTD, in an effort to provide improved bicycle access to and upon San Francisco bridges would involve communications and the exchange of information between SFMTA and these other agencies. This communication and exchange of information would have no impact on the environment. The indirect impact of this exchange could be the provision of improved bicycle access on some or all bridges to and within the City of San Francisco. Such improved access could support bicyclists in making trips to, from, and within the City, where such trips would involve crossing a bridge from which bicycles are currently precluded. This would potentially support increased ridership and use of bicycles as a means of transportation to, from, and throughout the City of San Francisco. As noted above, any reduction in vehicle trips would lead to some reduction in vehicle emissions. Projects and treatments proposed for the Bicycle Plan are designed to reduce conflicts between bicyclists and other vehicles, and, thereby, safely accommodate increased bicycle use in the City. The consideration of potential impacts to the environment that may be the result of subsequent actions by Caltrans or the GGBHTD would be their responsibility to address if policy or operational changes are recommended. Therefore, there would be no significant environmental impacts as a result of Action 3.11.

EDUCATION GOALS, OBJECTIVES AND ACTION ITEMS

The Education action items relate to Chapter 4 of the Bicycle Plan, and would accomplish the following goals and objectives:

Chapter 4 Goal:

- Educate the Public about Bicycle Safety

Chapter 4 Objectives:

- Create, fund, and implement bicycle safety curricula for the general public and targeted populations; and
- Create, fund, and implement bicycle safety outreach campaigns for motorists, bicyclists, and the general public.

The overall goal of the following action items is to educate the general public and targeted populations about bicycle safety. This would be accomplished by creating, funding, and implementing bicycle-safety curricula for the intended groups while also creating, funding, and implementing bicycle-safety outreach campaigns for motorists, bicyclists, and the general public. These programs would develop safety awareness by 1) providing information to the public through outreach channels such as media campaigns, brochures, and websites and by 2) teaching specific bicycle handling and traffic maneuvering skills through classroom instruction and practical on-bike training. Jointly, these programs would raise awareness of motorist and bicyclist responsibilities for safe roadway sharing and would encourage safe cycling and driving behavior. As discussed below, these action items would have no significant impact on the environment.

Action 4.1
Provide SFMTA bicycle safety information to diverse age, income, and ethnic populations.

No physical environmental impact would result from SFMTA provision of information specifically to diverse age, income, and ethnic populations. The environmental impact of current outreach efforts might include the minor physical effects of the use of natural resources in producing printed materials, but this impact would be minimal. The effect from this action would remain the same as experienced under current publicity programs. Only the focus of the publicity program would change. Therefore, there would be no significant environmental impact as a result of Action 4.1.

Action 4.2
Provide SFMTA bicycle safety information in languages that are widely used within San Francisco, such as Chinese and Spanish.

No physical impact would arise from the provision of SFMTA bicycle safety information in non-English languages that are widely used within San Francisco. As noted under Action 4.1, this action would only constitute a change in publicity focus. Therefore, there would be no significant environmental impact as a result of Action 4.2.

Action 4.3
Partner with other agencies, where appropriate, to distribute SFMTA bicycle safety education materials in mass mailings.

In order to reach those that live, work, and visit in San Francisco, who otherwise would not have ready access to bicycle safety education materials, Action 4.3 would require that the SFMTA work with other agencies to distribute these materials through avenues not generally related to bicycle education, and, therefore, more likely to reach the general public. Implementation of Action 4.3 would serve to expand bicycle safety awareness to a larger audience and, therefore, would promote safer cycling conditions. The allowance for the use of mail delivery vehicles to deliver these mass mailings would have no significant effect on the environment as mail delivery vehicles make a certain number of trips and stops on a daily basis in the course of delivering other mail. No additional vehicle trips or vehicle emissions would result from the inclusion of these fliers in the US Postal Service. Therefore, there would be no significant environmental impact as a result of Action 4.3.

Action 4.4
Work with the SFPD to create a bicycle traffic school curriculum as an option in lieu of other pecuniary penalties for traffic law violators.

Cooperative efforts between the SFMTA and SFPD to create a bicycle traffic school curriculum would involve the exchange of ideas and would not produce physical impacts on the environment. The provision of this curriculum in lieu of other pecuniary penalties for traffic law violators could result in drivers and bicyclists being prepared to better share the road. This may result in an increase in bicycle ridership as a result of these classes. Projects and treatments proposed for the Bicycle Plan are designed to reduce conflicts between bicyclists and other vehicles, and, thereby, safely accommodate increased bicycle use in the City. Thus, there would be no significant environmental impacts as a result of Action 4.4.

Action 4.5
Increase SFMTA participation in Bike to Work Day activities by providing resources and materials as staff availability and funding allow.

Bike to Work Day gains notoriety and participation with each passing year. It provides an excellent opportunity to promote bicycle transportation and encourage driver awareness of bicycle commuting. An increase in SFMTA participation in Bike to Work Day activities by providing resources and materials as staff availability and funding allow would promote the use of bicycles for commute transportation. SFMTA's role could include organizing community bicycle safety, maintenance and riding skills presentations as well as encouraging participation in the event by the City's leaders. While implementation of Action 4.5 would increase the effectiveness of Bike to Work Day in promoting bicycling in San Francisco, it would not result in physical changes to the transportation network in San Francisco. Therefore, there would be no significant environmental impacts as a result of Action 4.5.

Action 4.6
Implement new outreach campaigns for improved bicycle facilities.

The implementation of new outreach campaigns for improved bicycle facilities would involve the production and distribution of information, including in print form, and would not result in a significant environmental impact. The allowance for the use of mail delivery vehicles to deliver these fliers would have no significant effect on the environment as mail delivery vehicles make a certain number of trips and stops on a daily basis in the course of delivering other mail. No additional vehicle trips or vehicle emissions would result from the inclusion of these fliers in the US Postal Service. Therefore, there would be no significant environmental impact as a result of Action 4.6.

Action 4.7
Develop SFMTA bicycle safety classes for City employees.

The development of bicycle safety classes for City employees would involve curriculum development and an instructional process or the provision of instructional materials. No direct physical change to the environment would arise from this policy. However, this class could encourage and lead to a higher rate of bicycle commutes among City staff. Should this occur, there may be a reduction in City staff auto commute trips or transit trips which may lead to a reduction in vehicle emissions in the City and in the regions from which City staff commute. Any increase in bicycle ridership as a result of these classes is not likely to result in significant transportation impacts. Thus, there would be no significant environmental impacts as a result of Action 4.7.

Action 4.8
Develop an SFMTA bicycle safety workshop for transit vehicle operators and other large fleet-vehicle operators.

The development and delivery of a bicycle safety workshop geared toward transit vehicle and large-fleet operators would improve safety for bicyclists using City streets. However, neither the administrative phase of this program development nor the actual program implementation, namely, implementation of safe driving practices around bicycles by transit and large-fleet operators, would have an impact on the physical environment. Thus, there would be no significant environmental impacts as a result of Action 4.8.

Action 4.9
Develop bicycle education curricula for use in the San Francisco Unified School District (SFUSD) and San Francisco public colleges, and to be shared with other schools.

Development of bicycle safety curricula for use in the San Francisco Unified School District (SFUSD) and San Francisco public colleges would be an administrative task involving information exchange, analysis, document writing, and the possible delivery of instruction. None of these activities would have an impact on the physical environment. The indirect impact of improved bicycle safety among San Francisco students would be improved safety for bicyclists in San Francisco, but would have no impact on the physical environment. Thus, there would be no significant environmental impacts as a result of Action 4.9.

Action 4.10
Work with the SFUSD to promote a transportation curriculum in lieu of driver's education at City high schools, which provides instruction on all modes of transportation.

Collaboration between the SFMTA and San Francisco Unified School District (SFUSD) to promote a curriculum of instruction in all modes of transportation in lieu of just driver's education would involve meetings and the exchange of ideas. Indirect environmental impacts would potentially include the implementation of a revised transportation education program. This program might encourage new student drivers to adopt modes of transportation other than the automobile at higher rates than these students are currently adopting these alternative modes. Another indirect result from implementation of this policy may be the potential improvement in automobile driving around bicycles and a potential improvement in bicycle riding and road-sharing habits on City streets. While these indirect imparts could improve transportation safety levels in the City, they would not cause any impact on the physical environment. Thus, there would be no significant environmental impacts as a result of Action 4.10.

Action 4.11
Periodically evaluate and adjust, where appropriate, the SFMTA's bicycle safety program.

The SFMTA's periodic evaluation of their bicycle safety program would be an administrative activity with no direct impact on the environment. The potential result of such a review policy would be that the SFMTA might recommend changes in the safety program training or the form or focus of outreach efforts, to ensure greater safety than may be afforded under the current program. Safety training and outreach programs have been found to have no significant environmental impacts as discussed above in Actions 4.1 through 4.10. Therefore, any revision in the type of training or outreach, arising out of this evaluation of the bicycle safety program also would have no impact on the physical environment. Thus, there would be no significant environmental impacts as a result of Action 4.11.

ENFORCEMENT AND SAFETY GOALS, OBJECTIVES AND ACTION ITEMS

This Enforcement and Safety discussion refers to Chapter 5 of the Bicycle Plan, and would accomplish the following goals and objectives:

Chapter 5 Goal:

- Improve Bicycle Safety through Targeted Enforcement

Chapter 5 Objectives:

- Increase San Francisco Police Department (SFPD) enforcement of motorist and bicyclist traffic violations that pose the greatest threat to safety;
- Provide SFMTA bicycle safety education to SFPD staff and to those cited for moving violations that focuses on safe cycling, relevant traffic laws, and safe sharing of the roadway; and
- Increase SFMTA and SFPD enforcement of motorist violations in bicycle facilities.

Bicycle safety is an important issue for all roadway users whether they are drivers of personal automobiles, transit vehicles, delivery trucks and taxis, or pedestrians, transit riders, and bicyclists. The Bicycle Plan proposes targeted enforcement and safety programs to improve bicycle safety. The following action items would modify existing enforcement practices by the San Francisco Police Department (SFPD), would implement other changes to influence motorist and bicyclist behavior in following the rules of the road, and would ultimately lead to increased road safety for bicyclists and other modes of transportation that share the road with bicyclists. Therefore, these actions would have no significant impact on the environment.

Action 5.1
Work with the SFPD to place a high priority on enforcement of both bicyclist and motorist violations that most frequently cause injuries and fatalities.

Collaboration between SFMTA and the SFPD to place a high priority on enforcement of bicyclist and motorist violations that most frequently cause injuries and fatalities would involve only administrative actions (namely, interdepartmental collaboration) and the indirect result would consist of the reorganization of existing priorities and existing police responsibilities and activities. No new police activities or responsibilities would be created. The reorganization of existing priorities, actions, and responsibilities would have no significant impact on the physical environment.

Action 5.2
Work with the SFPD to develop a "fix-it ticket" program for bicycle equipment violations.

A "fix-it-ticket" program would give bicyclists cited for riding without lights or reflectors the option to avoid a fine if they present evidence of properly equipping their bicycle with the required equipment within a reasonable amount of time. Collaboration between SFMTA and SFPD to develop a "fix it" ticket program for bicycle equipment violations would involve the administrative act of interdepartmental collaboration. It would ultimately allow for the issuance of "fix it" tickets to bicyclists riding bicycles with equipment violations, which would increase bicycle safety on City streets, but it would have no direct or indirect significant environmental impacts.

Action 5.3
Work with the SFPD to develop a method to systematically share non-collision bicyclist citations with the SFMTA.

Collaboration between SFMTA and SFPD to develop a method to share non-collision bicycle citation information would involve meetings, communication, and other exchange of ideas and information. There would be neither direct nor indirect significant impacts on the physical environment as a result of Action 5.3.

Action 5.4
Work with the SFPD and the Superior Court of California to develop and implement a bicycle traffic school program as an option for those cited for moving violations.

Similar to Action 4.10, the SFMTA, SFPD, and Superior Court of California's collaboration to develop and implement a bicycle traffic school program as an option for those cited for moving violations would require meetings and the exchange of ideas during the policy development and curriculum formulation process. Indirect result from the implementation of Action 5.4 may include improvement in automobile driving around bicycles and improvement in bicycle riding and road-sharing habits on City streets. While these indirect impacts could improve transportation safety levels in the City, they would not cause any impact on the physical environment. Therefore, there would be no significant impacts as a result of Action 5.4.

Action 5.5
Support efforts to change *California Vehicle Code* (CVC) Section 21754 (Passing on the right) so that it applies to bicycles.

The SFMTA's support of efforts to change the *California Vehicle Code (CVC)* Section 21754 to apply the regulation for passing on the right to bicycles would be administrative in nature, with no direct impacts on the physical environment. In the event that the *California Vehicle Code* is amended to reflect this request, this action item may encourage bicyclists to pass on the right. This may create a safety issue since there is impaired vision on the right side of vehicles and bicyclists' actions as a result of this change may lead to conflicts between cyclists and motorists. However, changes to the *California Vehicle Code* such as may result from Action 5.5 are outside the jurisdiction of SFMTA, and any potential impacts resulting from such a change would be analyzed and considered as part of the legislative process.

Action 5.6
Increase parking enforcement and fines for violations involving vehicles parking or double parking in bicycle lanes.

An increase in parking enforcement and fines for violations involving vehicles parking or double-parking in bicycle lanes would have no impact on the physical environment. Similar to Action 5.2, this collaboration between SFMTA and SFPD only would lead to a reprioritization of existing police responsibilities and activities. No new police activities or responsibilities would be created. The simple reorganization of existing priorities, actions, and responsibilities as proposed under Action 5.6 would have no significant impact on the physical environment.

Action 5.7
Post "no stopping in bike lane" signs along bicycle lanes where double parking violations occur and work with the SFPD to increase enforcement of these violations.

The posting of "no stopping in bicycle lane" signage along some bicycle lanes would have the same impacts as the posting of the bicycle signage discussed in Subsection V.A.4 of this document. Consistent with the findings of Subsection V.A.4, the posting of these bicycle signs would have a less-than-significant impact. The second part of this policy, namely SFMTA working with SFPD to increase enforcement of these violations would have no direct impacts as the act of collaboration would involve meetings and the exchange of information only. There would also be no indirect impacts from providing support for increased enforcement of certain violations as the SFPD already has laws and policies related to enforcement of traffic violations. Action 5.7 would support a reprioritization of some enforcement actions. However, as police duties would not increase, the reorganization of existing priorities, actions, and responsibilities would have no impact on the physical environment.

Action 5.8
Work with the SFPD to increase the enforcement of the prohibition of operating motorcycles in bicycle lanes.

Further collaboration between SFMTA and SFPD to increase enforcement of the prohibition of operating motorcycles in bicycle lanes would involve an exchange of ideas and information which would have no inherent ability to impact the physical environment. Action 5.8 may have an indirect beneficial effect of reducing bicycle/motorcycle conflicts. Therefore, there would be no significant environmental impacts related as a result of Action 5.8.

Action 5.9
Develop an SFMTA bicycle safety curriculum for all SFPD police officers, which focuses on the rights and responsibilities of bicyclists and techniques required for safe and legal sharing of the roadway.

The development of curriculum materials on bicyclist rights and responsibilities for SFPD officers would be an administrative undertaking with no potential to impact the environment. The use of these materials in educating SFPD officers would allow the SFPD to effectively patrol and enforce bicycle safety laws and laws related to safety in bicycle interaction with other forms of transportation. This indirect result would improve safety for bicyclists and users of other forms of transportation, with whom they share the roads, but would have no effect on the physical environment.

Action 5.10
Work with the SFPD to increase bicycle-mounted enforcement patrols.

While collaboration between the SFMTA and SFPD to increase bicycle-mounted patrols would not in itself have an impact on the physical environment, the potentially resultant increase in bicycle-mounted patrols could reduce the number of police officers who would need to patrol in cars. By replacing some car-based patrols with bicycles, there may be a potential reduction in SFPD patrol car-generated vehicle emissions. This would represent a change in existing practices by the SFPD, but would not result in changes to the transportation system. Therefore, there would be no significant environmental impacts as a result of Action 5.10.

Action 5.11
Work with the SFPD to develop a system for hospitals, emergency rooms, and clinics to report all instances of bicyclist injuries to the SFPD and to the SFMTA.

Any SFMTA and SFPD cooperation in developing a system for hospital, emergency room, and clinic reporting of bicyclist injuries would involve the exchange of ideas and information, and would have no environmental impact. Implementation of this policy could lead to the indirect impact of the implementation of a bicyclist injury reporting program. Such a reporting program would also involve the exchange and sharing of information and would not constitute an environmental impact.

Action 5.12
Inform bicyclists that they are legally entitled to file a collision report when one is not initiated by the police.

The provision of information on legal entitlements in case of a collision would constitute an information sharing activity without environmental implications. The indirect impact of this information sharing may include an increase in bicyclist claims for collisions on San Francisco streets. Therefore, there is no apparent indirect environmental impact that would arise from implementation of Action 5.12.

Action 5.13
Develop a standardized procedure for reporting bicycle-related incidents with transit vehicles and ensure that this information is readily available to appropriate City staff.

The development of a standardized procedure for reporting bicycle-related incidents with transit vehicles and the timely provision of this information to City staff would be an administrative action involving development of procedures to accomplish the reporting goals defined. These administrative activities would not affect the environment. The implementation of this policy would also allow for the ready sharing of information with no potential indirect impact on the physical environment.

PROMOTION GOALS, OBJECTIVES AND ACTION ITEMS

This Promotion discussion relates to Chapter 6 of the Bicycle Plan, and identifies action items that would fulfill the following goals and objectives:

Chapter 6 Goal:

- Promote and Encourage Safe Bicycling

Chapter 6 Objectives:

- Through community partnerships, identify funding, develop, and implement bicycle media campaigns and promotional materials to promote bicycling as a safe, healthy, cost-effective, environmentally beneficial transportation choice; and
- Target promotional materials to San Francisco's diverse population groups.

The Bicycle Program seeks to enhance awareness of the benefits of bicycling for commuting, shopping, recreational and personal health purposes and to encourage safe bicycling practices. The following action items would accomplish these promotional goals, and would not have a significant impact on the environment.

Action 6.1
Promote the benefits of bicycling to diverse age, income, and ethnic populations.

The SFMTA's actions to promote the benefits of bicycling to diverse age, income, and ethnic populations would not have a significant impact on the environment. As discussed for Action 4.1, this promotional activity would involve a change of focus from standard audiences to a potentially more diverse audience. The effect of this change in promotional orientation would have no significant impact on the environment.

Action 6.2
Work with the Department of the Environment (SF Environment), the Department of Public Health (DPH), and other City agencies to formalize bicycle education and promotion responsibilities.

The SFMTA's work to development partnerships with the Department of the Environment (SF Environment), Department of Public Health (DPH), and other City agencies to formalize bicycle education and promotion responsibilities would require the exchange of ideas and information as well as other administrative activities. These activities would have no significant impact on the physical environment.

Action 6.3
Work with all City agencies to expand bicycle promotion and incentive programs for City employees to serve as a model for other San Francisco employers.

The SFMTA's work with other City agencies to expand bicycle promotion and incentive programs for City employees to serve as a model program for other San Francisco employers would involve collaborative processes with no direct environmental impacts. However, the implementation of this collaboration could lead to increased City employee bicycle commute levels. An increase in bicycle commuting may be accompanied by some reduction in automobile commuting or transit use which may result in a reduction in vehicle emissions in the City. Likewise, an indirect result of this program could be increased levels of bicycle commuting by employees of other companies should those companies follow the City's lead. This shift from automobile or transit commuting to bicycle commuting may reduce vehicle emissions levels in the City. Projects and treatments proposed for the Bicycle Plan are designed to reduce conflicts between bicyclists and other vehicles, and, thereby, safely accommodate increased bicycle use in the City. Although implementation of Action 6.3 may increase bicycle use, it is unlikely to lead to significant transportation impacts. Therefore, there would be no significant environmental impacts resulting from Action 6.3.

Action 6.4
Include, where appropriate, telephone and web-based contact information for the MTC "511" program on relevant SFMTA materials.

The inclusion of telephone and web-based contact information for the MTC "511" program, on some SFMTA materials, would promote the use of this resource among commuters, particularly automobile drivers. Through the "511" program, some drivers could identify rideshare partners or could identify ways of commuting by transit, bicycle, or other means other than single-occupancy vehicles. The actual act of including this information on SFMTA materials would have no impact on the environment, and the indirect impact of broadly disseminating this information would potentially be a reduction in single-occupancy vehicle use, which would lead to reduced vehicle emissions. This positive environmental impact is considered no impact, for the purposes of this analysis.

Action 6.5
Encourage and promote bicycle-related businesses within San Francisco.

In addition to the improvements and policies proposed elsewhere in this document, SFMTA actions to encourage and promote bicycle-related businesses within San Francisco could involve the adoption of policies, coordination with other City and Bay Area business development and transportation agencies, publicity campaigns, and incentives such as "shop by bicycle discounts." All of these actions would involve the exchange of information and possible publicity efforts. None of these administrative, publicity, or cooperative actions would generate transportation-related physical impacts on the environment aside from the potential generation of vehicle emissions related to the distribution of materials. As previously discussed in Action 4.3, the delivery of publicity and other materials would not lead to increased vehicle emissions. This current policy would have no direct or indirect impact on the physical environment.

Action 6.6
Conduct a feasibility study for a public bicycle sharing program, and if feasible, develop a plan for potential future implementation including any required environmental review.

The act of developing a public bicycle sharing program would be administrative, involving research and the exchange of information. Neither research nor information exchange would generate environmental impacts. Action 6.6 would offer SFMTA the opportunity to test the feasibility of a bicycle sharing program in San Francisco. This action would result in a study to collect data regarding this proposed program. As a study, the effects would be temporary and would not lead to any significant transportation impacts. Once developed and tested, the bicycle sharing program may be subject to subsequent environmental review should the SFMTA consider permanent implementation and prior to adoption of such a program. Therefore, there would be no significant environmental impacts as a result of Action 6.6.

GENERAL PLAN AMENDMENTS, ENVIRONMENTAL REVIEW, AND CITYWIDE COORDINATION GOALS, OBJECTIVES, AND ACTION ITEMS

This *General Plan* Amendments, Environmental Review, and Citywide Coordination discussion refers to Chapter 7 of the Bicycle Plan. The action items discussed here would fulfill the following goals and objectives:

Chapter 7 Goal:

- Adopt Bicycle-Friendly Practices and Policies

Chapter 7 Objective:

- Integrate consideration of bicycle travel into all roadway planning, design, and construction

Policy modifications to the *General Plan*, environmental review guidelines, and application of performance measures would achieve the goals of the Bicycle Plan in part by incorporating the Bicycle Plan into the *General Plan* including the Transportation Element, as well as ensuring consistency of relevant Area Plans with the Bicycle Plan. Future updates to the Bicycle Plan would also be coordinated with these documents. These policies would also affect the process for environmental review of the Bicycle Plan and the methodologies used to ensure that impacts on bicycles are considered for new projects. In addition, SFMTA would coordinate with other public agencies with jurisdiction within the City and County of San Francisco when those agencies propose bicycle facilities within the City. The following action items would accomplish the Bicycle Plan's goals by coordinating the aforementioned diverse documents and policies with the Bicycle Plan. The potential environmental effects of the above goals and objectives are presented below.

Action 7.1

Incorporate this Bicycle Plan in whole, by reference, into the *General Plan* and amend sections of the *General Plan* that are relevant to bicycling, including the Transportation Element and relevant Area Plans, according to the goals of this Bicycle Plan.

Action 7.1 would involve the incorporation of the Bicycle Plan into the *General Plan*, and amendment of sections of the *General Plan* relevant to bicycling according to the goals of the Bicycle Plan, would accomplish the goals described in the Bicycle Plan. The act of amending

City policies that include references to bicycling, or that conflict with the policies adopted as a part of this Bicycle Plan, would involve the preparation of staff reports, review by City administration and elected officials, publication of these items prior to their approval and adoption. All of these actions involve the dissemination of information through existing reporting channels and existing publications. These administrative actions would have no direct impact on the environment. The indirect effect of the incorporating the Bicycle Plan policies into existing City legislation and regulatory documents would result in the implementation of projects and programs to further the Bicycle Plan goals. The impacts related to these actions are identified and analyzed within this environmental document in this subsection as well as the subsequent Subsections, V.A.3, V.A.4, and V.A.5 with respect to traffic, transit, parking, pedestrians, bicycles, and loading. The transportation impact study completed for the Bicycle Plan update has identified significant impacts resulting from some of the near-term and long-term improvements. All actions that could potentially result in direct or indirect physical impacts on the environment have been analyzed with respect to traffic, transit, parking, pedestrians, bicycles, and loading. The information regarding potentially significant environmental impacts is presented in this report in Subsections V.A.3, V.A.4, and V.A.5. The indirect impacts of Action 7.1 would be the same as all of these environmental impacts identified throughout this document as follows:

Subsection V.A.3 identifies project-level impacts including both potentially significant impacts, and significant and unavoidable impacts, including a potential reduction of traffic levels of service, potential slowing of transit movement in the City, and potential reduction of truck loading spaces. With respect to potential impacts related to parking, pedestrians, and bicycles and reviewed in the Subsection V.A.3 project-level review, all impacts were identified as being less-than-significant or as having no potential to impact the physical environment.

Subsection V.A.4 recognizes no program-level impacts related to minor improvements with respect to traffic, transit, parking, pedestrians, bicycles, or loading for either the individual improvements, or in a cumulative context.

Subsection V.A.5 recognizes four potentially-significant and unavoidable impacts that could result from long-term improvements. These potential impacts could be individually significant and could also be cumulatively significant (when this project is combined with other anticipated projects). These potential impacts include the following:

- Potential reduction in roadway capacity and increased traffic delays; reduction in the number of travel lanes could subject vehicles, including transit using the affected roadways, to increased congestion and delays; increased delays could result in drivers diverting to other, potentially less convenient, routes to access their destinations

- Potential to cause the level of service, at an intersection's worst approach, to deteriorate from LOS D or better to LOS E or F with Caltrans signal warrants met; and/or potential to have significant adverse impacts at intersections that operate at LOS E or F under existing conditions
- Potential to cause transit to experience increased travel time on streets where these improvements reduce capacity of roadways and result in significant increases in delay; buses may experience increased difficulty pulling into and out of curb bus stops due to reconfiguration of bus stops to accommodate bicycle lanes
- Potential to result in elimination of curb space currently dedicated to yellow commercial vehicle freight loading zones or active passenger loading/unloading zones

As discussed in Subsection V.A.5 program-level review for the long-term improvements, there would be no other significant impacts related to long-term improvements.

Although no direct environmental impacts would result from adoption of Action 7.1, the indirect impacts noted above would be potentially significant and unavoidable.

Significant Impact TR-A7.1

Incorporation of the Bicycle Plan into the *General Plan*, and amendment of sections of the Area Plans relevant to bicycling would accomplish the goals otherwise described in this Bicycle Plan. An indirect result of action 7.1 would, therefore, be the support of construction of improvements or implementation of other changes presented as part of the Bicycle Plan and analyzed with respect to potential impacts on traffic, transit, parking, pedestrians, bicycle, and loading in Subsections V.A.3, V.A.4, and V.A.5 of this EIR. Some of these improvements would have a significant impact on the physical environment. The indirect impacts of these actions would include the significant impacts identified for the near-term and long-term improvements in Subsections V.A.3 and V.A.5 of this EIR, including potential worsening of traffic levels of service, potential slowing of transit movement in the City, and potential reduction of truck loading spaces. Mitigation measures have been identified for some of the significant impacts which would reduce the level of impact to less-than-significant. However, for some of the significant impacts, no feasible mitigation measures have been identified. Therefore, some of these significant impacts have been determined to be significant and unavoidable.

Action 7.2
Ensure adequate and appropriate environmental review under the California Environmental Quality Act for the Bicycle Plan and all discretionary actions under the Bicycle Plan that may have a direct or indirect physical environmental impact.

The SFMTA's actions to ensure appropriate environmental review under the CEQA for the Bicycle Plan and all discretionary actions under the Bicycle Plan that may have a direct or indirect physical impact on the environment would not have any direct impact on the environment. The CEQA process requires research, exchange of information, writing and publication and consideration of CEQA findings. The indirect impact of CEQA analysis is that all potential environmental impacts would be identified prior to adoption or approval of any plan or policy. This form of full disclosure would allow decision-makers to choose whether to limit the environmental impacts through their decisions. Compliance with CEQA for Bicycle Plan projects would not result in a significant environmental impact.

Action 7.3
Work with the Planning Department to coordinate updates to the *General Plan*, if necessary, as subsequent amendments and updates to the Bicycle Plan and bicycle route network occur.

Similar to Action 7.1, collaboration between the SFMTA and Planning Department to coordinate updates to the *General Plan* in accord with subsequent updates and amendments to the Bicycle Plan and bicycle route network would lead to no direct impacts as this work would involve administrative and information sharing processes. Also similar to Action 7.1, the indirect impacts may result from the improvement projects and programs implemented to further policy goals. Any future changes to the Bicycle Plan or bicycle route network would be subject to analysis under CEQA as noted in Action 7.2.

Significant Impact TR-A7.3

Collaboration between the SFMTA and Planning Department to coordinate updates to the *General Plan* in accord with subsequent updates and amendments to the Bicycle Plan and bicycle route network would accomplish the goals otherwise described in this Bicycle Plan. An indirect result of this action may be the construction of improvements or implementation of other changes similar to those presented as part of the Bicycle Plan and analyzed here with respect to potential impacts on traffic, transit, parking, pedestrians, bicycles, and loading in Subsection V.A.3, V.A.4, and V.A.5 of this EIR. Future improvements resulting from Action 7.3 may result in significant impacts on the physical environment similar to those described in this report with respect to traffic, transit, and loading for the near-term and long-term improvements in

Subsections V.A.3 and V.A.5 of this EIR, including potential worsening of traffic levels of service, potential slowing of transit movement in the City, and potential reduction of truck loading spaces. Some of these significant impacts have been determined to be significant and unavoidable. Therefore, there may be indirect significant impacts as a result of Action 7.3.

Action 7.4
Work with the Planning Department to ensure that all current and proposed Area Plans' objectives and policies, on balance, are consistent with the goals of the San Francisco Bicycle Plan. Whenever updates or revisions are considered to existing Area Plans, especially those that do not now contain sections on bicycling, these Area Plans should include sections on bicycling consistent with the goals of the Bicycle Plan.

The future inclusion of sections on bicycling, where Area Plans lack those sections, would have no direct impact on the environment as this inclusion of policies would require analysis and information exchange, but would be an administrative task with no direct environmental component. The indirect impact of this policy would be the implementation of specific bicycle facilities to support the visions of a particular Area Plan. New Area Plans or revisions to existing Area Plans would be subject to environmental review prior to adoption and the bicycle-related elements would be included in this environmental review. The policy itself would have no direct environmental impacts, but would allow for improvements to be proposed subject to future environmental review and consideration. These improvements could result in impacts similar to those analyzed in Subsections V.A.3, V.A.4, and V.A.5 of this report with respect to potential impacts on traffic, transit, parking, pedestrians, bicycles, and loading. Some of these improvements may have a significant impact on the physical environment. Therefore, there may be significant impacts as a result of Action 7.4.

Significant Impact TR-A7.4

The process to develop an Area Plan or update an existing Area Plan to reflect Bicycle Plan policies may indirectly result in the construction of bicycle facility improvements or implementation of other changes within an Area. These improvements could result in impacts similar to those summarized in Subsection V.A.3, V.A.4, and V.A.5 of this report with respect to potential impacts on traffic, transit, parking, pedestrians, bicycles, and loading. Some of these improvements may have a significant impact on the physical environment. The indirect impacts of these actions would include environmental impacts similar to the identified significant impacts that may result from implementation of the near-term and long-term improvements in Subsections V.A.3, and V.A.5 of this report, including potential worsening of traffic levels of service, potential slowing of transit movement in the City, and potential reduction of truck loading spaces. Mitigation measures have been identified to address some of these significant impacts. However, there are some for which no feasible mitigation measures have been identified. Therefore, there may be indirect significant impacts as a result of Action 7.4.

Action 7.5
Work with the Planning Department, as transportation impact guidelines are updated, to ensure impacts of new projects consider bicycles.

Bicycle impact analysis is currently undertaken as part of the larger transportation impact analysis of the project environmental review processes. Action 7.5 would ensure that the SFMTA would work with the Planning Department for the continuation, enhancement, and establishment of a more detailed qualitative bicycle impact analysis as an integral part of the overall transportation analysis for future projects.

The action of analyzing bicycle impacts and impacts on bicycles as part of the overall transportation analysis for projects by the Planning Department and SFMTA would not result in any direct or indirect physical changes to the transportation network. The indirect impact of this policy would be development and presentation of more detailed analysis of project impacts on all modes of transportation for decision-makers. There would be no significant impacts as a result of Action 7.5.

Action 7.6
When City transportation or development studies include non-automated traffic counts, work with the responsible San Francisco agencies to collect, where appropriate: bicycle counts; an inventory of existing bicycle parking within a two-block radius of the study site; and the project's potential impacts on any existing or proposed bikeways.

The collection of non-automated bicycle counts in certain instances, creation of an inventory of bicycle parking within a two-block radius of the bicycle count location, and analysis of future transportation or development project impacts on bikeways would require data collection and analysis. In the former case, observers would be placed at or adjacent to studied locations for a period of time varying from less than a day to a week or two weeks at most. The short-term presence of data collection observers, or monitoring equipment, could temporarily distract drivers, pedestrians, and cyclists in the areas under study. Such distraction could indirectly cause a slight worsening in local air quality, as motorists slow to observe the study activity. However, citizens using public right-of-way encounter a variety of distractions on a regular basis, and often slow slightly to observe the activity or navigate around it in a cautious manner. The increase in emissions released by short-term driver-observer vehicle slowing is not appreciable. Any increase in emissions would have a less-than-significant impact on the environment.

It is possible that the observers or observational equipment could occupy one or more parking spaces in the area in which the study is being conducted. This temporary and minor reduction in available parking would be a temporary impact and would not be significant. Therefore, there would be a less-than-significant impact as a result of Action 7.6.

Action 7.7
Work with public agencies with jurisdictions or rights-of-way within San Francisco to ensure coordination of any proposed bicycle facilities.

The bicycle route network in San Francisco, regardless of the jurisdiction of the land, needs to be continuous and coordinated. This action would require the SFMTA to work with public agencies to coordinate all bicycle planning efforts within San Francisco regardless of the jurisdiction for the area of project impact. The coordination of bicycle facilities between the SFMTA and other agencies with jurisdiction or rights-of-way within San Francisco would involve the sharing of information which would have no impact on the physical environment. The indirect result of this coordination could include implementation of bicycle facilities such as bicycle lanes or sharrows on rights-of-way within the City but under another agency's jurisdiction. Any change that would itself affect the physical environment would be subject to separate environmental review which would be the responsibility of the agency with jurisdiction.

In addition to the above proposed action items, SFMTA would conduct a study to determine the feasibility of permitting bicycles on sidewalks in limited circumstances on a case-by-case basis. Additional environmental review may be required prior to amendments to the appropriate San Francisco Codes to allow bicycling on sidewalks.

Bicycling on sidewalks in limited circumstances: Bicycling on the sidewalk is generally inappropriate, as the Caltrans Highway Design Manual indicates.[6] However, the Bicycle Program has identified certain circumstances where it may be appropriate to consider the pursuit of amendments to San Francisco Codes in order to allow this activity on a case-by-case basis. These include (a) when it would be necessary permit bicycles on sidewalks in order to provide bikeway continuity along high speed or heavily traveled roadways having inadequate space for bicyclists, and which are also uninterrupted by driveways and intersections for long distances; and (b) on long, narrow bridges. In such cases, ramps should be installed at the

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6 California Department of Transportation. 2007. Highway Design Manual. Chapter 1000 Bikeway Planning and Design. Available online at http://www.dot.ca.gov/hq/oppd/hdm/pdf/english/chp1000.pdf [Accessed September 30, 2008].

sidewalk approaches. If approach bikeways are two-way, sidewalk facilities should also be two-way.

This proposed additional action would result in conduct of a study by SFMTA to evaluate the feasibility of permitting bicycles on sidewalks. The implementation of the study would require administrative planning and information-gathering activities, and the allowance of bicycling on sidewalk in limited circumstances for the study period. While data collection could affect the flow of pedestrian and bicycle traffic, and bicycling on the sidewalk could interrupt the flow of pedestrian traffic, any such interruptions would be temporary in nature and their impacts would be less than significant. Formal adoption of a policy, to allow bicycling on sidewalks in the City would require separate environmental review of potential impacts. Therefore, there would be no significant environmental impacts as a result of this action.

BICYCLE FUNDING GOALS AND OBJECTIVES

This Bicycle Funding discussion relates to Chapter 8 of the Bicycle Plan, and includes action items that would accomplish the following goals and objectives:

Chapter 8 Goal:

- Prioritize and Increase Bicycle Funding

Chapter 8 Objective:

- Identify and pursue new and existing local, regional, state, and federal funding sources for bicycle facility improvements and bicycle education and promotion programs.

The Bicycle Funding Chapter identifies local, regional, state, and federal funding sources that could potentially provide funding to carry out bicycle projects and programs. To implement the various recommendations of the Bicycle Plan, the Bicycle Program would seek funding from potential sources identified in the Bicycle Plan. Below is an action item to achieve this goal. This activity may result in a significant impact on the physical environment.

Action 8.1
Work with appropriate agencies to identify funding to assist in achieving the goals and objectives set forth in this Bicycle Plan.

Work between the SFMTA and other agencies, to identify funding to assist in achieving the Bicycle Plan goals and objectives would involve the exchange of information, which has no potential to impact the physical environment. Success in identifying funding sources would result in implementation of projects to support the Bicycle Plan goals and objectives.

Environmental impacts that would arise from such implementation have been identified in Subsections V.A.3, V.A.4, and V.A.5 of this document. The most substantial of these include a potential reduction of traffic levels of service at some intersections, potential slowing of transit movement in the City, and potential reduction of truck loading spaces. The indirect impacts of Action 8.1 are, therefore, the same as the Bicycle Plan's environmental impacts, as shown in the remaining transportation analysis Subsections V.A.3, V.A.4, and V.A.5 of this EIR and in some instances have been found to be potentially significant and unavoidable.

Significant Impact TR-A8.1

Collaboration between the SFMTA and other agencies to identify funding to assist in achieving the Bicycle Plan goals, objectives, and actions would involve the exchange of information which would have no direct impact on the physical environment. However, success in identifying funding sources would result in implementation of projects to support the Bicycle Plan goals and objectives. This action would, therefore, support the construction of improvements or implementation of other changes presented as part of the Bicycle Plan and analyzed in Subsections V.A.3, V.A.4, and V.A.5 of this EIR; some of these improvements would have a significant impact on the physical environment as identified in the transportation impact analysis, including potential worsening of traffic levels of service, potential slowing of transit movement in the City, and potential reduction of truck loading spaces.

SUMMARY OF IMPACT ANALYSIS

The above Goals, Objectives, and Actions are all designed to support and facilitate the Bicycle Plan's general goals and objectives, by (1) refining and expanding the existing bicycle route network; (2) ensuring plentiful, high-quality bicycle parking; (3) expanding bicycle access to transit and bridges; (4) educating the public about bicycle safety; (5) improving bicycle safety through targeted enforcement; (6) promoting and encouraging safe bicycling; (7) adopting bicycle-friendly practices and policies; and (8) prioritizing and increasing bicycle funding. Environmental impacts associated with these program-level Goals, Objectives, and Actions would vary, depending on the Action. These potential impacts are summarized below for each of the areas of potential impact.

Traffic

The implementation of these Bicycle Plan policy Goals, Objectives, and Actions would have no direct impact on the physical environment. However, implementation of these Goals, Objectives, and Actions could have the foreseeable indirect impact of the subsequent implementation of physical changes and improvements including those analyzed elsewhere in

Subsections V.A.3, V.A.4, and V.A.5 of this document. Therefore, the indirect impact of implementation of these Bicycle Plan policy Goals, Objectives, and Actions includes all potential impacts on traffic that are identified under the other Subsections of this EIR. These include the following:

- Potential reduction in roadway capacity and increased traffic delays; reduction in the number of travel lanes could subject vehicles, including transit using the affected roadways, to increased congestion and delays; increased delays could result in drivers diverting to other, potentially less convenient, routes to access their destinations
- Potential to cause the level of service, at an intersection's worst approach, to deteriorate from LOS D or better to LOS E or F with Caltrans signal warrants met; and/or potential to have significant adverse impacts at intersections that operate at LOS E or F under existing conditions

Parking

The implementation of these Bicycle Plan policy Goals, Objectives, and Actions would have no foreseeable direct or indirect significant impact on the physical environment in terms of parking. Therefore, no mitigation measures are required.

Transit

The implementation of these Bicycle Plan policy Goals, Objectives, and Actions would have no direct impact on the physical environment with respect to transit. However, implementation of these Goals, Objectives, and Actions could have the foreseeable indirect impact of the subsequent implementation of physical changes and improvements including those analyzed elsewhere in Subsections V.A.3, V.A.4, and V.A.5 of this document. Therefore, the indirect impact of implementation of these Bicycle Plan policy Goals, Objectives, and Actions includes all potential impacts on transit that are identified and enumerated in the other Subsections of this EIR.

Pedestrians

The implementation of these Bicycle Plan policy Goals, Objectives, and Actions would have no foreseeable direct or indirect significant impact on the physical environment in terms of pedestrian access, safety, and circulation. Therefore, no mitigation measures are required.

Bicycle

The implementation of these Bicycle Plan policy Goal, Objectives, and Actions would have no foreseeable direct or indirect significant impact on the physical environment in terms of bicycle access, safety, and circulation. Therefore, no mitigation measures are required.

Loading

The implementation of these Bicycle Plan policy Goals, Objectives, and Actions would have no direct impact on the physical environment. However, implementation of these Goals, Objectives, and Actions could have the foreseeable indirect impact of the subsequent implementation of physical changes and improvements including those analyzed elsewhere in Subsections V.A.3, V.A.4, and V.A.5 of this document. Therefore, the indirect impact of implementation of these Bicycle Plan policy Goals, Objectives, and Actions includes all potential impacts on loading that are identified and enumerated in the other Subsections of this EIR.

MITIGATION MEASURES

M-TR-A1.1

Mitigation Measures defined in Subsection V.A.3 shall be implemented in association with the 60 near-term improvements proposed and implemented under the Bicycle Plan. For those identified significant impacts with respect to traffic, transit, and loading in Subsection V.A.3 for which no feasible mitigation measures have been identified, the impacts remain significant and unavoidable.

M-TR-A1.2

Mitigation Measures discussed and defined in Subsection V.A.5 shall be implemented in association with long-term improvements proposed and implemented under the Bicycle Plan. Specific designs for the long-term improvements are unknown at this time. Once specific project designs for the long-term improvements are developed and analyzed for potential environmental impacts with respect to traffic, transit, and loading mitigation measures may be identified and implemented.

The environmental impacts resulting from the long-term improvements would be similar to those identified in Subsection V.A.3 for the near-term improvements which include significant impacts for traffic, transit and loading. Therefore, it likely that similar mitigation measures could be implemented to reduce the level of impact as a result of long-term improvements with respect to traffic, transit, and loading. However, as with the near-term improvements, there may be some impacts for which no feasible mitigation measures may be identified. Those significant impacts may remain significant and unavoidable.

M-TR-A1.4

The indirect impacts of Action 1.4 could result in the implementation of improvements to support the City's Transit First Policy. Therefore, it would include potential impacts identified under all sections of this environmental review for the Bicycle Plan such as those discussed in the transportation impact analysis of the potential impacts of the near-term improvements, long-term improvements, and minor improvements as well as impacts that may result from future projects which would be similar to those discussed in this EIR. Physical improvements known at this time are analyzed in Subsections V.A.3, V.A.4, and V.A.5 of this document. As discussed in Subsection V.A.4, no significant impacts would result from implementation of the minor improvements. Mitigation measures have been identified in Subsections V.A.3 and V.A.5 that would address some of the significant impacts for near-term and long-term improvements. However, there are some impacts that would remain significant and unavoidable and those are also discussed in the above referenced sections.

M-TR-A7.1

As described under the mitigation measures M-TR-A1.1 and M-TR-A1.2 above for potential significant impacts TR-A1.1 and TR-A1.2 resulting from Actions A1.1 and A1.2, Mitigation Measures defined in Subsections V.A.3 and V.A.5 shall be implemented in association with improvements proposed and implemented under the Bicycle Plan for potential indirect impacts resulting from Action 7.1.

M-TR-A7.3

As described under the mitigation measure M-TR-A1.4 above for potential significant impacts TR-A1.4 resulting from Action A1.4, Mitigation Measures defined in Subsections V.A.3 and V.A.5 shall be implemented in association with improvements proposed and implemented under the Bicycle Plan for potential indirect impacts resulting from Action 7.3.

M-TR-A7.4

As described under the mitigation measures M-TR-A1.4 for potential indirect impact TR-A1.4 resulting from Action A1.4, Mitigation Measures defined in Subsections V.A.3 and V.A.5 shall be implemented in association with improvements proposed and implemented under the Bicycle Plan to address potential indirect impacts resulting from Action 7.4.

<u>*M-TR-A8.1*</u>

As described under the mitigation measures M-TR-A1.1 and M-TR-A1.2 above for potential significant impacts TR-A1.2 and TR-A 1.2 resulting from Actions A1.1 and A1.2, Mitigation Measures defined in Subsections V.A.3 and V.A.5 shall be implemented in association with improvements proposed and implemented under the Bicycle Plan to address potential indirect impacts resulting from Action 8.1.

CUMULATIVE CONDITIONS

This assessment evaluates the potential for the program-level Actions described in Subsection V.A.2 to result in cumulative impacts when considered in connection with the effects of other past, present, and reasonably foreseeable future projects, including the near-term improvements analyzed in Subsection V.A.3, and the minor and long-term improvements analyzed at a program-level in Subsections V.A.4 and V.A.5. The cumulative impacts of the near-term, minor improvements, and long-term improvements, are discussed in Subsections V.A.3, V.A.4, and V.A.5.

Traffic

In a cumulative sense, the implementation of these Bicycle Plan policy Goals, Objectives, and Actions would have no direct impact on the physical environment. However, implementation of these Goals, Objectives, and Actions could have the foreseeable indirect impact of allowing implementations of physical changes and improvements, including those analyzed in Subsections V.A.3, V.A.4, and V.A.5 of this EIR. Therefore, the indirect impact of implementation of these Bicycle Plan policy Goals, Objectives, and Actions includes all potential impacts on traffic that are identified and enumerated in the other Subsections as being potentially cumulatively significant and unavoidable.

Parking

The implementation of these Bicycle Plan policy Goals, Objectives, and Actions would have no foreseeable cumulatively considerable direct or indirect significant impact on the physical environment in terms of parking. Therefore, no mitigation measures are required.

Transit

The implementation of these Bicycle Plan policy Goals, Objectives, and Actions would have no direct impact on the physical environment. However, implementation of these Actions could have the foreseeable indirect impact of implementation of physical changes and improvements including those analyzed elsewhere in Subsections V.A.3, V.A.4, and V.A.5 of this EIR. Therefore, the indirect impact of implementation of these Bicycle Plan policy Goals, Objectives, and Actions includes all potentially significant impacts on transit that are identified and enumerated in these other subsections as being potentially cumulatively significant and unavoidable.

Pedestrians

The implementation of these Bicycle Plan policy Goals, Objectives, and Actions would have no foreseeable cumulatively considerable direct or indirect significant impact on the physical environment in terms of pedestrian access, safety, and circulation. Therefore, no mitigation measures are required.

Bicycle

The implementation of these Bicycle Plan policy Goals, Objectives, and Actions would have no potentially cumulatively considerable significant impact on the physical environment in terms of bicycle access, safety, and circulation. Therefore, no mitigation measures are required.

Loading

The implementation of these Bicycle Plan policy Goals, Objectives, and Actions would have no direct impact on the physical environment. However, implementation of these Actions could have the foreseeable indirect impact of allowing implementation of physical changes and improvements, including those analyzed elsewhere in Subsections V.A.3, V.A.4, and V.A.5 of this document. Therefore, the indirect impact of implementation of these Bicycle Plan policy Goals, Objectives, and Actions includes all potential impacts on loading that are identified and enumerated within these other subsections as being potentially cumulatively significant and unavoidable.

MITIGATION MEASURES

Subject to the mitigation measures provided in Subsections V.A.3 and V.A.5, the program-level Actions described and analyzed in this section would not, in themselves, contribute to a cumulatively significant impact to traffic, transit, parking, pedestrian or bicycle circulation, or loading facilities. Therefore, no additional mitigation measures are required for these program-level Actions.

MATRIX 1.1
SUMMARY OF PROGRAM-LEVEL IMPACTS

KEY: NSI = No Significant Impact; PSUI = Potentially Significant and Unavoidable Impact

	Thresholds of Significance					
Actions	**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Action 1.1 Implement improvements to the bicycle route network and within some street rights-of-way.	PSUI	NSI	PSUI	NSI	NSI	PSUI
Action 1.2 Complete design and engineering for proposed long-term improvements.	PSUI	NSI	PSUI	NSI	NSI	PSUI
Action 1.3 Maintain GIS database of San Francisco bicycle route network.	NSI	NSI	NSI	NSI	NSI	NSI
Action 1.4 Work with other San Francisco agencies to implement Transit First Policy	PSUI	NSI	PSUI	NSI	NSI	PSUI
Action 1.5 Conduct pre/post study of bicycles in exclusive bus/taxi lanes	NSI	NSI	NSI	NSI	NSI	NSI
Action 1.6 Review multilane streets for extra capacity to explore possible removal of travel lanes for bicycle lanes or other bicycle friendly treatments.	NSI	NSI	NSI	NSI	NSI	NSI
Action 1.7 Work with Caltrans to analyze and add bicycle facilities where appropriate on state highways in San Francisco.	NSI	NSI	NSI	NSI	NSI	NSI
Action 1.8 Work with agencies to revise LOS standards and methodologies to better respond to the multi-modal nature of San Francisco's transportation network.	NSI	NSI	NSI	NSI	NSI	NSI

MATRIX 1.1
SUMMARY OF PROGRAM-LEVEL IMPACTS

KEY: NSI = No Significant Impact; PSUI = Potentially Significant and Unavoidable Impact

	Thresholds of Significance					
Actions	**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Action 1.9 Define "bicycle boulevards," and develop criteria for identifying streets which could be designated as bicycle boulevards.	NSI	NSI	NSI	NSI	NSI	NSI
Action 1.10 Review international best practices and implement innovative design treatments along the bicycle network with appropriate analysis.	NSI	NSI	NSI	NSI	NSI	NSI
Action 1.11 Prioritize installation of shared roadway bicycle markings where safety could be improved.	NSI	NSI	NSI	NSI	NSI	NSI
Action 1.12 Work with DPW to develop and enforce standards for street excavation work by contractors.	NSI	NSI	NSI	NSI	NSI	NSI
Action 1.13 Work with San Francisco agencies to create inventory of bicycle and mixed-use pathways.	NSI	NSI	NSI	NSI	NSI	NSI
Action 1.14 Work with DPW and RPD to maintain a regular sweeping schedule of bicycle routes and off-street paths.	NSI	NSI	NSI	NSI	NSI	NSI
Action 1.15 Work with the DPW to prioritize streets on the bicycle route network within the DPW's street resurfacing program.	NSI	NSI	NSI	NSI	NSI	NSI
Action 1.16 Work with the DPW to inspect streets on the bicycle route network on a yearly basis.	NSI	NSI	NSI	NSI	NSI	NSI

MATRIX 1.1
SUMMARY OF PROGRAM-LEVEL IMPACTS

KEY: NSI = No Significant Impact; PSUI = Potentially Significant and Unavoidable Impact

	Thresholds of Significance					
Actions	**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Action 1.17 Create an inventory of locations along the bicycle network that intersect or parallel railroad track crossings and identify ways to mitigate the impact.	NSI	NSI	NSI	NSI	NSI	NSI
Additional Action Implement bicycle loop detectors, as appropriate, to improve intersection operations and to facilitate bicycle traffic through intersections where traffic volumes are low.	NSI	NSI	NSI	NSI	NSI	NSI
Action 2.1 Work with the Planning Department to consolidate *Planning Code* Sections 155.1-155.5 to provide clearer regulation, guidance, and exemptions related to bicycle parking.	NSI	NSI	NSI	NSI	NSI	NSI
Action 2.2 Work with the Planning Department to modify *Planning Code* requirements for bicycle parking so that they are less dependent on automobile parking provisions.	NSI	NSI	NSI	NSI	NSI	NSI
Action 2.3 Work with the Planning Department to amend the *Planning Code* to increase required bicycle parking for new residential developments and base this requirement on a proportion of dwelling units.	NSI	NSI	NSI	NSI	NSI	NSI
Action 2.4 Work with San Francisco agencies to ensure all garage bicycle parking is secure, well monitored, and well advertised at garage entrances and other appropriate locations.	NSI	NSI	NSI	NSI	NSI	NSI

MATRIX 1.1
SUMMARY OF PROGRAM-LEVEL IMPACTS

KEY: NSI = No Significant Impact; PSUI = Potentially Significant and Unavoidable Impact

	Thresholds of Significance					
Actions	**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Action 2.5 Work with the Planning Department to increase monitoring and enforcement of bicycle parking provisions in the *Planning Code*, especially when issuing building permits.	NSI	NSI	NSI	NSI	NSI	NSI
Action 2.6 Hold meetings between SFMT A and Planning Department staff to update citywide bicycle parking compliance status and review bicycle parking information posted on the SFMT A website.	NSI	NSI	NSI	NSI	NSI	NSI
Action 2.7 Conduct the SFMTA's bicycle parking training for new Planning Department personnel as needed.	NSI	NSI	NSI	NSI	NSI	NSI
Action 2.8 Ensure all City leases are negotiated to include required level of bicycle parking by cooperative efforts of the City Real Estate Department and SFMTA.	NSI	NSI	NSI	NSI	NSI	NSI
Action 2.9 Pursue citywide policy to secure bicycle parking at all City buildings subject to safety regulations and available space, by cooperative efforts of the City Real Estate Department, Planning Department, and the SFMTA.	NSI	NSI	NSI	NSI	NSI	NSI
Action 2.10 Work with the Planning Department to amend the *Planning Code* to lower the number of automobile parking required in buildings where Class I bicycle parking is provided.	NSI	NSI	NSI	NSI	NSI	NSI

MATRIX 1.1 SUMMARY OF PROGRAM-LEVEL IMPACTS						
KEY: NSI = No Significant Impact; PSUI = Potentially Significant and Unavoidable Impact						
	Thresholds of Significance					
Actions	**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Action 2.11 Work with the Planning Department to amend the *Planning* Code to require bicycle parking in each individual building of large, multiple-building developments.	NSI	NSI	NSI	NSI	NSI	NSI
Action 2.12 Work with the Planning Department to amend the *Planning* Code to require building owners to allow tenants to bring their bicycles into buildings unless Class I bicycle parking is provided.	NSI	NSI	NSI	NSI	NSI	NSI
Action 2.13 Work with San Francisco agencies to prepare additional guidelines for placement and design of bicycle parking within City rights-of-way, and bicycle parking, and "sleeve" ring racks on parking meters.	NSI	NSI	NSI	NSI	NSI	NSI
Action 2.14 Develop and maintain SFMTA bicycle campaign to provide relevant bicycle parking information such as garage locations with bicycle parking and locker availability.	NSI	NSI	NSI	NSI	NSI	NSI
Action 2.15 Work with San Francisco Police Department (SFPD) to make bicycle theft investigation a higher priority.	NSI	NSI	NSI	NSI	NSI	NSI
Action 3.1 Create an SFMTA policy that explicitly permits folded bicycles on all SFMTA transit vehicles	NSI	NSI	NSI	NSI	NSI	NSI
Action 3.2 Develop pilot program to provide bicycle access on SFMTA light rail vehicles, for potential future implementation.	NSI	NSI	NSI	NSI	NSI	NSI

MATRIX 1.1
SUMMARY OF PROGRAM-LEVEL IMPACTS

KEY: NSI = No Significant Impact; PSUI = Potentially Significant and Unavoidable Impact

	Thresholds of Significance					
Actions	**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Action 3.3 Update the SFMTA's bicycle accessibility guidelines and widely distribute and publicize these guidelines.	NSI	NSI	NSI	NSI	NSI	NSI
Action 3.4 Create an SFMTA policy that allows bicyclists with disabled bicycles to bring them aboard SFMTA transit vehicles at the discretion of the vehicle operator when the vehicle either does not have racks or the racks are full.	NSI	NSI	NSI	NSI	NSI	NSI
Action 3.5 Install racks on all SFMTA buses, and work with other transit buses operating in SF to install bicycle racks on their bus fleets.	NSI	NSI	NSI	NSI	NSI	NSI
Action 3.6 Work with (BART) to analyze existing bicycle policies and create a trial program for non-folding bicycle access during Transbay peak period trains.	NSI	NSI	NSI	NSI	NSI	NSI
Action 3.7 Work with Caltrain to expand bicycle access to San Francisco stations by promoting bicycling to stations and providing secure bicycle parking at station areas.	NSI	NSI	NSI	NSI	NSI	NSI
Action 3.8 Ensure SF transit stations, including the new Transbay Terminal, provide barrier-free bicycle access and parking facilities. Work with California High-Speed Rail Authority to ensure bicycles are accommodated on its long-distance trains.	NSI	NSI	NSI	NSI	NSI	NSI

MATRIX 1.1
SUMMARY OF PROGRAM-LEVEL IMPACTS

KEY: NSI = No Significant Impact; PSUI = Potentially Significant and Unavoidable Impact

	Thresholds of Significance					
Actions	**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Action 3.9 Work with San Francisco Bay Area transit operators and the (MTC) to develop, implement, maintain, expand, and enforce improved inter-modal bicycle access.	NSI	NSI	NSI	NSI	NSI	NSI
Action 3.10 Promote bicycle parking stations at major hubs that provide secure, monitored parking, commuter info, and maintenance services.	NSI	NSI	NSI	NSI	NSI	NSI
Action 3.11 Work with Caltrans and Golden Gate Bridge, Highway and Transportation District (GGBHTD) to provide improved bicycle access to all San Francisco bridges wherever feasible and appropriate.	NSI	NSI	NSI	NSI	NSI	NSI
Action 4.1 Provide SFMTA bicycle safety information to diverse age, income, and ethnic populations.	NSI	NSI	NSI	NSI	NSI	NSI
Action 4.2 Provide bicycle safety information in languages widely used within San Francisco, such as Chinese and Spanish.	NSI	NSI	NSI	NSI	NSI	NSI
Action 4.3 Partner with agencies to distribute bicycle safety education materials in mass mailings.	NSI	NSI	NSI	NSI	NSI	NSI
Action 4.4 Work with the SFPD to create a bicycle traffic school curriculum in lieu of pecuniary penalties for traffic violators.	NSI	NSI	NSI	NSI	NSI	NSI

MATRIX 1.1
SUMMARY OF PROGRAM-LEVEL IMPACTS

KEY: NSI = No Significant Impact; PSUI = Potentially Significant and Unavoidable Impact

	Thresholds of Significance					
Actions	**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Action 4.5 Increase SFMTA participation in Bike to Work Day by providing resources and materials.	NSI	NSI	NSI	NSI	NSI	NSI
Action 4.6 Implement new outreach campaigns for improved bicycle facilities.	NSI	NSI	NSI	NSI	NSI	NSI
Action 4.7 Develop SFMTA bicycle safety classes for City employees.	NSI	NSI	NSI	NSI	NSI	NSI
Action 4.8 Develop an SFMTA bicycle safety workshop for transit vehicle operators and other large fleet vehicle operators.	NSI	NSI	NSI	NSI	NSI	NSI
Action 4.9 Develop a bicycle safety curricula for use in the (SFUSD) and San Francisco public colleges and to be shared with other schools.	NSI	NSI	NSI	NSI	NSI	NSI
Action 4.10 Work with the SFUSD to promote a transportation curriculum instead of driver's education at high schools that provides instruction on all modes of transportation.	NSI	NSI	NSI	NSI	NSI	NSI
Action 4.11 Periodically evaluate and adjust, the SFMTA's bicycle safety program.	NSI	NSI	NSI	NSI	NSI	NSI
Action 5.1 Work with the SFPD to place a high priority on enforcement of both bicyclist and motorist violations that most frequently cause injuries and fatalities.	NSI	NSI	NSI	NSI	NSI	NSI

MATRIX 1.1
SUMMARY OF PROGRAM-LEVEL IMPACTS

KEY: NSI = No Significant Impact; PSUI = Potentially Significant and Unavoidable Impact

	Thresholds of Significance					
Actions	**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Action 5.2 Work with SFPD to develop a "fix-it ticket" program for bicycle equipment violations.	NSI	NSI	NSI	NSI	NSI	NSI
Action 5.3 Work with SFPD to develop a method to systematically share non-collision bicyclist citations with the" SFMTA.	NSI	NSI	NSI	NSI	NSI	NSI
Action 5.4 Work with SFPD and Superior Court of California to develop and implement a bicycle traffic school program as an option for those cited for moving violations.	NSI	NSI	NSI	NSI	NSI	NSI
Action 5.5 Support efforts to change *California Vehicle Code (CVC)* Section 21754 (passing on the right) so that it applies to bicycles.	NSI	NSI	NSI	NSI	NSI	NSI
Action 5.6 Increase parking enforcement and fines for violations involving vehicles parking or double parking in bicycle lanes.	NSI	NSI	NSI	NSI	NSI	NSI
Action 5.7 Post "no stopping in bike lane" signs along bicycle lanes where double parking violations occur, and work with the SFPD to increase enforcement of these violations.	NSI	NSI	NSI	NSI	NSI	NSI
Actions 5.8 Work with the SFPD to increase the enforcement of the prohibition of operating motorcycles in bicycle lanes.	NSI	NSI	NSI	NSI	NSI	NSI

MATRIX 1.1
SUMMARY OF PROGRAM-LEVEL IMPACTS

KEY: NSI = No Significant Impact; PSUI = Potentially Significant and Unavoidable Impact

	Thresholds of Significance					
Actions	**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Actions 5.9 Develop an SFMTA bicycle safety curriculum for all SFPD police officers that focuses on the rights and responsibilities of bicyclists and techniques required for safe and legal sharing of the roadway.	NSI	NSI	NSI	NSI	NSI	NSI
Action 5.10 Work with the SFPD to increase bicycle-mounted enforcement patrols.	NSI	NSI	NSI	NSI	NSI	NSI
Action 5.11 Work with SFPD to develop a system for hospitals, emergency rooms, and clinics to report all instances of bicyclist injuries to the SFPD and to the SFMTA.	NSI	NSI	NSI	NSI	NSI	NSI
Action 5.12 Inform bicyclists that they are legally entitled to fie a collision report when one is not initiated by the police.	NSI	NSI	NSI	NSI	NSI	NSI
Action 5.13 Develop a standardized procedure for reporting bicycle-related incidents with transit vehicles and ensure that this information is readily available to appropriate City staff.	NSI	NSI	NSI	NSI	NSI	NSI
Action 6.1 Promote the benefits of bicycling to diverse age, income, and ethnic populations.	NSI	NSI	NSI	NSI	NSI	NSI
Action 6.2 Work with the Dept SF the Environment (SF Environment), the Department of Public Health (DPH), and other City agencies to formalize bicycle education and promotion responsibilities and develop partnership agreements with the SFMTA.	NSI	NSI	NSI	NSI	NSI	NSI

MATRIX 1.1
SUMMARY OF PROGRAM-LEVEL IMPACTS

KEY: NSI = No Significant Impact; PSUI = Potentially Significant and Unavoidable Impact

	Thresholds of Significance					
Actions	**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Action 6.3 Work with all City agencies to expand bicycle promotion and incentive programs for City employees to serve as a model program for other San Francisco employers.	NSI	NSI	NSI	NSI	NSI	NSI
Action 6.4 Include, where appropriate, telephone and web-based contact information for the MTC "511" program on relevant SFMTA materials	NSI	NSI	NSI	NSI	NSI	NSI
Action 6.5 Encourage and promote bicycle-related businesses within San Francisco.	NSI	NSI	NSI	NSI	NSI	NSI
Action 6.6 Conduct a feasibility study for a public bicycle sharing program, and if feasible, develop a plan for potential future implementation including any required environmental review.	NSI	NSI	NSI	NSI	NSI	NSI
Action 7.1 Incorporate this Bicycle Plan in whole by reference into the *General Plan* and amend sections of the *General Plan* that are relevant to bicycling, including the Transportation Element and relevant Area Plans, according to the goals of this Bicycle Plan.	PSUI	NSI	PSUI	NSI	NSI	PSUI
Action 7.2 Ensure adequate and appropriate environmental review under the California Environmental Quality Act for the Bicycle Plan and all discretionary actions under the Bicycle Plan that may have a direct or indirect physical environmental impact.	NSI	NSI	NSI	NSI	NSI	NSI

MATRIX 1.1
SUMMARY OF PROGRAM-LEVEL IMPACTS

KEY: NSI = No Significant Impact; PSUI = Potentially Significant and Unavoidable Impact

	Thresholds of Significance					
Actions	**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Action 7.3 Work with the Planning Department to coordinate updates to the *General Plan* as subsequent amendments and updates to the Bicycle Plan and bicycle route network occur.	PSUI	NSI	PSUI	NSI	NSI	PSUI
Action 7.4 Work with the Planning Department to ensure that all current and proposed Area Plans' objectives and policies on balance are consistent with the goals of the San Francisco Bicycle Plan. Whenever updates or revisions are considered to existing Area Plans, especially those that do not now contain sections on bicycling, these Area Plans should include sections on bicycling consistent with the goals of the Bicycle Plan.	PSUI	NSI	PSUI	NSI	NSI	PSUI
Action 7.5 Work with the Planning Department as transportation impact guidelines are updated to ensure impacts of new projects consider bicycles.	NSI	NSI	NSI	NSI	NSI	NSI
Action 7.6 When City transportation or development studies include non-automated traffic counts, work with the responsible San Francisco agencies to collect: bicycle counts where appropriate; an inventory of existing bicycle parking within a two-block radius of the study site; and the project's potential impacts on any existing or proposed bikeways.	NSI	NSI	NSI	NSI	NSI	NSI
Action 7.7 Work with public agencies with jurisdictions or rights-of-way within San Francisco to ensure coordination of any proposed bicycle facilities.	NSI	NSI	NSI	NSI	NSI	NSI

MATRIX 1.1
SUMMARY OF PROGRAM-LEVEL IMPACTS

KEY: NSI = No Significant Impact; PSUI = Potentially Significant and Unavoidable Impact

	Thresholds of Significance					
Actions	**Traffic**	**Parking**	**Transit**	**Pedestrian**	**Bicycle**	**Loading**
Additional Action SFMTA would conduct a study to determine the feasibility of permitting bicycles on sidewalks in limited circumstances on a case-by-case basis.	NSI	NSI	NSI	NSI	NSI	NSI
Action 8.1 Work with appropriate agencies to identify funding to assist in achieving the goals and objectives set forth in this Bicycle Plan.	PSUI	NSI	PSUI	NSI	NSI	PSUI

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3. PROJECT–LEVEL ANALYSIS

OVERVIEW

This section presents the project-level analysis for the 60 near-term bicycle route network improvement projects (near-term improvements) identified in the San Francisco Bicycle Plan. The near-term improvements would address gaps and deficiencies within the existing bicycle route network. These near-term improvements include bicycle projects that were originally listed as priority projects in a citywide bicycle planning process; projects that were already funded, but not implemented prior to the 2006 Superior Court of California injunction which prevented implementation of these projects; and projects that have recently been designed. These 60 near-term improvements have complete and specific project designs.

The proposed near-term improvements consist of design elements intended to enhance safety and improve bicycle travel in the City. These elements vary from simple improvements such as pavement markings such as sharrows,[1] (see Figure V.A.3-1, p. V.A.3-2) to more complex treatments, like the installation of bicycle lanes, pathways or other bicycle facilities. The physical modifications proposed by these near-term improvements and addressed by the project-level traffic impact analysis, may include, but are not limited to, the following design elements to improve bicycle travel: signage changes; pavement marking such as the installation of colored pavement materials and the installation of sharrows; modifications to bus zones and parking configurations such as changes to the location, configuration, and number of metered or unmetered parking spaces and loading zones; changes to the locations and configurations of curbs, sidewalks and medians (including both planted and unplanted), including widening of roadways; reconfiguration of intersections to improve bicycle crossings, including installation of bicycle traffic signals; installation of bicycle lanes, pathways or other bicycle facilities, potentially in conjunction with the narrowing of traffic lanes; the designation of shared bicycle and transit lanes; establishment of part-time bus zones; addition of parking spaces; and the reconfiguration of sidewalks to accommodate new bicycle lanes.

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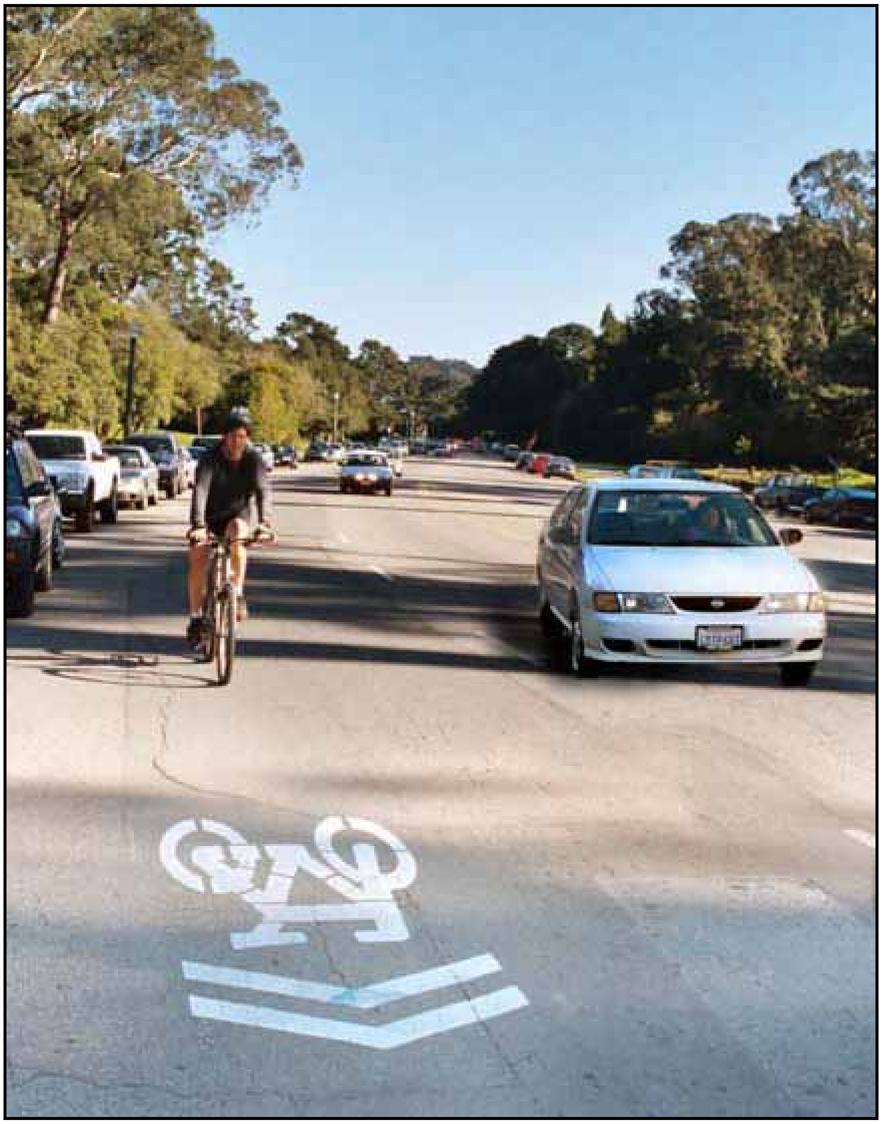
1 Sharrows are traffic control devices that consist of pavement markings within the traffic lane. The markings are intended to alert drivers that bicyclists share the traffic lane and to reduce the chance of bicyclists impacting the open doors of parked vehicles. For more information on sharrows, please see: http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd/CAMUTCD-Part9.pdf.

FIGURE V.A.3-1: A SHARROW



As alterations to a city-wide transportation network, the analysis of these near-term improvements must also address the combined impacts of multiple projects within the same vicinity. For this reason, the near-term improvements have been grouped by geographic proximity into eight clusters in order to evaluate and understand the potential combined transportation-related impacts related to the implementation of projects in close proximity to one another.

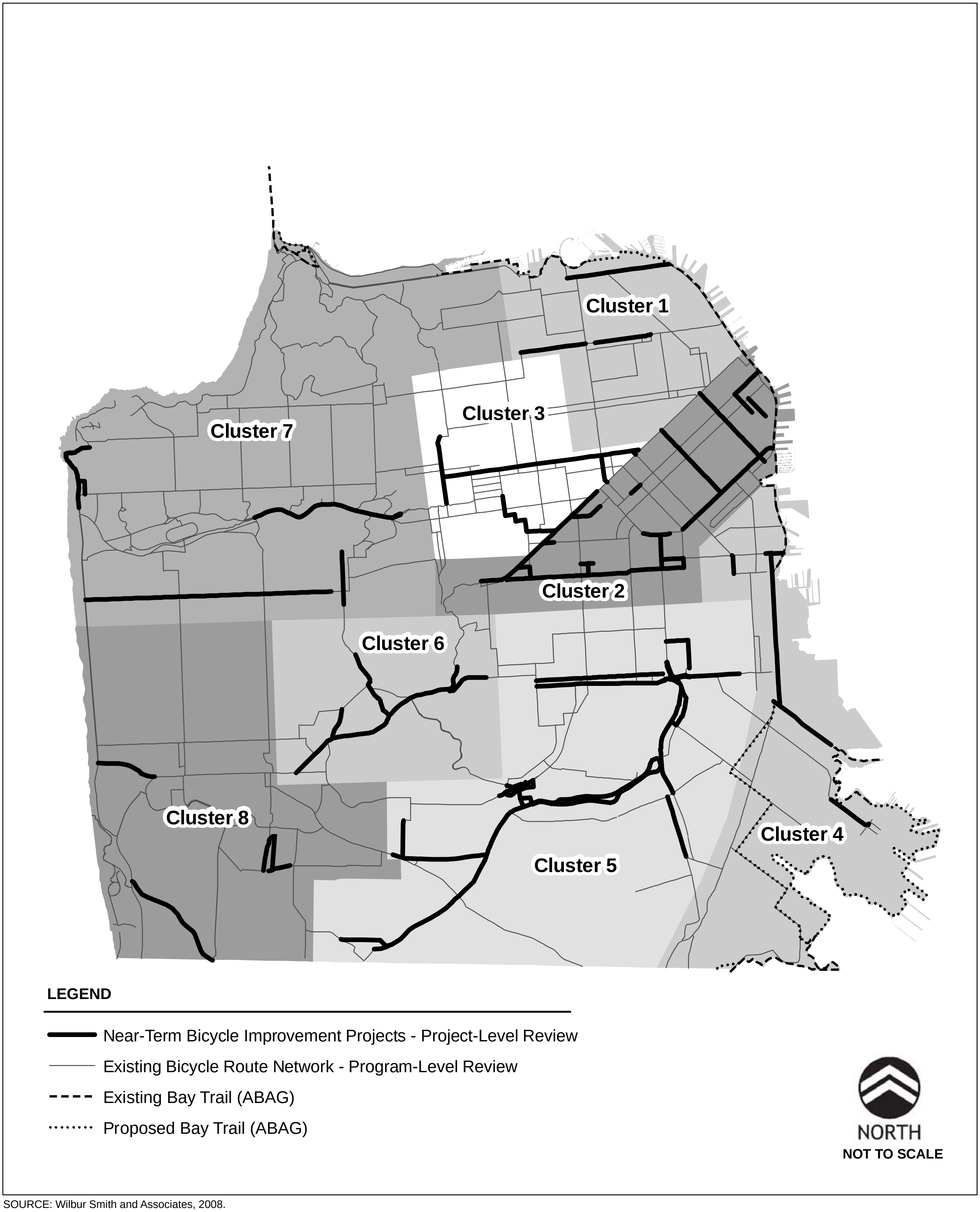
Most of the specific near-term improvements include two potential alternatives for consideration by decision makers. The design options chosen for analysis for each project represent a range in terms of their environmental effects, namely, one alternative that offers an option that would affect one or more modes (e.g., removal of mixed traffic lanes and/or greatest potential to impede transit operations); and another alternative that would be less likely to impact other modes (e.g., parking removals instead of traffic lane removals, changes to sidewalks, installation of sharrows, or alternate routing of bicycle routes). As such, these options now constitute a suite of design elements from which decision-makers may choose in order to address the network deficiencies at a specific location. With certification of the San Francisco Bicycle Plan Project EIR, no further environmental analysis would be required to implement any such design elements that is within the range of design elements studied as part of this environmental review process.

The project-level transportation analysis for the 60 near-term improvements must consider the potential impacts of each project, including the variations encompassed by the alternative options being considered. The analysis of the near-term improvements also addresses the combined impacts of multiple projects within the same vicinity. As stated above, the near-term improvements have been grouped by geographic proximity into eight clusters in order to evaluate and understand the combined potential transportation-related impacts related to implementation of the near-term improvements in close proximity to one another. Clusters 1 through 8 are shown in Figure V.A.3-2, p. V.A.3-4.

SETTING

STUDY INTERSECTIONS

The San Francisco Bicycle Plan Project EIR includes 60 near-term improvements for which detailed designs have been developed by the San Francisco Municipal Transportation Agency (SFMTA). The impact discussion includes traffic, transit, parking, pedestrian, bicycle, and loading analysis for the City's transportation system. For these near-term bicycle improvement projects, 61 study intersections were identified by the San Francisco Major Environmental Analysis (MEA) Division of the San Francisco Planning Department (Planning Department) and SFMTA as the intersections most likely to be affected by the near-term improvements. All of the intersections were analyzed for the PM peak hour impacts. Some of these intersections were analyzed for the AM peak hour impacts as well. The AM peak hour intersections are presented in Table V.0-1; p. V.A.3-5, the PM peak hour intersections are presented in Table V.0-2, p. V.A.3-6.



SOURCE: Wilbur Smith and Associates, 2008.

REVISED FIGURE V.A.3-2: PROJECT LEVEL ANALYSIS STUDY CLUSTERS

TABLE V.0-1
ALL AM INTERSECTIONS STUDIED

No.	Intersection	Cluster	No.	Intersection	Cluster
23	Bayshore Boulevard/Jerrold Avenue/US 101 off-ramp	5	41	Phelan Avenue/Geneva Avenue/Ocean Avenue	5
28	Mission Street/Cesar Chavez Street	5	52	Church Street/Market Street/14th Street	2
37	Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive	6	59	Masonic Avenue/Turk Street	3
40	Octavia Boulevard/Market Street	2	60	Masonic Avenue/Fulton Street	3

Source: Wilbur Smith Associates, October 2008.

Selection of AM Study Intersections

The selection procedure for the AM study intersections is described below.

The AM study intersections were generally selected from the list of the PM study intersections based on the following criteria:

a) Intersections where the LOS or Average Delay was worse in the AM than it was in the PM under existing conditions.

b) Intersections where the AM LOS was D or below (E or F) under existing conditions.

c) For all of the intersections identified for consideration, a comparison was made between the AM critical movements and the PM critical movements. If they were the same and the condition for the AM was generally better than the PM, defined as less congested and less delay, then the intersection was excluded.

d) For all the intersections identified for consideration, the volumes of critical movements, the V/C ratio and the change in the V/C ratio when capacity reduction was proposed, the V/C ratio for protected left turns when capacity reduction was proposed in a through lane, and the condition of the left turn movement, were all considered. If these criteria for the AM were found to be generally the same or better than the PM, then the intersection was excluded.

TABLE V.0-2
STUDY INTERSECTIONS – PM PEAK HOUR

No.	Intersection Name	Cluster	No.	Intersection Name	Cluster
1	2nd Street/Bryant Street	2	32	Pennsylvania Avenue/Cesar Chavez Street/I-280 off-ramp	5
2	2nd Street/Harrison Street	2	33	Putnam Street/I-280 off-ramp/ Alemany Boulevard	5
3	2nd Street/Folsom Street	2	34	Alemany Boulevard/Ocean Avenue	5
4	2nd Street/Howard Street	2	35	Alemany Boulevard/Sickles Avenue	5
5	2nd Street/Brannan Street	2	36	Justin Drive/Congdon Street/Alemany Boulevard	5
6	2nd Street/Townsend Street	2	37	Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive	6
7	5th Street/Bryant Street	2	38	Burnett Avenue/Clipper Street/Portola Drive	6
8	5th Street/Harrison Street	2	39	Laguna Honda Boulevard/Dewey Boulevard/Woodside Avenue	6
9	5th Street/Brannan Street	2	40	Octavia Boulevard/Market Street	2
10	5th Street/Mission Street	2	41	Phelan Avenue/Geneva Avenue/Ocean Avenue	5
11	5th Street/Market Street	2	42	San Jose Avenue/Ocean Avenue	5
12	5th Street/Howard Street	2	43	Masonic Avenue/Fell Street	3
13	5th Street/Folsom Street	2	44	Masonic Avenue/Geary Boulevard	3
14	7th Street/Townsend Street	2	45	Van Ness Avenue/North Point Street	1
15	4th Street/Townsend Street	2	46	Columbus Avenue/North Point Street	1
16	3rd Street/Townsend Street	2	47	The Embarcadero/North Point Street	1
17	6th Street /Brannan Street	2	48	Fremont Street/Howard Street	2
18	4th Street/Harrison Street	2	49	Illinois Street/Cesar Chavez Street	4
19	Potrero Avenue/23rd Street	5	50	Illinois Street/Mariposa Street/Terry Francois Street	4
20	Potrero Avenue/17th Street	2	51	Polk Street/North Point Street	1
21	10th Street/Brannan Street/Potrero Avenue/Division Street	2	52	Church Street/Market Street/14th Street	2
22	Potrero Avenue/16th Street	2	53	Van Ness Avenue/Broadway Street	1
23	Bayshore Boulevard/Jerrold Avenue/US 101 off-ramp	5	54	11th Street/Bryant Street/Division Street	2

TABLE V.0-2 (CONTINUED)
STUDY INTERSECTIONS – PM PEAK HOUR

No.	Intersection Name	Cluster	No.	Intersection Name	Cluster
24	Bayshore Boulevard/Oakdale Avenue	5	55	7th Avenue/Kirkham Street	7
25	Bayshore Boulevard/Cortland Avenue	5	56	48th Avenue/Point Lobos Avenue	7
26	Bayshore Boulevard/Alemany Boulevard/Industrial Street	5	57	Evelyn Street/Portola Avenue	6
27	Guerrero Street/Cesar Chavez Street	5	58	Fowler Street/Portola Avenue	6
28	Mission Street/Cesar Chavez Street	5	59	Masonic Avenue/Turk Street	3
29	South Van Ness Avenue/Cesar Chavez Street	5	60	Masonic Avenue/Fulton Street	3
30	Bryant Street/Cesar Chavez Street	5	61	7th Avenue/Lincoln Way	7
31	Evans Avenue/Cesar Chavez Street	5			

Source: Wilbur Smith Associates, October 2008.

e) Whenever application of the above criteria was not conclusive, the intersection was included for analysis.

f) One intersection was included for analysis based on its unique conditions (Intersection 6 Market and Octavia)

The eight AM study intersections selected on the basis of the selection criteria discussed above are presented in Table V.0-1, p. V.A.3-5.

Selection of PM Study Intersections

The PM study intersections were selected based on the following criteria:

- Generally all intersections for the proposed bicycle routes where capacity reduction (lane elimination in one or both directions) was proposed were originally considered for analysis purposes.
- If the lane reduction was where visible additional capacity was available, the specific intersections were excluded for the purpose of analysis.

- The remainder of all intersections where the existing volumes were high or congested was included in the analysis.
- Additional intersections were included if there was a potential conflict with Muni routes.
- Additional intersections were included if unique sensitivity was identified.
- Three more intersections were subsequently added based on refinements to the proposed options for two projects.

Table V.0-2, p. V.A.3-6, lists the 61 study intersections that were identified for analysis during the PM peak hour based on the above selection criteria.

CORRIDOR ANALYSIS

In addition to the 61 study intersections indentified earlier, several study corridors were defined for the assessment of transit, parking and loading impacts resulting from the near-term improvements. Twelve transit study corridors and ten transit spot study locations were evaluated to identify the projects' potential to impact transit including identification of potential conflicts between transit vehicles and bicyclists. These corridors and spot study locations are shown in Table V.0-3 and Table V.0-4, respectively, on p. V.A.3-9.

In addition, ten parking and loading corridors were identified where parking and loading changes were proposed. These are shown in Table V.0-5, p. V.A.3-10. The potential for greater conflicts due to effects being intensified between modes in these corridors is reflected in the more detailed impact analyses for specific near-term improvements, whenever applicable.

Finally, assessment of pedestrian impacts focused on locations where sidewalks would be narrowed by the near-term improvements or where conflicts between pedestrians and bicycles could potentially increase as a result of the implementation of bicycle projects. This analysis was included as part of the analysis for each near-term improvement.

TABLE V.0-3
TRANSIT STUDY CORRIDORS

No.	Corridor Name	Limits	Cluster
1	North Point Street	Van Ness Avenue to The Embarcadero	1
2	2nd Street	Market Street to Townsend Street	2
3	Townsend Street	8th Street to The Embarcadero	2
4	5th Street	Market Street to Townsend Street	2
5	Bayshore Boulevard	César Chávez Street to Silver Avenue	5
6	César Chávez Street	Bryant Street to Valencia Street	5
7	Portola Drive	Corbett Avenue to Junipero Serra Boulevard	6
8	Laguna Honda Boulevard/7th Avenue	Portola Drive to Lincoln Way	6
9	Phelan Avenue	Judson Avenue to Ocean Avenue	5
10	Ocean Avenue	Lee Street to Alemany Boulevard	5
11	McAllister Street	Market Street to Central Street	3
12	Masonic Avenue	Fell Street to Geary Boulevard	3

Source: Wilbur Smith Associates, October 2008.

TABLE V.0-4
TRANSIT SPOT STUDY LOCATIONS

No.	Transit Spot Location	Limits	Cluster
1	Polk Street	Market Street to Grove Street	1
2	Howard Street	The Embarcadero to Fremont Street	2
3	Innes Street	Evans Avenue to Donahue Street	4
4	Alemany Boulevard.	Putnam Street to Ellsworth Street	5
5	Alemany Boulevard/Rousseau Street/Still Street/ Bosworth Street	Alemany Boulevard. to Diamond Street	5
6	Sloat Boulevard WB	37th Avenue to Skyline Boulevard.	8
7	Clipper Street	Portola Drive to Grand View Avenue	6
8	San Bruno Avenue	Silver Avenue to Paul Street	5
9	Division Street	11th Street to Potrero Avenue	2
10	Market Street	Van Ness Avenue to Valencia Street	2

Source: Wilbur Smith Associates, October 2008.

TABLE V.0-5
PARKING AND LOADING CORRIDORS

No.	Corridor Name	Limits	Cluster
1	Glen Park Area	a) San Jose Avenue and Alemany Boulevard. b) San Jose Avenue and Monterey Boulevard.	5
2	Illinois Street	16th Street to Islais Creek	4
3	2nd Street	Market Street to King Street	2
4	5th Street	Market Street to Townsend Street	2
5	Townsend Street	The Embarcadero to 8th Street	2
6	César Chávez Street /26th Street	US 101 to Sanchez Street	5
7	César Chávez Street	US 101 to I-280	5
8	Portola Drive	O'Shaughnessy Boulevard. to Sloat Boulevard.	6
9	17th Street Corridor	Corbett Avenue to Kansas Street	2
10	Masonic Avenue	Fell Street to Geary Boulevard	3
11	Holloway Avenue	Junipero Serra Boulevard. to Varela Street	8
12	Market Street	Octavia Boulevard to 17th Street	2
13	Polk Street	Market Street to McAllister Street	1

Source: Wilbur Smith Associates, October 2008.

TRANSIT STUDY CORRIDORS AND SPOT STUDY LOCATIONS

Transit study corridors and transit spot study locations were selected based on a review of the 60 proposed near-term bicycle route network improvement projects (near-term improvements) that overlapped with existing transit service. Near-term improvements that included design options that would remove travel lanes along transit routes or would otherwise potentially cause delays to transit were selected for further review. Additionally, near-term improvements located on streets with known high volumes of bicycles and high frequencies of transit service were selected for further review of potential conflicts between bicycle and transit movements. For those near-term improvements selected for further review, the design options were examined for their potential to impact transit operations. Near-term improvements with the greatest potential to impact transit operations along several blocks were selected as transit study corridors. Near-term improvements with the greatest potential to impact transit operations in localized areas (specific intersections or short street segments) were selected as transit spot study locations. Selected corridors and spot study locations are shown in Table V.0-3 and Table V.0-4, respectively, on p. V.A.3-99.

Parking and Loading Study Locations

Parking and loading study corridors were selected based on a review of the 60 proposed near-term bicycle route network improvement projects (near-term improvements). Those near-term improvements that included design options that would remove substantial amounts of on-street parking or loading spaces were selected for further review. Additionally, near-term improvements located on streets with known frequent loading activities were selected for further review. For those near-term improvements selected for further review, existing parking supply and occupancy in the area was reviewed, and the design options were examined for potential to impact existing loading activities. Those near-term improvements with the greatest potential to impact parking occupancy in the vicinity of the near-term improvement or to impact existing loading activities were selected as study corridors, as shown in Table V.0-5, p. V.A.3-10.

EXISTING PLUS PROJECT METHODS OF ANALYSIS

Two baseline alternatives were developed and analyzed for each project: one alternative that clusters projects more likely to adversely affect one or more modes (such as removal of traffic lanes); and another alternative which groups projects less likely to affect other modes (such as parking removals, changes to sidewalks or alternate routing of bicycle routes). This approach provided coverage of a wide variety of alternatives and the extent of impacts for each so that decision makers could make choices among options based on the full disclosure of likely impacts on all modes of transportation.

EVALUATION OF SCENARIOS

The analyses of intersections and corridors included evaluations of four scenarios, namely:

1. *Existing Conditions*: This scenario refers to baseline conditions observed in the field for the Base Year.

2. *Existing plus Project Conditions with Alternatives*: This scenario refers to baseline conditions with the proposed bicycle project implementation. Project implementation may include, but is not limited to simple improvements such as pavement marking (sharrows) to more complex treatments, like the installation of bicycle lanes, pathways or other bicycle facilities, including in conjunction with the narrowing or widening of a travel lane, removal of a travel lane, removal of on-street parking, and/or changes in sidewalk width.

3. *2025 Cumulative Conditions*: This scenario refers to future conditions without the implementation of the proposed project. This scenario includes background growth in traffic as well as implementation of any approved projects but excludes the proposed project.

4. *2025 Cumulative Conditions with Alternatives*: This scenario refers to future conditions with the implementation of the proposed project.

Two baseline and future alternatives with the project were developed and fully analyzed: one alternative which clusters projects more likely to adversely affect one or more modes (such as removal of traffic lanes) and another alternative which groups projects less likely to affect other modes (such as parking removals, changes to sidewalks or alternate routing of bicycle routes). This approach provided coverage of a wide variety of alternatives and the extent of impacts for each so that decision makers could make choices among options based on full disclosure of likely impacts on all modes of transportation.

Since the implementation of the Proposed Project would not result in any new traffic volumes being added to the roadway network, there would be no change in the intersection volume under project conditions. Hence, the intersection volumes stay constant between Existing and Existing plus Project Conditions. Similarly, there is no change in intersection volumes between 2025 Cumulative and 2025 Cumulative plus Project Conditions.

CUMULATIVE METHODS OF ANALYSIS

This section presents the analysis methodology that was used to evaluate Cumulative and Cumulative plus Project conditions, and the results of this analysis for the 60 project locations.

The Cumulative scenario refers to future (year 2025) conditions without the implementation of the proposed project. It includes background growth in traffic as well as implementation of any approved projects but excludes the proposed project.

The Cumulative plus Project scenario refers to future conditions with the implementation of the proposed project. As with the analysis of Existing plus Project conditions, it is assumed that there would be no change in intersection volumes between 2025 Cumulative and 2025 Cumulative plus Project conditions.

Development of Year 2025 Travel Demand

Future Year 2025 traffic volume forecasts were estimated based on cumulative development and growth identified by the San Francisco County Transportation Authority's (SFCTA) travel demand forecasting model (SF-CHAMP Model). The SF-CHAMP Model is an activity based travel demand model that has been validated to represent future transportation conditions in San Francisco. The model predicts all person travel for a full day based on assumptions of growth in population, housing units, and employment, which are then allocated to different periods throughout the day, using time of day sub-models. The SF-CHAMP Model predicts future person travel by mode for auto, transit, walk and bicycle trips. The SF-CHAMP Model also provides forecasts of vehicular traffic on regional freeways, major arterials and on the study area local roadway network considering the available capacity, origin-destination demand and travel speeds when assigning the future travel demand to the roadway network.

Future 2025 intersection turning volumes were developed by applying growth factors calculated from traffic volume growth between year 2007 and year 2025 conditions obtained from the SF-CHAMP Model to actual traffic volumes collected in the field. The purpose of developing a model-based growth factor rather than using future traffic estimates obtained directly from the model was to compensate for potential errors that could exist in the model validation.

It is assumed that there would be no change in the intersection geometry of study intersections between Existing and 2025 Cumulative Conditions, e.g., the project being analyzed under Cumulative Conditions would have the same lane configuration as Existing Conditions for a particular study intersection.

Once the 2025 future volumes had been developed using the model, they were analyzed using the same methodology to determine LOS as was used for Existing Conditions. Likewise, the same methodologies were used to determine traffic diversion and transit delay for Cumulative conditions as were used for the Existing Conditions analysis.

Selection of Peak Hour for Analysis

The San Francisco Planning Department's Transportation Impact Analysis Guidelines for Environmental Review (SF Guidelines) from October 2002 state that the PM peak hour represents the time of maximum utilization of the transportation system. Hence, the traffic analysis has evaluated all 61 study intersections previously listed in Table V.0-2, p. V.A.3-6 for their operating conditions during the PM peak hour.

In addition, an AM peak hour analysis has been conducted at eight of the study intersections that typically experience heavier traffic volumes during the morning commute period and could be more adversely impacted by congestion or other factors during that period. The intersections analyzed for the AM peak hour are shown in Table V.0-1, p. V.A.3-5. The AM peak hour analysis for those eight intersections has been conducted using the same methodology as the 61 intersections for the PM peak hour.

Intersection LOS Analysis

The operating characteristics of signalized and unsignalized intersections are described by the concept of level of service (LOS). LOS is a qualitative description of the performance of an intersection based on the average delay per vehicle. Intersection LOS ranges from LOS A, which indicates free flow or excellent conditions with short delays, to LOS F, which indicates congested or overloaded conditions with extremely long delays.

Both signalized and unsignalized intersections were evaluated using the 2000 *Highway Capacity Manual* methodology.[2] For signalized intersections, this methodology determines the capacity for each lane group approaching the intersection. The LOS for each approach is then based on the average delay per vehicle (measured in seconds per vehicle) for the various movements within the intersection. A combined weighted average delay and LOS is presented for each signalized study intersection in the tables of this report. Detailed signalized intersection LOS calculations and individual LOS by approach are presented in Appendix C of the *San Francisco Bicycle Plan Update Transportation Impact Study*.

For unsignalized intersections, average delay and LOS operating conditions are calculated by approach (e.g., northbound) and movements (e.g., northbound left-turn), for those movements that are subject to delay. The operating conditions (LOS and delay) of unsignalized intersections are presented in the tables of this report for the worst approach (i.e., the approach with the highest average delay per vehicle). Appendix C of the *San Francisco Bicycle Plan Update Transportation Impact Study* contains the detailed calculations of the unsignalized intersection LOS analysis.

The following paragraphs detail the methodology used to assess the delay that could potentially be experienced by transit vehicles along a study corridor.

2 As part of the HCM methodology, adjustments are typically made to the capacity of each intersection to account for various factors that reduce the ability of the streets to accommodate vehicles (such as the downtown nature of the area, number of pedestrians, vehicle types, lane widths, grades, on-street parking and queues). These adjustments are performed to ensure that the LOS analysis results reflect the operating conditions that are observed in the field.

Measures of Delay

The total transit vehicle delay was assumed to be comprised of the three following cumulative elements:

- **Transit Travel Delay** - The transit travel delay represented the additional time experienced by a transit vehicle as it travels between stops across one or more intersections in the corridor due to congestion caused by other vehicular traffic traveling parallel or perpendicular to the transit flow.
- **Transit Reentry Delay** - The transit reentry delay represented the wait for a sufficient gap in traffic flow to allow a bus to pull back into the travel lane.
- **Transit/Bicycle Delay** - The transit/bicycle delay represented the added time caused by the interaction between bicycles and transit vehicles as buses pull in or out of the bus stops.

The three components of the total transit delay were quantified as follows:

Transit Travel Delay

The transit travel delay was quantified using traffic operations data obtained from the intersection LOS calculations performed at study intersections along the corridor. The transit travel delay reflected the approach delay at the intersection for the direction of transit travel. For those intersections within a transit corridor that had not being analyzed for LOS purposes, the travel delay was estimated using the average of the delay (for each approach) for those locations where the intersection delay was available. Average approach delay for signalized and unsignalized intersections was estimated separately. Thus, the total transit travel delay in a transit corridor was calculated as the sum of all the approach delays at those intersections where LOS calculations were available, plus the number of signalized intersections multiplied by the average approach delay for signalized intersections, plus the number of unsignalized intersections multiplied by the average approach delay for unsignalized intersections. The transit travel delay was calculated separately for each direction of transit travel (i.e., eastbound and westbound, or northbound and southbound).

In several instances study intersections operate at LOS F, with average intersection delays above 80 seconds per vehicle and volume-to-capacity (v/c) ratios higher than 1.0, which represent the upper limits of the methodology used to estimate intersection delay. As shown in Figure V.A.3-3, p. V.A.3-16 adapted from the 2000 Highway Capacity Manual (Chapter 16, exhibit 16-14), that displays the relationship between the v/c ratio and the average intersection delay at a given intersection, the average delay increases very rapidly once a v/c value of 1.02 with an associated delay of 100 seconds is reached.

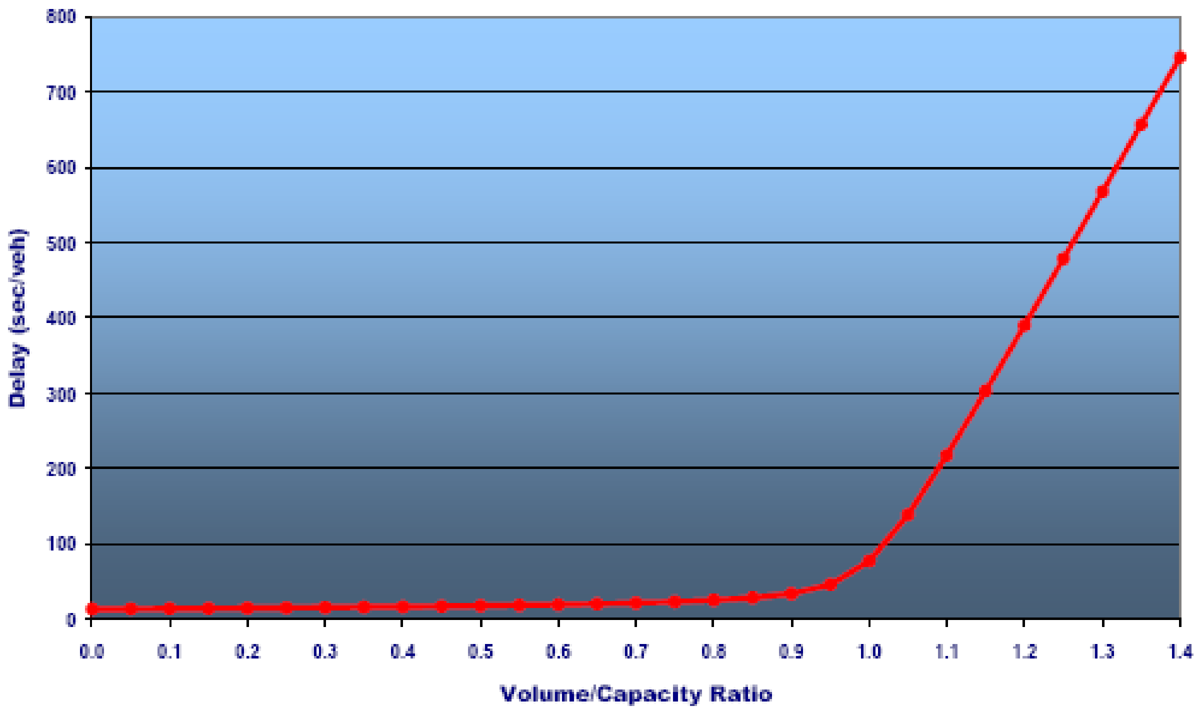


FIGURE V.A.3-3 SENSITIVITY OF VEHICLE DELAY TO VOLUME/CAPACITY RATIO

Source: 2000 Highway Capacity Manual, Chapter 16, exhibit 16-14.

As a result, the vehicle delay values estimated by the HCM methodology in those instances when the intersection operated at LOS F and had a v/c ratio well above 1.02, outside its range of application, would be unrealistically high. Thus, an adjusted methodology was used to calculate transit delays at those locations where the LOS degrades to F for the approach on which transit vehicles operate. The methodology had two components, one that was applied to each individual intersection on a transit corridor and another that was applied globally to each transit corridor.

Individual Intersection Delay Adjustments – Three possible cases occurred:

1. Intersection operated at LOS F with a calculated average delay of less than or equal to 100 seconds per vehicle – Used the average delay resulting from the application of the HCM methodology.

2. Intersection operated at LOS F with a calculated average delay greater than 100 seconds per vehicle and the v/c ratio is less than or equal to 1.02 – Assumed an additional 100

seconds of delay per vehicle to a base delay of 100 seconds. The total intersection delay in this case was 200 seconds per vehicle (100+100 = 200).

3. Intersection operated at LOS F with a calculated average delay greater than 100 seconds per vehicle and the v/c ratio was greater than 1.02 – Assumed an additional 140 seconds of delay to a base delay of 100 seconds. The total intersection delay in this case was 240 seconds per vehicle (100+140 = 240).

Corridor Delay Adjustments – Subsequently, additional adjustments were made to calculate the total delay along a transit corridor for those intersections that met any of the three cases noted above:

a. In those instances where there were consecutive intersections operating at LOS F on a transit corridor, the intersection delay calculations was increased by a factor of 10 percent per intersection. For example if there were three consecutive intersections in a transit corridor that operated at LOS F and met the criterion noted under case 3 above, the total delay for these three intersections was increased by 30 percent. In this case, the total intersection delay for these three locations became 312 seconds per vehicle (240 x 1.3 = 312).

b. In those instances where there were transit-only lanes or other meaningful transit priority treatments, the transit travel delay calculated from above was decreased. Adjustments were generally made based on individual transit lane situations and other factors such as lane configurations, external (e.g., freeway) traffic, etc. As general guidelines, at those locations where transit lanes were regularly enforced, the transit travel delay was assumed to be very small. At those locations where there was no strong transit lane enforcement, a 50 percent adjustment was made to decrease the calculated transit corridor delay.

Transit Reentry Delay

The transit reentry delay at a given transit stop was estimated using empirical data presented in the 2000 Highway Capacity Manual (HCM). Figure V.A.3-4, p. V.A.3-18, summarizes the HCM data. The total transit reentry delay in a transit corridor was calculated as the sum of the individual transit reentry delays at each bus stop. The transit reentry delay was calculated separately for each way of transit travel (i.e., eastbound and westbound, or northbound and southbound).

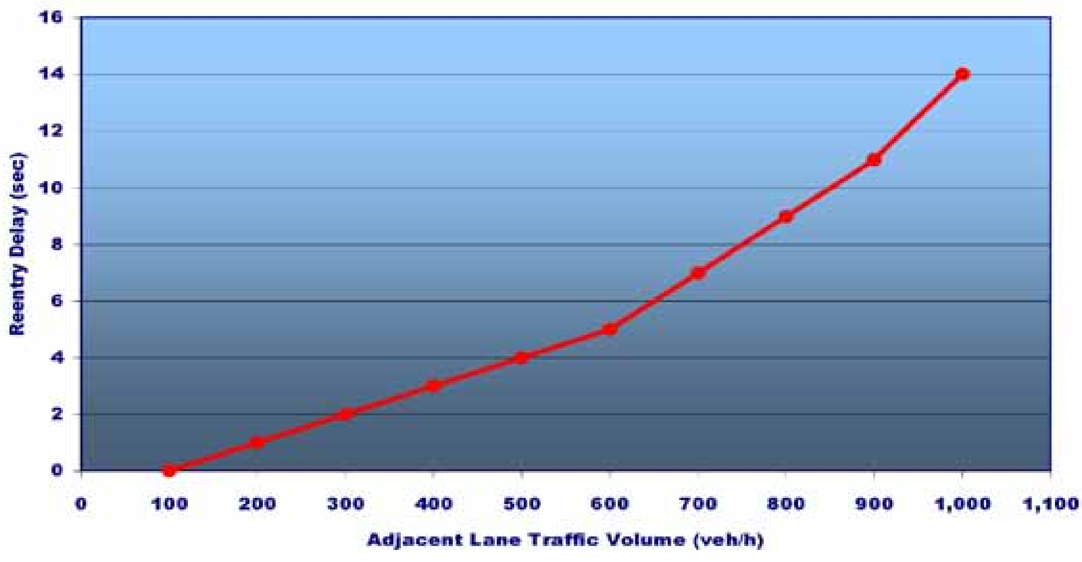


FIGURE V.A.3-4: AVERAGE BUS REENTRY DELAY INTO ADJACENT TRAFFIC

Source: 2000 Highway Capacity Manual, Chapter 27, exhibit 27-10.

Transit/Bicycle Delay

Thorough analyses of the interaction between transit vehicles and bicycles operating on a parallel path do not exist.

The methodology described in the 2000 HCM as well as similar approaches developed by the Transit Cooperative Research Program (TCRP) and the Federal Transit Administration (FTA) to estimate transit service capacity reduction factors only evaluate a) the amount of motor vehicles traveling in the lane adjacent and to the left of a bus, and b) the number of vehicles turning right in front of a bus. In either case, the presence of bicycles is not accounted for in the calculation of the capacity reduction coefficients and it is assumed not quantifiable for the purposes of this study.

Implementation

The estimated total transit vehicle delay obtained following the methodology discussed above was then reviewed for reasonableness for each transit corridor. Any additional professional judgment factors used was also documented.

The average transit travel delay for the intersections without LOS delay data was estimated based on the average delay data obtained from those intersections where LOS calculation was conducted for the direction of transit travel. Similarly, the calculation of transit reentry delay required the estimation of traffic volumes on the adjacent travel lane using the data obtained from the intersection LOS calculations performed at study intersections along the corridor.

Transit Corridors without Study Intersections

There were some transit corridors without study intersections. No lane reductions or similarly substantial lane changes have been proposed on these corridors as part of the Bicycle Plan. Thus, the transit conditions on these corridors were evaluated qualitatively with a general description of the potential for transit delays.

EXISTING CONDITIONS

CLUSTER 1: FINANCIAL DISTRICT/NORTH BEACH AREA

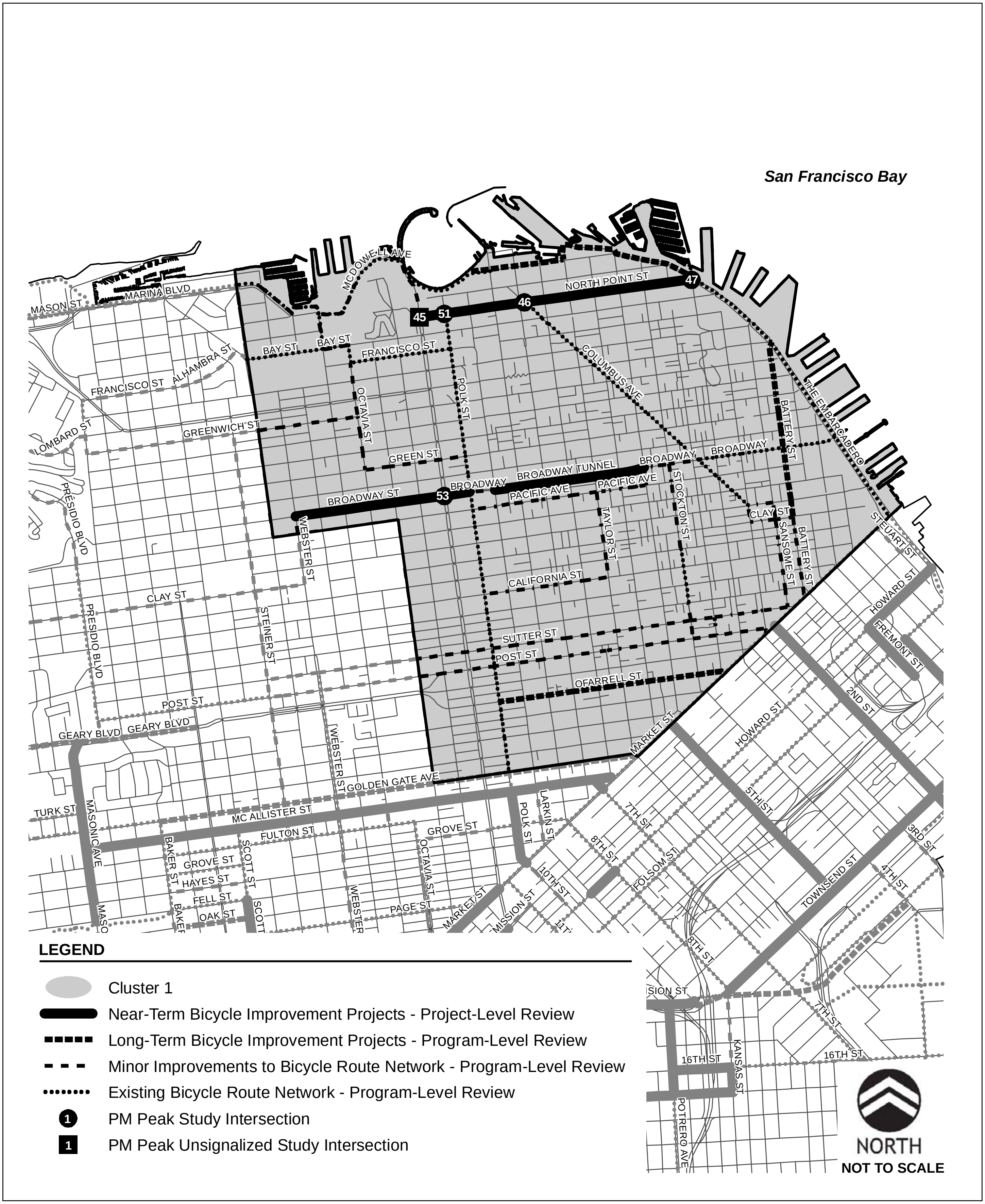
This section presents the project-level transportation impact analysis conducted for the near-term bicycle route network improvement projects within the Cluster 1 area, including a description of the projects, their location, and existing traffic, transit, parking, pedestrian, bicycle and loading conditions in the area.

PROJECT LOCATION

CLUSTER 1

Cluster 1 is located in the northeastern corner of San Francisco. It is bounded by the waterfront on the north and east and Market Street and Golden Gate Avenue to the south. The western boundary is formed by Fillmore Street, Pacific Avenue, and Gough Street. There are many notable neighborhoods contained within Cluster 1 including the Financial District, Chinatown, North Beach, and the Civic Center. Cluster 1 is popular with residents and visitors alike. It attracts a good portion of the daily commuter population coming into San Francisco's downtown from within San Francisco and other communities in the Bay Area and is the focus for visitor trips to Chinatown, Fisherman's Wharf, Union Square, and North Beach. The terrain is flat along the waterfront but becomes steep near Telegraph Hill, Russian Hill and Nob Hill.

The existing and proposed bicycle route network in Cluster 1 (see Figure V.A.3-5, p. V.A.3-20) is constrained to a large extent by the hilly terrain resulting in few routes through the heart of the area. The three near-term improvements contained in Cluster 1 represent important links to this constrained network.



SOURCE: Wilbur Smith and Associates, 2008.

FIGURE V.A.3-5: CLUSTER 1 - STUDY AREA

Three projects are included in the Cluster 1 area. Each project location is identified below.

Project 1-1: Broadway Bicycle Lanes, Polk Street to Webster Street

Project 1-2: Broadway Tunnel Signage Improvements

Projects 1-1 and 1-2 are located along the San Francisco Bay Area Regional Bikeway Network. Projects 1-1 and 1-2 are located on Broadway running east-west through the heart of the Cluster. As a segment of existing Bicycle Route 10 which provides direct access across the City from the San Francisco Bay to the Pacific Ocean near the Cliff House, Broadway (including the Broadway Tunnel) offers the flattest route from The Embarcadero to Webster Street at the western edge of Cluster 1. This is a less challenging grade for bicyclists than the alternative climb over Nob Hill.

Project 1-1 would provide bicyclists the opportunity to travel on bicycle lanes along existing Bicycle Route 10 from Polk Street (existing Bicycle Route 25, Class III with wide curb lanes) to Webster Street where they would join the existing bicycle route network.

Project 1-2 would enhance the safety of bicyclists traveling inside the Broadway Tunnel.

Project 1-3: North Point Street Bicycle Lanes, The Embarcadero to Van Ness Avenue

Project 1-3 on North Point Street is an important bicycle link for the northern portion of Cluster 1 providing east-west access along a relatively flat route providing continuity to the bicycle lanes already implemented along The Embarcadero (included in the San Francisco Bay Area Regional Bikeway Network and San Francisco Bay Trail). As part of existing Bicycle Route 2, North Point Street connects Fisherman's Wharf to Fort Mason and its popular pathway along the waterfront in the eastbound direction, and along Broadway frontage road in the westbound direction. Existing Bicycle Route 2 is included in the San Francisco Bay Area Regional Bikeway Network.

The following paragraphs describe the three near-term improvements included within the Cluster 1 area. Only one option is being proposed for the near-term improvements within Cluster 1. Detailed drawings of existing and proposed lane striping and roadway configuration changes are included in Appendix B of this document.

PROJECT DESCRIPTION

The following paragraphs describe the three near-term improvements included within the Cluster 1 area. Only one option is being proposed for the near-term improvements within Cluster 1. Detailed drawings of existing and proposed lane striping and roadway configuration changes are included in Appendix B.

PROJECT 1-1: BROADWAY BICYCLE LANES, POLK STREET TO WEBSTER STREET

Project 1-1 would involve the installation of Class II bicycle lanes in both directions on Broadway between Polk Street and Webster Street. Project 1-1 is divided into three segments.

Segment I would extend on Broadway from Polk Street to Van Ness Avenue and would install Class II bicycle lanes in both directions. The proposal for Segment I would remove approximately 14 parking spaces on the south side of the street. Also, between Larkin Street and Van Ness Avenue, this proposal would change the existing Tow-Away No Stopping 4:00 p.m.-6:00 p.m. regulation along the north side of Broadway to a Tow-Away Lane Must Turn Right 4:00 p.m.-6:00 p.m. regulation.

Segment II would extend on Broadway from Van Ness Avenue to Franklin Street and would install Class II bicycle lanes in both directions. The proposal for Segment II would remove a travel lane in the westbound direction of Broadway from approximately 100 feet west of Van Ness Avenue to Franklin Street, remove a travel lane in the eastbound direction from Franklin Street to approximately 280 feet easterly, and add a two-way center left turn lane from Franklin Street to approximately 140 feet easterly. The proposal for Segment II would remove approximately 12 parking spaces on the south side of the street.

Segment III would extend on Broadway from Franklin Street to Webster Street and would install Class II bicycle lanes in both directions. The proposal for Segment III would remove one travel lane in both directions and add a two–way center left-turn lane. No parking removal would be required along this segment.

PROJECT 1-2: BROADWAY TUNNEL SIGNAGE IMPROVEMENTS

Project 1-2 would involve the installation of an electronic bicycle warning sign with lighted beacons at the eastbound approach of the Broadway Tunnel to alert motorists when bicyclists are present in the tunnel. Sharrows[1] would be added to the existing Class III bicycle route within the tunnel. The proposed sign would be activated by a pushbutton and a loop detector, which would be located near the intersection of Larkin Street. The proposed sign would be mounted on the Hyde Street overpass approximately 400 feet east of Larkin Street.

Project 1-2 would also involve the installation of a warning sign advising westbound bicyclists not to use the Broadway tunnel. The sign would route cyclists onto the Broadway frontage road, where sharrows would be added to the existing Class III bicycle route.

PROJECT 1-3: NORTH POINT STREET BICYCLE LANES, THE EMBARCADERO TO VAN NESS AVENUE

Project 1-3 would involve the installation of Class II bicycle lanes in both directions on North Point Street between The Embarcadero and Van Ness Avenue.

Modified Project 1-3 would remove one westbound travel lane on North Point Street between Stockton Street and Van Ness Avenue, and remove one eastbound travel lane between Stockton Street and The Embarcadero. Project 1-3 would extend the existing six bus zones along North Point Street by approximately 5-50 feet for each bus zone for a total of approximately 170 feet along this segment of North Point Street. Parking changes to accommodate bus zone changes would result in the net loss of eight parking spaces.

PROJECT SETTING

This section provides a description of the existing transportation conditions along the bicycle near-term improvements in Cluster 1. Descriptions of existing roadway access, traffic, transit, parking, pedestrian, bicycle and loading conditions are included. The study intersections for Cluster 1 are shown on Figure V.A.3-5, p. V.A.3-20. Figures showing the turning movement traffic volumes and lane configurations at those study intersections for Existing Conditions may be found within the transportation impact analysis discussion for Cluster 1 within the transportation impact study. LOS calculation sheets for those study intersections and transit

[1] Sharrows are a traffic control device which consists of pavement markings within the traffic lane. The markings are intended to alert drivers that bicyclists share the traffic lane and also to reduce the chance of bicyclists impacting the open doors of parked vehicles. For more information on sharrows, please see http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd/ CAMUTCD-Part 9.pdf.

delay calculation sheets for the affected transit routes may be found in the appendices of the transportation impact study.[2]

PROJECT 1-1: BROADWAY BICYCLE LANES, POLK STREET TO WEBSTER STREET

Roadways

Broadway is a four-lane east-west major arterial between Polk and Franklin Streets and a four-lane local street between Franklin and Webster Streets. The segment between Polk and Franklin Streets is part of the San Francisco Metropolitan Transportation System (MTS) Roadway Network and the Congestion Management Program (CMP) Network. Average travel speeds between Gough and Larkin Streets during the PM peak hour are approximately 10 mph (eastbound) and 11 mph (westbound).[3]

Left-turns are restricted along Broadway for both directions at Polk Street during the PM peak period (4:00 p.m. to 6:00 p.m.) and at Van Ness Avenue during the AM and PM peak periods (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.). Northbound left turns on Van Ness Avenue at Broadway are prohibited at all times.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the PM peak hour period. During the weekday PM peak hour, the Van Ness Avenue/Broadway intersection operates at an acceptable level of service (LOS D), with 42.8 seconds of delay. Table V.1-1, p. V.A.3-25 summarizes these results.

Transit

Muni bus line 30X overlaps Project 1-1 for the one block between Van Ness Avenue and Polk Street and provides weekday AM (inbound) and PM (outbound) peak express service between downtown and northern San Francisco (Marina, Nob Hill, North Beach and Western Addition). There are approximately twelve buses per hour in the AM peak and eight buses per hour in the PM peak. Muni bus line 30X does not stop for passenger loading or unloading within the limits of Project 1-1.

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2 Wilbur Smith Associates. 2008. *San Francisco Bicycle Plan Update Transportation Impact Study*. This document is available for review by appointment at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103 as part of Case File No 2007.0347E.

3 Carter Burgess. 2007. Congestion Management Program: Spring 2007 Level of Service Monitoring, Appendix IV of the 2007 Congestion Management Report prepared for the San Francisco County Transportation Authority. Accessed and available online at http://www.sfcta.org/content/view/301/147/. A copy of this document is available for review by appointment at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File 2007.0347E.

TABLE V.1-1
CLUSTER 1 – PROJECT 1-1
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS
53. Van Ness Avenue/Broadway	Signal	42.8	D

Source: Wilbur Smith Associates, October 2008
Note:
a. Delay in seconds per vehicle.

Parking

There are metered parking spaces on both sides of Broadway immediately east and west of Polk Street. The other spaces along Broadway have two-hour restrictions. Broadway borders four Residential Permit Parking (RPP) zones: A and K on the north side, C and G on the south side. On-street parking is prohibited on the north side of Broadway between Larkin Street and Van Ness Avenue from 4:00 p.m. to 6:00 p.m., Monday through Friday. On-street parking in front of Saint Brigid School on the south side of Broadway between Franklin and Van Ness is designated as passenger loading/unloading zone for school drop-off activities between 7:30 a.m. and 8:00 a.m. and between 2:00 p.m. and 3:30 p.m. On-street parking occupancy is high.

Pedestrian

Pedestrian volumes are low west of Van Ness Avenue and moderate east of Van Ness Avenue. Pedestrian activity is moderate to high during school dismissal at the elementary, junior-high and high schools in the area (Saint Brigid School with its main entrance on the south side of Broadway between Franklin Street and Van Ness Avenue, and The Hamlin School and Convent of the Sacred Heart Schools on the north side of Broadway between Buchanan and Webster Streets and Webster and Fillmore Streets, respectively). Pedestrian crosswalks at intersections along Broadway at Webster, Buchanan, Franklin Streets, and Van Ness Avenue are designated school crossings striped with yellow ladder markings.

Bicycle

Bicycle volumes are low. Broadway is designated as existing Bicycle Route 10 (Class III) in both directions between Polk and Webster Streets; existing Bicycle Route 10 leaves Broadway to continue south at Webster Street on the existing bicycle route network. Existing Bicycle Route 10 intersects with existing Bicycle Route 25 (Class III with wide curb lanes) at Polk Street. Street grades on Broadway vary between Polk and Webster Streets. Going west from Polk Street, grades are relatively flat (one percent or less) to Gough Street with a four percent grade on the block between Van Ness Avenue and Franklin Street. Slopes for the two blocks between Gough and Laguna Streets are moderate (four percent or less) with steeper slopes from Laguna to Buchanan Streets (nine percent) and from Buchanan to Webster Streets (six percent).

Loading

There are no yellow commercial freight loading spaces along this section of Broadway. This section of Broadway is mostly residential with some commercial development east of Van Ness Avenue. Loading demand is generally low. Delivery vehicles typically use on-street parking spaces although occasional double parking by these vehicles was observed along Broadway east of Van Ness Avenue.[4]

Short-term traffic congestion exists during school arrival and dismissal periods (typically between 7:30 a.m. to 8:30 a.m. and 2:30 p.m. to 3:30 p.m.) at the two elementary and elementary/high schools along Broadway located near Van Ness Avenue (Saint Brigid) and Webster Street (Hamlin School and Convent of the Sacred Heart). A portion of the eastbound parking lane between Franklin Street and Van Ness Avenue in front of Saint Brigid is designated as a passenger loading zone during the school arrival and dismissal periods.

The two westbound travel lanes on Broadway between Laguna and Webster Streets in front of Hamlin School are used by vehicles which typically move slowly in the center lane or stop in the curb lane adjacent to the on-street parking while waiting in line to pick up children. The Hamlin School does not have a designated passenger loading zone in front of the building, mid-block between Buchanan and Webster Streets. The school secures the drop-off and pick-up area by reserving the curb lane between 7:45 a.m. and 8:30 a.m. and from 3:00 p.m. to 3:45 p.m.

PROJECT 1-2: BROADWAY TUNNEL SIGNAGE IMPROVEMENTS

Roadways

This section of Broadway is a four-lane east-west major arterial with a median, and is part of the MTS Roadway Network and the CMP Network. The Broadway Tunnel is located approximately between Hyde and Mason Streets. Traffic volumes are moderate to high during the AM and PM peak periods. Average travel speeds (including stops due to traffic conditions

[4] Field surveys were conducted by CHS Consulting on Tuesday, August 21, 2007 during the midday.

and traffic signals) between Larkin and Powell Streets during the PM peak hour are approximately 32 mph (eastbound) and 31 mph (westbound).[5]

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

Muni bus line 30X provides weekday AM (inbound) and PM (outbound) peak express service between downtown and northern San Francisco (Marina, Nob Hill, North Beach and Western Addition) through the Broadway Tunnel. There are approximately twelve buses per hour in the AM peak and eight buses per hour in the PM peak. Muni bus line 30X does not stop for loading or unloading of passengers within the limits of Project 1-2.

Parking

On-street parking is prohibited inside the Broadway Tunnel.

Pedestrian

There are raised pedestrian walkways on both sides of the Broadway Tunnel. Pedestrian volumes are extremely low within the tunnel.

Bicycle

The Broadway Tunnel is open to bicycle traffic and is signed as a Class III bicycle route (existing Bicycle Route 210) in both directions serving as a spur to existing Bicycle Route 10. Bicyclists have been observed using the elevated sidewalks to avoid sharing the same lane with motor vehicles traveling at higher speeds. Bicycle volumes are low.[6]

As an alternative to the Broadway Tunnel, existing Bicycle Route 10 eastbound follows Pacific Avenue from Polk Street to Powell Street. Existing Bicycle Route 10 westbound uses Broadway (the roadway north of the tunnel) to Mason Street and then to Pacific Avenue. Grades on these streets over the tunnel are significant. Mason Street has a grade of 12 percent from Broadway to Pacific Avenue. On Pacific Avenue from Mason Street to Polk Street the gradients are two percent from Mason to Taylor Streets, ten percent from Taylor to Jones Streets,

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5 Carter Burgess. 2007. Congestion Management Program: Spring 2007 Level of Service Monitoring, Appendix IV of the 2007 Congestion Management Report prepared for the San Francisco County Transportation Authority. Accessed and available online at http://www.sfcta.org/content/view/301/147/. A copy of this document is available for review by appointment at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File 2007.0347E.

6 Field surveys were conducted by CHS Consulting on Tuesday, August 21, 2007 during the midday and PM peak

three percent from Jones to Leavenworth Street, seven percent from Leavenworth to Hyde Streets, eight percent from Hyde to Larkin Streets, and five percent from Larkin to Polk Streets.

Loading

Loading/unloading activities are not allowed inside the Broadway Tunnel.

PROJECT 1-3: NORTH POINT STREET BICYCLE LANES, THE EMBARCADERO TO VAN NESS AVENUE

Roadways

North Point Street between The Embarcadero and Van Ness Avenue is a three-lane east-west major arterial (two eastbound lanes and one westbound lane between The Embarcadero and Stockton Street and two westbound lanes one eastbound lane between Stockton Street and Van Ness Avenue). This segment is part of the MTS Roadway Network and the CMP Network. Traffic volumes are 200 to 600 vehicles per hour each way during the PM peak period. Average travel speeds during the PM peak hour (including stops due to traffic conditions and traffic signals) are approximately 15 mph (eastbound) and 13 mph (westbound) between Van Ness and Columbus Avenues, and 20 mph (eastbound) and 21 mph (westbound) between Columbus Avenue and The Embarcadero.[7]

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the PM peak hour period. During the weekday PM peak hour, all four study intersections listed below operate at an acceptable level of service (LOS C or better). Table V.1-2, p. V.A.3-29, summarizes the results.

Intersection 45: Van Ness Avenue/North Point Street

Intersection 46: Columbus Avenue/North Point Street

Intersection 47: The Embarcadero/North Point Street

Intersection 51: Polk Street/North Point Street

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[7] Carter Burgess. 2007. Congestion Management Program: Spring 2007 Level of Service Monitoring, Appendix IV of the 2007 Congestion Management Report prepared for the San Francisco County Transportation Authority. Accessed and available online at http://www.sfcta.org/content/view/301/147/. A copy of this document is available for review by appointment at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case File 2007.0347E.

Transit

Nine Muni bus lines (9X, 9BX, 10, 19, 20, 30, 39, 47, and 91 owl) and 17 Golden Gate Transit (GGT) bus lines (2, 4, 8, 18, 24, 26, 27, 38, 44, 54, 56, 58, 60, 72, 73, 74, and 76) run on some portion of North Point Street within the limits of Project 1-3.

Muni bus line 10 travels along the entire length of Project 1-3 on North Point Street between The Embarcadero and Van Ness Avenue. The remaining Muni lines provide service to only a few blocks of Project 1-3. There are Muni bus stops at most intersections. About half of the bus stops are near-side (before entering the intersection) and half are far-side (after crossing the intersection).

TABLE V.1-2
CLUSTER 1 – PROJECT 1-3
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

	Intersection	Traffic Control Device	Average Delay[a]	LOS
45	Van Ness Avenue/North Point Street	Three-way stop	14.4	B
46	Columbus Avenue/North Point Street	Signal	14.7	B
47	The Embarcadero/North Point Street	Signal	26.0	C
51	Polk Street/North Point Street	Signal	16.2	B

Source: Wilbur Smith Associates, October 2008
Note:
a. Delay in seconds per vehicle.

GGT buses operate eastbound on North Point Street for one block from Polk Street to Van Ness Avenue in the AM commute period and westbound from The Embarcadero to Van Ness Avenue during the PM commute period.

Between The Embarcadero and Columbus Avenue, there are approximately 36 Muni buses per hour each way during the AM peak period. There are approximately 87 westbound Muni and GGT buses and 27 eastbound Muni buses per hour during the PM peak period.

Between Columbus and Van Ness Avenues, there are approximately 30 Muni buses per hour each way during the AM peak period. There are approximately 87 westbound Muni and GGT buses and 33 eastbound Muni buses per hour during the PM peak period.

Parking

On-street parking is permitted on both sides of the street, and parking occupancy is approximately 90 percent along this corridor during a typical weekday and higher during weekends, especially in the summer months. Most of the on-street parking spaces east of Columbus Avenue are metered while the spaces west of Columbus Avenue are located within RPP zone A. Non-permit holders are restricted to two-hour parking within this area. The north side of North Point Street between Mason and Taylor Streets is designated for tour bus parking and tour bus loading.

Pedestrian

Pedestrian volumes are generally low to moderate, but higher at the intersections with Columbus Avenue and Taylor Street (major access to Fisherman's Wharf and the cable car stop), especially during weekends and summer months.

Bicycle

Bicycle volumes are low to moderate. North Point Street is designated as existing Bicycle Route 2 (Class III) in both directions between The Embarcadero and Van Ness Avenue. Existing Bicycle Route 2 intersects with existing Bicycle Route 25 (Class II southbound, Class III with wide curb lanes northbound) at Polk Street, existing Bicycle Route 11 (Class III) at Columbus Avenue, and terminates at existing Bicycle Route 5 (Class II) on The Embarcadero. Street grades on North Point Street are relatively flat with slopes less than two percent except for the block between Leavenworth and Hyde Streets which has a slope of six percent.

Loading

Several uses, especially major hotels, large retail stores and shopping centers, have off-street loading areas fronting on North Point Street. Loading activities for the other commercial uses generally occur on-street. Heavy loading activity and frequent double-parking along the mid-section of this corridor was observed.[8]

CLUSTER 2: SOUTH OF MARKET AREA

This section presents the project-level transportation impact analysis conducted for the near-term bicycle route network improvement projects within the Cluster 2 area, including a description of the near-term improvements, their location and existing traffic, transit, parking, pedestrian, bicycle and loading conditions in the area.

8 Field surveys were conducted by CHS Consulting on Tuesday, August 21, 2007 during the midday.

PROJECT LOCATIONS

CLUSTER 2

Cluster 2, shown on Figure V.A.3-6, p. V.A.3-32, is located in the eastern part of San Francisco. It is bounded by Market Street and 15th Street to the north, the waterfront, Mission Creek and Carolina Street to the east, and 20th Street to the south. The western boundary is roughly formed by Clayton Street. Cluster 2 includes the South of Market (SOMA) neighborhood which contains a significant part of the retail and business development for Downtown San Francisco.

As such, it attracts a good portion of the daily commuter population coming into the downtown from within San Francisco and from other communities in the Bay Area. In addition, it is the focus for visitor trips to Moscone Center, Museum of Modern Art, Yerba Buena Center, the Metreon, San Francisco Shopping Center, the Ferry Building and San Francisco Giants Ballpark. Major transit centers for BART, AC Transit, Golden Gate Transit, SamTrans, Caltrain and the various ferry services are located in Cluster 2.

Sixteen projects are included in the Cluster 2 area. Each project is identified below:

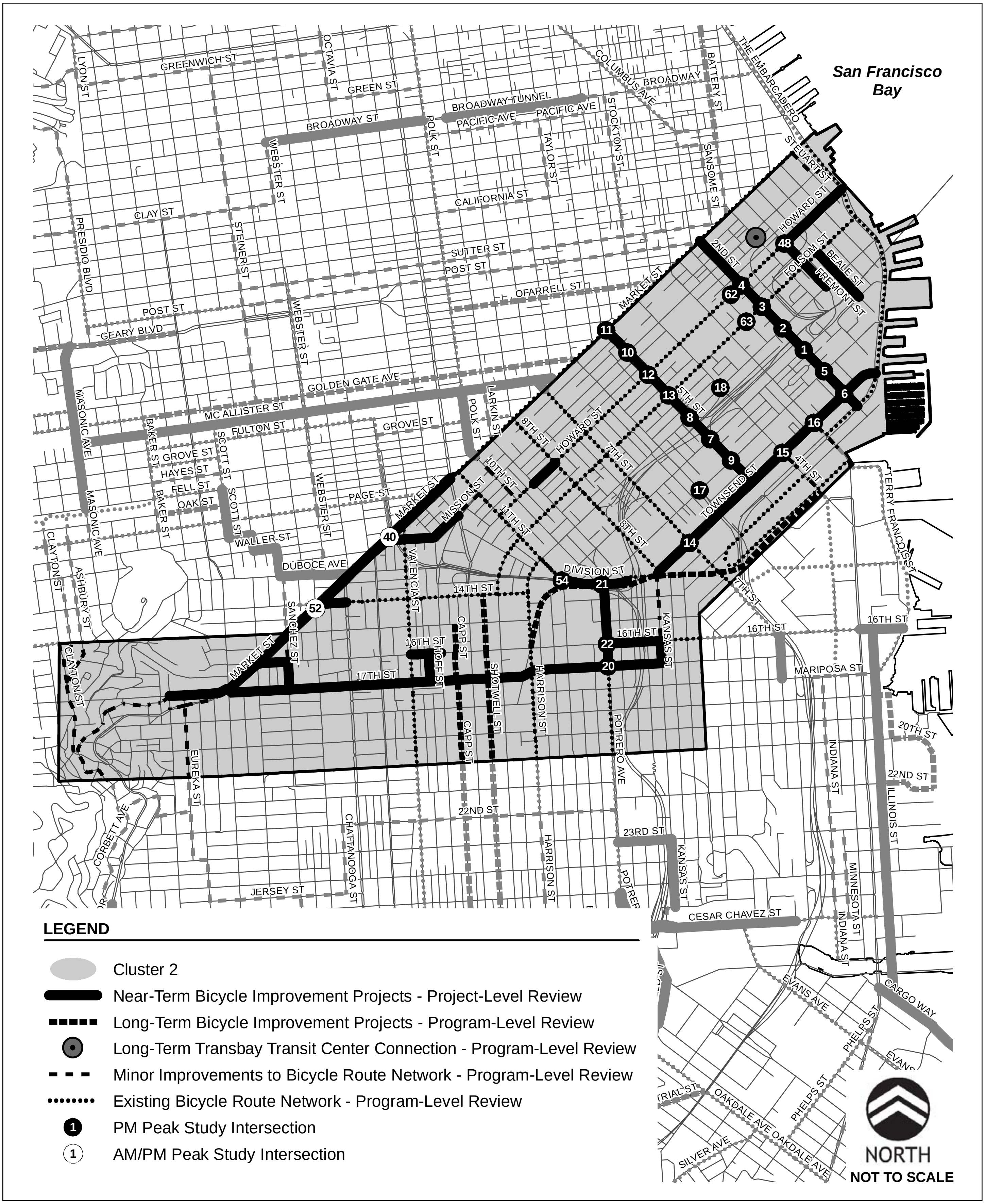
Project 2-1: 2nd Street Bicycle Lanes, King Street to Market Street

Project 2-2: 5th Street Bicycle Lanes, Market Street to Townsend Street

Project 2-3: 14th Street Bicycle Lanes, Dolores Street to Market Street

Project 2-4: 17th Street Bicycle Lanes, Corbett Avenue to Kansas Street, including connections to the 16th Street BART Station via Hoff Street or Valencia Street and 17th Street to Division Street via Potrero Avenue

Project 2-5: Beale Street Bicycle Lane, Bryant Street to Folsom Street



SOURCE: Wilbur Smith and Associates, 2008.

SAN FRANCISCO BICYCLE PLAN

REVISED FIGURE V.A.3-6: CLUSTER 2 - STUDY AREA

Project 2-6: Division Street Bicycle Lanes, 9th Street to 11th Street

Project 2-7: Fremont Street Bicycle Lane, Harrison Street to Howard Street

Project 2-8: Howard Street Bicycle Lane, Extension at 9th Street

Project 2-9: Howard Street Bicycle Lane, The Embarcadero to Fremont Street

Project 2-10: Market Street and Valencia Street Intersection Improvements

Project 2-11: Market Street Bicycle Lanes, 17th Street to Octavia Boulevard

Project 2-12: Market Street Bicycle Lanes, Octavia Boulevard to Van Ness Avenue

Project 2-13: McCoppin Street Bicycle Path, Market Street to Valencia Street

Project 2-14: McCoppin Street Bicycle Lane, Gough Street to Valencia Street

Project 2-15: Otis Street Bicycle Lane, Gough Street to South Van Ness Avenue

Project 2-16: Townsend Street Bicycle Lanes, 8th Street to The Embarcadero

Most of the near-term improvements in Cluster 2 are recommended upgrades to existing facilities in the San Francisco bicycle route network with Projects 2-5 and 2-7 as the sole additions to the network. The projects in Cluster 2 currently exist on San Francisco's bicycle route network and are included on some of the key bicycle connectors in the City. Project 2-1, a north-south route, is included on existing Bicycle Route 11 which connects Fisherman's Wharf to the San Francisco Giants Ballpark and the Caltrain Depot at 4th and Townsend Streets. Project 2-1 is included on the San Francisco Bay Area Regional Bikeway Network. Project 2-2 is also a north-south route covering the full length of existing Bicycle Route 19 between Market and Townsend Streets. Project 2-2 is an important connection within the SOMA neighborhood and is one of the primary connectors of the Mission Bay Development to Downtown.

As previously mentioned, Projects 2-5 and 2-7 are new additions to the network. Project 2-5, located on Beale Street, would provide an additional southbound bicycle connection for the two blocks between Bryant and Folsom Streets Similarly, Project 2-7 would add a short one-block segment of Fremont Street to the network between Folsom and Harrison Streets.

Projects 2-3 and Project 2-12 were implemented prior to the Bicycle Plan injunction. Together with Projects 2-8 and 2-9, Project 2-3 are included on existing Bicycle Route 30, a major east-west connector from the San Francisco Bay (The Embarcadero) to the Pacific Ocean (Ocean Beach) and included on the San Francisco Bay Area Regional Bikeway Network. Project 2-3 provides eastbound access while Projects 2-8 and 2-9 provide the westbound connection.

Projects 2-6 and 2-16 are located on existing Bicycle Route 36 which connects Townsend Street to Division Street. Both Projects 2-6 and 2-16 are located on the San Francisco Bay Area Regional Bikeway Network. Project 2-4 is located on existing Bicycle Route 40 providing the link between Ocean Beach and Illinois Street in Potrero Hill. Project 2-4 is located on 17th Street and offers connections to the Mission District and the 16th Street BART Station.

Projects 2-10, 2-11 and 2-12 are all located on Market Street along the major east-west existing Bicycle Route 50 connecting the Ferry Building and the Great Highway. This section of existing Bicycle Route 50 is included on the San Francisco Bay Area Regional Bikeway Network. Project 2-12 was implemented on May 15, 2006 prior to the Bicycle Plan injunction.

Projects 2-13, 2-14 and 2-15 are located on existing Bicycle Route 545 and provide connection between existing Bicycle Route 50 on Market Street and existing Bicycle Route 45 on Valencia Street. Project 2-13 was partially completed on September 9, 2005 with construction of the Class I bicycle path as part of the Central Freeway Project.

PROJECT DESCRIPTION

The following paragraphs describe the 16 near-term improvements included within the Cluster 2 area. Projects 2-3, 2-12, and 2-13 (partially) were implemented prior to the Bicycle Plan injunction. Seven of the near-term improvements include two design options; for the remaining nine projects, only one design option is proposed. Detailed drawings of existing and proposed lane striping and roadway configuration changes are included in Appendix B of this document.

PROJECT 2-1: 2ND STREET BICYCLE LANES, KING STREET TO MARKET STREET

Project 2-1 would involve the installation of Class II and Class III bicycle facilities in both directions on 2nd Street between King and Market Streets. Project 2-1 includes two design options in the Draft EIR. Both options in the Draft EIR provide Class II bicycle lanes in both directions by removing a combination of traffic lanes and on-street parking and adding turn pockets at intersections. The preferred design is a modification of Option 1, which will be referred to as Modified Option 1. The modified project would add Class II bicycle lanes in both directions and includes traffic engineering elements, such as restricting left turns from 2nd Street at several intersections, designed to permit better traffic flow through the single lane of traffic and the relocation of passenger loading zones. For some short segments approaching certain intersections sharrows would be implemented. Project 2-1 Modified Option 1 would remove substantially fewer parking spaces and freight loading zones than either Option 1 or 2 analyzed in the Draft EIR.

- **Option 1**
  Option 1 would add Class II bicycle lanes on 2nd Street in both directions between King Street and Market Street, except in the following segments: Northbound approaching Market Street (mid-block between Mission Street and Market Street), northbound between Bryant Street and Harrison Street, and southbound approaching King Street

(mid-block between Townsend Street and King Street). Sharrows[9] would be added to the existing Class III bicycle route along these segments.

Option 1 would remove one southbound travel lane between Market Street and Mission Street, remove one travel lane in both directions between Mission Street and Harrison Street, remove one northbound travel lane between Townsend Street and Harrison Street, add a northbound right-turn pocket at Mission Street, add northbound left-turn pockets at Mission Street, Howard Street, and Harrison Street, add southbound right-turn pockets at Mission Street, Howard Street, and Harrison Street, and add southbound left-turn pockets at Mission Street, Folsom Street, and Harrison Street.

Option 1 would remove 64 parking spaces on the east side and 33 parking spaces on the west side of 2nd Street. The anticipated parking loss would include both metered and un-metered spaces, metered and un-metered commercial loading spaces, passenger loading spaces, accessible parking spaces, and metered motorcycle spaces.

- **Option 2**
  Option 2 would add Class II bicycle lanes on 2nd Street in both directions between King Street and Market Street, except in the following segments: Northbound approaching Market Street (mid-block between Mission Street and Market Street), northbound between Bryant Street and Harrison Street, and southbound approaching King Street (mid-block between Townsend Street and King Street). Sharrows would be added to the existing Class III bicycle route along these segments.

  Option 2 would remove one southbound travel lane between Market Street and Mission Street, remove one travel lane in both directions between Mission Street and Harrison Street, remove one southbound travel lane between Harrison Street and Townsend Street, add a northbound right-turn pocket at Mission Street, add northbound left-turn pockets at Mission Street, Howard Street, and Harrison Street, add southbound right-turn pockets at Mission Street, Howard Street, and Harrison Street, and add southbound left-turn pockets at Mission Street, Folsom Street, and Harrison Street.

  Option 2 would remove 64 parking spaces on the east side and 24 parking spaces on the west side of 2nd Street. The anticipated parking loss would include both metered and un-metered spaces, metered and un-metered commercial loading spaces, passenger loading spaces, accessible parking spaces, and metered motorcycle spaces.

[9] Sharrows are a traffic control device which consists of pavement markings within the traffic lane. The markings are intended to alert drivers that bicyclists share the traffic lane and also to reduce the chance of bicyclists impacting the open doors of parked vehicles. For more information on sharrows, please see http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd/ CAMUTCD-Part 9.pdf.

PROJECT 2-2: 5TH STREET BICYCLE LANES, MARKET STREET TO TOWNSEND STREET

Project 2-2 would involve the installation of Class II and Class III bicycle facilities in both directions on 5th Street between Market Street and Townsend Street. Project 2-2 includes two design options:

This project includes two design options in the Draft EIR, both of which would generally provide Class II bicycle lanes or sharrows in each direction on 5th Street between Market and Townsend Streets through a combination of traffic lane and parking removals. The preferred design is a modification of Option 2, which will be referred to as Modified Option 2. Modified Option 2 would provide Class II bicycle lanes in both directions between Mission and Townsend Streets through a combination of traffic lane and parking removals and would provide sharrows in both directions between Mission and Market Streets.

- **Option 1**
  Option 1 would add Class II bicycle lanes on 5th Street in both directions between Market Street and Townsend Street, except in the following segments: both directions between Market Street and Mission Street and between Howard Street and Tehama Street. Sharrows would be added to the existing Class III bicycle route along these segments.

  Option 1 would remove one northbound travel lane between Harrison Street and Howard Street and between Townsend Street and Bryant Street, add a northbound right-turn pocket at Folsom Street, add northbound left-turn pockets at Howard Street, Harrison Street, and Brannan Street, and add southbound right-turn pockets at Howard Street, Harrison Street, and Brannan Street.

  Option 1 would remove 13 parking spaces on the east side and 27 parking spaces on the west side of 5th Street. The anticipated parking loss would includes both metered and un-metered spaces, metered and un-metered commercial loading spaces, passenger loading spaces, accessible parking spaces, and metered motorcycle spaces.

- **Option 2**
  Option 2 would add Class II bicycle lanes on 5th Street in both directions between Market Street and Townsend Street, except in the following segments: both directions between Market Street and Mission Street, both directions between Folsom Street and approximately 100 feet northerly and northbound between Harrison Street and approximately 100 feet northerly. Sharrows would be added to the existing Class III bicycle route along these segments.

Option 2 would remove one northbound travel lane between Townsend Street and Brannan Street, remove one southbound travel lane between Natoma Street and Folsom Street, remove one southbound travel lane between Harrison Street and Bryant Street, add a northbound left-turn pocket at Brannan Street, add southbound right-turn pockets at Howard Street and Brannan Street, and add a southbound left-turn pocket at Folsom Street.

Option 2 would remove three parking spaces on the east side and 68 parking spaces on the west side of 5th Street. The anticipated parking loss would include both metered and un-metered spaces, metered and un-metered commercial loading spaces, passenger loading spaces, accessible parking spaces, and metered motorcycle spaces.

PROJECT 2-3: 14TH STREET BICYCLE LANES, DOLORES STREET TO MARKET STREET

Project 2-3 was partially implemented on March 27, 2006 prior to the Bicycle Plan injunction. Project 2-3 involved adding a Class II bicycle lane on eastbound 14th Street between Market Street and Dolores Street and the conversion of 14th Street from two-way operation to one-way eastbound operation between Market Street and Dolores Street.

Although Project 2-3 has already been implemented, a second design option is being evaluated in the Bicycle Plan EIR. Project 2-3 includes two design options:

- **Option 1**
  Option 1, implemented prior to the Bicycle Plan injunction, involved converting 14th Street from two-way operation to one-way eastbound operation between Market Street and Dolores Street, and installing an eastbound bicycle lane. Option 1 included minor modifications to the existing median island at the intersection of 14th Street and Market Street. Further modifications to this median island proposed under Option 1, but not yet implemented, include connecting it to the existing sidewalk on the southeast corner of the intersection, in order to prevent vehicles traveling westbound on 14th Street from accessing Market Street, and to reduce the crossing distance for pedestrians crossing the east side of 14th Street at Market Street.

- **Option 2**
  Option 2 would involve restoring this block of 14th Street to two-way operation, removing one eastbound travel lane and installing an eastbound Class II bicycle lane between Market Street and Dolores Street.

PROJECT 2-4: 17TH STREET BICYCLE LANES, CORBETT AVENUE TO KANSAS STREET, INCLUDING CONNECTIONS TO THE 16TH STREET BART STATION VIA HOFF STREET OR VALENCIA STREET AND 17TH STREET TO DIVISION STREET VIA POTRERO AVENUE

Modified Option 1 would involve the installation of Class II or Class III bicycle facilities primarily on 17th Street between Corbett Avenue and Kansas Street, with several possible branches onto adjacent streets. Bicycle lanes would be provided on 17th Street primarily through parking removals. Sharrows would be provided on segments that would not have Class II bicycle lanes.

Project 2-4 would involve the installation of Class II and Class III bicycle facilities primarily on 17th Street between Corbett Avenue and Kansas Street, with several possible branches onto adjacent streets. The primary component of Project 2-4 is located on 17th Street and is divided into three sections: West End (Corbett Avenue to Church Street), Center Segment (Church Street to Potrero Avenue), and East End (Potrero Avenue to Kansas Street).

All options for Project 2-4 would provide an enhanced connection to the 16th Street BART Station by adding a new Class III bicycle route and sharrows on Hoff Street between 16th Street and 17th Street and on 16th Street between Mission and Valencia Streets in both directions. All options for Project 2-4 would also include minor striping and signage improvements on 17th Street between Corbett Avenue and Market Street. Additionally, all options for Project 2-4 would add a new bicycle route and Class II bicycle lanes on Potrero Avenue in both directions between 17th Street and Division Street by removing one travel lane in both directions between 17th Street and Division Street and adding a two-way center left turn lane between 17th Street and Alameda Street.

The West End section of 17th Street includes two design options:

Both West End options would add sharrows to the existing Class III bicycle route on eastbound 17th Street between Corbett Avenue and Eureka Street, and would add a Class II bicycle lane in the westbound direction on 17th Street between Castro Street and Corbett Avenue by removing three parking spaces.

- **Option 1**
  West End Option 1 would add sharrows to the existing Class III bicycle route in both directions on 17th Street between Castro and Hartford Streets and add Class II bicycle lanes in both directions on 17th Street between Hartford and Church Streets by narrowing travel lanes. West End Option 1 would remove approximately two parking spaces on each side of 17th Street near Church Street.

- **Option 2**
  West End Option 2 would move the existing westbound segment of Route #40 on 17th Street from Sanchez to Market Streets onto a new proposed route in the northbound direction on Sanchez Street from 17th to 16th Streets, and in the westbound direction on 16th Street from Sanchez to Market Streets. West End Option 2 would add sharrows on these segments of Sanchez and 16th Streets. West End Option 2 would add a westbound Class II bicycle lane on 17th Street between Church and Sanchez Streets, and would add sharrows in the eastbound direction on the existing 17th Street Class III bicycle route between Sanchez Street and Church Street. West End Option 2 would remove approximately two parking spaces on the north side of 17th Street near Church Street.

The Center Segment of 17th Street includes two design options:

- **Option 1**
  Center Segment Option 1 would add Class II bicycle lanes on 17th Street in both directions between Church Street and Potrero Avenue. Center Segment Option 1 would not involve removing any travel lanes or parking between Church Street and Harrison Street.

- **Option 2**
  Center Segment Option 2 would add a Class II bicycle lane in the westbound direction between Harrison Street and Church Street, and add sharrows in the eastbound direction on the existing Class III bicycle route between Church Street and Harrison Street. Center Segment Option 2 would not involve removing any travel lanes or parking between Church Street and Harrison Street.

Both Center Segment Options 1 and 2 would add Class II bicycle lanes on 17th Street between Harrison Street and Potrero Avenue in both directions by narrowing travel lanes and by removing approximately 49 parking spaces on the north side of 17th Street. Some parking spaces would be added on adjacent streets by converting parallel parking to perpendicular parking.

The East End section of 17th Street includes two design options:

- **Option 1**
  East End Option 1 would add Class II bicycle lanes on 17th Street in both directions between Kansas Street and Potrero Avenue by removing approximately 37 parking spaces on the south side of 17th Street. East End Option 1 would also add Class II bicycle lanes on Kansas Street in both directions between 16th and 17th Streets by narrowing travel lanes.

- **Option 2**
  East End Option 2 would move the existing Bicycle Route #40 off of 17th Street between Kansas Street and Potrero Avenue onto Potrero Avenue between 16th Street and 17th Street, and onto 16th Street between Kansas Street and Potrero Avenue. East End Option 2 would add bicycle lanes on 16th Street in both directions between Kansas Street and Potrero Avenue by removing one westbound travel lane between San Bruno Avenue and Potrero Avenue. On the eastbound 16th Street approach to Potrero Avenue, East End Option 2 would establish a "Right Lane Must Turn Right Except for Muni" regulation.

PROJECT 2-5: BEALE STREET BICYCLE LANE, BRYANT STREET TO FOLSOM STREET

Project 2-5 would add a new route to the City's existing bicycle route network.

Project 2-5 would involve the installation of a Class II bicycle lane in the southbound direction on Beale Street between Folsom Street and Bryant Street.

The reopening of Beale Street as a through street in 2006, after it was closed as a post-9/11 security measure for the Bay Bridge, involved converting the street from one-way southbound operation to two-way operation, with one travel lane in both directions. This conversion resulted in parking layout changes on both sides of the street with a net loss of 42 parking spaces. Project 2-5 would add a southbound Class II bicycle lane between Folsom Street and Bryant Street and would not involve any travel lane or parking removal.

PROJECT 2-6: DIVISION STREET BICYCLE LANES, 9TH STREET TO 11TH STREET

Project 2-6 would involve the installation of Class II bicycle lanes in both directions on Division Street between 9th Street and 11th Street. Project 2-6 includes two design options:

- **Option 1**
  Option 1 would remove a travel lane in the eastbound direction from approximately 200 feet east off 11th Street to 10th Street, and in the westbound direction, from approximately 200 feet west of 10th Street to 11th Street and remove approximately 20 total parking spaces between 10th and 11th Streets. Project 2-6 would also narrow travel lanes between 9th and 10th Streets, and add Class II bicycle lanes in both directions between 9th and 11th Streets.

- **Option 2**
  Option 2 would remove approximately 65 total parking spaces between 10th and 11th Streets, narrow travel lanes between 9th and 10th Streets, and add Class II bicycle lanes in both directions between 9th Street and 11th Street.

PROJECT 2-7: FREMONT STREET BICYCLE LANE, HARRISON STREET TO HOWARD STREET

Project 2-7 would add a new route to the City's existing bicycle route network.

Project 2-7 would involve the installation of Class II and Class III bicycle facilities in both directions on Fremont Street between Howard Street and Harrison Street.

Project 2-7 would add a new Class III bicycle route with sharrows, on northbound Fremont Street between Harrison Street and Howard Street, and would add a Class II bicycle lane on southbound Fremont Street between Folsom Street and Harrison Street by narrowing northbound travel lanes and removing one southbound travel lane. Sidewalks on both sides of Fremont Street are proposed to be widened to 15' in accordance with the already approved Rincon Hill Area Plan, an Area Plan of the *San Francisco General Plan*.

PROJECT 2-8: HOWARD STREET BICYCLE LANE, EXTENSION AT 9TH STREET

Project 2-8 would involve the installation of a Class II bicycle lane in the westbound direction on Howard Street for approximately 200 feet approaching 9th Street. Project 2-8 would close an existing gap in the Howard Street bicycle lane.

Project 2-8 would change one shared through/right-turn lane on westbound Howard Street approaching 9th Street to a through-only lane, and would change an existing 200-foot tow-away 4:00 p.m.-6:00 p.m. zone along the north side of Howard Street to a permanent tow-away zone (creating a full-time right-turn only lane in place of the existing 4:00 p.m.-6:00 p.m. right-turn only lane). Project 2-8 would add a westbound Class II bicycle lane for approximately 200 feet east of 9th Street between a thru-lane and a right-turn only lane. Project 2-8 would remove three metered parking spaces on the north side of Howard Street.

PROJECT 2-9: HOWARD STREET BICYCLE LANE, THE EMBARCADERO TO FREMONT STREET

Project 2-9 would involve the installation of a Class II bicycle lane in the westbound direction on Howard Street between The Embarcadero and Fremont Street.

Project 2-9 would add a westbound Class II bicycle lane between The Embarcadero and Fremont Street by narrowing travel lanes in both directions on Howard Street from The Embarcadero to Steuart Street, removing one eastbound travel lane between Spear Street and Steuart Street, converting one of the two eastbound travel lanes between Main Street and Spear Street to a right-turn only lane (excepting Muni), and removing one westbound travel lane between Main Street and Fremont Street during the AM and PM peak hours. Project 2-9 would result in a gain of 17 parking spaces on the north side of Howard Street during the afternoon peak hours and a gain of 10 parking spaces during the morning peak hours. Project 2-9 also would establish a part-time bus zone on the southeast corner of Howard Street and Spear Street, which would result in a loss of four parking spaces from 6:00 a.m. to 10 a.m.

PROJECT 2-10: MARKET STREET AND VALENCIA STREET INTERSECTION IMPROVEMENTS

Project 2-10 would involve traffic signal modifications and installing a Class II left-turn bicycle lane on the westbound Market Street approach to the intersection.

Modified Project 2-10 would involve traffic signal modifications at the intersection of Market Street and Valencia Street.

● Modified Project 2-10 would facilitate bicycle left turns from westbound Market Street to southbound Valencia Street by installing a bicycle traffic signal head at the intersection of Market Street and Valencia Street.

Project 2-10 would reduce the width of a 40-foot long section of the sidewalk along the north side of Market Street by five feet to create a queuing area for westbound bicyclists waiting for the signal to cross Market Street and continue onto southbound Valencia Street. The sidewalk width in this affected area would be reduced to 10 feet.

PROJECT 2-11: MARKET STREET BICYCLE LANES, 17TH STREET TO OCTAVIA BOULEVARD

Project 2-11 would involve the installation of short segments of Class II bicycle lanes in both directions on Market Street between 17th Street and Octavia Boulevard to close gaps in otherwise continuous Class II bicycle lanes. Project 2-11 includes two design options:

- **Option 1**
  Modified Option 1 would add Class II bicycle lanes by removing right-turn lanes on Market Street in the eastbound direction approaching Noe Street, Sanchez Street, and Dolores Street, and in the westbound direction approaching ~~Church Street and~~ Sanchez Street. In the eastbound direction, Modified Option 1 would remove five parking spaces approaching Noe Street, five parking spaces approaching Sanchez Street, two parking spaces approaching Dolores Street, and eight parking spaces approaching Guerrero Street. In the westbound direction, Modified Option 1 would remove seven parking spaces approaching Laguna Street, seven parking spaces approaching Buchanan Street, three parking spaces approaching Sanchez Street, and nine parking spaces approaching Noe Street. Modified Option 1 would reduce the width of the sidewalk bulb-outs by five feet at the intersections of Market Street with Laguna Street, Buchanan Street, Noe Street and Guerrero Street.

- **Option 2**
  Option 2 would reduce the sidewalk widths approaching all of the intersections in both directions by five feet to add Class II bicycle lanes. Option 2 would narrow the sidewalk at certain areas from 15 feet to 10 feet, and would relocate traffic signal hardware and other sidewalk fixtures. Option 2 would remove approximately four parking spaces on the south side of Market Street near Guerrero Street.

PROJECT 2-12: MARKET STREET BICYCLE LANES, OCTAVIA BOULEVARD TO VAN NESS AVENUE

Project 2-12 was implemented on May 15, 2006 prior to the Bicycle Plan injunction. Project 2-12 involved the installation of Class II and Class III bicycle facilities in both directions on Market Street between Octavia Boulevard and Van Ness Avenue.

A Class II bicycle lane was added in the westbound direction on Market Street between Van Ness Avenue and Octavia Boulevard and in the eastbound direction on Market Street between Gough Street and 12th Street. Class II bicycle lanes existed on eastbound Market Street between Octavia Boulevard and Valencia Street and between 12th Street and Van Ness Avenue prior to the implementation of Project 2-12. Project 2-12 involved adding sharrows to the existing Class III bicycle route on eastbound Market Street between Valencia Street and Gough Street. One westbound travel lane was removed between Van Ness Avenue and Rose Street to add a Class II bicycle lane in the westbound direction. Thirty metered parking spaces and six metered motorcycle spaces were removed from Market Street between 12th Street and Octavia Boulevard as part of Project 2-12. Six metered parking spaces were added to the north side of Market Street between Franklin Street and Rose Street. Twenty metered parking spaces were added on 12th Street between Market Street and Van Ness Avenue by converting parallel parking spaces to perpendicular parking spaces. Four metered parking spaces were added to the east side of

Gough Street between Market Street and Colton Street by converting parallel parking spaces to angle parking spaces and by removing one northbound travel lane on Gough Street approaching Market Street.

PROJECT 2-13: MCCOPPIN STREET BICYCLE PATH, MARKET STREET TO VALENCIA STREET

Project 2-13 would involve the addition of a bi-directional Class I bicycle path connecting the intersection of Market Street and Octavia Boulevard to the western terminus of McCoppin Street, and the addition of Class II bicycle lanes on McCoppin Street in both directions between Valencia Street and the western terminus of McCoppin Street.

The construction of the Class I bicycle path was completed on September 9, 2005 as part of the Central Freeway Project. Approximately four parking spaces would be removed from the north side of McCoppin Street between Valencia Street and the western terminus of McCoppin Street to accommodate the Class II bicycle lanes.

PROJECT 2-14: MCCOPPIN STREET BICYCLE LANE, GOUGH STREET TO VALENCIA STREET

Modified Project 2-14 would remove one westbound travel lane on McCoppin Street from Gough Street to 125’ east of Valencia Street. Four parking spaces would be added on the south side of McCoppin Street between Jessie and Stevenson Streets by converting parallel parking to 60-degree back-in angle parking. Modified Project 2-14 would result in a net gain of approximately four parking spaces.

PROJECT 2-15: OTIS STREET BICYCLE LANE, GOUGH STREET TO SOUTH VAN NESS AVENUE

Project 2-15 would involve the installation of a Class II bicycle lane in the westbound direction on Otis Street between South Van Ness Avenue and Gough Street.

Project 2-15 would not involve removal of travel lanes or parking, but would narrow existing travel lanes.

PROJECT 2-16: TOWNSEND STREET BICYCLE LANES, 8TH STREET TO THE EMBARCADERO

Project 2-16 would involve the installation of Class II and Class III bicycle facilities in both directions on Townsend Street between 8th Street and The Embarcadero.

Sharrows would be added in both directions on Townsend Street between 2nd Street and The Embarcadero, which is an existing Class III bicycle route. The existing front-in-angled parking spaces on both sides of the street would be converted to back-in-angled parking.

Project 2-16 would add Class II bicycle lanes on Townsend Street in both directions between 2nd Street and 4th Street. Project 2-16 would remove one travel lane in both directions between 2nd Street and 4th Street and add a two-way center left-turn lane between 2nd Street and 4th Street, including left-turn pockets eastbound at 2nd Street and 3rd Street and westbound at 4th Street. Project 2-16 would add parking along a portion of the south side of Townsend Street between 3rd Street and Lusk Street.

Project 2-16 would add Class II bicycle lanes on Townsend Street in both directions between 7th Street and 8th Street by narrowing travel lanes and adding a right-turn pocket on eastbound Townsend Street approaching 7th Street. No travel lane or parking removals would be required along this segment.

The segment of Project 2-16 between 4th Street and 7th Street includes two design options:

Both options would add Class II bicycle lanes on Townsend Street in both directions between 4th Street and 7th Street by narrowing travel lanes and reconfiguring existing parking. Both options would provide space for the construction of continuous sidewalks on both sides of Townsend Street between 4th and 7th Streets, and would require travel lane configuration changes on 4th Street approaching Townsend Street, including the removal of one northbound right-turn lane, the conversion of one southbound left-turn lane into a thru-lane, and the conversion of one southbound thru-lane into a right-turn lane.

- **Option 1**
  Option 1 one would convert the existing front-in-angled parking on the south side of Townsend Street to back-in-angled parking between 4th Street and 7th Street and would convert the existing perpendicular parking on the north side of Townsend Street to parallel parking between 4th Street and 7th Street. Option 1 would result in a loss of approximately 80 parking spaces and six part-time parking spaces that are currently restricted to truck loading during certain hours.

- **Option 2**
  Option 2 would convert the existing angled parking on the south side of Townsend Street to parallel parking between 4th Street and 7th Street and would convert the existing parallel and perpendicular parking on the north side of Townsend Street to back-in-perpendicular parking between 4th Street and Townsend Street, except for approximately 200 feet east of 7th Street, which would remain parallel parking. Option 2 would result in a loss of approximately 26 parking spaces and a gain of 16 part-time parking spaces that are currently restricted to truck loading during certain hours.

PROJECT SETTING

This section provides a description of the existing transportation conditions along the bicycle near-term improvements in Cluster 2. Descriptions of the existing roadway access, traffic, transit, parking, pedestrian, bicycle and loading conditions are included. The study intersections for Cluster 2 as shown on Figure V.A.3-6, p. V.A.3-32. Figures showing the turning movement traffic volumes and lane configurations at those study intersections for Existing conditions may be found within the transportation impact analysis discussion for Cluster 2 within the transportation impact study. LOS calculation sheets for those study intersections and transit delay calculation sheets for the affected transit routes may be found in the appendices of the transportation impact study.[10]

PROJECT 2-1: 2ND STREET BICYCLE LANES, KING STREET TO MARKET STREET

Roadways

2nd Street between King and Market Streets is generally a four-lane north-south street. During the evening commute hours, 2nd Street is used as a major commute route to the Bay Bridge and traffic volumes are usually heavy, especially along the blocks between Howard and Bryant Streets.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the PM peak hour. Table V.2-1, p. V.A.3-46, summarizes these results.

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10 Wilbur Smith Associates. 2008. *San Francisco Bicycle Plan Update Transportation Impact Study*. This document is available for review by appointment at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103 as part of Case File No 2007.0347E.

TABLE V.2-1
CLUSTER 2 – PROJECT 2-1
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS[b]
1. 2nd Street/Bryant Street	Signal	**60.3**	**E**
2. 2nd Street/Harrison Street	Signal	**64.9**	**E**
3. 2nd Street/Folsom Street	Signal	44.7	D
4. 2nd Street/Howard Street	Signal	20.1	C
5. 2nd Street/Brannan Street	Signal	14.1	B
6. 2nd Street/Townsend Street	Signal	13.8	B

Source: Wilbur Smith Associates, October 2008

Notes:

a. Delay in seconds per vehicle.

b. Intersections operating at LOS E or LOS F conditions are highlighted in **bold**.

PM Peak Hour

Intersection 1: 2nd Street/Bryant Street

During the weekday PM peak hour, the 2nd Street/Bryant Street intersection operates at an unacceptable level of service (LOS E), with 60.3 seconds of delay.

Intersection 2: 2nd Street/Harrison Street

During the weekday PM peak hour, the 2nd Street/Harrison Street intersection operates at an unacceptable level of service (LOS E), with 64.9 seconds of delay.

Intersection 3: 2nd Street/Folsom Street

During the weekday PM peak hour, the 2nd Street/Folsom Street intersection operates at an acceptable level of service (LOS D), with 44.7 seconds of delay.

Intersection 4: 2nd Street/Howard Street

During the weekday PM peak hour, the 2nd Street/Howard Street intersection operates at an acceptable level of service (LOS C), with 20.1 seconds of delay.

Intersection 5: 2nd Street/Brannan Street

During the weekday PM peak hour, the 2nd Street/Brannan Street intersection operates at an acceptable level of service (LOS B), with 14.1 seconds of delay.

Intersection 6: 2nd Street/Townsend Street

During the weekday PM peak hour, the 2nd Street/Bryant Street intersection operates at an acceptable level of service (LOS B), with 13.8 seconds of delay.

Transit

Muni bus lines 9, 10, 71, and 108 operate along portions of 2nd Street from King Street to Market Street. Muni bus lines 9, 10, and 71 run southbound for the one block between Market and Mission Streets with approximately 16 buses per hour during the AM peak period and 17 buses per hour during the PM peak period. Muni bus line 71 operates only during evening and weekend hours. Muni bus lines 10 and 108 also run along 2nd Street between Howard and Townsend Streets, with approximately four buses per hour in each direction in the AM and PM peak periods. Bus stops are located on the blocks between Market and Jessie Streets.

Parking

On-street parking is permitted and regulated by parking meters on both sides of the street; parking occupancy is generally moderate to high.

Pedestrian

Pedestrian volumes are high between Market and Howard Streets during the AM and PM peak periods as well as during the midday and low to moderate between Howard and King Streets.

Bicycle

Bicycle volumes are generally low but increase to moderate levels during the commute periods. 2nd Street is designated as existing Bicycle Route 11 (Class III) in both directions between King and Market Streets. Existing Bicycle Route 11 connects with existing Bicycle Route 50 (Class III) at Market Street, existing Bicycle Route 30 (Class II) at Howard Street (westbound) and Folsom Street (eastbound), existing Bicycle Route 36 (Class III) at Townsend Street, and existing Bicycle Route 5 (Class II/III) at King Street. Grades along Project 2-1 are generally below three percent with a five percent segment between Howard and Folsom Streets.

Loading

There are approximately 40 on-street yellow commercial freight loading spaces between Market and Bryant Streets. In addition, most large size office and hotel buildings along this portion of 2nd Street have off-street loading docks. Double-parking for loading activities occurs occasionally.

PROJECT 2-2: 5TH STREET BICYCLE LANES, MARKET STREET TO TOWNSEND STREET

Roadways

5th Street between Market and Townsend Streets is a four-lane north-south major arterial. The portion of 5th Street between Howard and Brannan Streets is part of the MTS Roadway Network and the CMP Network, and the portion of 5th Street between Market and Howard Streets is part of the MTS Roadway Network. 5th Street provides direct access to I-80, with an off-ramp at Harrison Street and an on-ramp at Bryant Street. Traffic volumes are generally low to moderate, increasing to high near the I-80 ramps particularly during commute hours.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the PM peak hour. Table V.2-2, p. V.A.3-49, summarizes these results.

Intersection 7: 5th Street/Bryant Street

During the weekday PM peak hour, the 5th Street/Bryant Street intersection operates at an unacceptable level of service (LOS E), with 75.8 seconds of delay.

Intersection 8: 5th Street/Harrison Street

During the weekday PM peak hour, the 5th Street/Harrison Street intersection operates at an acceptable level of service (LOS D), with 52.5 seconds of delay.

Intersection 9: 5th Street/Brannan Street

During the weekday PM peak hour, the 5th Street/Brannan Street intersection operates at an unacceptable level of service (LOS E), with 55.3 seconds of delay.

TABLE V.2-2
CLUSTER 2 – PROJECT 2-2
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

	Intersection	Traffic Control Device	Average Delay[a]	LOS[b]
7.	5th Street/Bryant Street	Signal	**75.8**	**E**
8.	5th Street/Harrison Street	Signal	52.5	D
9.	5th Street/Brannan Street	Signal	**55.3**	**E**
10.	5th Street/Mission Street	Signal	45.8	D
11.	5th Street/Market Street	Signal	15.4	B
12.	5th Street/Howard Street	Signal	24.3	C
13.	5th Street/Folsom Street	Signal	16.8	B
17.	6th Street /Brannan Street	Signal	**>80**	**F**
18.	4th Street/Harrison Street	Signal	**63.2**	**E**

Source: Wilbur Smith Associates, October 2008

Notes:

a Delay in seconds per vehicle.

b. Intersections operating at LOS E or LOS F conditions are highlighted in **bold**.

Intersection 10: 5th Street/Mission Street

During the weekday PM peak hour, the 5th Street/Mission Street intersection operates at an acceptable level of service (LOS D), with 45.8 seconds of delay.

Intersection 11: 5th Street/Market Street

During the weekday PM peak hour, the 5th Street/Brannan Street intersection operates at an acceptable level of service (LOS B), with 15.4 seconds of delay.

Intersection 12: 5th Street/Howard Street

During the weekday PM peak hour, the 5th Street/Howard Street intersection operates at an acceptable level of service (LOS C), with 24.3 seconds of delay.

Intersection 13: 5th Street/Folsom Street

During the weekday PM peak hour, the 5th Street/Folsom Street intersection operates at an acceptable level of service (LOS B), with 16.8 seconds of delay.

Intersection 17: 6th Street/Brannan Street

During the weekday PM peak hour, the 6th Street/Brannan Street intersection operates at an unacceptable level of service (LOS F), with more than 80 seconds of delay.

Intersection 18: 4th Street/Harrison Street

During the weekday PM peak hour, the 4th Street/Harrison Street intersection operates at an unacceptable level of service (LOS E), with 63.2 seconds of delay.

Transit

Muni bus lines 26, 27, and 47 run along portions of 5th Street. Between Market and Mission Streets, Muni bus lines 26 and 27 run approximately five northbound buses and eight southbound buses per hour during the AM and PM peak periods. Muni bus line 27 continues on 5th Street between Mission and Bryant Streets with approximately five buses per hour. Muni bus line 47 operates between Harrison and Townsend Streets with approximately 13 northbound buses and five southbound buses per hour during the AM and PM peak periods, respectively. Bus stops are located at most of the intersections with major streets.

Parking

On-street parking is generally permitted on both sides of the street and regulated by parking meters north of Harrison Street. South of Harrison Street on-street parking is generally not metered but may be controlled by time limits; parking occupancy is typically moderate to high.

Pedestrians

Pedestrian volumes are moderate to high between Market and Mission Streets during the AM and PM peak periods as well as during the midday and generally low between Mission and Townsend Streets.

Bicycle

Bicycle volumes are generally low, increasing to moderate during commute periods. 5th Street is designated as existing Bicycle Route 19 (Class III) in both directions between Market and Townsend Streets. Existing Bicycle Route 19 connects with existing Bicycle Route 50 (Class III) at Market Street, existing Bicycle Route 30 (Class II) at Howard Street (westbound) and Folsom Street (eastbound), and existing Bicycle Route 36 (Class III with wide curb lanes) at Townsend Street. Street grades along Project 2-2 are flat with slopes of less than one percent.

Loading

On both sides of 5th Street, there are approximately 19 on-street yellow commercial freight loading spaces between Market and Townsend Streets. In addition, there are approximately six on-street passenger loading spaces and two green 10-minute spaces. Infrequent double parking for loading activities was observed.[11]

PROJECT 2-3: 14TH STREET BICYCLE LANE, DOLORES STREET TO MARKET STREET

Project 2-3 was partially implemented on March 27, 2006 prior to the Bicycle Plan injunction; as such, post-project Implementation conditions describe what is on the ground today and are analyzed under Existing plus Project and Cumulative plus Project conditions. Pre-project conditions describe what existed before the implementation of Project 2-3 and are analyzed under Existing and Cumulative conditions.

Roadways

14th Street between Dolores and Market Streets was a two-way local street with one westbound and two eastbound travel lanes under "pre-project" conditions.

This segment has been converted to an eastbound one-way street with two travel lanes, and an eastbound Class II bicycle lane was installed under "post-project implementation" conditions. Traffic volumes are generally moderate during the AM peak hour and lower at other times.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the AM and PM peak hours.

Intersection 52: Church Street/Market Street/14th Street

During the weekday AM peak hour, the Church Street/Market Street/14th Street intersection operates at an unacceptable level of service (LOS F), with more than 80 seconds of delay. Table V.2-3, p. V.A.3-52, summarizes these results.

[11] Field surveys were conducted by CHS Consulting on Wednesday, August 29, 2007 during the midday.

TABLE V.2-3
CLUSTER 2 – PROJECT 2-3
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY AM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS
52. Church Street/Market Street/14th Street	Signal	> 80	F

Source: Wilbur Smith Associates, October 2008
Note:
a. Delay in seconds per vehicle.

Intersection 52: Church Street/Market Street/14th Street

During the weekday PM peak hour, the Church Street/Market Street/14th Street intersection operates at an acceptable level of service (LOS D), with 52.2 seconds of delay. Table V.2-4, p. V.A.3-52, summarizes these results.

TABLE V.2-4
CLUSTER 2 – PROJECT 2-3
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS
52. Church Street/Market Street/14th Street	Signal	52.2	D

Source: Wilbur Smith Associates, October 2008
Note:
a. Delay in seconds per vehicle.

Transit

There are no transit lines on this section of 14th Street.

Parking

On-street unmetered parking is permitted on both sides of the street; parking occupancy is generally high.

Pedestrian

Pedestrian volumes are generally low along 14th Street and slightly higher at the Market Street intersection.

Bicycle

14th Street is designated as existing Bicycle Route 30 (Class II eastbound). Existing Bicycle Route 30 connects with existing Bicycle Route 50 (Class II) at Market Street. Bicycle volumes are generally low to moderate. Street grades along Project 2-3 are flat with slopes below one percent.

Loading

The buildings in this section of 14th Street do not have off-street loading spaces or on-street yellow commercial freight loading spaces. While truck loading demand for the buildings along these two blocks of 14th Street is low, double parked trucks were observed making deliveries to some buildings on this block as well as those along Market Street at 14th Street.

PROJECT 2-4: 17TH STREET BICYCLE LANES, CORBETT AVENUE TO KANSAS STREET, INCLUDING CONNECTIONS TO THE 16TH STREET BART STATION VIA HOFF STREET OR VALENCIA STREET AND 17TH STREET TO DIVISION STREET VIA POTRERO AVENUE

Roadways

The 17th Street corridor includes two major east-west streets (16th and 17th Streets) and four north-south streets (Potrero Avenue, Sanchez Street, Hoff Street and Kansas Street). 17th Street is a two-lane east-west secondary arterial between Corbett Avenue and Castro Street and a local street between Castro and Kansas Streets. The portion of 17th Street between Eureka and Castro Streets is one-way westbound, with two travel lanes. Traffic volumes are generally low.

The portions of 16th Street between Market and Sanchez Streets and between Kansas Street and Potrero Avenue are major arterials which are a part of the MTS Roadway Network. Traffic volumes are generally high between Kansas Street and Potrero Avenue.

Potrero Avenue between Division and 17th Streets is a major arterial, which is a part of the MTS Roadway Network and the CMP Network. Traffic volumes are generally high.

The remaining three north-south streets (Sanchez, Hoff, and Kansas Streets) are two-lane local streets between 16th and 17th Streets.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the PM peak hour. Table V.2-5, p. V.A.3-54, summarizes these results.

TABLE V.2-5
CLUSTER 2 – PROJECT 2-4
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS[b]
20. Potrero Avenue/17th Street	Signal	22.8	C
21. 10th Street/Brannan Street/ Potrero Avenue/Division Street	Signal	**72.0**	**E**
22. Potrero Avenue/16th Street	Signal	19.5	B

Source: Wilbur Smith Associates, October 2008

Notes:

a. Delay in seconds per vehicle.

b Intersections operating at LOS E or LOS F conditions are highlighted in **bold**.

Intersection 20: Potrero Avenue/17th Street

During the weekday PM peak hour, the Potrero Avenue/17th Street intersection operates at an acceptable level of service (LOS C), with 22.8 seconds of delay.

Intersection 21: 10th Street/Brannan Street/Potrero Avenue/Division Street

During the weekday PM peak hour, the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection operates at an unacceptable level of service (LOS E), with 72 seconds of delay.

Intersection 22: Potrero Avenue/16th Street

During the weekday PM peak hour, the Potrero Avenue/16th Street intersection operates at an acceptable level of service (LOS B), with 19.5 seconds of delay.

Transit

Muni bus line 37 runs on 17th Street between Corbett Avenue and Diamond Street. The F-Market streetcar runs along 17th Street between Castro and Noe Streets, while non-revenue service tracks continue to Church Street. Muni has a bus storage facility that is bounded by 17th, Bryant, Mariposa, and Hampshire Streets, with primary access off Mariposa Street. Muni bus lines 22 and 53 run along portions of 16th Street between Church and Kansas Streets. Muni bus line 9 and 33 and SamTrans bus line 292 run along Potrero Avenue between Division and 17th Streets.

Parking

On-street parking is permitted on both sides of 17th Street, and occupancy is typically high. Parking occupancy on 16th Street is generally high between Kansas Street and Potrero Avenue. On-street parking is typically permitted on Sanchez, Hoff and Kansas Streets. Sanchez Street has perpendicular parking on the east side, and Hoff Street has parking allowed only on the west side.

Pedestrian

Pedestrian volumes are low to moderate along most of 17th Street, but increasing to high at the corner of 17th/Castro and Market Streets and on the segment of 17th Street between Guerrero Street and South Van Ness Avenue. On 16th Street between Mission and Valencia Streets pedestrian volumes are moderate. Pedestrian volumes are low on Sanchez, Hoff, and Kansas Streets.

Bicycle

17th Street is designated as existing Bicycle Route 40 (Class III) in the westbound direction between Corbett Avenue and Castro Street and in both directions between Castro and Kansas Streets. Existing Bicycle Route 40 intersects existing Bicycle Route 49 (Class III) at Eureka Street, existing Bicycle Route 50 (Class II) at Market Street, existing Bicycle Route 47 (Class III) at Sanchez Street; existing Bicycle Route 45 (Class II) at Valencia Street, existing Bicycle Routes 25/33 (Class II) at Harrison Street, existing Bicycle Route 25 (Class II) at Potrero Avenue and existing Bicycle Route 123 (Class III) at Kansas Street. Street grades along 17th Street are relatively flat with grades of less than three percent with the exception of grades of five percent from Castro to Sanchez Streets, eight percent from Alabama to Bryant Streets, five percent from Bryant to Hampshire Streets, and seven percent from San Bruno Avenue to Kansas Street. Bicycle volumes are generally low to moderate along most of 17th Street, but increase to high on the segment between Guerrero Street and South Van Ness Avenue.

Loading

The land uses in the area vary from residential uses on the west side of the corridor to commercial and industrial use on the east side. Some of the commercial and industrial uses have off-street loading spaces but most do not. Loading demand is generally low on the west side, moderate to high on the east side, especially in the mid-section of the corridor near Mission Street, where double-parking has been observed.[12]

PROJECT 2-5: BEALE STREET BICYCLE LANE, BRYANT STREET TO FOLSOM STREET

Roadways

Beale Street between Bryant and Folsom Streets is a two-lane north-south local street. It is also a major route to the Sterling Street on-ramp to I-80, so southbound traffic during the PM peak period is generally heavy.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

There are no transit lines on this section of Beale Street.

Parking

There is perpendicular unmetered on-street parking on the east side of Beale Street and parallel unmetered on-street parking on the west side of Beale Street between Folsom and Bryant Streets. Parking occupancy is typically high.

Pedestrian

Pedestrian volumes are generally low on this section of Beale Street.

Bicycle

Bicycle volumes are generally low on this section of Beale Street. There are no existing bicycle route designations on this section of Beale Street. Project 2-5 would connect to existing Bicycle Route 30 (Class II) at Folsom Street. Street grades along Project 2-5 are relatively flat with slopes below one percent.

[12] Field surveys were conducted by CHS Consulting on Thursday, August 23, 2007 during the midday.

Loading

Most of the buildings along this block have off-street loading spaces. There are only a few on-street yellow commercial freight loading spaces on the west side of Beale Street at Folsom Street. Due to the relatively high parking occupancy rate in the area, double-parking occurs occasionally.

PROJECT 2-6: DIVISION STREET BICYCLE LANES, 9TH STREET TO 11TH STREET

Roadways

Division Street between 9th and 11th Streets is a four-lane east-west major arterial underneath the elevated US 101 structure. This segment is part of the MTS Roadway Network and the CMP Network. Traffic volumes are generally high during the AM and PM peak periods.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the PM peak hour. Table V.2-6, p. V.A.3-57, summarizes these results.

TABLE V.2-6
CLUSTER 2 – PROJECT 2-6
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

	Intersection	Traffic Control Device	Average Delay[a]	LOS[b]
21.	10th Street/Brannan Street/ Potrero Avenue/Division Street	Signal	**72.0**	**E**
54.	11th Street/Bryant Street/ Division Street	Signal	32.4	C

Source: Wilbur Smith Associates, October 2008

Notes:

a. Delay in seconds per vehicle.
b. Intersections operating at LOS E or LOS F conditions are highlighted in **bold**.

PM Peak Hour

Intersection 21: 10th Street/Brannan Street/Potrero Avenue/Division Street

During the weekday PM peak hour, the 10th Street/Brannan Street/Potrero Avenue/Division Street intersection operates at an unacceptable level of service (LOS E), with 72 seconds of delay.

Intersection 54: 11th Street/Bryant Street/Division Street

During the weekday PM peak hour, the 11th Street/Bryant Street/Division Street intersection operates at an acceptable level of service (LOS C), with 32.4 seconds of delay.

Transit

Muni bus line 9 runs in both directions along Division Street between 11th Street and Potrero Avenue with approximately six buses per hour each way during the AM peak period and approximately eight buses per hour each way during the PM peak period. There is one eastbound bus stop in this section of Division Street located on the far-side of Bryant Street.

Parking

On-street parking is permitted on both sides of the street, and occupancy is typically high during the day.

Pedestrian

Pedestrian volumes are typically low in this area.

Bicycle

Division Street is designated as existing Bicycle Route 36 (Class III) with sharrows in each direction between 9th Street and 11th Street. Existing Bicycle Route 36 connects with existing Bicycle Route 25 (Class II) at 11th Street. Grades along Project 2-6 are less than one percent. Bicycle volumes are typically low along this portion of Division Street.

Loading

Most of the commercial and industrial uses have off-street loading areas, and on-street loading demand is generally low. There are no on-street yellow commercial freight loading spaces.

PROJECT 2-7: FREMONT STREET BICYCLE LANE, HARRISON STREET TO HOWARD STREET

Roadways

Fremont Street between Harrison and Howard Streets is a major arterial with two lanes in both directions. Fremont Street north of Folsom Street is one-way northbound. The Bay Bridge off-ramp connects in a diagonal alignment to the Fremont Street/Folsom Street intersection as well as to Fremont Street approximately mid-block between Howard and Folsom Streets. The Bay Bridge off-ramp at the Fremont Street/Harrison Street intersection is temporarily closed.

Traffic volumes are currently low to moderate during the AM peak period and expected to become moderate to high with the opening of the Bay Bridge off-ramps at the Fremont Street/Harrison Street intersection.

Traffic: Intersection Level of Service (LOS)

One study intersection is located within Project 2-7. Table V.2-7, p. V.A.3-59, summarizes these results.

TABLE V.2-7
CLUSTER 2 – PROJECT 2-7
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS
48. Fremont Street/Howard Street	Signal	36.5	D

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

PM Peak Hour

Intersection 48: Fremont Street/Howard Street

During the weekday PM peak hour, the Fremont Street/Howard Street intersection operates at an acceptable level of service (LOS D), with 36.5 seconds of delay.

Transit

Muni bus lines 10 and 76 operate northbound along Fremont Street for the one block between Howard and Folsom Streets. Muni bus line 10 runs approximately four buses per hour northbound during the AM and PM peak periods. Muni bus line 76 operates only on weekends. Bus stops along Project 2-7 for these Muni bus lines are located on Fremont Street at Folsom and Howard Streets. GGT buses (18, 26, 26, 38, 44, 54, 56, 58, 70/80, 72, 74) also operate northbound along this section of Fremont Street in the northbound direction with approximately 25 buses per hour in the PM peak period. The GGT bus stop is located on Fremont Street at Folsom.

Parking

On-street parking is generally permitted and regulated by parking meters on both sides of Fremont Street between Howard and Harrison Streets with the exception of the block between

Howard and Folsom Streets where parking is not allowed on the west side of Fremont Street. Overall parking occupancy is generally moderate.

Pedestrian

Pedestrian volumes are generally low on this segment of Fremont Street.

Bicycle

There are no existing bicycle route designations in this section of Fremont Street. Project 2-7 would connect to existing Bicycle Route 30 (Class II) at Folsom Street. Street grades along Project 2-7 are approximately seven percent. Bicycle volumes are generally low on this segment of Fremont Street.

Loading

There are approximately two on-street yellow commercial freight loading spaces on this block of Fremont Street. Loading activity is generally low because entrances to most of the buildings on the west side are along side streets and the building on the east side of Fremont Street has off-street loading facilities.

PROJECT 2-8: HOWARD STREET BICYCLE LANE, EXTENSION AT 9TH STREET

Roadways

Howard Street at 9th Street is a one-way westbound major arterial with four travel lanes and is part of the MTS Roadway Network and the CMP Network. Traffic volumes are high during the PM peak period and low to moderate at other times of the day.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

There are no transit lines on Howard Street at 9th Street.

Parking

On-street parking is permitted and regulated by parking meters on both sides of the street; and parking occupancy is relatively high.

Pedestrian

Pedestrian volumes are generally moderate in this area during the midday and PM peak period.

Bicycle

Howard Street is designated as existing Bicycle Route 30 (Class II) in the westbound direction. The bicycle lane terminates approaching 9th Street and sharrows are installed on the through traffic lane at the approach to the 9th Street intersection. Street grades along Project 2-8 are approximately three percent. Bicycle volumes are typically moderate in this area except during the PM peak period when they are high.

Loading

The short extension at 9th Street onto Howard Street includes a gas station on the north side with no yellow commercial freight loading spaces. Loading activities associated with the gas station are performed off the street. There is no on-street loading activity along Project 2-8.

PROJECT 2-9: HOWARD STREET BICYCLE LANE, THE EMBARCADERO TO FREMONT STREET

Roadways

Howard Street is a two-way, four-lane east-west major arterial between Fremont Street and The Embarcadero and a one-way westbound street west of 1st Street. It is part of the MTS Roadway Network and the CMP Network. Traffic volumes are high during the AM and PM peak periods.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the PM peak hour. Table V.2-7, p. V.A.3-59, summarizes these results.

PM Peak Hour

Intersection 48: Fremont Street/Howard Street

During the weekday PM peak hour, the Fremont Street/Howard Street intersection operates at an acceptable level of service (LOS D), with 36.5 seconds of delay.

Transit

Muni buses (lines 1, 20, 41, 30X, and 81X), Golden Gate Transit buses (lines 10, 70/80, 72, 73, and 76), and SamTrans buses (lines KX and 391) run along this section of Howard Street. There is an eastbound bus stop between Main and Beale Streets for Muni bus lines 1, 20, and 41 and a westbound bus stop at Fremont Street for GGT buses.

Parking

On-street parking is generally permitted along Howard Street and regulated by parking meters. There are Tow-Away zones on the north side of Howard Street between Fremont and Main Streets during the PM peak period (4:00 p.m. to 6:00 p.m.) and between Beale and Fremont Streets during the AM peak period (7:00 a.m. to 9:00 a.m.). Parking occupancy is generally high.

Pedestrian

Pedestrian volumes in the area are moderate to high during midday and the PM peak period.

Bicycle

Howard Street is designated as existing Bicycle Route 30 (Class II) in the westbound direction. Existing Bicycle Route 30 connects to existing Bicycle Route 5 (Class II) at The Embarcadero. Street grades along Project 2-9 are below one percent.

Loading

There are on-street yellow commercial freight loading spaces along this segment of Howard Street between Fremont and Beale Streets and between Main and Spear Streets. Some of the buildings along this segment of Howard Street have off-street loading spaces. In general, on-street loading demand for the commercial uses in this segment is accommodated by the available on-street parking spaces; occasional double parking was observed.[13]

PROJECT 2-10: MARKET STREET AND VALENCIA STREET INTERSECTION IMPROVEMENTS

Roadways

The intersection at Market and Valencia Streets is a signalized T-intersection with a median along Market Street. At this intersection, Market Street has a signalized left-turn lane in the

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13 Field surveys were conducted by CHS Consulting on Thursday, September 6, 2007 during the midday.

westbound direction onto Valencia Street, but traffic on northbound Valencia Street can only turn right onto Market Street. Traffic volumes are generally moderate.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

Muni bus line 26 runs northbound on Valencia Street and makes a right turn onto Market Street in the eastbound direction. Muni F--Market streetcar line runs along Market Street on a shared right-of-way at Valencia Street. There are no transit stops at this intersection.

Parking

On-street parking is not permitted in the vicinity of this intersection.

Pedestrian

Pedestrian volumes are generally moderate in this area.

Bicycle

Bicycle volumes are high in the eastbound direction during the AM peak hour and in the westbound direction during the PM peak hour. Bicyclists often merge with westbound traffic to turn left onto Valencia Street. Market Street is designated as existing Bicycle Route 50 (Class II). Existing Bicycle Route 50 intersects existing Bicycle Route 45 at Valencia Street (Class II) and Octavia Boulevard (Class III). Street grades along Project 2-10 are flat.

Loading

There are no yellow commercial freight loading spaces at this intersection. Due to the lack of available parking for loading activities, occasional truck parking on the sidewalk was observed.[14]

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14 Field surveys were conducted by CHS Consulting on Thursday, September 20, 2007 during the midday.

PROJECT 2-11: MARKET STREET BICYCLE LANES, 17TH STREET TO OCTAVIA BOULEVARD

Roadways

Market Street between 17th Street and Octavia Boulevard is a major arterial with four to six travel lanes and a landscaped median. This segment is part of the MTS Roadway Network and the CMP Network. Traffic volumes are moderate to high during the AM and PM peak periods.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the AM and PM peak hour. Table V.2-8, p. V.A.3-64, and Table V.2-9, p. V.A.3-64, summarize these results for the AM and PM peak hours respectively.

TABLE V.2-8
CLUSTER 2 – PROJECT 2-3
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY AM PEAK HOUR

Intersection		Traffic Control Device	Average Delay[a]	LOS
40.	Octavia Boulevard/Market Street	Signal	**> 80**	**F**
52.	Church Street/Market Street/14th Street	Signal	**> 80**	**F**

Source: Wilbur Smith Associates, October 2008
Note:
a. Delay in seconds per vehicle.

TABLE V.2-9
CLUSTER 2 – PROJECT 2-11
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection		Traffic Control Device	Average Delay[a]	LOS
40.	Octavia Boulevard/Market Street	Signal	41.9	D
52.	Church Street/Market Street/14th Street	Signal	52.2	D

Source: Wilbur Smith Associates, October 2008
Note:
a. Delay in seconds per vehicle.

Intersection 40: Octavia Boulevard/Market Street

During the weekday AM peak hour, the Octavia Boulevard/Market Street intersection operates at an unacceptable level of service (LOS F), with more than 80 seconds of delay.

Intersection 52: Church Street/Market Street/14th Street

During the weekday AM peak hour, the Church Street/Market Street/14th Street intersection operates at an unacceptable level of service (LOS F), with more than 80 seconds of delay.

Intersection 40: Octavia Boulevard/Market Street

During the weekday PM peak hour, the Octavia Boulevard/Market Street intersection operates at an acceptable level of service (LOS D), with 41.9 seconds of delay.

Intersection 52: Church Street/Market Street/14th Street

During the weekday PM peak hour, the Church Street/Market Street/14th Street intersection operates at an acceptable level of service (LOS D), with 52.2 seconds of delay.

Transit

Muni F–Market streetcar line in the center lane with approximately 10 cars per hour each way during the AM and PM peak periods. The Muni F-Market streetcar stops in the center lane to load and unload passengers at a transit island.

Muni bus line 37 runs westbound between Church and Diamond Streets and eastbound between Eureka and Church Streets, with approximately four buses each way during the AM and PM peak periods. There are westbound bus stops at the far side of Sanchez and Noe Streets. There is one eastbound bus stop on the near side of Sanchez Street in the right-turn lane before buses make a right turn onto 15th Street. Observations show that buses generally pick up and drop off passengers at the stops at an angle without being completely parallel to the curb.[15]

Parking

On-street parking is generally permitted on both sides of the street and is regulated by parking meters.

Pedestrian

Pedestrian volumes are low to moderate near Octavia Boulevard and moderate to high between Church and 17th Streets.

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[15] Field surveys were conducted by CHS Consulting on Thursday, September 20, 2007 during the PM peak.

Bicycle

Bicycle volumes are high in the eastbound direction during the AM peak hour and in the westbound direction during the PM peak hour. Market Street is designated as existing Bicycle Route 50 (Class II) between Octavia Boulevard and 17th Street. Existing Bicycle Route 50 intersects with: existing Bicycle Route 40 (Class III) at 17th Street; existing Bicycle Route 47 (Class III) at Sanchez Street; existing Bicycle Route30 at both 14th Street (Class II/III) and Duboce Streets (Class I); and existing Bicycle Route 45 (Class III) at Octavia Boulevard. Street grades along Project 2-11 are approximately three percent.

Loading

There are approximately 12 on-street yellow commercial freight loading spaces on Market Street between Octavia Boulevard and Laguna Street and between Church and Castro Streets. Deliveries to the buildings along Market Street are typically made using these on-street loading spaces. Occasional double parking was observed.[16]

PROJECT 2-12: MARKET STREET BICYCLE LANES, OCTAVIA BOULEVARD TO VAN NESS AVENUE

Project 2-12 was implemented on May 15, 2006 prior to the Bicycle Plan injunction; as such, post-project implementation conditions describe what is on the ground today and are analyzed under Existing plus Project and Cumulative plus Project conditions. Pre-project conditions describe what existed before the implementation of Project 2-12 and are analyzed under Existing and Cumulative conditions.

Roadways

Market Street between Octavia Boulevard and Van Ness Avenue is a major arterial with four to six travel lanes and an exclusive eastbound transit lane between Van Ness Avenue and Brady Street. This segment is part of the MTS Roadway Network and the CMP Network. Traffic volumes are generally moderate to high along this segment of Market Street.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the AM and PM peak hour. Table V.2-10, p. V.A.3-67, and Table V.2-11, p. V.A.3-67, below summarize these results for the AM and PM peak hours respectively.

[16] Field surveys were conducted by CHS Consulting on Thursday, September 20, 2007 during the midday.

TABLE V.2-10
CLUSTER 2 – PROJECT 2-12
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY AM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS
40. Octavia Boulevard/Market Street	Signal	> 80	F

Source: Wilbur Smith Associates, October 2008
Note:
a. Delay in seconds per vehicle.

TABLE V.2-11
CLUSTER 2 – PROJECT 2-12
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS
40. Octavia Boulevard/Market Street	Signal	41.9	D

Source: Wilbur Smith Associates, October 2008
Note:
a. Delay in seconds per vehicle.

Intersection 40: Octavia Boulevard/Market Street

During the weekday AM peak hour, the Octavia Boulevard/Market Street intersection operates at an unacceptable level of service (LOS F), with more than 80 seconds of delay.

Intersection 40: Octavia Boulevard/Market Street

During the weekday PM peak hour, the Octavia Boulevard/Market Street intersection operates at an acceptable level of service (LOS D), with 41.9 seconds of delay.

Transit

The Muni F-Market streetcar runs in both directions along the entire segment in the left lane, mostly on a shared right-of-way and on a small section that has an exclusive right-of-way. Muni bus lines 6, 7, 71, and 71L operate on most of the Project 2-12 alignment but turn on Haight Street when traveling in the westbound direction one block east of Octavia Boulevard. When traveling eastbound, these Muni bus lines enter Market Street from Page Street, two blocks east of Octavia Boulevard. Muni bus line 26 runs only in the eastbound direction between Valencia Street and Van Ness Avenue. Transit volumes are is very high on this section of Market Street. There are approximately 35 eastbound buses per hour and 32 westbound buses per hour. Transit stops are located along boarding islands in the center of the street.

Parking

On-street parking was generally permitted and metered on both sides of the street between 12th Street and Octavia Boulevard under "pre-project" conditions. However, parking was prohibited by tow-away restrictions during the AM peak period on the south side of Market Street, and during the PM peak period on the north side of Market Street. There is currently a truck-only bay on the north side of Market Street between Van Ness Avenue and Franklin Street in which trucks with at least six wheels are permitted to park with a 30-minute limit.

Under "post-project implementation" conditions, on-street parking was removed on the north side of Market Street between Octavia Boulevard and Gough Street and on the south side between Brady and 12th Streets. Class II bicycle lanes were installed along this segment, except for the south side between Valencia and Gough Streets, which has sharrows in the curb lane.

Pedestrian

Pedestrian volumes are generally low to moderate towards Octavia Boulevard and high at the Van Ness Avenue intersection.

Bicycle

Bicycle volumes are high in the eastbound direction during the AM peak period and in the westbound direction during the PM peak period. Market Street is designated as existing Bicycle Route 50 (Class II/III). Existing Bicycle Route 50 intersects with existing Bicycle Route 45 (Class III) at Octavia Boulevard. Grades along Project 2-12 range are relatively flat with slopes below five percent.

Loading

This segment of Market Street has mostly retail and commercial uses. On-street yellow commercial freight loading spaces are located on the north side of Market Street. Occasional truck-parking on the sidewalks or in the curb lane was observed during midday.[17]

[17] Field surveys were conducted by CHS Consulting on Thursday, September 20, 2007 during the midday.

PROJECT 2-13: MCCOPPIN STREET BICYCLE PATH, MARKET STREET TO VALENCIA STREET

Roadways

McCoppin Street is a local street in the east-west direction that terminates east of Valencia Street. A bicycle path connects the terminus of McCoppin Street to Market Street. Traffic volumes are very low.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

There are no transit lines on this section of McCoppin Street.

Parking

As part of the Central Freeway Project, four parking spaces were removed from the north side of McCoppin Street between Valencia Street and the western terminus of McCoppin Street, and parking spaces were added to the south side of this block of McCoppin Street by converting parallel to perpendicular on-street parking. Parking occupancy is typically high.

Pedestrian

Pedestrian volumes are generally low.

Bicycle

McCoppin Street is designated as existing Bicycle Routes 30, 45, and 545. Street grades along Project 2-13 are approximately nine percent. Bicycle volumes are generally low.

Loading

This short segment of McCoppin Street has a deli on the north side and a truck rental facility on the south side. Their loading demand is accommodated by the on-street parking spaces on the south side of the street. There are no on-street yellow commercial freight loading spaces.

PROJECT 2-14: MCCOPPIN STREET BICYCLE LANE, GOUGH STREET TO VALENCIA STREET

Roadways

McCoppin Street between Gough and Valencia Streets is an east-west local street with two westbound lanes, one eastbound lane, and a striped median. Traffic volumes are generally low.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

Muni bus line 26 runs westbound on McCoppin Street between Gough and Valencia Streets with approximately three buses per hour.

Parking

On-street parking is permitted on both sides of McCoppin Street between Gough and Valencia Streets, and parking occupancy is generally high.

Pedestrian

Pedestrian volumes are typically low.

Bicycle

McCoppin Street is designated as existing Bicycle Route 30 (Class III). Existing Bicycle Route 30 intersects with existing Bicycle Routes 45 (Class II) and 545 (Class III) at Valencia Street. Street grades along Project 2-14 are approximately two percent.

Loading

This segment has mostly residential uses with some commercial uses, and their loading demand is generally accommodated by the available on-street parking spaces.

PROJECT 2-15: OTIS STREET BICYCLE LANE, GOUGH STREET TO SOUTH VAN NESS AVENUE

Roadways

Otis Street between South Van Ness Avenue and Gough Street is a one-way westbound local street with four travel lanes. Traffic volumes are generally moderate to high.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

Muni bus lines 14, 14L, 49, and 26 run westbound along this portion of Otis Street with approximately 20 buses per hour during the AM and PM peak period. There is one westbound bus stop on Otis Street; all bus lines stop at this location with the exception of Muni bus line 14L.

Parking

On-street parking is permitted on both sides of the street and is regulated by parking meters; parking occupancy is generally high.

Pedestrian

Pedestrian volumes are generally low.

Bicycle

Otis Street is designated as existing Bicycle Route 30 (Class III with wide curb lanes) between South Van Ness Avenue and Gough Street. Street grades along Project 2-15 are flat. Bicycle volumes are low to moderate.

Loading

There are active commercial uses on the north side of Otis Street. Most of the loading deliveries are made using the on-street yellow commercial freight loading spaces; loading occupancy is generally high.

PROJECT 2-16: TOWNSEND STREET BICYCLE LANES, 8TH STREET TO THE EMBARCADERO

This project provides a combination of Class II and Class III facilities on Townsend Street between The Embarcadero and 8th Streets. This project includes two design options in the Draft EIR. Both options in the Draft EIR provide Class II or Class III bicycle facilities in both directions by removing a combination of traffic lanes and reconfiguring existing angle or perpendicular parking. The preferred project design is Modified Option 1 which differs from Option 1 in that it would not add a two-way left-turn lane on Townsend Street between 4th and

3rd Streets, and would convert the angled parking on the south side of Townsend Street from 150 feet west of 5th Street to 4th Street to parallel parking.

Roadways

Townsend Street between 8th Street and The Embarcadero is an east-west street with two travel lanes (one lane in both directions) between 4th and 8th Streets and between The Embarcadero and 2nd Street. The section of Townsend Street between 2nd and 4th Streets has two travel lanes in both directions. This segment is part of the MTS Roadway Network and the CMP Network. Traffic volumes are moderate to high east of 4th Street and generally moderate west of 4th Street during the AM and PM peak periods.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the PM peak hour. Table V.2-12 , p. V.A.3-49, summarizes these results.

Intersection 6: 2nd Street/Townsend Street

During the weekday PM peak hour, the 2nd Street/Townsend Street intersection operates at an acceptable level of service (LOS B), with 13.8 seconds of delay.

Intersection 14: 7th Street/Townsend Street

During the weekday PM peak hour, the 7th Street/Townsend Street intersection operates at an acceptable level of service (LOS C), with 25.4 seconds of delay.

Intersection 15: 4th Street/Townsend Street

During the weekday PM peak hour, the 4th Street/Townsend Street intersection operates at an acceptable level of service (LOS C), with 21 seconds of delay.

TABLE V.2-12
CLUSTER 2 – PROJECT 2-16
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

	Intersection	Traffic Control Device	Average Delay[a]	LOS[b]
6	2nd Street/Townsend Street	Signal	13.8	B
14	7th Street/Townsend Street	Signal	25.4	C
15	4th Street/Townsend Street	Signal	21	C
16	3rd Street/Townsend Street	Signal	38.8	D
17	6th Street /Brannan Street	Signal	**>80**	**F**

Source: Wilbur Smith Associates, October 2008.

Notes:

a. Delay in seconds per vehicle.
b. Intersections operating at LOS E or LOS F conditions highlighted in bold.

Intersection 16: 3rd Street/Townsend Street

During the weekday PM peak hour, the 3rd Street/Townsend Street intersection operates at an acceptable level of service (LOS D), with 38.8 seconds of delay.

Intersection 17: 6th Street/Brannan Street

During the weekday PM peak hour, the 6th Street/Brannan Street intersection operates at an unacceptable level of service (LOS F), with more than 80 seconds of delay.

Transit

Muni bus lines 10, 19, 30, 45, 47, 80X, 82X, and 108 operate on portions of Townsend Street between 8th Street and The Embarcadero. Muni bus lines 80X, and 82X run only during the AM peak period. Muni bus line 108 only operates on Townsend Street in the PM peak period. Muni bus line 10 has the greatest coverage from 8th Street to 2nd Street. Muni bus line 19 runs eastbound on one block of Townsend Street between 8th and 7th Streets. Muni bus line 47 operates westbound on one block of Townsend between 4th and 5th Streets and Muni bus lines 30, 45, and 108 operate eastbound for one block between 4th and 3rd Streets. Muni bus line 19 is on Townsend Street for one block eastbound between 8th and 7th Streets. The greatest concentration of transit can be found between 3rd and 4th Streets (lines 10, 30, 45, 80X, 82X, and 108), with a combined frequency of approximately 6 westbound and 22 eastbound buses per hour during the AM peak period and 6 westbound and 30 eastbound buses per hour during the PM peak period. Muni bus lines 30 and 45 use the south side of Townsend Street between 3rd and 4th Streets as a layover area. There is a Caltrain Station on the southwest corner of the 4th Street/Townsend Street intersection with entrances from both 4th and Townsend Streets. Caltrain provides passenger rail service between San Francisco and San Jose.

Parking

There is perpendicular or angled on-street parking on both sides of the street between 4th and 7th Streets and between The Embarcadero and 2nd Street. There is on-street metered parking between 7th and 8th Streets. Overall, parking occupancy is generally high. The portions of Townsend Street that have perpendicular or angled parking do not have sidewalks.

Pedestrian

Pedestrian volumes are generally moderate to slightly higher during the AM and PM peak periods as well as during the midday between 2nd and 4th Streets and between 7th and 8th Streets. Because there are no sidewalks along Townsend Street, pedestrians frequently walk in the street.

Bicycle

Townsend Street is designated as existing Bicycle Route 36 (Class III with a wide curb lane between 3rd and 8th Streets/Class III between 3rd Street and The Embarcadero). Route 36 intersects existing Bicycle Route 23 (Class II) at 8th and 7th Streets, existing Bicycle Route 19 (Class III) at 5th Street, existing Bicycle Route 536 (Class III) at 3rd Street, existing Bicycle Route 11 (Class III) at 2nd Street, and existing Bicycle Route 5 (Class II) at The Embarcadero. Street grades along Project 2-16 are flat with slopes below one percent. Bicycle volumes are generally moderate with higher volumes during the AM and PM peak periods and midday between 2nd and 4th Streets and between 7th and 8th Streets.

Loading

On-street yellow commercial freight loading spaces on Townsend Street are located mostly on the north side of the street and are restricted to loading activities between 7:00 a.m. and 6:00 p.m. There is a recessed taxi loading zone with room for approximately four taxis located on Townsend Street just west of 4th Street. Due to the proximity of the main entrance to the Caltrain Station, there is occasional passenger loading at this location. Passenger transfers between Caltrain and Muni are typically made at the 4th Street bus stops or at the Muni Metro stop at the intersection of 4th Street/King Street.

CLUSTER 3: CIVIC CENTER/WESTERN ADDITION AREA

This section presents the project-level transportation impact analysis conducted for the near-term bicycle route network improvement projects (near-term improvements) within the Cluster 3 area, including a description of the near-term improvements, their location and existing traffic, transit, parking, pedestrian, bicycle and loading conditions in the area. 2025 Cumulative conditions with and without the near-term improvement alternatives, any potential transportation impacts of the near-term improvements and possible mitigation and improvement measures are also discussed and analyzed.

PROJECT LOCATIONS

Cluster 3 is located near the center of San Francisco. It is generally bounded by Pacific Avenue to the north, Locust and Clayton Streets to the west, and Market Street to the south. The eastern boundary is formed by Gough Street and Golden Gate Avenue. Many varied neighborhoods are contained within Cluster 3 including the Fillmore, Western Addition, Japantown, and Haight/Ashbury as well as the San Francisco Civic Center. In addition to the various residential neighborhoods that would be served by these proposed bicycle improvements, Cluster 3 also contains important employment and business destinations.

Street grades vary through the cluster with the flattest terrain located in the Civic Center area. The existing bicycle route network, including the six near-term improvements, utilizes the flattest routes through the area.

All of the near-term improvements in Cluster 3 are part of the San Francisco Bay Area Regional Bikeway Network.

Six projects are included in the Cluster 3 area. Each project is identified below:

Project 3-1: Fell Street and Masonic Avenue Intersection Improvements

Project 3-1 would improve the intersection of Masonic Avenue and the Panhandle Pathway for bicyclists. This is an important segment of existing Bicycle Route 30 which parallels Fell Street and provides an east-west connection from The Embarcadero to Ocean Beach.

Project 3-2: Masonic Avenue Bicycle Lanes, Fell Street to Geary Boulevard

Project 3-2 intersects with Project 3-1 at Masonic Avenue/Fell Street and would improve bicycling along the Masonic Avenue corridor, which provides north-south access to the Golden Gate Bridge via the Presidio along existing Bicycle Route 55. Existing Bicycle Route 55 connects Crissy Field to Upper Market Street and Glen Park BART also providing a connection to the Presidio and the Geary Boulevard shopping district.

Project 3-3: McAllister Street Bicycle Lane, Market Street to Masonic Avenue

As part of existing Bicycle Route 20, Project 3-3 would provide a westbound connection across the entire cluster, linking Masonic Avenue and locations to the west with the Civic Center and Market Street areas. Existing Bicycle Route 20 intersects many north-south routes, offering connections to many parts of the City including the Civic Center, the University of San Francisco (USF), the Western Addition, the Richmond District and Golden Gate Park.

Project 3-4: Polk Street Bicycle Lane, Market Street to McAllister Street

Project 3-4 would fill an existing gap for northbound cyclists on the Polk Street corridor providing a new connection from Market Street to McAllister Street. Project 3-4 is included on existing Bicycle Route 25 which connects Aquatic Park to Visitation Valley while passing through the Civic Center, the Mission District, Bernal Heights, Bay View and serving the City's eastern industrial districts as well as Hunters Point, San Francisco 49er's stadium and San Mateo County.

Project 3-5: Scott Street Bicycle Lane, Fell Street to Oak Street

As part of existing Bicycle Route 47, Project 3-5 coincides with existing Bicycle Route 30 (the "Wiggle") connecting the Western Addition and Eureka Valley neighborhoods and providing the missing link between Oak and Fell Streets.

Project 3-6: The "Wiggle" Improvements, Duboce Avenue between Market and Steiner Streets, Steiner Street between Duboce Avenue and Waller Street, Waller Street between Steiner and Pierce Streets, Pierce Street between Waller and Haight Streets, Haight Street between Pierce and Scott Streets, and Scott Street between Haight and Fell Streets.

Project 3-6, commonly referred to as the "Wiggle", is also part of existing Bicycle Route 30. The "Wiggle" provides an extremely important connection between Market Street and the Panhandle linking upper Market Street and Duboce Park with Page Street and Alamo Square. Project 3-6 was implemented prior to the Bicycle Plan injunction.

PROJECT DESCRIPTION

The following paragraphs describe the six near-term improvements included within the Cluster 3 area. Project 3-6 was implemented prior to the Bicycle Plan injunction. The City was granted relief from the injunction to implement Project 3-1 and it was implemented as of September 16, 2008. Projects 3-1 and 3-3 have one design option; the remaining projects (Projects 3-2, 3-4, and 3-5) have two design options. Detailed drawings of existing and proposed lane striping and roadway geometry changes are included in Appendix B.

PROJECT 3-1: FELL STREET AND MASONIC AVENUE INTERSECTION IMPROVEMENTS

The Fell/Masonic intersection traffic signal phasing would be changed to provide exclusive phases for westbound Fell Street left turns and for Panhandle Pathway traffic. Pedestrians and bicyclists crossing the south leg of Masonic Avenue would receive the WALK/GREEN BIKE signal during the Fell Street through traffic phase. During the WALK/GREEN BIKE phase that allows pedestrians to cross Masonic Avenue on the south side of Fell Street, traffic on westbound Fell Street wishing to make a left turn onto southbound Masonic Avenue would receive a red left-turn arrow signal, restricting them from making this left turn. Before the Fell Street through phase, vehicles on Fell Street waiting to turn left onto Masonic Avenue would receive a green left-turn arrow, while pedestrians and bicyclists waiting to use the south crosswalk across Masonic Avenue would see a solid DON'T WALK/RED BIKE signal.

In response to the large number of reported collisions and in order to improve pedestrian and bicycle safety at the intersection of Fell Street and Masonic Avenue, the City requested relief from the injunction to implement Project 3-1 prior to the completion of the Bicycle Plan EIR. In May 2008, the court granted the City's motion to modify the injunction so as to allow implementation of the recommended safety improvements at the intersection of Fell and Masonic. SFMTA has implemented Project 3-1 as of September 16, 2008.

PROJECT 3-2: MASONIC AVENUE BICYCLE LANES, FELL STREET TO GEARY BOULEVARD

Project 3-2 would involve the installation of Class II and Class III bicycle facilities in both directions on Masonic Avenue between Fell Street and Geary Boulevard. Project 3-2 is divided into four segments.

Segment I would extend from Fell Street to Hayes Street and includes two design options:

- **Segment I Option 1**
  Segment I Option 1 would install a Class II bicycle lane in both directions by removing one travel lane in the northbound direction, and two travel lanes in the southbound direction. PM tow-away would be rescinded on the west side of the street, resulting in the increase of five parking spaces during the PM peak. A two-way center turn lane would also be installed.

- **Segment I Option 2**
  Segment I Option 2 would install Class II bicycle lanes in both directions by removing a travel lane in both directions, removing approximately six parking spaces, and rescinding the afternoon tow-away zone. This option would result in a gain of approximately five parking spaces during afternoon hours.

Segment II would extend from Hayes Street to Grove Street and includes two design options:

- **Segment II Option 1**
  Segment II Option 1 would install a center turn lane with floating bicycle lanes in both directions. During off-peak hours, there would be one travel lane in both directions. During the AM peak, there would be two travel lanes in the northbound direction, and one travel lane in the southbound direction. During the PM peak, there would be two travel lanes in the southbound direction, and one travel lane in the northbound direction. Existing tow-away restrictions would remain.

- **Segment II Option 2**
  Segment II Option 2 would convert one travel lane in both directions into a transit/bicycle-only lane from 7:00 a.m. to 6:00 p.m., Monday through Friday, by removing approximately 14 parking spaces during this time period. Segment II Option 2 would add sharrows[18] to the existing Class III bicycle route that would be in effect at all other times. Segment II Option 2 reduces the travel lanes and parking from 7:00 a.m. to 6:00 p.m., Monday through Friday only.

Segment III would extend from Grove Street to Anza/O'Farrell Streets and includes two design options:

- **Segment III Option 1**
  Segment III Option 1 would be similar to Segment II Option 1.

- **Segment III Option 2**
  Segment III Option 2 would be similar to Segment II Option 2, but would remove 107 parking spaces on both sides of the street.

Segment IV would extend from Anza/O'Farrell Streets to Geary Boulevard and includes two design options:

- **Segment IV Option 1**
  Segment IV Option 1 would install Class II bicycle lanes in both directions by removing a travel lane in one direction and approximately 15 parking spaces. This option would establish a "Tow-Away Lane Must Turn Right" regulation from 4:00 p.m. to 7:00 p.m., Monday through Friday.

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18 Sharrows are a traffic control device which consists of pavement markings within the traffic lane. The markings are intended to alert drivers that bicyclists share the traffic lane and also to reduce the chance of bicyclists impacting the open doors of parked vehicles. For more information on sharrows, please see http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd/ CAMUTCD-Part 9.pdf.

- **Segment IV Option 2**
  Segment IV Option 2 would install Class II bicycle lanes in both directions by removing approximately 25 parking spaces. This option does not remove any travel lanes.

PROJECT 3-3: MCALLISTER STREET BICYCLE LANE, MARKET STREET TO MASONIC AVENUE

Project 3-3 would involve the installation of Class II and Class III bicycle facilities in the westbound direction on McAllister Street between Market Street and Masonic Avenue. Project 3-3 is divided into three segments.

- **Segment I**
  Segment I would extend from Market Street to Franklin Street and would add sharrows to the existing Class III bicycle route in the westbound direction. The proposal for Segment I would not involve travel lane or parking removal.

- **Segment II**
  Segment II would extend from Franklin Street to Fillmore Street and would install a Class II bicycle lane in the westbound direction. The proposal for Segment II would not involve travel lane or parking removal. Project 3-3 would shift the existing centerline south by approximately two and one-half feet.

- **Segment III**
  Segment III would extend from Fillmore Street to Masonic Avenue and would add sharrows to the existing Class III bicycle route in the westbound direction. The proposal or Segment III would not involve travel lane or parking removal.

In addition, sharrows would be added to northbound Charles J. Brenham Place from Market Street to McAllister Street, and this block would be added to existing Bicycle Route #20. This block would aid in the connection from existing Bicycle Route #23 on 7th Street to the proposed improvements on McAllister Street.

PROJECT 3-4: POLK STREET BICYCLE LANE, MARKET STREET TO MCALLISTER STREET

Project 3-4 would involve moving a portion of the existing northbound Bicycle Route #25 from Market Street, Larkin Street, and McAllister Street onto Polk Street.

Project 3-4 would install a Class II bicycle lane in the northbound direction on Polk Street between Market Street and McAllister Street. A segment of this Class II bicycle lane would be contra-flow (it would allow northbound bicycle travel on an otherwise one-way southbound street). Polk Street is a one-way southbound street between Grove Street and Market Street.

Polk Street (Dr. Carlton B. Goodlett Place) is a two-way street between Grove Street and McAllister Street.

Project 3-4 would install a northbound Class II bicycle lane between McAllister Street and Grove Street by narrowing travel lanes. The existing angled parking on the east side of Polk Street would be converted from front pull-in to back-in.

The segment between Grove Street and Market Street includes two design options:

- **Option 1**
  Option 1 would establish a northbound contra-flow Class II bicycle lane on the east side of Polk Street from Market Street to Grove Street. This bicycle lane would be separated from traffic by a concrete median. The concreted median would have openings where truck loading docks currently exist on the east side of Polk Street north and south of Hayes Street. Option 1 would narrow travel lanes, narrow sidewalk and median widths on Polk Street near Market Street, remove 11 metered parking spaces, and remove one metered loading space. The existing white zone on the east side of Polk Street between Market Street and Hayes Street would be moved from the curb to the west side of the proposed median. Option 1 would remove approximately 12 parking spaces.

- **Option 2**
  Option 2 would convert the segment of Polk Street from Market Street to Hayes Street to two-way operation, narrow travel lanes, narrow sidewalk and median widths, and add a northbound travel lane on Polk Street between Market Street and Hayes Street. Northbound Polk Street traffic would be forced to turn left onto westbound Hayes Street, except for bicycle traffic. Option 2 would add sharrows to the new northbound travel lane between Market Street and Hayes Street, and add a northbound Class II bicycle lane approaching Hayes Street. One metered loading space would be removed. The design for Option 2 between Hayes Street and Grove Street would be the same as for Option 1, including the removal of 11 metered parking spaces. Option 2 would remove approximately 12 parking spaces.

PROJECT 3-5: SCOTT STREET BICYCLE LANE, FELL STREET TO OAK STREET

Project 3-5 would involve the installation of a Class II left-turn bicycle lane in the northbound direction on Scott Street between Oak Street and Fell Street. Project 3-5 includes two design options:

- **Option 1**
  Option 1 would add a northbound Class II left-turn bicycle lane by removing the left-turn lanes on northbound Scott Street approaching Fell Street and on southbound Scott Street approaching Oak Street. No parking spaces would be removed under Option 1.

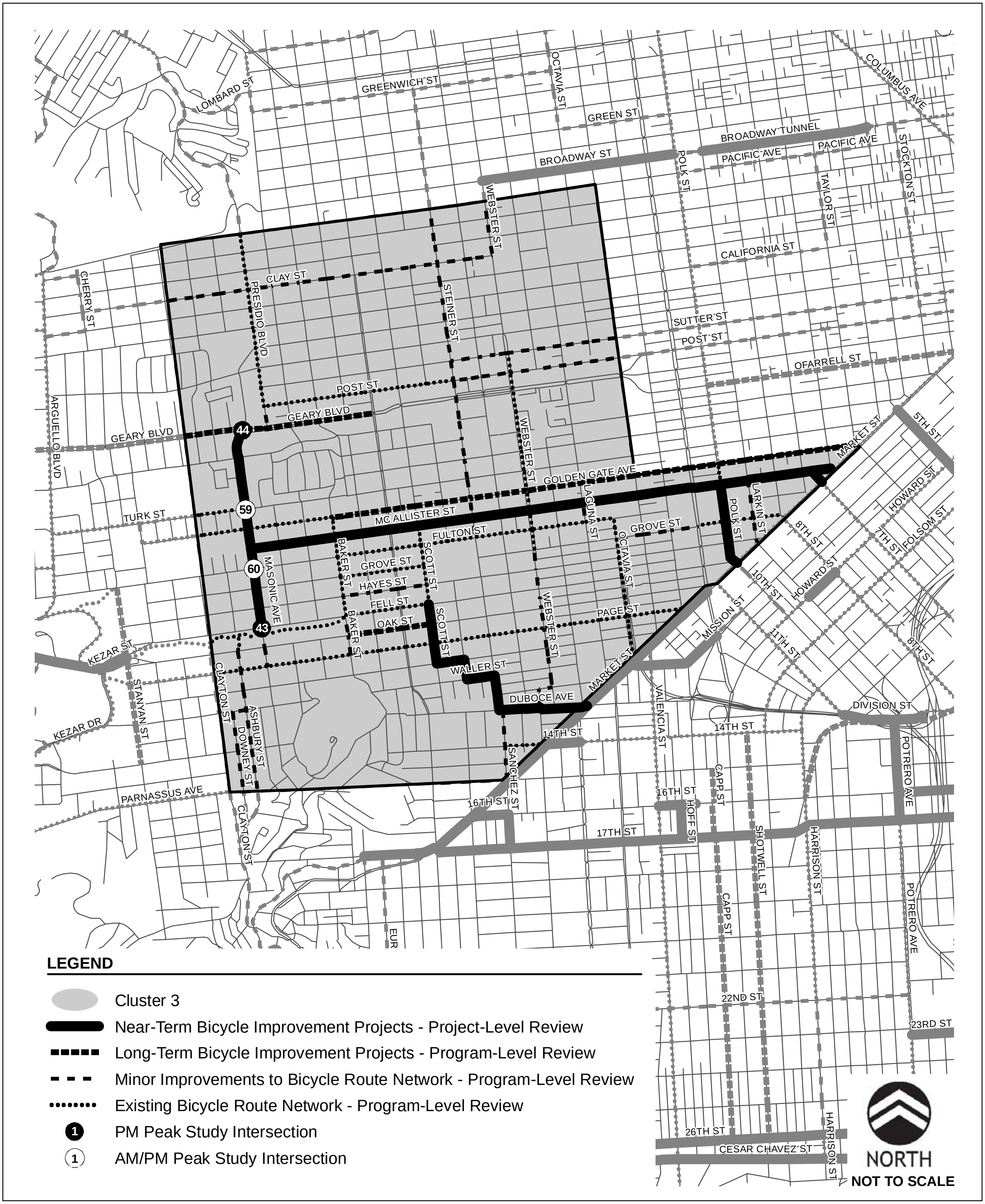
- **Option 2**
  Option 2 would add a northbound Class II left-turn bicycle lane by narrowing travel lanes and removing approximately three parking spaces from the west side of Scott Street between Fell Street and Oak Street. The existing left-turn lanes approaching Fell Street and Oak Street would not change under Option 2.

PROJECT 3-6: THE "WIGGLE" IMPROVEMENTS, DUBOCE AVENUE BETWEEN MARKET AND STEINER STREETS, STEINER STREET BETWEEN DUBOCE AVENUE AND WALLER STREET, WALLER STREET BETWEEN STEINER AND PIERCE STREETS, PIERCE STREET BETWEEN WALLER AND HAIGHT STREETS, HAIGHT STREET BETWEEN PIERCE AND SCOTT STREETS, AND SCOTT STREET BETWEEN HAIGHT AND FELL STREETS

Project 3-6 was implemented on May 13, 2006, prior to the Bicycle Plan injunction. Project 3-6 added sharrows in both directions to portions of existing Bicycle Route #30 in the following locations: Duboce Avenue between Market Street and Steiner Street, Steiner Street between Duboce Avenue and Waller Street, Waller Street between Steiner Street and Pierce Street, Pierce Street between Waller Street and Haight Street, and Haight Street between Pierce Street and Scott Street. On Haight Street between Pierce Street and Scott Street, travel lane widths were also modified. On Scott Street between Haight Street and Fell Street, sharrows were added to the existing Class III bicycle route in the southbound direction. On northbound Scott Street between Haight Street and Oak Street, a Class II bicycle lane was added to the existing Class III bicycle route. On northbound Scott Street at Oak Street, a bicycle box was added, and a "No Turn On Red" restriction was added. No travel lane or parking removals were required to implement Project 3-6.

PROJECT SETTING

This section provides a description of the existing transportation conditions along the near-term improvements in Cluster 3. Descriptions of the existing roadway access, traffic, transit, parking, pedestrian, bicycle and loading conditions are included. The study intersections for Cluster 3 are shown on Figure V.A.3-7, p. V.A.3-82. Figures showing the turning movement traffic volumes and lane configurations at those study intersections for Existing Conditions may be found within the transportation impact analysis discussion for Cluster 3 within the transportation impact study. LOS calculation sheets for those study intersections and transit



SOURCE: Wilbur Smith and Associates, 2008.

REVISED FIGURE V.A.3-7: CLUSTER 3 - STUDY AREA

delay calculation sheets for the affected transit routes may be found in the appendices of the transportation impact study.[19]

PROJECT 3-1: FELL STREET AND MASONIC AVENUE INTERSECTION IMPROVEMENTS

Roadways

The intersection at Fell Street and Masonic Avenue is signalized. Fell Street is one-way in the westbound direction, and southbound Masonic Avenue has two right-turn lanes onto Fell Street.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the PM peak hour.

Intersection 43: Masonic Avenue/Fell Street

During the weekday PM peak hour, the Masonic Avenue/Fell Street intersection operates at an acceptable level of service (LOS C), with 24.6 seconds of delay. Table V.3-1, p. V.A.3-83, summarizes these results.

TABLE V.3-1
CLUSTER 3– PROJECT 3-1
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS
43. Masonic Avenue/Fell Street	Signal	24.6	C

Source: Wilbur Smith Associates, October 2008
Note:
a. Delay in seconds per vehicle.

Transit

Muni bus line 43 runs in both directions along Masonic Avenue with approximately six buses per hour each way during the AM and PM peak periods. Muni bus lines 16AX and 16BX operate on Fell Street in the westbound direction only in the PM peak period with approximately eight buses per hour. There are no bus stops at this intersection.

[19] Wilbur Smith Associates. 2008. *San Francisco Bicycle Plan Update Transportation Impact Study*. This document is available for review by appointment at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103 as part of Case File No 2007.0347E.

Parking

On-street parking is generally permitted on both sides of Fell Street and Masonic Avenue in the vicinity of the intersection with of exception of parking prohibitions on both sides of Masonic Avenue south of Fell Street and the south side of Fell Street from Masonic Avenue to 60 feet easterly to improve sight distance along westbound Fell Street. Parking occupancy is high.

Pedestrian

Pedestrian volumes along the Panhandle pathway are high during AM and PM periods and on weekends.

Bicycle

The Panhandle Pathway parallels Fell Street along the full length of the Panhandle between Baker and Stanyan Streets. The Pathway, designated as existing Bicycle Route 30 (Class I), crosses Masonic Avenue on the southern crosswalk at Fell Street. There have been numerous collisions between left-turning vehicles and bicyclists and pedestrians at this intersection. Masonic Avenue is designated as existing Bicycle Route 55 (Class III) which terminates at Fell Street. Bicycle volumes along the Panhandle Pathway are high during weekday AM (about 170 per hour) and PM peak periods and on weekends.

Loading

There are no loading activities or on-street yellow commercial freight loading spaces at this location.

PROJECT 3-2: MASONIC AVENUE BICYCLE LANES, FELL STREET TO GEARY BOULEVARD

Roadways

Masonic Avenue is a north-south major arterial with a mixture of residential, commercial and institutional uses. There are four travel lanes between Geary Boulevard and Grove Street and an additional lane in both directions between Grove and Fell Streets. Masonic Avenue between Fell Street and Geary Boulevard is part of the MTS Roadway Network and the CMP Network. Traffic volumes are high during the AM and PM peak periods, when parking tow-away restrictions provide additional travel lane capacity.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the AM and PM peak hour.

Table V.3-2, p. V.A.3-85, summarizes the intersection LOS results for the AM peak hour for Project 3-2.

TABLE V.3-2
CLUSTER 3 – PROJECT 3-2
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY AM PEAK HOUR

	Intersection	Traffic Control Device	Average Delay[a]	LOS
59	Masonic Avenue/Turk Street	Signal	19.8	B
60	Masonic Avenue/Fulton Street	Signal	16.1	B

Source: Wilbur Smith Associates, October 2008
Note:
a. Delay in seconds per vehicle.

Intersection 59: Masonic Avenue/Turk Street

During the weekday AM peak hour, the Masonic Avenue/Turk Street intersection operates at an acceptable level of service (LOS B), with 19.8 seconds of delay.

Intersection 60: Masonic Avenue/Fulton Street

During the weekday AM peak hour, the Masonic Avenue/Fulton Street intersection operates at an acceptable level of service (LOS B), with 16.1 seconds of delay.

Table V.3-3, p. V.A.3-86, summarizes the intersection LOS results for the PM peak hour for Project 3-2.

Intersection 43: Masonic Avenue/Fell Street

During the weekday PM peak hour, the Masonic Avenue/Fell Street intersection operates at an acceptable level of service (LOS C), with 24.6 seconds of delay.

TABLE V.3-3
CLUSTER 3 – PROJECT 3-2
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection		Traffic Control Device	Average Delay[a]	LOS
43.	Masonic Avenue/Fell Street	Signal	24.6	C
44.	Masonic Avenue/Geary Boulevard	Signal	38.2	D
59.	Masonic Avenue/Turk Street	Signal	19.5	B
60.	Masonic Avenue/Fulton Street	Signal	15.8	B

Source: Wilbur Smith Associates, October 2008
Note:
a. Delay in seconds per vehicle.

Intersection 44: Masonic Avenue/Geary Street

During the weekday PM peak hour, the Masonic Avenue/Geary Street intersection operates at an acceptable level of service (LOS D), with 38.2 seconds of delay.

Intersection 59: Masonic Avenue/Turk Street

During the weekday PM peak hour, the Masonic Avenue/Turk Street intersection operates at an acceptable level of service (LOS B), with 19.5 seconds of delay.

Intersection 60: Masonic Avenue/Fulton Street

During the weekday PM peak hour, the Masonic/Fulton Street intersection operates at an acceptable level of service (LOS B), with 15.8 seconds of delay.

Transit

Muni bus line 43 runs in both directions on this segment of Masonic Avenue along the entire length of Project 3-2 with approximately six buses per hour, each way, during the AM and PM peak periods. Muni bus line 31BX runs northbound between Turk Street and Geary Boulevard during the AM peak period with approximately six buses per hour, and southbound during the PM peak period with four buses per hour. Bus stops are located at Hayes Street, Fulton Street, Golden Gate Avenue, Turk Street and Geary Boulevard.

Parking

On-street parking is generally permitted on both sides along this corridor, but parking is prohibited on the east side of Masonic Avenue during the AM peak period (7:00 a.m. to 9:00 a.m.) and on the west side during the PM peak period (4:00 p.m. to 6:00 p.m.). On-street parking occupancy between Fell Street and Geary Boulevard during the midday varies from approximately 50 percent[20] throughout most of the corridor, particularly on the east side of Masonic Avenue, to approximately 70 to 80 percent on the northern part of the corridor. The corridor has a mixture of residential, commercial and institutional uses. There are four schools along the corridor: Lincoln University on the west side of Masonic Avenue between O'Farrell and Turk Streets, USF on the west side of Masonic Avenue between Anza and Fulton Streets, San Francisco Day School on the east side of Masonic Avenue at Golden Gate Avenue, and City College of San Francisco (CCSF), Adams Campus, on the west side of Masonic Avenue between Grove and Hayes Streets.

Pedestrian

Pedestrian volumes are generally low to moderate along Masonic Avenue, except near the schools during the period before and after school sessions. Pedestrian crosswalks at the intersections of Masonic Avenue with O'Farrell Street, Turk Street, and Golden Gate Avenue are designated as school crossings (yellow markings).

Bicycle

Masonic Avenue is designated as existing Bicycle Route 55 (Class III) in both directions between Fell Street and Geary Boulevard. Existing Bicycle Route 55 intersects existing Bicycle Route 30 (Class I) at the Panhandle Pathway on the south side of Fell Street; existing Bicycle Route 20 (Class II) at McAllister and Turk Streets; and existing Bicycle Route 20 (Class II) at Golden Gate Avenue. Street grades along Project 3-2 generally range from two to five percent, with a nine percent grade between Turk and Fulton Streets. Bicycle volumes on Masonic Avenue are generally low.

Loading

Masonic Avenue has several institutional uses (Lincoln University, San Francisco Day School, USF, CCSF, and Adam Campus) and a few small-scale retail uses. The two larger retail uses at Geary Boulevard and Fulton Street have off-street loading docks to accommodate their

[20] Field surveys were conducted by CHS Consulting during the midday on Tuesday, September 11, 2007.

deliveries. There is only one on-street yellow commercial freight loading space at the southwest corner of Masonic Avenue and Hayes Street. There are also several white passenger loading zones along both sides of Masonic Avenue. In general truck loading and passenger drop-off activities are accommodated by the on-street parking along Masonic Avenue. No apparent loading shortage (i.e. double parking) was observed during field observations.[21]

PROJECT 3-3: MCALLISTER STREET BICYCLE LANE, MARKET STREET TO MASONIC AVENUE

Roadways

McAllister Street between Market and Hyde Streets is a one-way westbound collector street with three travel lanes. Between Hyde Street and Masonic Avenue, McAllister Street is a three-lane street with two westbound lanes and one eastbound lane. Traffic volumes are moderate.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

Muni bus line 5 runs along the full length of Project 3-3, with the exception of the one block east of Masonic Avenue, where Muni bus line 5 is located on Central Avenue and Fulton Street to the west. The line operates in both directions, except for the westbound two block segment between Market and Hyde Streets. In addition, eight GGT lines (10, 54, 70/80, 72, 73, 76 and 93) run westbound along McAllister Street between Market and Webster Streets (GGT line 10) or between Market Street and Van Ness Avenue (remaining GGT bus lines). SamTrans bus line MX operates westbound for two blocks between Hyde and Polk Streets. East of Webster Street, there are approximately 15 westbound buses and 10 eastbound buses per hour during the AM peak period and approximately 27 westbound buses and 12 eastbound buses during the PM peak period. West of Webster Street, Muni bus line 5 operates on McAllister Street with approximately 10 buses per hour in each direction.

Parking

On-street parking is generally permitted on both sides of McAllister Street. East of Franklin Street, the parking spaces are metered. West of Franklin Street is included in the Residential Permit Parking zone R; without a permit, parking is limited to two hours.

[21] Field surveys were conducted by CHS Consulting during the midday on Tuesday, September 11, 2007.

Pedestrian

Pedestrian volumes are generally low along McAllister Street, except for the section between Market Street and Van Ness Avenue where pedestrian volumes are high.

Bicycle

Bicycle volumes are generally low, increasing to moderate near Polk Street. McAllister Street is designated as existing westbound Bicycle Route 20 (Class III) between Market Street and Masonic Avenue. Existing Bicycle Route 20 intersects existing Bicycle Route 55 (Class III) at Masonic Avenue; existing Bicycle Route 51 (Class II) at Baker Street; existing Bicycle Route 47 (Class III with wide curb lanes) at Scott Street; existing Bicycle Route 45 (Class III with wide curb lanes) at Steiner Street; existing Bicycle Route 345 (Class II) at Webster Street; existing Bicycle Route 25 (Class II) at Polk and Larkin Streets; and existing Bicycle Route 50 (Class III) at Market Street. Street grades along Project 3-3 are relatively flat (gradients below two percent) east of Webster Street. West of Webster Street, slopes increase to approximately four percent except for higher (six to nine percent) grades found between Masonic and Central Avenues, Broderick and Divisadero Streets; and Pierce and Fillmore Streets.

Loading

Loading activities along McAllister Street vary depending on the uses along this street. There are several segments of McAllister Street with active commercial uses which are dependent on the on-street truck loading/unloading zones for deliveries. These are located along the eastern portion of the study area (between Larkin and Market Streets), in the mid-section of the study area between Franklin and Gough Street and on the western end (near Masonic Avenue). In general, field observations[22] showed no apparent shortage of on-street yellow commercial freight loading spaces and trucks were able to find an on-street space for delivery/pick up activities.

PROJECT 3-4: POLK STREET BICYCLE LANE, MARKET STREET TO MCALLISTER STREET

Roadways

Polk Street is a two-way street with two southbound lanes and one northbound lane between McAllister and Grove Streets and a southbound one-way local street with two travel lanes between Market and Grove Streets. The street name changes from Polk Street to Dr. Carlton B.

[22] Field surveys were conducted by CHS Consulting during the midday on Tuesday, September 11, 2007.

Goodlett Place between Grove and McAllister Streets in front of City Hall. Traffic volumes are moderate to high during the peak commute periods.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

Muni bus line #21 runs in the southbound direction along Polk Street between Grove and Market Streets. There are no Muni bus stops within this segment. Approximately eight southbound buses per hour operate on this segment of Polk Street during the AM and PM peak periods.

Parking

On-street parking is permitted on the west side for use by City officials and metered at other locations on the street. Parking occupancy is generally moderate to high, particularly between McAllister and Grove Streets in front of City Hall.

Pedestrian

Pedestrian volumes are high in the vicinity of City Hall and at the Market Street intersection and generally low to moderate in the segment between Market and Grove Streets.

Bicycle

Polk Street is designated as existing Bicycle Route 25 with a bicycle lane (Class II) in the southbound direction. Existing Bicycle Route 25 intersects with existing Bicycle Route 50 (Class II) at Market Street and existing Bicycle Route 20 (Class II eastbound and Class III with wide curb lanes westbound) at Grove and McAllister Streets. Street grades along Project 3-4 are relatively flat with slopes less than one percent. Bicycle volumes are generally moderate in this area.

Loading

There a few major buildings within the study area: City Hall, Bill Graham Civic Auditorium, and Fox Plaza. City Hall and Fox Plaza have passenger drop-off zones on Polk Street; Fox Plaza has an off-street truck loading area accessible from Polk Street. Loading facilities for Bill Graham Civic Auditorium are located on Hayes Street. In general, loading activities are accommodated by the designated off-street and on-street loading areas. Occasional double parking was observed in front of the City Hall and Fox Plaza, but usually for a very brief period.[23]

PROJECT 3-5: SCOTT STREET BICYCLE LANE, FELL STREET TO OAK STREET

Roadways

Scott Street between Oak Street and Fell Street is a two-lane north-south local street with left-turn pockets northbound onto Fell Street and southbound onto Oak Street. This segment is one block long. Traffic volumes are generally low.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

There are no transit lines in this section of Scott Street.

Parking

On-street parking is permitted on both sides of the street, and parking occupancy is moderate.

Pedestrian

Pedestrian volumes are generally low along Project 3-5.

Bicycle

Scott Street is designated as existing Bicycle Route 47 (Class III) with sharrows in both directions between Fell Street and Oak Street. Route 47 connects to westbound existing Route 30 (Class II) at Fell Street. The gradient on Project 3-5 is approximately four percent. Bicycle volumes are high during commute periods and on weekends as it is a major route to the Panhandle and Golden Gate Park. At other times bicycle volumes are generally low.

Loading

This short segment of Scott Street has residential uses with low on-street loading demand. There are no on-street yellow commercial freight loading spaces.

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[23] Field surveys were conducted by CHS Consulting during the midday on Tuesday, September 11, 2007.

PROJECT 3-6: THE "WIGGLE" IMPROVEMENTS, DUBOCE AVENUE BETWEEN MARKET AND STEINER STREETS, STEINER STREET BETWEEN DUBOCE AVENUE AND WALLER STREET, WALLER STREET BETWEEN STEINER AND PIERCE STREETS, PIERCE STREET BETWEEN WALLER AND HAIGHT STREETS, HAIGHT STREET BETWEEN PIERCE AND SCOTT STREETS, AND SCOTT STREET BETWEEN HAIGHT AND FELL STREETS

Project 3-6 was implemented on May 13, 2006 prior to the Bicycle Plan injunction; as such, post-project implementation conditions describe what is on the ground today and are analyzed under Existing and Cumulative plus Project conditions. Pre-project conditions describe what existed before the implementation of Project 3-6 and are analyzed under Existing and Cumulative conditions.

Roadways

The "Wiggle" is a route that consists of six streets, from the intersection of Market Street and Duboce Avenue to the intersection of Fell and Scott Streets. The route includes segments of Duboce Avenue and Steiner, Waller, Pierce, Haight, and Scott Streets.

Lane configurations and on-street parking was not changed from pre-project to post-project conditions. With implementation of Project 3-6, sharrows were added in both directions to portions of Duboce Avenue, Steiner Street, Waller Street, Pierce Street, Haight Street and Scott Street (southbound only). On northbound Scott Street between Haight Street and Oak Street, a Class II bicycle lane was added to the existing Class III bicycle route. On northbound Scott Street at Oak Street, a bicycle box was added, and a "No Turn On Red" restriction was added.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

Muni light rail line N-Judah runs along Duboce Avenue between the Market Street tunnel and Duboce Park tunnel with approximately eight trains per hour in each direction during the AM and PM peak periods. Muni bus lines 6, 7, 71, and 71L run along Haight Street between Pierce and Scott Streets with approximately 22 buses per hour each way in the AM and PM peak periods. There is one eastbound bus stop at Pierce Street and a Muni light rail stop on Duboce Avenue just west of Church Street.

Parking

On-street parking is generally permitted on both sides of these streets. Occupancy is generally moderate to high.

Pedestrian

Pedestrian volumes along these streets are generally low, and relatively moderate at the intersection of Duboce Avenue and Steiner Street and at the intersection of Haight and Pierce Streets near the bus stop.

Bicycle

The “Wiggle” streets are all designated as existing Bicycle Route 30 (Class I from Market Street to Church Street, Class III with wide curb lanes on Steiner, Waller and Pierce Streets, and Class III on Haight Street), Class II northbound and Class III southbound on Scott Street between Haight and Oak Streets, Class III both directions on Scott Street between Fell and Oak Streets, existing Bicycle Route 350 (Class I and III), and existing Bicycle Route 47 (Class III with wide curb lanes on Scott Street). Under “post-project implementation” conditions, sharrows have been implemented on both sides of most streets along the “Wiggle”. Bicycle volumes are moderate to high, particularly at the Page Street/Scott Street intersection. A bicycle box and a “No Turn On Red” restriction have also been added on Scott Street at the northbound approach to Oak Street. “The Wiggle” intersects existing Bicycle Route 50 (Class II) at Market Street, existing Bicycle Route 345 (Class III with wide curb lanes) at Church Street, existing Bicycle Route 47 (Class III) at Sanchez Street, existing Bicycle Route 32 (Class III with wide curb lanes) at Page Street, and existing Bicycle Route 30 (Class II westbound) at Fell Street. Street grades along Project 3-6 are relatively flat with slopes less than three percent.

Loading

This is mostly a residential area with some recreational and retail uses, all with a low on-street loading demand.

CLUSTER 4: MISSION BAY/HUNTERS POINT/BAYVIEW AREA

This section presents the project-level transportation impact analysis conducted for those near-term bicycle route network improvement projects (near-term improvements) within the Cluster 4 area, including a description of the near-term improvements, their location and existing traffic, transit, parking, pedestrian, bicycle and loading conditions in the area. 2025 Cumulative conditions with and without the near-term improvement alternatives, any potential transportation impacts of the near-term improvements and possible mitigation and improvement measures are also discussed and analyzed.

PROJECT LOCATION

Cluster 4 is located in the southeastern corner of San Francisco. It is bounded by Mission Creek to the north, the San Francisco Bay to the east and the city limits to the south. The western boundary is formed by De Haro Street, 18th Street, and Indiana Street to Islais Creek. Below the creek, the western boundary follows a line approximately 1000 feet west of the 3rd Street alignment. The Mission Bay, Hunter's Point and Bayview neighborhoods are located within the cluster; popular destinations in the vicinity of Cluster 4 include the San Francisco Giants Ballpark, San Francisco Caltrain Depot, UCSF Mission Bay, and the San Francisco 49er's stadium. The terrain in Cluster 4 is relatively flat with some small hills in Hunter's Point.

The existing and proposed bicycle route network in Cluster 4 provides good coverage of the area particularly with the long-term improvements proposed for Candlestick and Hunter's Point. Five near-term improvements are proposed in Cluster 4 including segments of the San Francisco Bay Area Regional Bikeway Network and the San Francisco Bay Trail. These projects include two new routes on the City's existing bicycle route network and upgrades to three existing routes.

Five projects are included in the Cluster 4 area. Each project is identified below.

Project 4-1: 16th Street Bicycle Lanes, 3rd Street to Terry François Boulevard

Project 4-2: Cargo Way Bicycle Lanes, 3rd Street to Jennings Street

Projects 4-1 and 4-2 would add bicycle lanes along two new routes on the City's existing bicycle route network. Project 4-1 would extend the existing Bicycle Route 40 to intersect with existing Bicycle Route 5 and the San Francisco Bay Trail. Project 4-2 would also provide a new connection to existing Bicycle Route 5 and is designated as part of the San Francisco Bay Trail. Both of these projects, as well as, Project 4-3 are included on the San Francisco Bay Area Regional Bikeway Network.

Project 4-3: Illinois Street Bicycle Lanes, 16th Street to Cargo Way

Project 4-3 comprises a portion of existing Bicycle Route 5 which is an important north-south connection between The Embarcadero and the San Mateo County line and would install bicycle lanes to this segment of the San Francisco Bay Trail.

Project 4-4: Innes Avenue Bicycle Lanes, Donahue Street to Hunters Point Boulevard

Project 4-4 would involve a combination of bicycle lanes and sharrows.[24] It is located on existing Bicycle Route 68 serving future development of the Hunters Point Naval Shipyard site.

Project 4-5: Mississippi Street Bicycle Lanes, 16th Street to Mariposa Street

Project 4-5 would fill a missing link with bicycle lanes for existing Bicycle Route 23 which extends from the Civic Center to Mission Bay.

PROJECT DESCRIPTION

The following paragraphs describe the five near-term improvements included within the Cluster 4 area. One design option is being proposed for Projects 4-1, 4-3, and 4-5; the remaining near-term improvements (Project 4-2 and 4-4) include two options. Detailed drawings of existing and proposed lane striping and roadway geometry changes are included in Appendix B.

PROJECT 4-1: 16TH STREET BICYCLE LANES, 3RD STREET TO TERRY FRANÇOIS BOULEVARD

Project 4-1 would add a new route to the City's existing bicycle route network on 16th Street between Illinois Street and Terry François Boulevard.[25]

Project 4-1 would involve the installation of Class II bicycle lanes in both directions on 16th Street between 3rd Street and Illinois Street by narrowing travel lanes. Class II bicycle lanes would be added in both directions on 16th Street between Illinois Street and Terry François Boulevard when that segment of 16th Street is constructed.

24 Sharrows are a traffic control device which consists of pavement markings within the traffic lane. The markings are intended to alert drivers that bicyclists share the traffic lane and also to reduce the chance of bicyclists impacting the open doors of parked vehicles. For more information on sharrows, please see http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd/ CAMUTCD-Part 9.pdf.

25 Bicycle lanes on 16th Street between 3rd Street and Terry François Boulevard were included in the Mission Bay Subsequent EIR (SEIR) dated September 17, 1988. However, the bicycle lanes included in the Mission Bay SEIR were proposed to be six feet in width. The bicycle lanes included in Project 4-1 are proposed to be 5 feet in width and so are included as part of this analysis.

Project 4-1 would not involve travel lane or parking removal.

PROJECT 4-2: CARGO WAY BICYCLE LANES, 3RD STREET TO JENNINGS STREET

Project 4-2 would add a new route to the City's existing bicycle route network.

Project 4-2 would involve the installation of Class I or Class II bicycle facilities on Cargo Way between 3rd Street and Jennings Street. The resulting bicycle facilities would connect to the existing Bay Trail at the eastern terminus of Cargo Way at Heron's Head Park. Project 4-2 includes two design options:

- **Option 1**
  Option 1 would install Class II bicycle lanes in both directions by removing approximately 160 under-utilized parking spaces on the south side of Cargo Way. Option 1 would not involve travel lane removal.

- **Option 2**
  Option 2 would involve the installation of a Class I two-way bicycle path on the south side of Cargo Way between Illinois Street and Jennings Street. Option 2 would not involve travel lane or parking removal.

  Both Options 1 and 2 would install a Class II left-turn bicycle lane on eastbound Cargo Way approaching Illinois Street and Amador Street.

PROJECT 4-3: ILLINOIS STREET BICYCLE LANES, 16TH STREET TO CARGO WAY

Project 4-3 would involve the installation of Class II bicycle lanes in both directions on Illinois Street between 16th Street and Cargo Way.

Project 4-3 would install Class II bicycle lanes in both directions on Illinois Street from 16th Street to Cargo Way, including a floating bicycle lane in the southbound direction between 18th and 19th Streets, by changing parking configurations. The existing perpendicular parking, mainly on the east side of the street, would be reconfigured to either back-in-angled parking or parallel parking. Project 4-3 would result in the loss of approximately 45 parking spaces on Illinois Street. Additional parking spaces would be provided on Tennessee Street, 22nd Street, and 24th Street, resulting in a net gain of approximately 99 parking spaces near the project area. One travel lane would be removed in each direction from 25th to Marin Streets. The proposed Class II bicycle lanes on Illinois Street would connect to the proposed bicycle facilities on Cargo Way via the recently completed Islais Creek Bridge.

PROJECT 4-4: INNES AVENUE BICYCLE LANES, DONAHUE STREET TO HUNTERS POINT BOULEVARD

Project 4-4 would involve the installation of Class II or Class III bicycle facilities in both directions on Innes Avenue between Donahue Street and Hunters Point Boulevard. Project 4-4 includes two design options:

- **Option 1**
  Option 1 would remove approximately 75 parking spaces on the south side of Innes Avenue from Hunters Point Boulevard to Earl Street, and install Class II bicycle lanes in both directions. From Earl Street to Donahue Street, Class II bicycle lanes would be installed by removing approximately 60 parking spaces and adding a planted median in the center of the roadway. There would be no travel lane removals associated with Option 1.

- **Option 2**
  Option 2 would be similar to Option 1, except for the segment from Hunters Point Boulevard to Earl Street, where sharrows would be added to the existing Class III bicycle route in both directions. There would be no parking or travel lane removals associated with Option 2 between Hunters Point Boulevard and Earl Street.

The two options described above are consistent with Department of Public Works (DPW) led Bayview Transportation Improvement Project (BTIP). The future lane configuration on Innes Avenue depends on whether a new football stadium for the San Francisco 49ers is built. If a new stadium is built, Innes Avenue could serve as an important access/egress route, and the Class II bicycle lanes proposed on Innes Avenue could be re-routed as either Class I or Class II bicycle facilities on a proposed new roadway (Hudson Street).

PROJECT 4-5: MISSISSIPPI STREET BICYCLE LANES, 16TH STREET TO MARIPOSA STREET

Project 4-5 would involve the installation of Class II bicycle lanes in both directions on Mississippi Street between 16th Street and Mariposa Street.

Class II bicycle lanes would be added by narrowing travel lanes. Project 4-5 would not require travel lane or parking removal.

PROJECT SETTING

This section provides a description of the existing transportation conditions along the near-term improvements in Cluster 4. Descriptions of the existing roadway access, traffic, transit, parking, pedestrian, bicycle and loading conditions are included. The study intersections for Cluster 4 are shown on Figure V.A.3-8, p. V.A.3-99. Figures showing the turning movement traffic volumes and lane configurations at those study intersections for Existing Conditions may be found within the transportation impact analysis discussion for Cluster 4 within the transportation impact study. LOS calculation sheets for those study intersections and transit delay calculation sheets for the affected transit routes may be found in the appendices of the transportation impact study.[26]

PROJECT 4-1: 16TH STREET BICYCLE LANES, 3RD STREET TO TERRY FRANÇOIS BOULEVARD

Roadways

16th Street between 3rd Street and Terry A. François Boulevard is currently under construction as part of the Mission Bay Plan.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

There are no transit lines along Project 4-1.

Parking

This portion of 16th Street is currently closed to traffic. Some parking is allowed for construction vehicles and site deliveries.

Pedestrian

Because there are no active land uses in this block, there are no pedestrians in this section of 16th Street at the present time. Some pedestrian traffic exists in the area related to construction activities. After the completion of the street as part of the Mission Bay Plan, 10-foot wide sidewalks would be constructed on both sides of the street.

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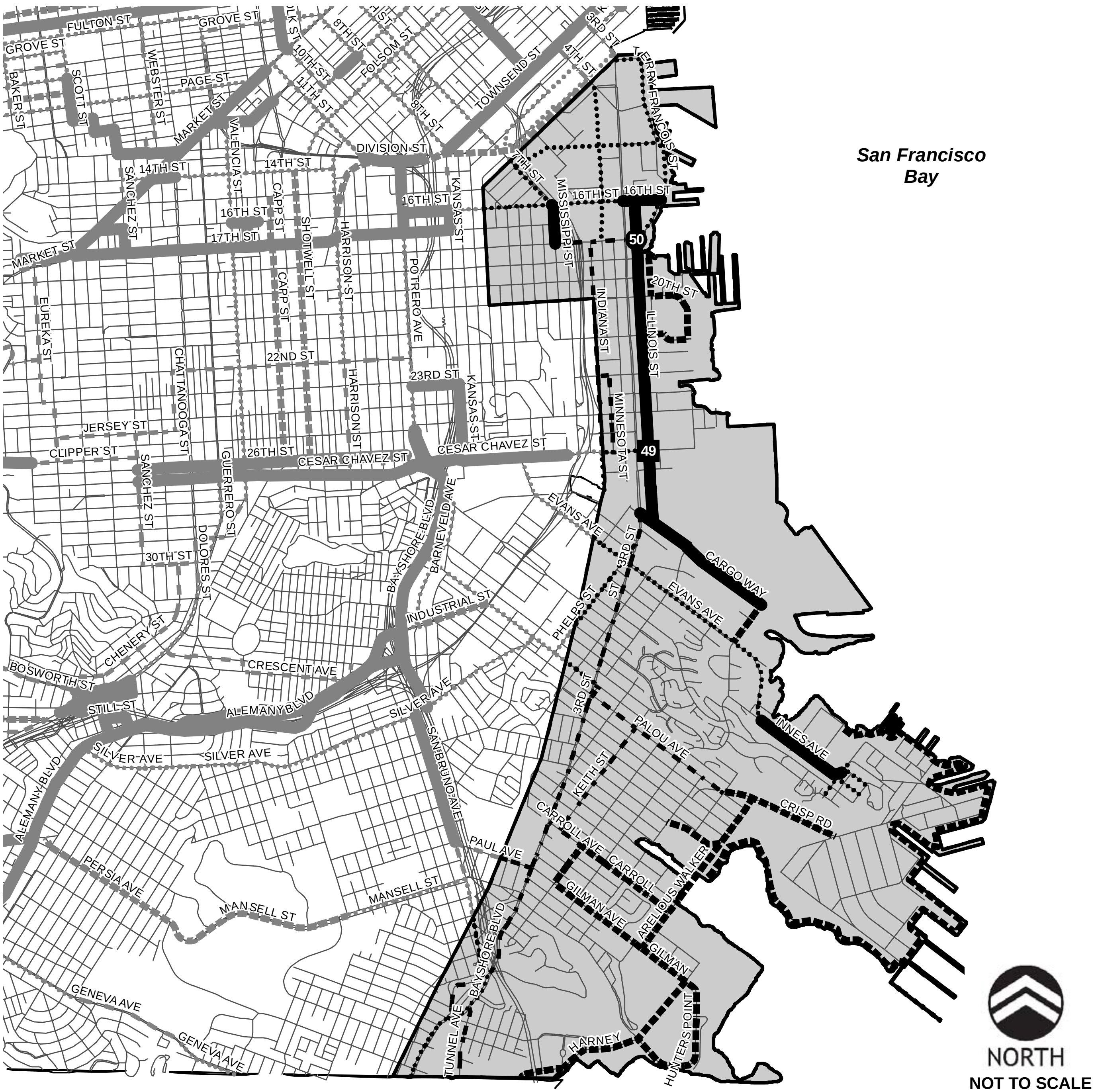
26 Wilbur Smith Associates. 2008. *San Francisco Bicycle Plan Update Transportation Impact Study*. This document is available for review by appointment at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103 as part of Case File No 2007.0347E.

LEGEND

- Cluster 4
- Near-Term Bicycle Improvement Projects - Project-Level Review
- Long-Term Bicycle Improvement Projects - Program-Level Review
- Minor Improvements to Bicycle Route Network - Program-Level Review
- Existing Bicycle Route Network - Program-Level Review
- 1 PM Peak Study Intersection
- 1 PM Peak Unsignalized Study Intersection



SOURCE: Wilbur Smith and Associates, 2008.

FIGURE V.A.3-8: CLUSTER 4 - STUDY AREA

Bicycle

16th Street is designated as part of existing Bicycle Route 40 (Class II) in both directions west of 3rd Street. When extended east of 3rd Street, existing Bicycle Route 40 would intersect with existing Bicycle Route 5 (Class III) and the San Francisco Bay Trail at Terry François Boulevard. This route is flat with gradients of less than one percent.

Loading

Because both sides of 16th Street in this block are under construction, as part of the Mission Bay development, all current loading activity is related to construction supply deliveries and related operations.

PROJECT 4-2: CARGO WAY BICYCLE LANES, 3RD STREET TO JENNINGS STREET

Roadways

Cargo Way is a four-lane north-south secondary arterial road with a median, and is part of the MTS Roadway Network. Traffic volumes are moderate during the AM and PM peak periods and low at other times of the day.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

There are no transit lines in this section of Cargo Way.

Parking

On-street parking is permitted only on the south side of Cargo Way, and parking occupancy is generally low.

Pedestrian

There is no sidewalk on the north side of Cargo Way between 3rd and Mendell Streets. The effective sidewalk width of existing sidewalk is reduced by a line of mature street trees planted in the middle of the pedestrian right-of-way. Pedestrian volumes are low.

Bicycle

There are no existing bicycle routes in this section of Cargo Way. The project would intersect with existing Bicycle Route 7 at 3rd Street (Class III). A segment of the San Francisco Bay Trail is located on Cargo Way to the east of Jennings Street. Street grades on Project 4-2 are flat. Bicycle volumes are low.

Loading

There are few active land uses fronting this segment of Cargo Way. On the north side of Cargo Way there are freight rail tracks servicing the Port's south container terminal. The south side of Cargo Way is part of India Basin Industrial Park. All of the uses inside have off-street loading facilities. Thus, there is no on-street loading demand on this segment of Cargo Way and there are no designated yellow commercial freight loading spaces.

PROJECT 4-3: ILLINOIS STREET BICYCLE LANES, 16TH STREET TO CARGO WAY

Roadways

Illinois Street between 16th Street and Cargo Way is a two-lane north-south local street that connects to the newly constructed Islais Creek Bridge south of Marin Street. Traffic volumes are low.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the PM peak hour.

Two study intersections are included in Project 4-3 for the PM peak hour. Intersection Level of Service and average delay under Existing conditions is included in Table V.4-1, p. V.A.3-101.

TABLE V.4-1
CLUSTER 4 – PROJECT 4-3
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

	Intersection	Traffic Control Device	Average Delay[a]	LOS
49.	Illinois Street/César Chávez Street	Four-way stop	8.7	A
50.	Illinois Street/Mariposa Street/Terry François Boulevard	Signal	17.7	B

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

Intersection 49: Illinois Street/César Chávez Street

During the weekday PM peak hour, the Illinois Street/César Chávez Street intersection operates at an acceptable level of service (LOS D or better), with 8.7 seconds of delay.

Intersection 50: Illinois Street/Mariposa Street/Terry François Boulevard

During the weekday PM peak hour, the Illinois Street/Mariposa Street/Terry François Boulevard intersection operates at an acceptable level of service (LOS D or better), with 17.7 seconds of delay.

Transit

Muni bus line 48 runs southbound for the two blocks between 20th and 22nd Streets with approximately five buses per hour each way during the AM and PM peak periods. There are no bus stops for Muni bus line 48 within these two blocks.

Parking

On-street parking is permitted on both sides of the street. Most of the corridor has parallel parking except along the east side of Illinois Street between 19th and 22nd Streets and between Marin Street and the Islais Creek Bridge. These blocks have perpendicular parking on the east side. Parking occupancy is high north of 25th Street and low south of 25th Street.

Pedestrian

Sidewalks exist intermittently on both sides of the street. Pedestrian volumes are low.

Bicycle

Illinois Street is designated as existing Bicycle Route 5 (Class III) in both directions between 16th Street and César Chávez Street. Existing Bicycle Route 5 intersects existing Bicycle Route 40 (Class III) at 16th Street; existing Bicycle Route 23/7 (Class III) at Mariposa; and existing Bicycle Route 60 (Class III) at César Chávez Street. Street grades along Project 4-3 are relatively flat with slopes of approximately two percent between 19th Street and 23rd Street and less than one percent along the remainder of Project 4-3. Bicycle volumes are generally low. Unused freight railroad tracks are located within the northbound lane.

Loading

Some yellow commercial freight loading spaces are provided on-street adjacent to buildings, while others have a substantial setback from the street curb. Since the land use in the area is changing, most of these yellow commercial freight loading spaces are not being fully utilized. However, since on-street parking in this area is mostly unregulated, truck deliveries occur both in the loading docks as well as on-street.

PROJECT 4-4: INNES AVENUE BICYCLE LANES, DONAHUE STREET TO HUNTERS POINT BOULEVARD

Roadways

Innes Avenue between Donahue Street and Hunters Point Boulevard is a four-lane secondary arterial road. Traffic volumes are currently low.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

Muni bus line 19 runs in both directions along Innes Avenue between Hunters Point Boulevard and Donahue Street with approximately six buses per hour each way during the AM and PM peak periods. There are two bus stops, one at the entrance to the Hunters Point Shipyard and the other at the intersection with Hunters Point Boulevard.

Parking

On-street parking is generally permitted on Innes Avenue between Hunters Point Boulevard and Donahue Street; parking occupancy is very low.

Pedestrian

Pedestrian volumes in this area are very low.

Bicycle

Innes Avenue is designated as existing Bicycle Route 68 (Class III) between Hunters Point Boulevard and Donahue Street. West of Hunters Point Boulevard, existing Bicycle Route 68 has Class II bicycle lanes. Project 4-4 would not intersect with any other designated bicycle routes. Street grades on the Project 4-4 are relatively flat with slopes less than three percent. Bicycle volumes are low.

Loading

There are few active land uses along this segment of Innes Avenue. The residential, commercial and industrial development is concentrated on Innes Avenue, between Hunters Point Boulevard and Arelious Walker Drive, on the north side of the street. These uses have low demand for loading which can be accommodated with on-street parking spaces.

PROJECT 4-5: MISSISSIPPI STREET BICYCLE LANES, 16TH STREET TO MARIPOSA STREET

Roadways

Mississippi Street between 16th and Mariposa Streets is a two-lane north-south local street. Traffic volumes are moderate to high during the PM peak period.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

There are no transit lines along this section of Mississippi Street.

Parking

On-street parking is permitted on both sides of the street; parking occupancy is generally moderate to high.

Pedestrian

Pedestrian volumes are low along Project 4-5.

Bicycle

Mississippi Street is designated as existing Bicycle Route 23 (Class III with wide curb lanes) between Mariposa and 16th Streets. Existing Bicycle Route 23 intersects existing Bicycle Route 40 (Class II) at 16th Street and existing Bicycle Route 7 (Class III) at Indiana Street. The block of Mississippi Street from 16th Street to 17th Street has a two percent uphill grade while the block from 17th Street to Mariposa Street has a five percent uphill grade. Bicycle volumes are low.

Loading

This segment has a moderate loading demand for the commercial uses within the two blocks. Loading vehicles typically park perpendicular to Mississippi Street in the driveways and occasionally encroach on the street.

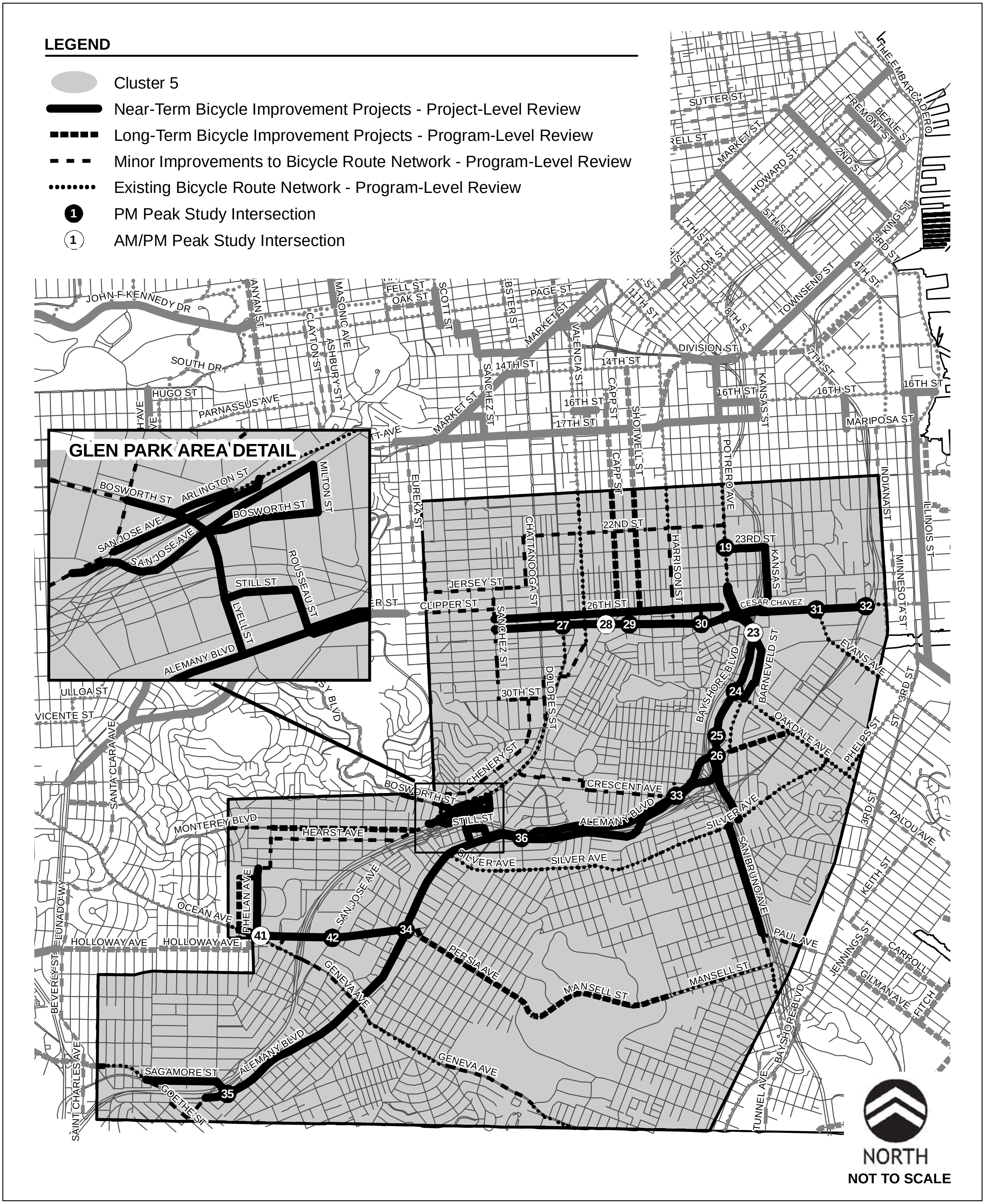
CLUSTER 5: MISSION/GLEN PARK/EXCELSIOR AREA

This section presents the project-level transportation impact analysis conducted for the projects near-term bicycle route network improvement projects (near-term improvements) within the Cluster 5 area, including a description of the near-term improvements, their location and existing traffic, transit, parking, pedestrian, bicycle and loading conditions in the area. 2025 Cumulative conditions with and without the near-term improvement alternatives, any potential transportation impacts of the near-term improvements and possible mitigation and improvement measures are also discussed and analyzed.

PROJECT LOCATION

CLUSTER 5

Cluster 5, shown on Figure V.A.3-9, p. V.A.3-106, is located in the south central part of San Francisco. The cluster is bounded by 20th Street to the north, Indiana Street and a line closely west of 3rd Street to the east, and the southern city limits to the south. The western boundary is roughly comprised of Eureka Street, an east-west line south of Mt. Davidson, a north-south line east of Plymouth Street to Grafton and Arch Streets. Many varied neighborhoods are contained within Cluster 5 including the Mission District, Potrero Hill, Bernal Heights, Glen Park, Bayview, Portola, the Excelsior, Outer Mission and Visitacion Valley. The most notable destinations within or directly adjacent to the cluster are the Cow Palace, CCSF, San Francisco General Hospital (SFGH), the commercial districts in Glen Park and the Mission District and the 24th Street/Mission, Glen Park, Balboa Park and Daly City BART Stations. The many hills and the US 101 and I-280 freeways create the biggest barriers to bicycle travel between the residential, commercial and recreation attractions in this cluster. The near-term improvements in Cluster 5 represent the flattest and most convenient routes around and through these obstacles. Most of the near-term improvements are recommended improvements to existing facilities along the existing San Francisco bicycle route network.



SOURCE: Wilbur Smith and Associates, 2008.

REVISED FIGURE V.A.3-9: CLUSTER 5 - STUDY AREA

The remaining twelve near-term improvements in Cluster 5 are included on existing Bicycle Routes 25, 45, 55, 60, 84, 98, 525, and 770 in San Francisco's existing bicycle route network. These routes represent the flattest routes through this hilly terrain as well as opportunities to circumvent some of the hazardous intersections created by the US 101 and I-280 freeway on/off-ramps. Existing Bicycle Route 25 is a major north-south connector between Aquatic Park on the San Francisco Bay to Visitation Valley. Existing Bicycle Route 25 includes Projects 5-4, 5-11 and 5-13 and is part of the San Francisco Bay Area Regional Bikeway Network. The connection provided by existing Bicycle Route 25 between Potrero Avenue and Bayshore Boulevard is important for the continuity of this route which serves the City's eastern industrial districts as well as the Bayview, Hunters Point, Candle Stick Stadium and a connection to San Mateo County.

Thirteen projects are included in the Cluster 5 area. Each project is identified below.

Project 5-1: 23rd Street Bicycle Lanes, Kansas Street to Potrero Avenue

Project 5-1 comprises part of existing Bicycle Route 525 which was designed to direct cyclists around the Potrero Avenue/Cesar Chavez Street/Bayshore Boulevard/US 101 interchange and serves as a spur to existing Bicycle Route 25.

Project 5-2: Alemany Boulevard Bicycle Lanes, Bayshore Boulevard to Rousseau Street

Project 5-2, located on Alemany Boulevard, would extend the existing Alemany route (existing Bicycle Route 45) from Rousseau Street, where it currently terminates, to Bayshore Boulevard to the east. Project 5-2 is the sole addition to the network.

Project 5-3: Alemany Boulevard Bicycle Lanes, Rousseau Street to San Jose Avenue

Project 5-3 is located on existing Bicycle Route 45 which runs north-south between the Marina District and Daly City. It provides connection to the Glen Park and Balboa Park BART Stations, CCSF, San Francisco State University (SFSU) and ultimately to Daly City BART and San Mateo County. Project 5-3 is part of the San Francisco Bay Area Regional Bikeway Network.

Project 5-4: Bayshore Boulevard Bicycle Lanes, Cesar Chavez Street to Silver Avenue

Projects 5-4, is part of the existing Bicycle Route 25, which includes 5-11 and 5-13 and is part of the San Francisco Bay Area Regional Bikeway Network. Existing

Bicycle Route 25 is a major north-south connector between Aquatic Park on the San Francisco Bay to Visitation Valley.

Project 5-5: Cesar Chavez Street Bicycle Lanes, I-280 to US 101 Freeways

Project 5-6: Cesar Chavez Street/26th Street Bicycle Lanes, Sanchez Street to US 101

Projects 5-5 and 5-6 are located on existing Bicycle Route 60 which runs from the Great Highway to 3rd Street. Both these projects are located on Cesar Chavez Street. These projects provide an important link to this crosstown route and are included on the San Francisco Bay Area Regional Bikeway Network.

Project 5-7: Glen Park Area Bicycle Lanes, a. Connection between Alemany Boulevard and San Jose Avenue and b. Connection between Monterey Boulevard and San Jose Avenue

Project 5-7 forms a small section of existing Bicycle Route 55 (Crissy Field to Upper Market and Glen Park BART) and provides improved access between Alemany and Monterey Boulevards and the destinations served by existing Bicycle Route 55 to the north. Project 5-7 is part of the San Francisco Bay Area Regional Bikeway Network.

Project 5-8: Kansas Street Bicycle Lanes, 23rd Street to 26th Street

Project 5-8 also comprises part of existing Bicycle Route 525 which was designed to direct cyclists around the Potrero Avenue/Cesar Chavez Street/Bayshore Boulevard/US 101 interchange and serves as a spur to existing Bicycle Route 25.

Project 5-9: Ocean Avenue Bicycle Lanes, Alemany Boulevard to Lee Avenue

Project 5-9 is located on existing Bicycle Route 84 (Ocean Avenue) with direct access to CCSF and linking the Excelsior District to destinations west via existing Bicycle Route 90.

Project 5-10: Phelan Avenue Bicycle Lanes, Judson Avenue to Ocean Avenue

Project 5-10 on existing Bicycle Route 770 provides a connection between existing Bicycle Routes 70 and 84 with direct access to CCSF.

Project 5-11: Potrero Avenue and Bayshore Boulevard Bicycle Lanes, 25th to Cesar Chavez Streets

Project 5-12: Sagamore Street and Sickles Avenue Bicycle Lanes, Alemany Boulevard to Brotherhood Way

Project 5-12 (existing Bicycle Route 98) provides a connection between the Excelsior and Ingleside Districts and access between existing Bicycle Route 45 (Alemany Boulevard) and existing Bicycle Route 75 (Beverley Street), thereby providing access to SFSU, the San Francisco Golf Club, and Lake Merced. Project 5-12 is included on the San Francisco Bay Area Regional Bikeway Network.

Project 5-13: San Bruno Avenue Bicycles Lanes, Paul Avenue to Silver Avenue

Project 5-13 is proposed as an alternative to the Bayshore Boulevard/3rd Street/US 101 intersection.

PROJECT DESCRIPTION

The following paragraphs describe the 13 near-term improvements included within the Cluster 5 area. Projects 5-1, 5-2, 5-3, 5-8, and 5-11 have one design option; the remaining near-term improvements have two design options. Detailed drawings of existing and proposed lane striping and roadway geometry changes are included in Appendix B.

PROJECT 5-1: 23RD STREET BICYCLE LANES, KANSAS STREET TO POTRERO AVENUE

● Modified Project 5-1 would provide a combination of Class II and Class III facilities on 23rd Street. It would provide Class II bicycle lanes in the eastbound direction on 23rd Street between Utah Street and Kansas Street and in the westbound direction between Kansas Street and 50 feet west of Utah Street. The project would provide sharrows in the eastbound direction between Potrero Avenue and Utah Street and in the westbound direction from 50 feet west of Utah Street to Potrero Avenue. This project would remove 36 parking spaces on the north side of 23rd Street between Kansas Street and Potrero Avenue. Modified Project 5-1 would not involve traffic lane removals.

Project 5-1 would involve the installation of Class II and Class III bicycle facilities on 23rd Street between Kansas Street and Potrero Avenue adjacent to SFGH.

Project 5-1 would involve the installation of a Class II bicycle lane in the eastbound direction and the addition of sharrows to the existing Class III bicycle route in the westbound direction.

Project 5-1 would not involve travel lane or parking removal. However, travel lanes would be narrowed to create space for the eastbound bicycle lane.

PROJECT 5-2: ALEMANY BOULEVARD BICYCLE LANES, BAYSHORE BOULEVARD TO ROUSSEAU STREET

Project 5-2 provides a combination of Class II and Class III bicycle facilities in both directions on Alemany Boulevard between Bayshore Boulevard and Rousseau Street through a combination of traffic lane and parking removals. The preferred design is a modification of the one option analyzed in the Draft EIR which will be referred to as Modified Project 5-2. The modified project differs from the option analyzed in the Draft EIR in that it would remove an eastbound travel lane from Trumbull Street to 300 feet west of Putnam Street.

Project 5-2 would add a new route to the City's existing bicycle route network.

Project 5-2 would involve the installation of Class II and Class III bicycle facilities in both directions on Alemany Boulevard between Bayshore Boulevard and Rousseau Street.

Project 5-2 would involve the installation of Class II bicycle lanes in both directions on Alemany Boulevard between Putnam and Rousseau Streets by removing one eastbound travel lane between Rousseau and Trumbull Streets, removing one westbound travel lane between Putnam Street and Ellsworth Street, removing parking on the north side of Alemany Boulevard between Ellsworth Street and Rousseau Street, and removing parking on the south side of Alemany Boulevard between Rousseau Street and Putnam Street. A total of approximately 375 under-utilized parking spaces would be removed. Project 5-2 would add sharrows in both directions on Alemany Boulevard between Bayshore Boulevard and Putnam Street. Project 5-2 would add a left-turn Class II bicycle lane on eastbound Alemany Boulevard approaching Bayshore Boulevard.

PROJECT 5-3: ALEMANY BOULEVARD BICYCLE LANES, ROUSSEAU STREET TO SAN JOSE AVENUE

Project 5-3 was implemented on April 28, 2006, prior to the Bicycle Plan injunction. Project 5-3 involved the installation of a mixed Class II and Class III bicycle facility on Alemany Boulevard between Rousseau Street and San Jose Avenue.

Project 5-3 involved adding bicycle lanes on Alemany Boulevard in both directions between Rousseau Street and San Jose Avenue by removing a travel lane in each direction, except for the following segments: Northbound Alemany Boulevard between Niagara Avenue and Geneva Avenue, and southbound Alemany Boulevard between Seneca Avenue and Geneva Avenue. No travel lanes were removed along these segments, and sharrows were added to the existing Class III bicycle route along these segments. On westbound Alemany Boulevard approaching San Jose Avenue, travel lanes were narrowed to install a bicycle lane, but no westbound travel lanes were removed. On eastbound Alemany Boulevard approaching San Jose Avenue, travel lanes were narrowed to install a bicycle lane and one travel lane was converted to a right-turn only lane. Approximately two parking spaces were removed on southbound Alemany Boulevard at Ocean Avenue to create a southbound right-turn only lane.

Project 5-4: Bayshore Boulevard Bicycle Lanes, Cesar Chavez Street to Silver Avenue

Project 5-4 would provide Class II bicycle lanes along most of Bayshore Boulevard between Cesar Chavez Street and Silver Avenue. This project includes two design options in the Draft EIR. The preferred design is consistent with design Option 2, except sharrows would be added on northbound Bayshore Boulevard to Oakdale Avenue, Loomis Street, Barneveld Avenue and Jerrold Avenue. Project 5-4 Modified Option 2 would change the northbound curbside bicycle lane from Helena Street to Marengo Street to a shared transit and bicycle lane.

Project 5-4 would involve the installation of Class II bicycle lanes in both directions on Bayshore Boulevard between Cesar Chavez Street and Silver Avenue. Project 5-4 would involve moving portions of existing southbound Bicycle Route #25 from Jerrold Avenue, Barneveld Avenue, Loomis Street, and Industrial Street onto Bayshore Boulevard.

Project 5-4 is divided into two segments:

- **Segment I**
  Segment I would extend between Cesar Chavez Street and Industrial Street, and has two design options:

  Option 1 would install Class II bicycle lanes in both directions on Bayshore Boulevard by removing a travel lane in each direction.

  Option 2 would install Class II bicycle lanes in both directions on Bayshore Boulevard by removing parking on both sides of the street. This option would remove a total of approximately 220 parking spaces.

- **Segment II**
  Segment II would extend between Industrial Street and Silver Avenue, and has two design options:

  Option 1 would install Class II bicycle lanes in both directions on Bayshore Boulevard by removing a northbound travel lane from approximately 150 feet north of Silver Avenue to Industrial Street and by removing approximately 15 parking spaces on the east side of Bayshore Boulevard between Silver Avenue and Boutwell Street.

  Option 2 would install Class II bicycle lanes in both directions on Bayshore Boulevard by removing a northbound travel lane from Helena Street to approximately 320 feet northerly and by establishing a northbound right-turn lane from 320 feet north of Helena Street to Industrial Street. This option would remove approximately 40 parking spaces on the east side of Bayshore Boulevard between Silver Avenue and Helena Street.

  Both Segment II options above would remove approximately 70 under-utilized parking spaces on the west side of Bayshore Boulevard between Industrial Street and Silver Avenue.

PROJECT 5-5: CESAR CHAVEZ STREET BICYCLE LANES, I-280 TO US 101 FREEWAYS

Project 5-5 would involve the installation of Class II bicycle lanes in both directions on Cesar Chavez Street between Kansas Street (near US 101 Freeway) and Mississippi Street (near I-280 Freeway). Project 5-5 includes two design options:

- **Option 1**
  Option 1 would remove a travel lane in either the eastbound or the westbound direction and install Class II bicycle lanes in both directions. The eastbound and westbound lane removals would be analyzed separately and the least impactful scenario would be carried forward and be included in the plan. Depending on which direction is chosen for the travel lane removal the resulting lane configuration would be: a) two lanes eastbound and one lane westbound, plus the turn lanes approaching Evans Avenue; or

b) one lane eastbound and two lanes westbound, plus the turn lanes approaching Evans Avenue. Option 1 would not involve parking removal.

- **Option 2**
  Option 2 would involve the installation of Class II bicycle lanes in both directions by removing approximately 94 parking spaces on the north side of Cesar Chavez Street. The estimated parking loss does not account for existing curb cuts or red zones, therefore the actual number of parking spaces removed would likely be lower. This option would not involve travel lane removal.

PROJECT 5-6: CESAR CHAVEZ STREET/26TH STREET BICYCLE LANES, SANCHEZ STREET TO US 101

The Cesar Chavez Street section of Project 5-6 would involve the installation of Class II and Class III bicycle facilities in both directions between Hampshire Street (near US 101 Freeway) and Sanchez Street as well as street trees along this same segment.

The Cesar Chavez Street section of Project 5-6 would be divided into three segments.

- **Segment I**
  Segment I of the Cesar Chavez Street section of Project 5-6 would extend between Hampshire Street and Valencia Street and includes two design options:

  Option 1 would remove one travel lane in each direction, maintain or widen the existing median, and install Class II bicycle lanes in both directions. This option would remove up to 40-45 spaces, typically at corners where bulbouts may be constructed to widen the sidewalk.

  Option 2 would remove one travel lane in each direction, remove the existing median, and install Class II bicycle lanes in both directions and a center two-way left-turn lane. This option would not involve parking removal.

- **Segment II**
  Segment II of the Cesar Chavez Street section of Project 5-6 would extend between Valencia Street and Guerrero Street and includes two design options:

  Option 1 would remove one through travel lane in each direction, remove or relocate the existing median, and install Class II bicycle lanes in both directions. This option would remove 5-8 parking spaces, typically at corners where bulbouts may be constructed to widen the sidewalk.

  Option 2 would remove one through travel lane in the eastbound direction and a left turn lane in the westbound direction, maintain or widen the existing median, and install Class II bicycle lanes in both directions. This option would also install a Class II bicycle left turn lane in the eastbound intersection approach to Valencia Street. This option would not involve parking removal.

- **Segment III**

  Segment III of the Cesar Chavez Street section of Project 5-6 would extend from Guerrero Street to Sanchez Street, and has two design options.

  Option 1 would install sharrows in both directions to the existing Class III bicycle route along Segment III. This option would not change the lane configuration and would not involve travel lane or parking removal.

  Option 2 would install sharrows in both directions to the existing Class III bicycle route along Segment III. This option would change the lane configuration in the eastbound intersection approach to Guerrero Street to a left turn lane and a through-right turn lane. This option would not involve travel lane or parking removal.

  The 26th Street section of Project 5-6 would establish a new Class III bicycle route with sharrows in both directions on 26th Street between Hampshire Street and Sanchez Street. Project 5-6 would result in the loss of approximately four parking spaces per block (approximately 76 total spaces), typically at the corners, where bulb-outs and chokers would be installed to calm traffic. This option would not involve travel lane removal.

PROJECT 5-7: GLEN PARK AREA BICYCLE LANES, A. CONNECTION BETWEEN ALEMANY BOULEVARD AND SAN JOSE AVENUE AND B. CONNECTION BETWEEN MONTEREY BOULEVARD AND SAN JOSE AVENUE

a. Connection between Alemany Boulevard and San Jose Avenue via Arlington Street, Bosworth Street, Lyell Street, Milton Street, Rousseau Street, and Still Street.

Project 5-7 would add a new route to the City's existing bicycle route network on northbound Milton Street between Bosworth Street and San Jose Avenue.

Project 5-7 would involve the installation of Class II and Class III bicycle facilities along portions of existing Bicycle Route 45 and existing Bicycle Route 55 to close a gap between the existing bicycle lanes on San Jose Avenue and Alemany Boulevard on both sides of the I-280 Freeway and to provide a better connection for bicyclists to the Glen Park BART Station. Project 5-7 includes two design options:

Both options would add a southbound Class II bicycle lane on Arlington Street between Wilder Street and Bosworth Street by removing approximately 11 parking spaces on the east side of the street, add sharrows on eastbound Bosworth Street between Diamond Street and the I-280 on-ramp, add an eastbound Class II bicycle lane on Bosworth Street between the I-280 on-ramp and Lyell Street by removing approximately 36 parking spaces on the west side of the street, add a westbound Class II bicycle lane on Bosworth Street between Lyell Street and Arlington Street by narrowing the travel lanes, add a westbound Class II bicycle lane on Bosworth Street between Arlington Street and Diamond Street by removing nine metered parking spaces, add sharrows on westbound Bosworth Street approaching Diamond Street, add a northbound Class II bicycle lane on Lyell Street between Still Street and Bosworth Street by narrowing the travel lanes and the medians as needed, add an eastbound Class II bicycle lane on Bosworth Street between Lyell Street and Milton Street, including a left-turn bicycle lane approaching Milton Street, by narrowing the travel lanes, and add sharrows on northbound Milton Street between Bosworth Street and San Jose Avenue.

- **Option 1**
  Option 1 would add a southbound Class II bicycle lane on Lyell Street between Still Street and Cayuga Avenue by narrowing travel lanes, and add southbound Class II bicycle lanes on Lyell Street between Cayuga Avenue and Alemany Boulevard by removing one of the two southbound left-turn lanes approaching Alemany Boulevard.

- **Option 1**
  Option 1 would also add a northbound Class II bicycle lane on Rousseau Street between Alemany Boulevard and Cayuga Avenue by narrowing travel lanes, add a northbound Class II bicycle lane on Rousseau Street between Cayuga Avenue and Still Street by removing approximately three parking spaces on the east side of Rousseau Street, and add a westbound Class II bicycle lane on Still Street between Rousseau Street and Lyell Street by narrowing travel lanes. Option 1 would remove a total of approximately 59 parking spaces.

- **Option 2**
  Option 2 would move northbound Bicycle Route #45 from Alemany Boulevard between Lyell Street and Rousseau Street, Rousseau Street between Alemany Boulevard and Still Street, and Still Street between Rousseau Street and Lyell Street to northbound Lyell Street between Alemany Boulevard and Still Street. Option 2 would add a southbound Class II bicycle lane on Lyell Street between Still Street and Cayuga Avenue by removing approximately seven parking spaces on the west side of Lyell Street, and add sharrows on southbound Lyell Street between Cayuga Avenue and Alemany Boulevard.

- **Option 2**
  Project 5-7a Modified Option 2 would also add a left-turn bicycle lane on eastbound Alemany Boulevard approaching Lyell Street by narrowing the median and changing the existing left-turn restriction to allow bicycle left-turns, remove the existing left-turn bicycle lane on eastbound Alemany Boulevard approaching Rousseau Street and add approximately seven parking spaces along the south side of Alemany Boulevard, add a northbound contra-flow Class II bicycle lane on Lyell Street between Alemany

Boulevard and Still Street by removing one of the two southbound left-turn lanes approaching Alemany Boulevard, and create a channel in the median island at the intersection of Lyell and Still Streets to allow northbound bicycle travel. Project 5-7a Modified Option 2 would add stop controls on eastbound Still Street approaching Lyell Street. Project 5-7a Modified Option 2 would remove a total of approximately 66 parking spaces.

b. *Connection between Monterey Boulevard and San Jose Avenue via Monterey Boulevard and San Jose Avenue ramps.*

Project 5-7 would add a new route to the City's existing bicycle route network.

Project 5-7 would involve the installation of Class I, Class II, and Class III bicycle facilities to close a gap between the existing bicycle lanes on San Jose Avenue, Route #45, and the existing Class III bicycle Route #70 on Circular Avenue.

In the southbound direction, Project 5-7 would extend the existing Class II bicycle lane on San Jose Avenue approaching the Arlington Street off-ramp to Diamond Street by installing a Class II bicycle lane along the Arlington Street off-ramp, installing a Class I bicycle path across the median island of San Jose Avenue to connect the Arlington Street and Monterey Boulevard off-ramps, and installing a Class II bicycle lane along the Monterey Boulevard off-ramp approaching Diamond Street. Sharrows would be added to the existing Class III bicycle route on Monterey Boulevard from Diamond Street to Circular Avenue.

In the northbound direction, Project 5-7 would install Class II bicycle lanes on Monterey Boulevard and San Jose Avenue from Circular Avenue to Milton Street by removing one travel lane from Circular Avenue to the San Jose Avenue freeway overpass. There would be no parking removal associated with Project 5-7.

PROJECT 5-8: KANSAS STREET BICYCLE LANES, 23RD STREET TO 26TH STREET

Project 5-8 would involve the installation of Class II bicycle lanes in both directions on Kansas Street between 23rd Street and 26th Street.

Modified Project 5-8 would involve the installation of Class II bicycle lanes in both directions on Kansas Street between 23rd Street and 25th Street and a Class II bicycle lane in the northbound direction from 25th to 26th Streets. This project would add sharrows to the existing Class III bicycle route in the southbound direction from 25th Street to 26th Street.

PROJECT 5-9: OCEAN AVENUE BICYCLE LANES, ALEMANY BOULEVARD TO LEE AVENUE

Segment I of Project 5-9 would extend from Alemany Boulevard to San Jose Avenue and includes one design option in the Draft EIR. The preferred design for Segment I is consistent with that option, with the following changes. Modified Project 5-9 Segment I would not add an eastbound bicycle lane from San Jose Avenue to Cayuga Avenue or a westbound bicycle lane from Alemany Boulevard to Cayuga Avenue. Modified Project 5-9 Segment I would add sharrows in the eastbound direction from San Jose Avenue to Cayuga Avenue and in the westbound direction from Alemany Boulevard to Cayuga Avenue. Modified Project 5-9 Segment I would remove four parking spaces in the westbound direction approaching San Jose Avenue.

Segment II of this project would extend from San Jose Avenue to Lee Avenue and includes two design options in the Draft EIR. The preferred design for Segment II is consistent with design Option 2, with the following changes. Project 5-9 Segment II Modified Option 2 would not remove parking in the eastbound direction from Geneva Avenue to the I-280 on-ramp except for seven spaces just east of Geneva Avenue. Project 5-9 Segment II Modified Option 2 would remove one eastbound travel lane from 135 feet east of Geneva Avenue to Howth Street, and would add sharrows in the eastbound direction from Howth Street to San Jose Avenue. Project 5-9 Segment II Modified Option 2 would not remove parking in the westbound direction between San Jose Avenue and the I-280 on-ramp.

Project 5-9 would involve the installation of Class II and Class III bicycle facilities in both directions on Ocean Avenue between Alemany Boulevard and Lee Avenue.

Project 5-9 is divided into two segments.

- **Segment I**
  Segment I would extend from Alemany Boulevard to San Jose Avenue. Project 5-9 would install Class II bicycle lanes in both directions without parking or lane removals along Segment I.

- **Segment II**
  Segment II would extend from San Jose Avenue to Lee Avenue. Segment II includes two design options:

  Option 1 would add a Class II bicycle lane in the westbound direction from San Jose Avenue to Phelan Avenue by removing approximately 24 parking spaces on the north side of the street and removing one of the westbound travel lanes from the I-280 Freeway southbound off-ramp to Phelan Avenue.

Option 1 would add a Class II bicycle lane in the eastbound direction from Lee Avenue to the I-280 Freeway southbound on-ramp by removing approximately 25 parking spaces on portions of the south side of the street and removing one of the eastbound travel lanes from Geneva Avenue to 330 feet west of the I-280 Freeway northbound on-ramp. This option also would reconfigure the optional eastbound through/right turn lane approaching Geneva Avenue to a dedicated right-turn lane.

Option 2 would add a Class II bicycle lane in the westbound direction from San Jose Avenue to the I-280 Freeway southbound off-ramp by removing approximately 20 parking spaces on the north side of the street. From the I-280 Freeway southbound off-ramp to Lee Avenue sharrows would be added in the westbound direction to the existing Class III bicycle route.

Option 2 would add a Class II bicycle lane in the eastbound direction by removing approximately 70 parking spaces from Lee Avenue to the I-280 northbound on-ramp. No travel lanes would be removed under Segment II Option 2.

PROJECT 5-10: PHELAN AVENUE BICYCLE LANES, JUDSON AVENUE TO OCEAN AVENUE

Project 5-10 would involve the installation of Class II bicycle lanes in both directions on Phelan Avenue between Judson Avenue and Ocean Avenue. Project 5-10 would include installation of traffic signals at the intersections of Phelan Avenue and South Cloud Circle, Phelan Avenue and North Cloud Circle, and the new intersection of Phelan Avenue and Lee Avenue. Project 5-10 also would include adding bulb-outs and raised crosswalks along Phelan Avenue. Project 5-10 includes two design options:

- **Option 1**
  Option 1 would remove a travel lane in each direction and install Class II bicycle lanes in both directions and build raised median islands with left-turn pockets at intersections from Ocean Avenue to Judson Avenue. This design option is consistent with the Balboa Park Station Area Plan Draft EIR, which was released in October 2007.

- **Option 2**
  Option 2 would remove approximately 140 parking spaces and approximately 30 motorcycle parking spaces on Phelan Avenue to install Class II bicycle lanes in both directions. This option would not provide sidewalk bulb-outs at crosswalks. There would be no travel lane removal under Option 2.

PROJECT 5-11: POTRERO AVENUE AND BAYSHORE BOULEVARD BICYCLE LANES, 25TH TO CESAR CHAVEZ STREETS

Project 5-11 would involve the installation of Class II bicycle lanes in both directions on Potrero Avenue and Bayshore Boulevard between 25th Street and Cesar Chavez Street.

In the northbound direction, travel lanes would be narrowed to add a curbside Class II bicycle lane along Bayshore Boulevard from approximately 200 feet south of the intersection of Potrero Avenue and the US 101 off-ramp to this intersection. A northbound Class II bicycle lane exists on Potrero Avenue, beginning approximately 300 feet south of 25th Street. This Class II bicycle lane would be extended southerly to the intersection of Potrero Avenue and the US 101 off-ramp by removing approximately 20 parking spaces. In the southbound direction, a Class II bicycle lane exists on Potrero Avenue, but ends approximately 120 feet south of 25th Street. This Class II bicycle lane would be extended southerly to Cesar Chavez Street by narrowing travel lanes. No parking removal would be required to extend the southbound Class II bicycle lane.

PROJECT 5-12: SAGAMORE STREET AND SICKLES AVENUE BICYCLE LANES, ALEMANY BOULEVARD TO BROTHERHOOD WAY

Project 5-12 Modified Option 1 would provide Class II bicycle lanes in both directions on Sagamore Street and Sickles Avenue between Alemany Boulevard and Brotherhood Way by removing one westbound travel lane on Sagamore Street from 250 feet west of Plymouth Avenue to Orizaba Avenue, and add a two-way center left turn lane from Plymouth Avenue to Capitol Avenue, and by removing one eastbound travel lane on Sagamore Street from Capitol Avenue to 50 feet west of San Jose Avenue, and by removing nine parking spaces on the south side of Sagamore Street, at Capitol Avenue.

Project 5-12 would involve the installation of Class II bicycle lanes in both directions on Sagamore Street and Sickles Avenue, between Alemany Boulevard and Brotherhood Way. Project 5-12 includes two design options:

- **Option 1**
  Option 1 would add a Class II bicycle lane in the westbound direction on Sagamore Street from Plymouth Avenue to Orizaba Avenue by narrowing the travel lanes from Plymouth Avenue to Capitol Avenue and removing one westbound travel lane from 250 feet west of Capitol Avenue to Orizaba Avenue. The westbound lane configuration approaching Orizaba Avenue would change to include a dedicated right turn lane onto Orizaba Avenue, a westbound lane approaching Brotherhood Way, and a westbound lane approaching Alemany Boulevard. The angled parking on the north side of Sagamore Street between Capitol Avenue and Orizaba Avenue would be converted to back-in-angled parking and would not result in parking loss.

- **Option 1**
  Option 1 would add a Class II bicycle lane in the eastbound direction on Sagamore Street from Orizaba Avenue to Capitol Avenue by removing eight parking spaces just west of Capitol Avenue. There is an existing Class II bicycle lane on Sagamore Street in the eastbound direction from Capitol Avenue to 130 feet west of Plymouth Avenue. A Class II bicycle lane would be added on Sagamore Street from 130 feet west of Plymouth Avenue to Plymouth Avenue by removing an eastbound travel lane along that segment. In addition, a Class II bicycle lane would be added in the eastbound direction along Sickles Avenue from Plymouth Avenue to Alemany Boulevard by narrowing the traffic lane.

- **Option 2**
  Option 2 would add a Class II bicycle lane in the westbound direction from Plymouth Avenue to Capitol Avenue, similar to Option 1. From Capitol Avenue to Orizaba Avenue, a westbound Class II bicycle lane would be added by changing the parking layout and removing 15 parking spaces on the north side of Sagamore Street and

creating a westbound right-turn pocket approaching Orizaba Avenue. In the eastbound direction from Orizaba Avenue to Alemany Boulevard a Class II bicycle lane would be added by removing 15 parking spaces on the south side of Sagamore Street. In addition, a Class II bicycle lane would be added in the eastbound direction along Sickles Avenue from Plymouth Avenue to Alemany Boulevard by narrowing the traffic lane.

PROJECT 5-13: SAN BRUNO AVENUE BICYCLES LANES, PAUL AVENUE TO SILVER AVENUE

Project 5-13 would involve moving a portion of the existing Bicycle Route #25 from Bayshore Boulevard onto San Bruno Avenue.

Project 5-13 would involve the installation of Class II bicycle lanes in both directions on San Bruno Avenue between Paul Avenue and Silver Avenue. Project 5-13 is divided into two segments.

- **Segment I**
  Segment I would extend from Paul Avenue to Silliman Street and includes two design options:

  Option 1 would install Class II bicycle lanes in both directions between Paul Avenue and Silliman Street. The bicycle lanes would be provided between eight-foot wide parking and ten-foot wide travel lanes.

  Option 2 would install Class II bicycle lanes in both direction between Paul Avenue and Silliman Street. The bicycle lanes would be provided between seven-foot wide parking and eleven-foot wide travel lanes.

- **Segment II**
  Segment II would extend from Silliman Street to Silver Avenue and includes one design option:

  Class II bicycle lanes would be installed in both directions along Segment II by removing 22 parking spaces.

PROJECT SETTING

This section provides a description of the existing transportation conditions along the bicycle near-term improvements in Cluster 5. Descriptions of existing roadway access, traffic, transit, parking, pedestrian, bicycle and loading conditions are included. The study intersections for Cluster 5 are shown on Figure V.A.3-9, p. V.A.3-106. Figures showing the turning movement traffic volumes and lane configurations at those study intersections for Existing conditions may be found within the transportation impact analysis discussion for Cluster 5 within the transportation impact study. LOS calculation sheets for those study intersections and transit

delay calculation sheets for the affected transit routes may be found in the appendices of the transportation impact study.[27]

PROJECT 5-1: 23RD STREET BICYCLE LANES, KANSAS STREET TO POTRERO AVENUE

Modified Project 5-1 would provide a combination of Class II and Class III facilities on 23rd Street. It would provide Class II bicycle lanes in the eastbound direction on 23rd Street between Utah Street and Kansas Street and in the westbound direction between Kansas Street and 50 feet west of Utah Street. The project would provide sharrows in the eastbound direction between Potrero Avenue and Utah Street and in the westbound direction from 50 feet west of Utah Street to Potrero Avenue. This project would remove 36 parking spaces on the north side of 23rd Street between Kansas Street and Potrero Avenue. Modified Project 5-1 would not involve traffic lane removals.

Roadways

23rd Street between Kansas Street and Potrero Avenue is a two-lane east-west collector street. The main entrance to SFGH is located on the north side of 23rd Street between Utah Street and San Bruno Avenue. Traffic volumes are moderate during the AM and PM peak periods.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the PM peak hour.

Intersection 19: Potrero Avenue/23rd Street

During the weekday PM peak hour, the Potrero Avenue/23rd Street intersection operates at an acceptable level of service (LOS C), with 24.7 seconds of delay. Table V.5-1, p. V.A.3-119, summarizes these results.

[27] Wilbur Smith Associates. 2008. *San Francisco Bicycle Plan Update Transportation Impact Study*. This document is available for review by appointment at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103 as part of Case File No 2007.0347E.

TABLE V.5-1
CLUSTER 5 – PROJECT 5-1
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS
19. Potrero Avenue/23rd Street	Signal	24.7	C

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

Transit

Muni bus line 48 runs in both directions along this segment of 23rd Street. There are two westbound and two eastbound bus stops on 23rd Street. In addition, UCSF Blue, Gold and Yellow shuttle buses enter and exit the SFGH main entrance on 23rd Street between Utah Street and San Bruno Avenue, and the emergency vehicle entrance to SFGH is on 23rd Street between San Bruno Avenue and Vermont Street. In total there are approximately nine Muni buses per hour, each way, during the AM and PM peak periods, and approximately three shuttles westbound and seven shuttles eastbound during the AM and PM peak periods.

Parking

On-street parking is permitted on both sides of the street, with 2-hour parking on the north side and 1-hour parking on the south side. This area is part of RPP Zone W. Vehicles with RPP W zone permit can park on the street without time limitations. Parking occupancy is generally high.

Pedestrian

Pedestrian volumes along this street are generally moderate, but moderately high at the crosswalks at the SFGH main entrance.

Bicycle

23rd Street is designated as part of existing Bicycle Route 525 (Class III with wide curb lanes) in both directions between Kansas Street and Potrero Avenue. Existing Bicycle Route 525 intersects existing Bicycle Route 25 (Class II) at Potrero Avenue, and existing Bicycle Route 60 (Class III) at Kansas Street/Cesar Chavez Street. Street grades along Project 5-1 range from four percent to five percent. Bicycle volumes are low to moderate.

Loading

This segment of 23rd Street has hospital buildings on the north side and a parking garage and residential uses on the south side. The hospital's loading demand is generally accommodated by off-street loading facilities on the campus. Occasionally truck loading and double parking occur on 23rd Street between Utah Street and Potrero Avenue.

PROJECT 5-2: ALEMANY BOULEVARD BICYCLE LANES, BAYSHORE BOULEVARD TO ROUSSEAU STREET

Roadways

Alemany Boulevard between Bayshore Boulevard and Rousseau Street is generally a six-lane major arterial, except the section between Gates and Congdon Streets, it is a one-way frontage road on both sides of I-280. It is part of the MTS Roadway Network and the CMP Network. Traffic volumes are moderate to high.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the PM peak hour.

Intersection 26: Bayshore Boulevard/Alemany Boulevard/Industrial Street

During the weekday PM peak hour, the Bayshore Boulevard/Alemany Boulevard/Industrial Street intersection operates at an acceptable level of service (LOS D), with 51.2 seconds of delay.

Intersection 33: Putnam Street/I-280 Off-Ramp/Alemany Boulevard

During the weekday PM peak hour, the Putnam Street/I-280 Off-Ramp/Alemany Boulevard intersection operates at an acceptable level of service (LOS C), with 25.5 seconds of delay.

Intersection 36: Justin Drive/Congdon Street/Alemany Boulevard

During the weekday PM peak hour, the Justin Drive/Congdon Street/Alemany Boulevard intersection operates at an acceptable level of service (LOS C), with 20 seconds of delay. Table V.5-2, p. V.A.3-122, summarizes these results.

TABLE V.5-2
CLUSTER 5 – PROJECT 5-2
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS
26. Bayshore Boulevard/Alemany Boulevard/Industrial Street	Signal	51.2	D
33. Putnam Street/I-280 off-ramp/Alemany Boulevard	Signal	25.5	C
36. Justin Drive/Congdon Street/Alemany Boulevard	Signal	20.0	C

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

Transit

Muni bus line 14X runs in the westbound direction between Putnam and Ellsworth Streets, with one stop on the far side of Ellsworth Street, and in the eastbound direction between Stoneybrook Avenue and Bayshore Boulevard, with no stops on Alemany Boulevard. Muni bus line 67 runs only in the westbound direction on the long block of Alemany Boulevard between Putnam and Ellsworth Streets with two stops near Banks and Gates Streets. Muni bus line 23 runs in both directions on Alemany Boulevard between Bayshore Boulevard and Putnam Street with no stops along this section. There are approximately 14 westbound buses and 10 eastbound buses per hour during the AM and PM peak periods.

Parking

On-street parking is permitted on both sides of the street, and parking occupancy is generally low.

Pedestrian

Pedestrian volumes are generally very low in this section of Alemany Boulevard.

Bicycle

There are no existing bicycle route designations in this section of Alemany Boulevard. Project 5-2 would intersect with existing Bicycle Route 45 (Class III) at Rousseau Street and existing Bicycle Route 25 (Class III) at Bayshore Boulevard. Street grades along Project 5-2 are relatively flat with slopes less than five percent. Bicycle volumes are generally low.

Loading

This segment of Alemany Boulevard has residential buildings on the north side and I-280 freeway structure along the south side. On-street loading demand is very low.

PROJECT 5-3: ALEMANY BOULEVARD BICYCLE LANES, ROUSSEAU STREET TO SAN JOSE AVENUE

Project 5-3 was implemented on April 28, 2006, prior to the Bicycle Plan injunction; as such, post-project implementation conditions describe what is on the ground today and are analyzed under Existing plus Project and Cumulative plus Project conditions. Pre-project conditions describe what existed before the implementation of Project 5-3 and are analyzed under Existing and 2025 Cumulative conditions.

Roadways

Alemany Boulevard between Rousseau Street and San Jose Avenue is a major arterial, which is part of the MTS Roadway Network and the CMP Network.

This segment had three travel lanes in each direction under “pre-project” conditions. Under “post-project implementation” conditions, one westbound and one eastbound travel lanes were removed, and Class II bicycle lanes were installed along this segment. The only exceptions are the east side of Alemany Boulevard between Geneva and Seneca Avenues and the west side of Alemany Boulevard between Niagara and Geneva Avenues, which have sharrows; no travel lanes were removed. A right-turn lane was also added on the nearside of Ocean Avenue in the southbound direction by removing approximately two on-street parking spaces.

Traffic volumes are usually moderate to high during AM and PM peak commute hours, but substantially lower during midday.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the PM peak hour. Table V.5-3, p. V.A.3-124, summarizes these results.

TABLE **V.5-3**
CLUSTER 5 – PROJECT 5-3
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS
34. Alemany Boulevard/Ocean Avenue	Signal	16.1	B
35. Alemany Boulevard/Sickles Avenue	Signal	41.2	D

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

Intersection 34: Alemany Boulevard/Ocean Avenue

During the weekday PM peak hour, the Alemany Boulevard/Ocean Avenue intersection operates at an acceptable level of service (LOS B), with 16.1 seconds of delay.

Intersection 35: Alemany Boulevard/Sickles Avenue

During the weekday PM peak hour, the Alemany Boulevard/Sickles Avenue intersection operates at an acceptable level of service (LOS D), with 41.2 seconds of delay.

Transit

Most of the corridor has no transit service, except for the section of Alemany Boulevard between Silver Avenue and Rousseau Street. Muni bus lines 44 and 52 operate in both directions along this section of Alemany Boulevard. There are approximately 14 buses per hour during the peak periods. There are no bus stops along this segment of Alemany Boulevard.

Parking

On-street parking is permitted on both sides of the street, and parking occupancy is relatively low to moderate along this segment.

Pedestrian

Pedestrian volumes are generally very low, except before and after school near the high school and elementary-junior high school in the area (Balboa High school at Cayuga and Onondaga Avenues and Corpus Christi School at Alemany Boulevard and Francis Street). Intersections along Alemany Boulevard at Onondaga Avenue, Santa Rosa Avenue, and Cotter Street have yellow crosswalks designated as school crossings.

Bicycle

This section of Alemany Boulevard is designated as existing Bicycle Route 45 (Class II) in both directions between Rousseau Street and San Jose Avenue. Bicycle volumes are generally low. Existing Bicycle Route 45 intersects with existing Bicycle Route 98 (Class III) at Sickles Avenue, existing Bicycle Route 90 (Class III) at Geneva Avenue, existing Bicycle Route 84 (Class III) at Ocean Avenue, and existing Bicycle Route 70 (Class III) at Silver Avenue. Street grades along Project 5-3 are relatively flat with slopes less than five percent.

Loading

This section of Alemany Boulevard is mostly residential with some commercial and institutional uses. Loading demand typically is low and relies on on-street parking spaces.

PROJECT 5-4: BAYSHORE BOULEVARD BICYCLE LANES, CESAR CHAVEZ STREET TO SILVER AVENUE

Roadways

Bayshore Boulevard between Cesar Chavez Street and Silver Avenue is a four-lane north-south major arterial in an industrial and commercial area. This section of Bayshore Boulevard is part of the MTS Roadway Network and the CMP Network. Traffic volumes are generally high during the AM and PM peak periods.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the AM and PM peak hours.

Intersection 23: Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp

During the weekday AM peak hour, the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection operates at an acceptable level of service (LOS E), with 58.9 seconds of delay. Table V.5-4, p. V.A.3-126, summarizes these results.

TABLE V.5-4
CLUSTER 5 – PROJECT 5-4
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY AM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS
23. Bayshore Boulevard/Jerrold Avenue/US 101 off-ramp	Signal	58.9	E

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

Intersection 23: Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp

During the weekday PM peak hour, the Bayshore Boulevard/Jerrold Avenue/US 101 Off-Ramp intersection operates at an acceptable level of service (LOS E), with 58.9 seconds of delay.

Intersection 24: Bayshore Boulevard/Oakdale Avenue

During the weekday PM peak hour, the Bayshore Boulevard/Oakdale Avenue intersection operates at an acceptable level of service (LOS C), with 29.6 seconds of delay.

Intersection 25: Bayshore Boulevard/Cortland Avenue

During the weekday PM peak hour, the Bayshore Boulevard/Cortland Avenue intersection operates at an acceptable level of service (LOS C), with 21.2 seconds of delay.

Intersection 26: Bayshore Boulevard/Alemany Boulevard/Industrial Street

During the weekday PM peak hour, the Bayshore Boulevard/Alemany Boulevard/Industrial Street intersection operates at an acceptable level of service (LOS D), with 51.2 seconds of delay. Table V.5-5, p. V.A.3-127, summarizes these results.

TABLE **V.5-5**
CLUSTER 5 – PROJECT 5-4
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

	Intersection	Traffic Control Device	Average Delay[a]	LOS
23.	Bayshore Boulevard/Jerrold Avenue/US 101 off-ramp	Signal	58.9	E
24.	Bayshore Boulevard/Oakdale Avenue	Signal	29.6	C
25.	Bayshore Boulevard/Cortland Avenue	Signal	21.2	C
26.	Bayshore Boulevard/Alemany Boulevard/Industrial Street	Signal	51.2	D

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

Transit

Muni bus lines 9, 9X, 9AX, 90 owl, and SamTrans bus line 292 run along Bayshore Boulevard between Cesar Chavez Street and Silver Avenue. Southbound Muni bus lines 9X and 9AX run on US 101. In addition, Muni bus line 23 operates on Bayshore Boulevard between Oakdale Avenue and Industrial Street and Muni bus line 24 runs between Courtland and Industrial Streets. This section of Bayshore Boulevard carries approximately 20 southbound buses and 25 northbound buses during the AM and PM peak periods. Bus stops are located at Jerrold Avenue, Oakdale Avenue, Courtland Avenue, Marengo Street, Alemany Boulevard/Industrial Street, Boutwell Street/Augusta Street, and Silver Avenue.

Parking

On-street parking is permitted on portions of Bayshore Boulevard, and parking occupancy is generally high in this area.

Pedestrian

Pedestrian volumes are generally very low in this area.

Bicycle

Bayshore Boulevard is designated as existing Bicycle Route 25, which includes a northbound Class III bicycle route between Cesar Chavez Street and Silver Avenue and a southbound Class I bicycle path between Cesar Chavez Street and Jerrold Avenue. Existing Bicycle Route 25 intersects with existing Bicycle Route 60 (Class III with and without wide curb lanes) at Cesar

Chavez Street, and existing Route Bicycle 70 (Class III) at Silver Avenue. Street grades along Project 5-4 are relatively flat with slopes less than five percent. Bicycle volumes are very low along Project 5-4.

Loading

This segment of Bayshore Boulevard has a substantial amount of industrial and commercial uses. While most of these uses have off-street parking and loading facilities, some loading demand occurs on the street. Loading to businesses on the west side of Bayshore Boulevard are typically made using the 90-degree parking spaces in front of the store. Loading activities are typically high in the area and double parking was frequently observed.[28]

PROJECT 5-5: CESAR CHAVEZ STREET BICYCLE LANES, I-280 TO US 101 FREEWAYS

Roadways

Cesar Chavez is a major arterial with four travel lanes between the I-280 and US 101 freeways. The section of Cesar Chavez Street is part of the MTS Roadway Network and the CMP Network. Traffic volumes are generally high near the US 101 ramps during the AM and PM peak period.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the PM peak hour. Table V.5-6, p. V.A.3-129, summarizes these results.

Intersection 31: Evans Avenue/Cesar Chavez Street

During the weekday PM peak hour, the Evans Avenue/Cesar Chavez Street intersection operates at an acceptable level of service (LOS D), with 47.4 seconds of delay.

Intersection 32: Pennsylvania Avenue/Cesar Chavez Street/I-280 Off-Ramp

During the weekday PM peak hour, the Pennsylvania Avenue/Cesar Chavez Street/I-280 Off-Ramp intersection operates at an acceptable level of service (LOS C), with 31.9 seconds of delay.

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[28] Field surveys were conducted by CHS Consulting on Tuesday, October 30, 2007 during the midday

TABLE V.5-6
CLUSTER 5 – PROJECT 5-5
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

	Intersection	Traffic Control Device	Average Delay[a]	LOS
31.	Evans Avenue/Cesar Chavez Street	Signal	47.4	D
32.	Pennsylvania Avenue/Cesar Chavez Street/I-280 off-ramp	Signal	31.9	C

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

Transit

Muni bus line 19 runs in both directions on Cesar Chavez Street on the segment of Project 5-5 between Evans Avenue and Connecticut Street (approximately one block), with approximately six buses per hour each way during the AM and PM peak periods.

Parking

On-street parking is generally permitted on both sides of the street, and parking occupancy is moderate to high.

Pedestrian

Pedestrian volumes in this segment are generally low and sidewalks are generally available on both sides of Cesar Chavez Street.

Bicycle

Bicycle volumes are generally low in this area. Cesar Chavez is designated as existing Bicycle Route 60 with a Class II bicycle lane from I-280 west to the Caltrain tracks, Class III bicycle route from the Caltrain tracks west to Kansas Street, and Class III bicycle route with wide curb lanes from Kansas Street to US 101. There is also a Class I bicycle path eastbound between Hampshire Street and Bayshore Boulevard under US 101 and westbound between the northbound US 101 freeway on-ramp and Potrero Avenue. Existing Bicycle Route 60 connects with existing Bicycle Route 68 at Evans Avenue, existing Bicycle Route 525 (Class III with wide curb lanes) at Vermont Street, and existing Bicycle Route 25 (Class I/III) at Bayshore Boulevard. Street grades along Project 5-5 are relatively flat with slopes less than five percent.

Loading

This section has mostly industrial use and most of the buildings have off-street parking lot or loading areas. There is a limited number of on-street yellow commercial freight loading spaces. Most of the loading activities occur in the off-street areas or side streets, although infrequent loading activities were observed utilizing on-street parking spaces.[29]

PROJECT 5-6: CESAR CHAVEZ STREET/26TH STREET BICYCLE LANES, SANCHEZ STREET TO US 101

Roadways

Cesar Chavez Street is a generally secondary arterial between Sanchez and Guerrero Streets with mostly residential use. Cesar Chavez Street is a major arterial between Guerrero Street and US 101 with primarily residential uses. There are six travel lanes between Guerrero Street and US 101. West of Guerrero Street, it narrows down to a two lane street. This section of Cesar Chavez Street is part of the MTS Roadway Network and the CMP Network. Traffic volumes are generally high near the freeway ramps during the AM and PM peak periods and low between Sanchez and Guerrero Streets.

Traffic: Intersection Level of Service (LOS)

Intersection 28: Mission Street/Cesar Chavez Street

During the weekday AM peak hour, the Mission Street/Cesar Chavez Street intersection operates at an acceptable level of service (LOS C), with 27.7 seconds of delay. Table V.5-7, p. V.A.3-130, below summarizes these results.

TABLE **V.5-7**
CLUSTER 5 – PROJECT 5-6
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY AM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS
28. Mission Street/Cesar Chavez Street	Signal	27.7	C

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

29 Field surveys were conducted by CHS Consulting on Tuesday, October 30, 2007 during the midday

Intersection 27: Guerrero Street/Cesar Chavez Street

During the weekday PM peak hour, the Guerrero Street/Cesar Chavez Street intersection operates at an acceptable level of service (LOS D), with 52.5 seconds of delay.

Intersection 28: Mission Street/Cesar Chavez Street

During the weekday PM peak hour, the Mission Street/Cesar Chavez Street intersection operates at an acceptable level of service (LOS D), with 37.5 seconds of delay.

Intersection 29: South Van Ness Avenue/Cesar Chavez Street

During the weekday PM peak hour, the South Van Ness Avenue/Cesar Chavez Street intersection operates at an acceptable level of service (LOS C), with 33.4 seconds of delay.

Intersection 30: Bryant Street/Cesar Chavez Street

During the weekday PM peak hour, the Bryant Street/Cesar Chavez Street intersection operates at an unacceptable level of service (LOS D), with 51.4 seconds of delay. Table V.5-8, p. V.A.3-131, summarizes these results.

TABLE V.5-8
CLUSTER 5 – PROJECT 5-6
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS
27. Guerrero Street/Cesar Chavez Street	Signal	52.5	D
28. Mission Street/Cesar Chavez Street	Signal	37.5	D
29. South Van Ness Avenue/Cesar Chavez Street	Signal	33.4	C
30. Bryant Street/Cesar Chavez Street	Signal	51.4	D

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

Transit

Muni bus lines 12 and 27 and SamTrans bus line 391 operate along portions of the project area for Project 5-6. Muni bus line 12 runs westbound along Cesar Chavez Street between Folsom and Mission Streets with approximately five buses per hour during the AM and PM peak periods. Muni bus line 27 runs along Cesar Chavez Street westbound between Valencia Street and South Van Ness Avenue and in both directions between South Van Ness Avenue and Bryant Street with approximately six buses per hour each way during the AM and PM peak periods. Both Muni bus lines 12 and 27 also operate on a portion of the 26th Street segment of this project in the eastbound direction between Mission and Folsom Streets (Muni bus line 12) and between Valencia Street and South Van Ness Avenue (Muni bus line 27). Eastbound bus stops are located on 26th Street at Mission, South Van Ness Avenue and Folsom Street and on Cesar Chavez at Folsom, Harrison, and Florida Streets. Westbound bus stops are located at almost every block of Cesar Chavez Street including Bryant, Alabama, Harrison, Folsom, Valencia and Mission Streets and South Van Ness Avenue. SamTrans bus line 391 operates during the AM and PM peak periods on Cesar Chavez Street between South Van Ness Avenue and Mission Street with approximately four buses per hour in each direction. The bus does not stop along this section for pick-up or drop-off of passengers.

Parking

On-street parking is generally permitted on both sides of the street, and parking occupancy is moderate to high.

Pedestrian

Pedestrian volumes in this segment are generally low, and slightly higher near Mission Street and before and after classes at the Leonard R. Flynn Elementary School on Cesar Chavez Street at Harrison Street. Intersections along Cesar Chavez Street at Harrison, Folsom, and Shotwell Streets have yellow crosswalks designated as school crossings.

Bicycle

Bicycle volumes are generally low in this area. Cesar Chavez Street is designated as existing Bicycle Route 60 primarily with Class III bicycle route facilities except for an eastbound bicycle lane during the morning commute between York and Hampshire Streets. There is also a Class I bicycle path eastbound between Hampshire Street and Bayshore Boulevard under US 101 and westbound between the northbound US 101 on-ramp and Potrero Avenue. Existing Bicycle Route 60 intersects with existing Bicycle Route 49 (Class III with wide curb lanes) at Sanchez Street, existing Bicycle Route 45 (Class II) at Valencia/Guerrero Streets, existing Bicycle Route 33 (Class II) at Harrison Street, and existing Bicycle Route 25 (Class II) at Potrero Avenue. Street grades along Project 5-6 are relatively flat with slopes of less than five percent except for eight percent grades along the blocks between Guerrero and Dolores Streets and between Sanchez and Church Streets.

Loading

This section of Cesar Chavez Street is mostly residential use with some commercial and institutional uses. Most of the loading activities use the on-street parking spaces.

PROJECT 5-7: GLEN PARK AREA BICYCLE LANES, A. CONNECTION BETWEEN ALEMANY BOULEVARD AND SAN JOSE AVENUE AND B. CONNECTION BETWEEN MONTEREY BOULEVARD AND SAN JOSE AVENUE

Roadways

A. Arlington Street between Bosworth and Wilder Streets is a two-lane local street. Bosworth Street between Diamond and Milton Streets is a two-lane local street. Lyell Street between Bosworth and Still Streets is a two-lane local street, but between Still Street and Alemany Boulevard is a one-way local street with one travel lane. Rousseau Street between Alemany Boulevard and Still Street is a one-way local street with one travel lane. Still Street between Rousseau and Lyell Streets is a one-way local street with one travel lane. Traffic volumes along these streets are generally moderate.

B. San Jose Avenue in the project area is an aerial structure over Bosworth and Lyell Streets with ramp connections Monterey Boulevard. The east and west directions are accommodated on separate ramps both with two travel lanes. Monterey Boulevard has two-way traffic with one lane each way. Traffic volumes along these streets are generally moderate

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

Muni bus lines 23, 44, and 52 run on portions of these five streets. In addition, the Glen Park BART Station is located along Project 5-7a on the northeast corner of the intersection of Bosworth and Diamond Streets. On the most well-served segment of Project 5-7a (Bosworth Street between San Jose Avenue and Diamond Street) there are approximately 16 busses per hour during the AM and PM peak periods. Transit service is less frequent on the other segments of Project 5-7a. Muni bus lines 44 and 52 have an eastbound bus stop on Bosworth Street on the far side of Diamond Street, a westbound stop on Bosworth Street at the nearside of Diamond Street, and a westbound stop on Still Street at the far side of Rotteck Street. Several employer shuttles also service the Glen Park BART Station, operating throughout the day but with the greatest frequency in the AM and PM peak periods. These vehicles, including large, 56-passenger coach buses and smaller 20-passenger shuttles, generally use the loading/disabled parking bay on the east side of Diamond Street south of Bosworth Street. In the AM peak, they illegally use the bus stop on Bosworth Street in front of the BART Station.

Parking

a. On-street parking is permitted on both sides of Arlington Street between Bosworth and Wilder Streets, on Bosworth Street between Diamond and Milton Streets, on Lyell Street between Bosworth and Still Streets (a two-lane local street with on-street parking on both sides), on Rousseau Street between Alemany Boulevard and Still Street, and on Still Street between Rousseau and Lyell Streets. Parking is permitted on Lyell Street between Still Street and Cayuga Avenue only on the west side. Parking occupancy is generally high north of the San Jose Avenue overpass and lower toward Alemany Boulevard, Rousseau Street, and Still Street.

b. San Jose Avenue in the project area is an aerial structure over Bosworth and Lyell Streets with ramp connections at Monterey Boulevard; no on-street parking is permitted. Monterey Boulevard has on-street parking on both sides of the street. Parking occupancy is generally high on Monterey Boulevard.

Pedestrian

Pedestrian volumes are generally low in this area, except on Bosworth Street near the Glen Park BART station.

Bicycle

Bicycle volumes are generally low to moderate along Bosworth and Lyell Streets. This section is designated as existing Bicycle Route 55 (Class III) in both directions on Bosworth and Lyell Streets between Diamond and Still Streets and in one direction on Lyell, Rousseau, and Still Streets. Existing Bicycle Route 55 intersects existing Bicycle Route 45 (Class III with wide curb lanes) at Diamond, San Jose, Still and Lyell Streets. Street grades in this area are relatively steep with slopes ranging from five to twenty percent.

Loading

a. These streets are mostly in residential areas where demand for freight/truck loading activities is low and can be accommodated by on-street parking. Passenger loading activity around the Glen Park BART Station is considerable, occurring primarily in the loading bay on the eastside of Diamond Street south of Bosworth Street in the PM peak hour. Several employer shuttles also load/unload in this location. Illegal passenger loading and unloading occur on Bosworth Street in front of the BART Station in the AM peak hour.

b. This segment of Project 5-7 is an aerial structure with no loading activity.

PROJECT 5-8: KANSAS STREET BICYCLE LANES, 23RD STREET TO 26TH STREET

Roadways

Kansas Street between 23rd and 26th Streets is a two-lane north-south local street that borders US 101. Traffic volumes are generally low.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

Muni bus lines 19 and 48 run in the northbound direction only with approximately 11 buses per hour during the AM and PM peak periods.

Parking

On-street parking is permitted on both sides of the street, and most of the parking spaces are within Residential Parking Permit Zone W, with a one-hour limit for those who do not have a permit. Parking occupancy is moderate.

Pedestrian

Pedestrian volumes are low in the area. The intersection of Kansas and 25th Streets has a yellow crosswalk designated as a school crossing.

Bicycle

Kansas Street is designated as existing Bicycle Route 525 (Class III)) in both directions between 23rd and 26th Streets. This portion of existing Bicycle Route 525 does not intersect with any other routes on the existing bicycle route network. Street grades along Project 5-8 range from five percent to eight percent. Bicycle volumes are low in the area

Loading

This area has residential uses, which typically have low loading demand.

PROJECT 5-9: OCEAN AVENUE BICYCLE LANES, ALEMANY BOULEVARD TO LEE AVENUE

Roadways

Ocean Avenue between Lee Avenue and Alemany Boulevard is a two-lane east-west major arterial, which is part of the MTS Roadway Network and the CMP Network. Traffic volumes are generally high during the AM and PM peak periods.

Traffic: Intersection Level of Service (LOS)

Intersection 41: Phelan Avenue/Geneva Avenue/Ocean Avenue

During the weekday AM peak hour, the Phelan Avenue/Geneva Avenue/Ocean Avenue intersection operates at an acceptable level of service (LOS B), with 19.5 seconds of delay. Table V.5-9, p. V.A.3-136, summarizes these results.

TABLE V.5-9
CLUSTER 5 – PROJECT 5-9
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY AM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS
41. Phelan Avenue/Geneva Avenue/Ocean Avenue	Signal	19.5	B

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

Intersection 34: Alemany Boulevard/Ocean Avenue

During the weekday PM peak hour, the Phelan Avenue/Geneva Avenue/Ocean Avenue intersection operates at an acceptable level of service (LOS B), with 16.1 seconds of delay. This study intersection is common between Projects 5-3 and 5-9.

Intersection 41: Phelan Avenue/Geneva Avenue/Ocean Avenue

During the weekday PM peak hour, the Phelan Avenue/Geneva Avenue/Ocean Avenue intersection operates at an acceptable level of service (LOS B), with 17.6 seconds of delay.

Intersection 42: San Jose Avenue/Ocean Avenue

During the weekday PM peak hour, the San Jose Avenue/Ocean Avenue intersection operates at an acceptable level of service (LOS C), with 25.2 seconds of delay. Table V.5-10, p. V.A.3-137, summarizes these results.

TABLE V.5-10
CLUSTER 5 – PROJECT 5-9
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS
34. Alemany Boulevard/Ocean Avenue	Signal	16.1	B
41. Phelan Avenue/Geneva Avenue/Ocean Avenue	Signal	17.6	B
42. San Jose Avenue/Ocean Avenue	Signal	25.2	C

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

Transit

Muni light rail K-Ingelside operates in the median of Ocean Avenue between Lee and San Jose Avenues, approximately half of which has shared right-of-way and approximately half of which has an exclusive right-of-way with approximately seven vehicles per hour each way in the AM and PM peak periods. Muni bus lines 36 and 49 run along Ocean Avenue between Alemany Boulevard and Phelan Avenue with approximately 10 buses per hour each way in the AM and PM peak periods; Muni bus line 26 runs only in the eastbound direction between Howth Street and San Jose Avenue with approximately three buses per hour in the AM and PM peak periods. Muni bus lines 29, 9X, 9AX, and 9BX operate on Ocean Avenue between Geneva Avenue and Lee Avenue (Muni bus line 29) or Phelan Avenue (Muni bus routes 9X, 9AX, and 9BX) with approximately 24 buses per hour each way in the AM and PM peak periods. There are four westbound bus stops on Ocean Avenue and six eastbound bus stops, and two light rail bus stops in each direction in the center lane at Lee and Geneva Avenues.

Parking

On-street parking is available on portions of Ocean Avenue, and parking occupancy is generally high during weekday daytime hours.

Pedestrian

Pedestrian volumes are generally low to moderate, except high on the western end of the corridor near the CCSF. Intersections along Ocean Avenue at Cayuga, Otsego, Delano, and San Jose Avenues have yellow crosswalks designated as school crossings.

Bicycle

Ocean Avenue is designated as existing Bicycle Route 84 (Class III) with sharrows in each direction between Lee Avenue and the I-280 on-ramp. Existing Bicycle Route 84 joins with existing Bicycle Route 90 (Class III) on Ocean Avenue, intersects with existing Bicycle Route 770 (Class III) at Phelan Avenue, and existing Bicycle Route 45 (Class II) at Alemany Boulevard. Street grades along Project 5-9 range from four to seven percent. Bicycle volumes are generally low.

Loading

Loading activities are very limited east of I-280 ramps because there is the Balboa Park on the north side and Muni/BART Balboa Park Station and Muni Balboa Park Yard on the south side. Truck loading activities are also low west of the I-280 ramps because the north side is the CCSF and loading activities for the City College are performed within the City College, not on the street. On the south side in this section, most of the uses are residential and loading activities are low.

PROJECT 5-10: PHELAN AVENUE BICYCLE LANES, JUDSON AVENUE TO OCEAN AVENUE

Roadways

Phelan Avenue between Judson Avenue and Ocean Avenue is a four-lane north-south local street next to the CCSF. Traffic volumes are high during the AM and PM peak periods.

Traffic: Intersection Level of Service (LOS)

Intersection 41: Phelan Avenue/Geneva Avenue/Ocean Avenue

This study intersection is common between Projects 5-9 and 5-10.

Transit

Muni bus lines 36 and 43 run in both directions along Phelan Avenue between Judson Avenue and Ocean Avenue with approximately nine buses per hour each way during the AM and PM peaks. There are six bus stops on this section of Phelan Avenue, three in each direction.

Parking

On-street parking is permitted on both sides of the street, and parking occupancy is high.

Pedestrian

Pedestrian volumes are high along the sidewalks and at the crosswalks throughout the corridor when the City College is in session, and also because this segment is a key route to transit stops on Ocean Avenue.

Bicycle

Phelan Avenue is designated as existing Bicycle Route 770 (Class III)) in both directions between Judson Avenue and Ocean Avenue. Existing Bicycle Route 770 intersects with existing Bicycle Route 84 (Class III) at Ocean Avenue. Street grades along Project 5-10 are relatively flat with slopes less than three percent. Bicycle volumes are moderate to high.

Loading

This segment of Phelan Avenue currently has campus buildings on the east side and a surface parking lot on the west side. Loading demand for CCSF occur on the campus, not on the street. There are occasional deliveries made to the book store on the west side of Phelan Street.

PROJECT 5-11: POTRERO AVENUE AND BAYSHORE BOULEVARD BICYCLE LANES, 25TH TO CESAR CHAVEZ STREETS

Roadways

Potrero Avenue is a five-lane major arterial. Just south of 25th Street, Potrero Avenue becomes a connecting ramp to the US 101, Bayshore Boulevard, and Cesar Chavez Street with a one-way frontage road at either side. Potrero Avenue is part of the MTS Roadway Network and the CMP Network, but the majority of the study area is a local street. Traffic volumes are generally low on the frontage road but high on Potrero Avenue.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

Muni bus line 9 runs in both directions with one southbound bus stop within Project 5-11 on the far side of 25th Street. There are approximately six buses per hour each way during the AM peak period and eight buses per hour each way in the PM peak period.

Parking

On-street parking is permitted only on the west side of Potrero Avenue within this block.

Pedestrian

Pedestrian volumes are generally low.

Bicycle

Bicycle volumes are low to moderate. Potrero Avenue is designated as existing Bicycle Route 25 (Class II). Existing Bicycle Route 25 connects to existing Bicycle Route 60 (Class III) at Cesar Chavez. Street grades along Project 5-11 are approximately two percent.

Loading

This segment of Potrero Avenue has a mix of recreational, residential, and some commercial uses, and the loading demand is very low and usually accommodated by the on-street parking spaces.

PROJECT 5-12: SAGAMORE STREET AND SICKLES AVENUE BICYCLE LANES, ALEMANY BOULEVARD TO BROTHERHOOD WAY

Roadways

Sagamore Street/Sickles Avenue between Brotherhood Way and Alemany Boulevard is a local street with three westbound and two eastbound lanes. Traffic volumes are moderate to high during the AM and PM peak periods.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the PM peak hour.

Intersection 35: Alemany Boulevard/Sickles Avenue

During the weekday PM peak hour, the Alemany Boulevard/Sickles Avenue intersection operates at an acceptable level of service (LOS D), with 41.2 seconds of delay. Table V.5-11, p. V.A.3-141, summarizes these results.

TABLE V.5-11
CLUSTER 5 – PROJECT 5-12
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS
35. Alemany Boulevard/Sickles Avenue	Signal	41.2	D

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

Transit

Muni bus line 88 operates along the full length of Project 5-12 in the westbound between Alemany Boulevard and Brotherhood Way in the PM peak only with approximately three buses per hour. It also runs in both directions for the short distance between Alemany Boulevard and San Jose Avenue with three buses westbound in the PM peak and three buses eastbound during the AM peak. Muni bus line 54 runs in both directions along Sagamore Street between Plymouth Avenue and Brotherhood Way with approximately three buses per hour each way during the AM and PM peak periods.

Parking

On-street parking is generally permitted on both sides of the street, and parking occupancy is generally moderate.

Pedestrian

Pedestrian volumes are relatively low in this area.

Bicycle

Sagamore Street is designated as existing Bicycle Route 98 with a westbound Class III bicycle route between San Jose Avenue and Brotherhood Way and an eastbound Class II bicycle lane between Capitol Avenue and San Jose Avenue. Existing Bicycle Route 98 also runs on Sickles Avenue with a northbound Class II bicycle lane that discontinues mid-block between Alemany

Boulevard and San Jose Avenue and a Class I bicycle path from Alemany Boulevard to San Jose Avenue. Existing Bicycle Route 98 intersects existing Bicycle Route 45 (Class II) at Alemany Boulevard. Street grades along Project 5-12 are flat with slopes less than one percent. Bicycle volumes are generally low.

Loading

This segment of Sagamore Street is mostly residential with low truck loading demand. Loading demand typically occurs on the street.

PROJECT 5-13: SAN BRUNO AVENUE BICYCLES LANES, PAUL AVENUE TO SILVER AVENUE

Roadways

San Bruno Avenue between Paul and Silver Avenues is a two-lane north-south local street. The US 101 freeway on-ramp and off-ramp are located at the intersection of San Bruno Avenue and Silliman Street. Traffic volumes are generally low to moderate.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

Muni bus line 9 runs in both directions on San Bruno Avenue; Muni bus lines 9AX and 9X operate southbound only from Silver Avenue to Bacon Street and in both directions from Bacon Street to Paul Avenue. Muni bus line 9AX operates only during the peak periods. There are approximately 18 buses per hour southbound and 12 buses per hour northbound within Project 5-13.

Parking

On-street parking is permitted on both sides of the street. Intersections at Burrows and Bacon Streets have yellow crosswalks designated as school crossings.

Pedestrian

Pedestrian volumes are moderate between US 101 and Bacon Street.

Bicycle

There are no existing bicycle routes on this section of San Bruno Avenue but would involve moving a portion of the existing Bicycle Route 25 from Bayshore Boulevard onto San Bruno Avenue. Project 5-13 would intersect existing Bicycle Route 5 (Class III) at Paul Street, and existing Bicycle Route 70 (Class III) at Silver. Bicycle volumes are generally low. Street grades along Project 5-13 range are relatively flat with slopes less than three percent.

Loading

This is a mixed residential and commercial street. Most of the businesses along this street do not have off-street loading spaces, thus, truck deliveries use on-street parking and on-street yellow commercial freight loading spaces. While a significant number of on-street loadings zones are available, especially on the northern part of the corridor, truck double parking occurs frequently

CLUSTER 6: TWIN PEAKS AREA

PROJECT LOCATION

This section presents the project-level transportation impact analysis conducted for the near-term bicycle route network improvement projects (near-term improvements) within the Cluster 6 area, including a description of the near-term improvements, their location and existing traffic, transit, parking, pedestrian, bicycle and loading conditions in the area. 2025 Cumulative conditions with and without the project alternatives, any potential transportation impacts of the near-term improvements and possible mitigation and improvement measures are also discussed and analyzed.

Cluster 6 is located in a central area of San Francisco including the hills of Twin Peaks, Mt. Sutro and Mt. Davidson. Cluster 6 is rectangular in shape and bounded on the north by the line connecting Moraga and 20th Streets, the west by 19th Avenue and the east by Diamond Street. The southern boundary is located just south of Sloat Boulevard and extends east to Chenery Street. The hilly neighborhoods of Diamond Heights, Glen Park, Mt. Davidson, West Portal and Twin Peaks can be found in Cluster 6. Laguna Honda Hospital is located in the heart of the cluster. The University of California at San Francisco and CCSF are located to the north and south of the cluster, respectively; Stern Grove, Stonestown Galleria Shopping Center, and SFSU are found to the southwest. The six near-term improvements included in Cluster 6 comprise portions of existing Bicycle Routes 50, 60, and 65 in San Francisco's existing bicycle route network. These routes represent the flattest routes through this hilly terrain. Existing Bicycle

Route 50 is a major east-west connector from the San Francisco Bay to the Pacific Ocean linking the Ferry Building at the base of Market Street to the Great Highway.

Six projects are included in the Cluster 6 area. Each project and location is identified below.

Project 6-1: Claremont Boulevard Bicycle Lanes, Dewey Boulevard to Portola Drive

Existing Bicycle Route 65 includes Projects 6-1 and 6-3 and connects the Presidio and Golden Gate Park to Laguna Honda Hospital and West Portal in Cluster 6. Existing Bicycle Route 65 continues south west to Junipero Serra Boulevard near SFSU.

Project 6-2: Clipper Street Bicycle Lanes, Douglass Street to Portola Drive

Existing Bicycle Route 60, represented by Projects 6-2, along with 6-3 and 6-4, connect 3rd Street in Potrero Hill to the Great Highway.

Project 6-3: Laguna Honda Boulevard Bicycle Lanes, Plaza Street to Woodside Avenue

Project 6-3 also connects the Presidio and Golden Gate Park to Laguna Honda Hospital and West Portal. Existing Bicycle Route 65 continues south west to Junipero Serra Boulevard near SFSU.

Project 6-4: Laguna Honda Boulevard Bicycle Lanes, Portola Drive to Woodside Avenue

Existing Bicycle Route 60, represented by Projects 6-4 along with Projects 6.2 and 6-3 also connect 3rd Street in Potrero Hill to the Great Highway.

Project 6-5: Portola Drive Bicycle Lanes, Corbett Avenue to O’Shaughnessy Boulevard

Project 6-6: Portola Drive Bicycle Lanes, O’Shaughnessy Boulevard/Woodside Avenue to Sloat Boulevard/St. Francis Boulevard

Projects 6-5 and 6-6, both on Portola Drive, are included on existing Bicycle Route 50 which is also part of the San Francisco Bay Area Regional Bikeway Network.

PROJECT DESCRIPTION

The following paragraphs describe the six near-term improvements included within the Cluster 6 area. Projects 6-1, 6-4, and 6-5 have one design option; the remaining near-term improvements

(Projects 6-2, 6-3, and 6-6) have two design options. Detailed drawings of existing and proposed lane striping and roadway geometry changes are included in Appendix B.

PROJECT 6-1: CLAREMONT BOULEVARD BICYCLE LANES, DEWEY BOULEVARD TO ULLOA STREET

Modified Project 6-1 would install a Class II bicycle lane in the northbound direction on Claremont Boulevard from Ulloa Street to Dewey Boulevard. In the southbound direction, Modified Project 6-1 would add sharrows to the existing Class III bicycle route from Dewey Boulevard to approximately 190 feet south of Ulloa Street and add a Class II bicycle lane from Ulloa Street to Portola Drive.[30] This project would remove parking on the west side of Claremont Boulevard from Portola Drive to approximately 85 feet northerly. A total of four parking spaces would be removed Modified Project 6-1 would not involve travel lane removal.

PROJECT 6-2: CLIPPER STREET BICYCLE LANES, DOUGLASS STREET TO PORTOLA DRIVE

Project 6-2 would involve the installation of Class II and Class III bicycle facilities in both directions on Clipper Street between Douglass Street and Portola Drive. Project 6-2 is divided into two segments.

- **Segment I**
  Segment I would extend between Diamond Heights Boulevard and Douglass Street. Project 6-2 would install Class II bicycle lanes in both directions along Segment I by removing one travel lane in each direction and establishing a center two-way left-turn lane.

- **Segment II**
  Segment II would extend between Diamond Heights Boulevard and Portola Drive and includes two design options:

- **Segment II Option 1**
  Segment II Option 1 would replace one westbound left-turn lane on Clipper Street approaching Portola Drive with a Class II left-turn bicycle lane. This option would also install a westbound Class II bicycle lane along the north curb on Clipper Street approaching Portola Drive. Sharrows would be added to the existing Class III bicycle route in the eastbound direction. This option would not involve parking removal.

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30 Sharrows are a traffic control device which consists of pavement markings within the traffic lane. The markings are intended to alert drivers that bicyclists share the traffic lane and also to reduce the chance of bicyclists impacting the open doors of parked vehicles. For more information on sharrows, please see http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd/CAMUTCD-Part 9.pdf.

- **Segment II Option 2**
  Segment II Option 2 would add sharrows in both directions to the existing Class III bicycle route. This option would not involve travel lane or parking removal.

PROJECT 6-3: LAGUNA HONDA BOULEVARD BICYCLE LANES, PLAZA STREET TO WOODSIDE AVENUE

Two design options were analyzed for Project 6-3 in the Draft EIR. The preferred design is consistent with design Option 2, with the following changes. The limits of this project are now on Laguna Honda Boulevard between Clarendon Avenue and Woodside Avenue. This project would remove one travel lane in each direction on Laguna Honda Boulevard between Clarendon Avenue and Plaza Street, and remove one southbound travel lane from Forest Hill Station to Woodside Avenue. The project would also remove eight vehicular parking spaces and two motorcycle spaces. The refinement of Project 6-3 is referred to as Modified Option 2.

Project 6-3 would involve the installation of Class II bicycle lanes in both directions on Laguna Honda Boulevard between Plaza Street and Woodside Avenue. Project 6-3 includes two design options:

- **Option 1**
  Option 1 would install a Class II bicycle lane on Laguna Honda Boulevard in the northbound direction by removing one northbound travel lane from Woodside Avenue to approximately 320 feet north of Plaza Street. Option 1 would install a Class II bicycle lane in the southbound direction on Laguna Honda Boulevard by removing one southbound travel lane from 115 feet south of Plaza Street to Dewey Boulevard. Option 1 would also install a Class II left-turn bicycle lane on southbound Laguna Honda Boulevard approaching the Laguna Honda Boulevard/Dewey Boulevard intersection. Option 1 does not involve parking removal.

- **Option 2**
  Option 2 would install Class II bicycle lanes in both directions on Laguna Honda Boulevard by widening the roadway and narrowing portions of the median. Option 2 does not involve travel lane or parking removal.

PROJECT 6-4: LAGUNA HONDA BOULEVARD BICYCLE LANES, PORTOLA DRIVE TO WOODSIDE AVENUE

Modified Project 6-4 would narrow travel lanes and establish Class II bicycle lanes in both directions by removing approximately four parking spaces.

Modified Project 6-4 would also involve consolidation of three Muni bus stops on Laguna Honda Boulevard at Idora Avenue, Balceta Avenue, and Hernandez Avenue into one 80-foot bus zone in each direction resulting in a loss of eight parking spaces.

Modified Project 6-4 would remove a total of 12 parking spaces.

PROJECT 6-5: PORTOLA DRIVE BICYCLE LANES, CORBETT AVENUE TO O'SHAUGHNESSY BOULEVARD

This project would install a combination of bicycle lanes and sharrows on Portola Drive in both directions between Corbett Avenue and O'Shaughnessy Boulevard. One design option was analyzed in the Draft EIR. The preferred design is consistent with that option with the following changes. The modified project would install a Class II bicycle lane in the eastbound direction from approximately 350 feet east of O'Shaughnessy Boulevard to approximately 260 feet west of Corbett Avenue. Sharrows would be installed in the 350 foot and 260 foot-long segments at each end of the project limits where there would not be bicycle lanes.

Modified Project 6-5 would install a combination of Class II bicycle lanes and sharrows on Portola Drive in both directions between Corbett Avenue and O'Shaughnessy Boulevard. The preferred option is referred to as Modified Project 6-5.

Project 6-5 would involve the installation of Class II bicycle lanes in both directions on Portola Drive between Corbett Avenue and the intersection of O'Shaughnessy Boulevard and Woodside Avenue.

In the eastbound direction, a Class II bicycle lane would be added to Portola Drive by removing a travel lane from O'Shaughnessy Boulevard to 300 feet easterly and by narrowing travel lanes from 300 feet east of O'Shaughnessy Boulevard to 215 feet west of Corbett Avenue.

In the westbound direction, a Class II bicycle lane would be added to Portola Drive by removing approximately four parking spaces and narrowing travel lanes from Corbett Avenue to Burnett Avenue. Project 6-5 would remove one westbound lane approaching Clipper Street and would add approximately 15 parking spaces. From Burnett Avenue to Twin Peaks Boulevard, a Class II bicycle lane would be added by narrowing travel lanes. From Twin Peaks Boulevard to Woodside Avenue, a Class II bicycle lane would be added by removing one westbound left-turn lane approaching O'Shaughnessy Boulevard.

PROJECT 6-6: PORTOLA DRIVE BICYCLE LANES, O'SHAUGHNESSY BOULEVARD/WOODSIDE AVENUE TO SLOAT BOULEVARD/ST. FRANCIS BOULEVARD

Project 6-6 Modified Option 2 would install Class II bicycle lanes on Portola Drive in the northeast direction by narrowing the travel lanes and by removing approximately six parking spaces on the south side of Portola Drive along the traffic island at Miraloma Drive. A combination of Class II and Class III bicycle facilities would be provided on Portola Drive in the southwest direction by removing one left-turn lane at Fowler Avenue and by narrowing travel lanes. The preferred project is referred to as Modified Option 2. Sharrows would be installed to the existing Class III bicycle route in the southwest direction on Portola Drive between Waithman Way and Sloat Boulevard.

Project 6-6 would involve the installation of Class II and Class III bicycle facilities in both directions between the intersections of O'Shaughnessy Boulevard/Woodside Avenue and Sloat Boulevard/St. Francis Boulevard. Project 6-6 includes two design options:

- **Option 1**
  Option 1 would install a Class II bicycle lane in the northeast direction on Portola Drive as follows: from St. Francis Boulevard to Evelyn Way by removing approximately 240 parking spaces and from Evelyn Way to O'Shaughnessy Boulevard by removing one travel lane in the northeast direction.

  Option 1 would install a Class II bicycle lane in the southwest direction on Portola Drive as follows: from Woodside Avenue to Sydney Way/Fowler Avenue by removing one left-turn lane approaching Fowler Avenue from Sydney Way to Evelyn Way by narrowing travel lanes; and from Laguna Honda Boulevard to Waithman Way by narrowing travel lanes.

Option 1 would add sharrows to the existing Class III bicycle route on Portola Drive in the southwest direction as follows: from Evelyn Way to Laguna Honda Boulevard and from Waithman Way to Sloat Boulevard.

- **Option 2**
  Option 2 would install a Class II bicycle lane in the northeast direction on Portola Drive from St. Francis Boulevard to Evelyn Way by narrowing travel lanes.

  Option 2 would install sharrows on the existing Class III bicycle route in the northeast direction on Portola Drive from Evelyn Way to Woodside Avenue.

  Option 2 would install sharrows on the existing Class III bicycle route in the southwest direction on Portola Drive as follows: from Woodside Avenue to Laguna Honda Boulevard and from Waithman Way to Sloat Boulevard.

  Option 2 would install a Class II bicycle lane in the southwest direction by narrowing travel lanes from Laguna Honda Boulevard to Waithman Way.

PROJECT SETTING

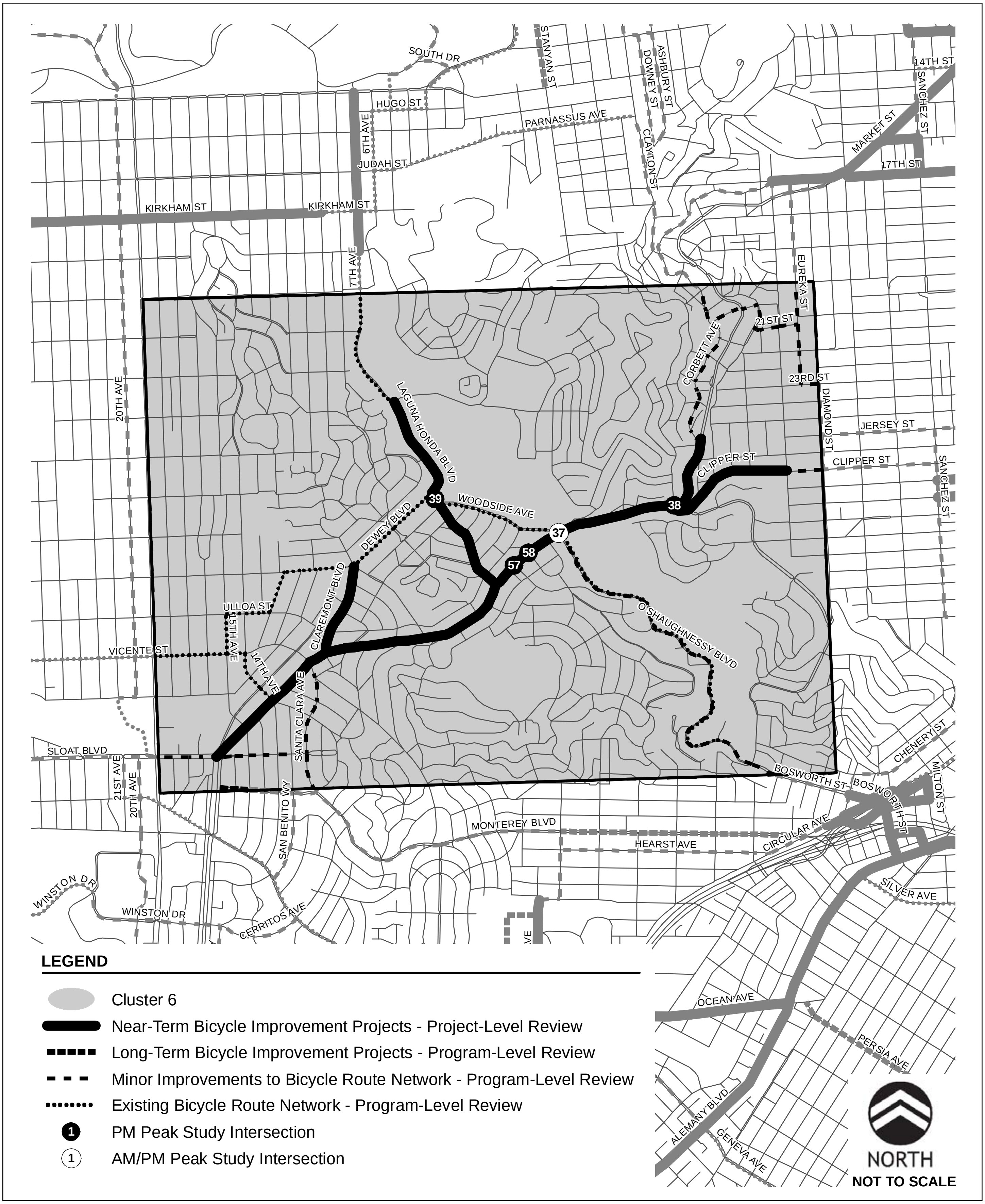
This section provides a description of the existing transportation conditions along the near-term improvements in Cluster 6. Descriptions of the existing roadway access, traffic, transit, parking, pedestrian, bicycle and loading conditions are included. The study intersections for Cluster 6 are shown on Figure V.A.3-10, p. V.A.3-149. Figures showing the turning movement traffic volumes and lane configurations at those study intersections for Existing Conditions may be found within the transportation impact analysis discussion for Cluster 6 within the transportation impact study. LOS calculation sheets for those study intersections and transit. Delay calculation sheets for the affected transit routes may be found in the appendices of the transportation impact study.[31]

PROJECT 6-1: CLAREMONT BOULEVARD BICYCLE LANES, DEWEY BOULEVARD TO PORTOLA DRIVE

Roadways

Claremont Boulevard between Portola Drive and Dewey Boulevard is a two-lane north-south secondary arterial, which is part of the MTS Roadway Network. This section has mostly residential buildings. There are two schools (Maria8 Montessori School and West Portal

[31] Wilbur Smith Associates. 2008. *San Francisco Bicycle Plan Update Transportation Impact Study*. This document is available for review by appointment at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103 as part of Case File No 2007.0347E.



SOURCE: Wilbur Smith and Associates, 2008.

REVISED FIGURE V.A.3-10: CLUSTER 6 - STUDY AREA

Elementary School) on the west side of Claremont Boulevard between Allston Way and Taraval Street. Traffic volumes are generally low to moderate.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

The Muni L OWL (late night transit service) runs on Claremont Boulevard between Dewey Boulevard and Ulloa Street, but there is no transit service during the day and evening hours in this section of Claremont Boulevard.

Parking

On-street parking is permitted on both sides of the street, and parking occupancy is generally high. The west side of the street between Ulloa Street and Dewey Boulevard has a striped buffer space between the parking lane and the adjacent travel lane.

Pedestrian

Pedestrian volumes are generally low, except before and after school. The intersections of Claremont Boulevard at Ulloa Street, Dorchester Way, Allston Way, Granville Way, and Dewey Boulevard have yellow crosswalks designated as school crossings.

Bicycle

Bicycle volumes are generally low. Claremont Boulevard is designated as existing Bicycle Route 65 (Class III) in both directions between Dewey Boulevard and Portola Drive. Existing Bicycle Route 65 joins existing Bicycle Routes 60/65 (Class II) at Dewey Boulevard, and intersects existing Bicycle Route 50 (Class III) at Portola Drive. Street grades on Project 6-1 range from five to ten percent, with steeper grades approaching 18 percent on the short block between Ulloa Street and Portola Drive.

Loading

This section of Claremont Boulevard has mostly residential buildings with two gasoline stations at the intersection with Ulloa Street and a school near Dewey Boulevard. Loading activities in this area are low and there are no yellow commercial freight loading spaces.

PROJECT 6-2: CLIPPER STREET BICYCLE LANES, DOUGLASS STREET TO PORTOLA DRIVE

Roadways

Clipper Street between Portola Drive and Douglass Street is a four-lane secondary arterial. Traffic volumes are generally moderate.

Traffic: Intersection Level of Service (LOS)

Intersection 38: Burnett Avenue/Clipper Street/Portola Drive

During the weekday PM peak hour, the Burnett Avenue/Clipper Street/Portola Drive intersection operates at an acceptable level of service (LOS D), with 49.6 seconds of delay. This study intersection is common between Projects 6-2 and 6-5. Table V.6-1, p. V.A.3-151, summarizes these results.

Transit

Muni bus line 48 runs in both directions on Clipper Street between Portola Drive and Grandview Avenue with approximately five buses per hour each way during the AM and PM peak periods. Muni bus line 52 operates in both directions on Clipper Street between Portola Drive and Diamond Heights Boulevard with approximately four buses per hour each way during the AM peak period and approximately three buses per hour each way during the PM peak period.

TABLE **V.6-1**
CLUSTER 6– PROJECT 6-2
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection		Traffic Control Device	Average Delay[a]	LOS
38.	Burnett Avenue/Clipper Street/Portola Drive	Signal	49.6	D

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

There are two bus stops along Project 6-2. One is located on the north side of Clipper Street for westbound Muni bus line 48. The second stop is an eastbound bus stop for Muni bus lines 48 and 52 located on the south side of Clipper Street between Portola Drive and Diamond Heights Boulevard.

Parking

On-street parking is permitted on both sides of the street, and parking occupancy is generally low.

Pedestrian

Pedestrian volumes are very low. For this segment of Clipper Street between Douglass Avenue and Portola Drive, there is no sidewalk on the south side, and there are no marked crosswalks

Bicycle

Bicycle volumes are generally low. Clipper Street is designated as existing Bicycle Route 60 (Class III) in both directions between Portola Drive and Sanchez Street. Existing Bicycle Route 60 intersects existing Bicycle Routes 50/55 (Class III) at Portola Drive. East of the limit to Project 6-2 at Douglass Street, existing Bicycle Route 60 intersects with existing Bicycle Route 749 (Class III with wide curb lanes at Diamond Street and existing Route 49 (Class III with wide curb lanes) at Sanchez Street. Street grades on Project 6-2 are relatively steep ranging from 10 to 18 percent with a relatively flat segment of less than five percent for the one block between Portola Drive and Diamond Heights Boulevard.

Loading

This segment of Clipper Street includes primarily residential uses. There is a steep slope on the south side of Clipper Street between Douglas Street and Diamond Heights Boulevard. Loading demand is very low and there are no on-street yellow commercial freight loading spaces.

PROJECT 6-3: LAGUNA HONDA BOULEVARD BICYCLE LANES, PLAZA STREET TO WOODSIDE AVENUE

Roadways

Laguna Honda Boulevard between Plaza Street and Woodside Avenue is a short segment of roadway, approximately 800 feet long. It is a two-lane north-south secondary arterial, with an additional southbound travel lane for left-turn vehicles approximately between the Forest Hill Muni station entrance and Woodside Avenue. Traffic volumes are generally high during the AM and PM peak periods.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the PM peak hour.

During the weekday PM peak hour, the Laguna Honda Boulevard/Dewey Boulevard/Woodside Avenue intersection operates at an acceptable level of service (LOS B), with 18.7 seconds of delay. Table V.6-2, p. V.A.3-153, summarizes these results.

TABLE V.6-2
CLUSTER 6– PROJECT 6-3
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS
39. Laguna Honda Boulevard/Dewey Boulevard/Woodside Avenue	Signal	18.7	B

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

Transit

Muni bus lines 36, 43, 44, 52, 89, and L OWL operate in both directions along Laguna Honda Boulevard between Plaza Street and Woodside Avenue. There are two bus stops: the southbound stop is located directly in front of the Forest Hill Muni Station and the northbound stop is located across the street in an exclusive turn-off area. There are approximately 19 buses per hour each way during the AM peak period and approximately 18 buses per hour each way during the PM peak period.

Parking

On-street parking is permitted on the west side of Laguna Honda Boulevard between Plaza Street and the Forest Hill Muni Station.

Pedestrian

Pedestrian volumes are moderate at the crosswalk to the Forest Hill Muni Station during the AM and PM peak periods.

Bicycle

This segment of Laguna Honda Boulevard is designated as existing Bicycle Route 65 (Class III) in both directions between Plaza Street and Dewey Boulevard and as existing Bicycle Route 60 (Class III) for the very short block between Dewey Boulevard and Woodside Avenue. North of Project 6-3, Laguna Honda Boulevard continues as existing Bicycle Route 65 (Class II). At

Dewey Boulevard, Project 6-3 intersects with existing Bicycle Routes 60/65 (Class II). Street grades along Project 6-3 are moderately steep ranging from five to ten percent.

Loading

This section of Laguna Honda Boulevard has Laguna Honda Hospital on one side and Forest Hill Muni Metro Station on the other. The passenger and Muni bus loading area are separated from the travel lane by an island. Truck loading for Laguna Honda Hospital occurs within the hospital grounds and there are no freight loading activities associated with the Muni station. While there are no existing on-street yellow commercial freight loading spaces along Project 6-3, there was also no observed demand[32] from surrounding land uses. Passenger loading is accommodated in the turn-off in front of the Forest Hill Muni Station entrance as well as on the east side across the street from the entrance.[33]

PROJECT 6-4: LAGUNA HONDA BOULEVARD BICYCLE LANES, PORTOLA DRIVE TO WOODSIDE AVENUE

Roadways

Laguna Honda Boulevard between Portola Drive and Woodside Avenue is a two-lane north-south collector. Traffic volumes are high during the AM and PM peak periods.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

Muni bus line 43 runs along Laguna Honda Boulevard between Portola Drive and Woodside Avenue with approximately six buses per hour in each direction during the AM and PM peak periods. There are three northbound and four southbound bus stops within this segment. The northbound bus stop, located at the nearside of Ulloa Street, and the southbound bus stop, located at the nearside of Portola Drive, are bus zones, but the remaining bus stops are pole stops.

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32 Field surveys were conducted by CHS Consulting on Wednesday, December 19, 2007 during the midday.

33 Field surveys were conducted by CHS Consulting on Wednesday, December 19, 2007 during the midday.

Parking

On-street parking is permitted on both sides of the street, and parking occupancy is relatively low during the day within this predominantly residential area.

Pedestrian

Pedestrian volumes are typically low.

Bicycle

Bicycle volumes are typically low. This segment of Laguna Honda Boulevard is designated as existing Bicycle Route 60 (Class III with wide curb lanes) southbound between Portola Drive and Woodside Avenue. Northbound existing Bicycle Route 60 is located on Woodside Avenue. Existing Bicycle Route 60 intersects with existing Bicycle Route 65 (Class III) at Laguna Honda Boulevard, existing Bicycle Routes 60/65 (Class II) at Dewey Boulevard, and existing Bicycle Route 50 (Class III) at Portola Drive. Street grades on Project 6-4 are moderately steep with slopes generally less than 10 percent with the exception of the block between Balceta Avenue, and Hernandez Avenue which has gradients greater than 12 percent.

Loading

This section of Laguna Honda Boulevard is residential. There are no on-street yellow commercial freight loading spaces in the area; freight loading demand associated with residential use is typically very low.

PROJECT 6-5: PORTOLA DRIVE BICYCLE LANES, CORBETT AVENUE TO O'SHAUGHNESSY BOULEVARD

Roadways

Portola Drive between Corbett Avenue and O'Shaughnessy Boulevard is a major arterial, which is part of the MTS Roadway Network and the CMP Network. Portola Drive is a six-lane roadway between O'Shaughnessy Boulevard and Clipper Street and continues as a four-lane roadway between Clipper Street and Corbett Avenue. Traffic volumes are moderate to high during the AM and PM peak periods.

Traffic: Intersection Level of Service (LOS)

Intersection 37: Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive

During the weekday AM peak hour, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at an unacceptable level of service (LOS E), with 60.1 seconds of delay. This study intersection is common between Projects 6-5 and 6-6. Table V.6-3, p. V.A.3-156, summarizes these results.

TABLE V.6-3
CLUSTER 6 – PROJECT 6-5
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY AM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS[b]
37. Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive	Signal	60.1	E

Source: Wilbur Smith Associates, October 2008.
Notes:
a. Delay in seconds per vehicle.
b. Intersections operating at LOS E or LOS F conditions highlighted in bold.

Intersection 37: Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive

During the weekday PM peak hour, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at an unacceptable level of service (LOS F), with more than 80 seconds of delay. Table V.6-4, p. V.A.3-156, summarizes these results.

TABLE V.6-4
CLUSTER 6 – PROJECT 6-5
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS[b]
37. Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive	Signal	>80	F
38. Burnett Avenue/Clipper Street/Portola Drive	Signal	49.6	D

Source: Wilbur Smith Associates, October 2008.
Notes:
a. Delay in seconds per vehicle.
b. Intersections operating at LOS E or LOS F conditions highlighted in bold.

Intersection 38: Burnett Avenue/Clipper Street/Portola Drive

During the weekday PM peak hour, the Burnett Avenue/Clipper Street/Portola Drive intersection operates at an acceptable level of service (LOS D), with 49.6 seconds of delay. This study intersection is common between the two Projects 6-5 and 6-2. Table V.6-4, p. V.A.3-156, summarizes these results.

Transit

Muni bus lines 37, 48, and 52 operate along portions of Portola Drive between Corbett Avenue and O'Shaughnessy Boulevard. Muni bus line 37 runs in the westbound direction between Glenview Drive and Corbett Avenue with approximately four buses westbound during the AM and PM peak periods. Muni bus lines 48 and 52 operate in both directions between O'Shaughnessy Boulevard and Burnett Avenue with approximately nine buses each way during the AM peak period and PM peak periods. The segment between Glenview Drive and Burnett Avenue has the highest transit activity with approximately 13 westbound buses and nine eastbound buses during the AM peak period and nine buses each way during the PM peak period. There is one westbound and two eastbound bus stops along this segment.

Parking

On-street parking is not permitted between O'Shaughnessy Boulevard and Clipper Street, but is permitted on both sides of the street between Clipper Street and Corbett Avenue. Parking occupancy in this short segment is moderate.

Pedestrian

Pedestrian volumes are generally low along Project 6-5.

Bicycle

Portola Drive is designated as existing Bicycle Routes 50/55 (Class III) in both directions between Corbett Avenue and Clipper Street. From Clipper Street to O'Shaughnessy Boulevard, Portola Drive is designated as existing Bicycle Routes 50, 55, and 60 (Class III). Project 6-5 intersects with existing Bicycle Route 60 (Class III) at Clipper Street and existing Bicycle Route 55 (Class I/III) at O'Shaughnessy Boulevard. In addition, Project 6-5 connects to Project 6-6 to continue to Sloat Boulevard as discussed below. Street grades along Project 6-5 are moderately steep but mostly below ten percent. Bicycle volumes are generally low along Project 6-5.

Loading

This segment of Portola Drive has mostly residential development, except for the gasoline station at the Portola Drive/O'Shaughnessy Boulevard intersection. There are no on-street yellow commercial freight loading spaces in the area; freight loading associated with residential uses is typically very low.

PROJECT 6-6: PORTOLA DRIVE BICYCLE LANES, O'SHAUGHNESSY BOULEVARD/ WOODSIDE AVENUE TO SLOAT BOULEVARD/ST. FRANCIS BOULEVARD

Roadways

Portola Drive is a six-lane major arterial with a median between O'Shaughnessy Boulevard and Sydney Way/Fowler Avenue and a four-lane arterial road between Sydney Way/Fowler Avenue and Sloat Boulevard. Portola Drive between O'Shaughnessy Boulevard and Sloat Boulevard is part of the MTS Roadway Network and the CMP Network. Traffic volumes are generally high during the AM and PM peak periods.

Traffic: Intersection Level of Service (LOS)

Table V.6-5, p. V.A.3-158, summarizes these results.

TABLE V.6-5
CLUSTER 6 – PROJECT 6-6
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

	Intersection	Traffic Control Device	Average Delay[a]	LOS[b]
37.	Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive	Signal	>80	F
57.	Evelyn Street/Portola Avenue	Signal	29.3	C
58.	Fowler Street/Portola Avenue	Signal	20	C

Source: Wilbur Smith Associates, October 2008.

Notes:

a. Delay in seconds per vehicle.
b. Intersections operating at LOS E or LOS F conditions highlighted in bold.

Intersection 37: Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive

During the weekday PM peak hour, the Woodside Avenue/O'Shaughnessy Boulevard/Portola Drive intersection operates at an unacceptable level of service (LOS F), with more than 80 seconds of delay. This study intersection is common between Projects 6-6 and 6-5.

Intersection 57: Evelyn Street/Portola Street

During the weekday PM peak hour, the Evelyn Street/Portola Street intersection operates at an acceptable level of service (LOS C), with 29.3 seconds of delay.

Intersection 58: Fowler Street/Portola Street

During the weekday PM peak hour, the Fowler Street/Portola Street intersection operates at an acceptable level of service (LOS C), with 20 seconds of delay. Table V.6-5, p. V.A.3-158, summarizes these results.

Transit

Muni bus lines 36, 43, and 48 run along portions of Portola Drive between Vicente Street/Santa Clara Avenue and O'Shaughnessy Boulevard. Bus frequency varies with approximately five buses per hour each way between Vicente Street/Santa Clara Avenue and Miraloma Way (Muni bus line 48), 11 buses per hour between Miraloma Drive and Laguna Honda Boulevard (Muni bus lines 43 and 48) and eight buses per hour between Laguna Honda Boulevard and O'Shaughnessy Boulevard (Muni bus lines 36 and 48) during the AM and PM peak periods. There are five bus stops in the eastbound direction and four bus stops in the westbound direction. The section of Portola Drive between Fowler Street and O'Shaughnessy Boulevard has a shopping center on the south side and a bus stop on both sides of O'Shaughnessy Boulevard.

Parking

On-street parking is permitted on both sides of the street between Sloat Boulevard and Sydney Way, except on the south side east of Evelyn Way. Parking occupancy is generally low to moderate in the middle section and high at the northern end near O'Shaughnessy Boulevard and the southern end between Claremont Boulevard and Sloat Boulevard.

Pedestrian

Pedestrian volumes are generally low along Project 6-6.

Bicycle

Portola Drive is designated as existing Bicycle Route 50 (Class III) in both directions for most of the distance between O'Shaughnessy Boulevard and Sloat Boulevard. For the one block between 15th Avenue/San Fernando Way and Sloat Boulevard, the bicycle route is designated only in the westbound direction. Existing Bicycle Route 50 intersects with existing Bicycle Route

55 (Class I/III) at O'Shaughnessy Boulevard, existing Bicycle Route 60 southbound (Class III with wide curb lanes) at Laguna Honda Boulevard, existing Bicycle Route 60 northbound (Class III) at Woodside Avenue, existing Bicycle Route 65 (Class III with wide curb lanes) at Claremont Boulevard, existing Bicycle Route 65 (Class III) at Santa Clara Avenue; existing Bicycle Route 760 (Class III with wide curb lanes) at 14th Avenue; and existing Bicycle Route 70 (Class III) at Sloat Boulevard. Street grades along Project 6-6 are moderately steep with grades from five to ten percent. Bicycle volumes are generally low.

Loading

This segment of Portola Drive has mostly residential buildings, except the segment between Evelyn Way and O'Shaughnessy Boulevard, where there is a shopping center on the east side and a gas station on the west side at the intersection with O'Shaughnessy Boulevard. Loading activity associated with residential use is typically very low and there are no on-street loading spaces in this section. Loading activity for the shopping center occurs within the surface parking lot in front of the stores, and not along Portola Drive.

CLUSTER 7: UPPER SUNSET/RICHMOND/PRESIDIO/ MARINA AREA

This section presents the project-level transportation impact analysis conducted for the near-term bicycle route network improvement projects (projects) within the Cluster 7 area, including a description of near-term improvements, their location and existing traffic, transit, parking, pedestrian, bicycle and loading conditions in the area. Traffic operation conditions with and without the project alternatives, any potential transportation impacts of the projects and possible mitigation and improvement measures are also discussed and analyzed.

PROJECT LOCATION

Cluster 7 is located in the northwestern corner of San Francisco. It is bounded by the San Francisco Bay shoreline to the north, the Pacific Ocean coastline to the west, and Moraga Street to the south. The eastern boundary is formed by Fillmore, Pacific, Locust and Clayton Streets. Much of San Francisco's parkland and beaches are contained in Cluster 7 including the Presidio, Lincoln Park, Golden Gate Park, Crissy Field, China Beach and Ocean Beach. As such, Cluster 7 is an important recreational destination for bicyclists from within San Francisco and other communities in the Bay Area. Popular attractions in Cluster 7 include the Golden Gate Bridge, the Palace of the Legion of Honor, the Cliff House, the de Young Museum and the soon to reopen California Academy of Sciences. Several residential neighborhoods (the Marina, Haight/Ashbury, Richmond District, and Upper Sunset) are also found in Cluster 7.

The existing and proposed bicycle route network in Cluster 7 (see Figure V.A.3-11 on p. V.A.3-**Error! Bookmark not defined.**) provides relatively good coverage within the grid street layout of the Marina, Richmond and Upper Sunset neighborhoods. The terrain is varied, being relatively flat in the Marina, sloping down to the bay through the Presidio and sloping towards the ocean through the Richmond and Upper Sunset neighborhoods. The six near-term improvements in Cluster 7 provide upgrades to existing routes in the bicycle route network as well as an additional segment to the network and two intersection signal improvements for bicyclists. The near-term improvements are located in the southern portion of the cluster and provide important commute and recreation access to Golden Gate Park, Ocean Beach and across the western portion of the City.

Six projects are included in the Cluster 7 area. Each project and location is identified below:

Project 7-1: Intersection Improvements at 7th Avenue and Lincoln Way

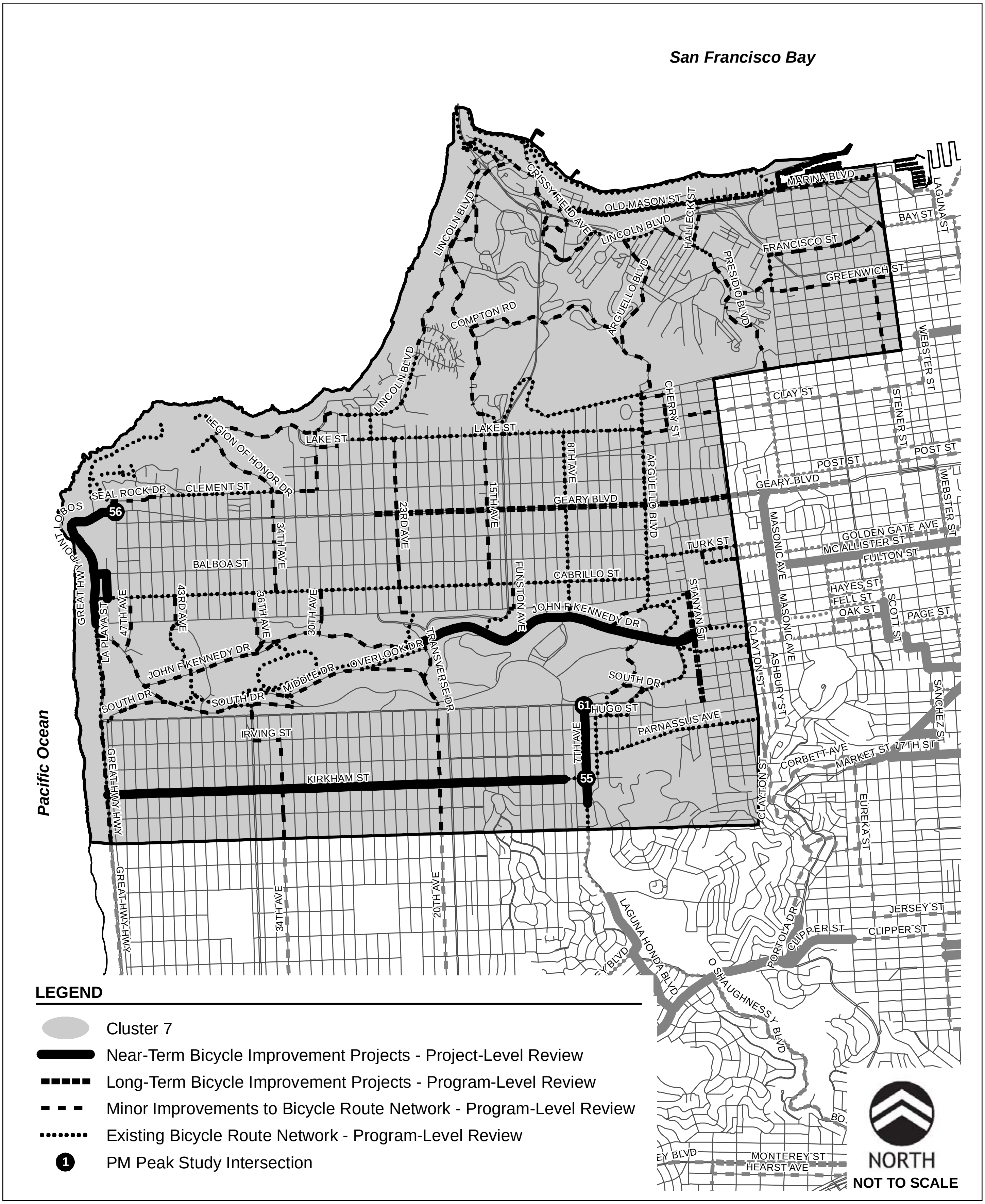
Project 7-2: 7th Avenue Bicycle Lanes, Lawton Street to Lincoln Way

Project 7-1 (partially implemented) and Project 7-2 are located on 7th Avenue at a major entrance to Golden Gate Park. Improvements at the intersection of 7th Avenue and Lincoln Way (Project 7-1) would allow northbound and southbound bicyclists on 7th Avenue to cross Lincoln Way to enter or exit the park. Currently, all vehicular traffic is prohibited from making these through movements.

Project 7-2 represents a proposed addition to the city's bicycle route network by extending existing Bicycle Route 65 on 7th Avenue from Kirkham Street north to Lincoln Way. This near-term improvement would provide a connection with the existing bicycle facilities in the Forest Hill area.

Project 7-3: Great Highway and Point Lobos Avenue Bicycle Lanes, El Camino Del Mar to Cabrillo Street

Project 7-3 would upgrade existing Bicycle Route 95 which connects with existing Bicycle Route 20 on Cabrillo Street and would provide access on the moderately steep hill adjacent to the Cliff House. This area is a popular destination for locals and out-of-towners; motor vehicle traffic is particularly heavy on weekends when bicycle use is also at its peak. It is also included on the San Francisco Bay Area Regional Bikeway Network.



SOURCE: Wilbur Smith and Associates, 2008.

REVISED FIGURE V.A.3-11: CLUSTER 7 - STUDY AREA

Project 7-4: John F. Kennedy Drive and Kezar Drive Bicycle Lanes, Stanyan Street to Transverse Drive

Project 7-4, on John F. Kennedy Drive from Stanyan Street to Transverse Drive, would upgrade a popular recreational route through Golden Gate Park which connects to the Class I Bicycle Path in the Panhandle. This near-term improvement is part of existing Bicycle Route 30, which is an important east-west bicycle connector and commuter route from The Embarcadero to Ocean Beach.

Project 7-5: Kirkham Street Bicycle Lanes, 9th Avenue to Great Highway

Project 7-5 would upgrade existing Bicycle Route 40 from a Class III bicycle route to Class II bicycle lanes. This near-term improvement is a significant link in the existing bicycle route network connecting the Sunset District to the University of California Medical Center and locations in the city to the east and Ocean Beach to the west.

Project 7-6: Page and Stanyan Streets Intersection Traffic Signal Improvements

Project 7-6 would facilitate pedestrian and bicycle access to the existing Class I pedestrian and bicycle multi-use path in Golden Gate Park, west of Stanyan Street on existing Bicycle Route 32 which connects this area of the city to Market Street, Civic Center, Financial District and SOMA.

PROJECT DESCRIPTION

The following paragraphs describe the six near-term improvements included within the Cluster 7 area. Two design options are proposed for Project 7-5; for the remaining near-term improvements in Cluster 7, only one option is proposed. Detailed drawings of existing and proposed lane striping and roadway geometry changes are included in Appendix B.

PROJECT 7-1: INTERSECTION IMPROVEMENTS AT 7TH AVENUE AND LINCOLN WAY

Modified Project 7-1 would involve further modifications at the intersection of 7th Avenue and Lincoln Way to allow northbound bicyclists to cross Lincoln Way. These modifications would involve the installation of a cut-through in the center of the raised median for northbound bicyclists, the installation of a 40 foot-long northbound bicycle-only-lane to the south of the intersection of 7th Avenue and Lincoln Way, and the installation of a bicycle loop detector and a bicycle traffic signal for northbound bicyclists. The bicycle lane would be implemented by restriping the existing travel lanes. There are no travel lane removals or parking changes associated with Modified Project 7-1.

PROJECT 7-2: 7TH AVENUE BICYCLE LANES, LAWTON STREET TO LINCOLN WAY

Project 7-2 would add a new route to the City's existing bicycle route network.

Project 7-2 would involve the installation of Class II and Class III bicycle facilities in both directions on 7th Avenue between Lawton Street and Lincoln Way.

Project 7-2 would install Class II bicycle lanes in both directions on 7th Avenue between Lawton Street and Judah Street by removing one southbound travel lane. From Lincoln Way to Judah Street, one travel lane would be converted to a center two-way left turn lane and sharrows[34] would be added in both directions

PROJECT 7-3: GREAT HIGHWAY AND POINT LOBOS AVENUE BICYCLE LANES, EL CAMINO DEL MAR TO CABRILLO STREET

This project includes one design option in the Draft EIR. Modified Project 7-3 is consistent with that option, with the following changes. The southern limit of the project has moved from Cabrillo Street to Fulton Street. The project limits are now 48th Avenue/El Camino Del Mar to Fulton Street. Modified Project 7-3 would add a northbound right-turn only lane on Point Lobos Avenue approaching the parking lot next to Sutro Heights Park. The modified project would add the following roadway segments to the Bicycle Route Network: Balboa Street, between Point Lobos/Great Highway and La Playa Street; La Playa Street between Balboa and Cabrillo Streets.

Project 7-3 would involve the installation of Class II and Class III bicycle facilities in both directions on Great Highway and Point Lobos Avenue between Cabrillo Street and El Camino Del Mar.

Project 7-3 is divided into two segments:

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34 Sharrows are a traffic control device which consists of pavement markings within the traffic lane. The markings are intended to alert drivers that bicyclists share the traffic lane and also to reduce the chance of bicyclists impacting the open doors of parked vehicles. For more information on sharrows, please see http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd/ CAMUTCD-Part 9.pdf.

- **Segment I**

  Segment I would extend along Point Lobos Avenue to Great Highway from 48th Avenue/El Camino Del Mar to Balboa Street. Project 7-3 would install Class II bicycle lanes in both directions by removing one travel lane in each direction along Segment I. The southbound Class II bicycle lane would be discontinued approaching the downhill section of Point Lobos Avenue from approximately the Sutro Heights Parking lot to approximately 600 feet north of Balboa Street. The Class II southbound bicycle lane would continue on Great Highway from approximately 600 feet north of Balboa Street to

Balboa Street. Sharrows would be added on the travel lane at this downhill section of the road. Project 7-3 would remove approximately ten parking spaces along Segment I.

- **Segment II**
  Segment II would extend on Great Highway from Balboa Street to Cabrillo Street. Project 7-3 would install Class II bicycle lane s in both directions by narrowing the northbound travel lanes along Segment II. Project 7-3 would convert the painted buffer area between the southbound travel lanes and the parking area into a southbound Class II bicycle lane. Project 7-3 would provide a connection to the existing Class II bicycle lanes on Cabrillo Street through the Cabrillo Plaza. There would be no travel lane or parking removals along Segment II.

PROJECT 7-4: JOHN F. KENNEDY DRIVE AND KEZAR DRIVE BICYCLE LANES, STANYAN STREET TO TRANSVERSE DRIVE

Project 7-4 would involve the installation of Class II bicycle lanes in both directions on John F. Kennedy Drive from Kezar Drive to Transverse Drive and on eastbound Kezar Drive between John F. Kennedy Drive and Stanyan Street in Golden Gate Park.

Modified Project 7-4 would add Class II bicycle lanes in both directions on John F. Kennedy Drive by narrowing existing travel lanes. A limited number of parking spaces would be removed along portions of John F. Kennedy Drive where the narrowing of travel lanes would not provide sufficient space to add Class II bicycle lanes. With the exception of striping for bicycle lanes, parking and travel lane changes that are required to create this bicycle lane have already been implemented by the Recreation and Park Department and the Golden Gate Park Concourse Authority as part of the John F. Kennedy Drive Bicycle & Pedestrian Improvements project after completion of a separate environmental review process and certification of an EIR on July 23, 2003.

Project 7-4 would convert the existing left-side shoulder next to the median on eastbound John F. Kennedy Drive approaching Kezar Drive to a left-side Class II bicycle lane. Project 7-4 would also convert the existing left-side shoulder next to the median on eastbound Kezar Drive between John F. Kennedy Drive and Stanyan Street to a left-side Class II bicycle lane.

PROJECT 7-5: KIRKHAM STREET BICYCLE LANES, 9TH AVENUE TO GREAT HIGHWAY

Project 7-5 would involve the installation of Class II bicycle lanes in both directions on Kirkham Street between 9th Avenue and Great Highway. Project 7-5 would be divided into six segments.

- **Segment I**

  Segment I would include Kirkham Street between 9th Avenue and Funston Avenue, Kirkham Street between 17th Avenue and 18th Avenue, Kirkham Street between 20th Avenue and 36th Avenue, and Kirkham Street between 37th Avenue and Great Highway. The proposed option for this segment would involve installation of Class II bicycle lanes in both directions. The proposed option would not involve travel lane or parking removal.

- **Segment II**
  Segment II would include Kirkham Street between Funston Avenue and 17th Avenue. The proposed option for this segment would involve installation of Class II bicycle lane s in both directions, with painted or raised pedestrian refuges added at the intersections. The proposal for this segment would not involve travel lane or parking removal. However, the travel lanes would be narrowed at the intersections to create the pedestrian refuge areas.

- **Segment III**
  Segment III would include Kirkham Street between 18th Avenue and 19th Avenue. There are two design options for this segment:

- **Segment III**
  Option 1 would involve removal of approximately 10 parking spaces on the north side of Kirkham Street and installation of Class II bicycle lanes in both directions. This option would not involve travel lane removal.

  Option 2 would involve installation of a Class II bicycle lane in the eastbound direction and installation of sharrows along the existing Class III bicycle route in the westbound direction on Kirkham Street. This option would not involve travel lane or parking removal.

- **Segment IV**
  Segment IV would include Kirkham Street between 19th Avenue and 20th Avenue. There are two design options for this segment:

  Option 1 would involve removal of approximately 12 parking spaces on the south side of Kirkham Street and installation of Class II bicycle lane s in both directions. This option would not involve travel lane removal.

  Option 2 would involve installation of a Class II bicycle lane in the westbound direction and installation of sharrows along the existing Class III bicycle route in the eastbound direction on Kirkham Street. This option would not involve travel lane or parking removal.

- **Segment V**
  Segment V would include Kirkham Street between 36th Avenue and Sunset Boulevard. There are two design options for this segment:

  Option 1 would involve removal of approximately four parking spaces on the north side of Kirkham Street and installation of Class II bicycle lanes in both directions. This option would not involve travel lane removal.

  Option 2 would involve installation of a Class II bicycle lane in the eastbound direction and installation of sharrows along the existing Class III bicycle route in the westbound direction on Kirkham Street. This option would not involve travel lane or parking removal.

- **Segment VI**
  Segment VI would be Kirkham Street between 37th Avenue and Sunset Boulevard. There are two design options for this segment:

  Option 1 would involve removal of approximately four parking spaces on the south side of Kirkham Street and installation of Class II bicycle lanes in both directions. This option would not involve travel lane removal.

  Option 2 would involve installation of a Class II bicycle lane in the westbound direction and installation of sharrows along the existing Class III bicycle facility route in the eastbound direction of Kirkham Street. This option would not involve travel lane or parking removal.

PROJECT 7-6: PAGE AND STANYAN STREETS INTERSECTION TRAFFIC SIGNAL IMPROVEMENTS

Project 7-6 would involve signalization of the intersection of Page and Stanyan Streets and would include other improvements, as described below.

The proposed signal at this intersection would facilitate pedestrian and bicycle access to the existing Class I pedestrian and bicycle multi-use path in Golden Gate Park, west of Stanyan Street. Improvements would include new traffic signals and improved curb ramps. Project 7-6 would not remove any travel lanes or parking.

PROJECT SETTING

This section provides a description of the existing transportation conditions along the near-term improvements in Cluster 7. Descriptions of the existing roadway access, traffic, transit, parking, pedestrian, bicycle and loading conditions are included. The study intersections for Cluster 7 are shown on Figure V.A.3-11: Cluster 7 Study Area, p. V.A.3-**Error! Bookmark not defined.**. Figures showing the turning movement traffic volumes and lane configurations at those study intersections for Existing Conditions may be found within the transportation impact analysis discussion for Cluster 7 within the transportation impact study. LOS calculation sheets for those study intersections and transit delay calculation sheets for the affected transit routes may be found in the appendices of the transportation impact study.[35]

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[35] Wilbur Smith Associates. 2008. *San Francisco Bicycle Plan Update Transportation Impact Study*. This document is available for review by appointment at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103 as part of Case File No 2007.0347E.

PROJECT 7-1: INTERSECTION IMPROVEMENTS AT 7TH AVENUE AND LINCOLN WAY

Project 7-1 was partially implemented in 2006. The implemented portion involved the modification of the west side of the raised median at the intersection of 7th Avenue and Lincoln Way by cutting back the median from the west crosswalk to five feet easterly to allow southbound bicyclists to cross Lincoln Way without riding in the crosswalk.

Roadways

The intersection of 7th Avenue/Lincoln Way is at the southern entrance to the Golden Gate Park. At this intersection, Lincoln Way has a raised median, two travel lanes each way and an exclusive westbound left-turn lane. Left-turns from eastbound Lincoln Way into the park are prevented by the raised median. Through traffic on 7th Avenue is not permitted across Lincoln Way with the exception of southbound bicyclists with the partial implementation of Project 7-1. Other traffic traveling northbound or southbound on 7th Avenue must turn right onto Lincoln Way. Traffic volumes are generally moderate on 7th Avenue and high on Lincoln Way during the weekday PM peak period.

Traffic: Intersection Level of Service (LOS)

Intersection 61: 7th Avenue/Lincoln Way

Intersection level of service and average delay under Existing conditions is included in Table V.7-1, p. V.A.3-168.

During the weekday PM peak hour, the 7th Avenue/Lincoln Way intersection operates at an acceptable level of service (LOS B), with 12.5 seconds of delay per vehicle. This study intersection is common between Projects 7-1 and 7-2.

TABLE V.7-1
CLUSTER 7– PROJECT 7-1
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS
61. 7th Avenue/Lincoln Way	Signal	12.5	B

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

Transit

Muni bus lines 71, 71L, 16AX, and 16BX run in both directions along Lincoln Way through the 7th Avenue and Lincoln Way intersection. Muni bus lines 71L, 16AX, and 16BX operate only during weekday peak hours. The 16AX and 16BX are express routes along this segment of Lincoln Way and do not stop for passenger loading/unloading. On this segment of Lincoln Way, there are approximately 24 buses per hour eastbound and six buses per hour westbound, during the AM peak period, and approximately 6 buses per hour eastbound, and 20 buses per hour westbound, during the PM peak period. There are approximately five buses per hour each way at other times.

Parking

Lincoln Way and 7th Avenue have on-street parking on both sides of the street; parking occupancy is generally high especially during weekend midday hours due to visitors to Golden Gate Park.

Pedestrian

A pedestrian crosswalk is located on the west side of 7th Avenue crossing Lincoln Way. Pedestrian volumes at this crossing are low on a typical weekday and moderate on weekends. As a result of the partial implementation of Project 7-1, the raised median located in the center of the intersection was cut back from the west crosswalk to five feet easterly. This modification is beneficial to pedestrians crossing Lincoln Way while southbound bicyclists simultaneously are able to cross Lincoln Way outside of the crosswalk boundaries.

Bicycle

There are no existing bicycle route designations at this intersection. 6th Avenue is the closest street with existing bicycle facilities. Street grades through the intersection are flat. Bicycle volumes at this crossing are low on a typical weekday and moderate on weekends. With partial implementation of Project 7-1, southbound cyclists on 7th Street can cross Lincoln Way without intruding on the pedestrian crosswalk.

Loading

There are no designated on-street loading zones at this intersection or within a block of this location.

PROJECT 7-2: 7TH AVENUE BICYCLE LANES, LAWTON STREET TO LINCOLN WAY

Roadways

7th Avenue between Lawton Street and Lincoln Way is a north-south secondary arterial road, with two southbound lanes and one northbound lane and on-street parking on both sides of the street. This section is part of the MTS Roadway Network. Traffic volumes are moderate to high during the PM peak period.

Traffic: Intersection Level of Service (LOS)

Intersection level of service and average delay under Existing conditions is included in Table V.7-2, p. V.A.3-170.

Intersection 55: 7th Avenue/Kirkham Street

During the weekday PM peak hour, the 7th Avenue/Kirkham Street intersection operates at an acceptable level of service (LOS C), with 22.3 seconds of delay per vehicle.

Intersection 61: 7th Avenue/Lincoln Avenue

During the weekday PM peak hour, the 7th Avenue/Lincoln Way intersection operates at an acceptable level of service (LOS B), with 12.5 seconds of delay per vehicle.

TABLE **V.7-2**
CLUSTER 7– PROJECT 7-2
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection		Traffic Control Device	Average Delay[a]	LOS
55.	7th Avenue/Kirkham Street	Signal	22.3	C
61.	7th Avenue/Lincoln Way	Signal	12.5	B

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

Transit

There are no transit lines operating on this section of 7th Avenue.

Parking

On-street parking is generally permitted on both sides of the street. This section of 7th Avenue is within the RPP Zone J and vehicles without a residential permit are subject to a 2-hour maximum time limit for on-street parking.

Pedestrian

Pedestrian volumes are low.

Bicycle

Bicycle volumes approaching Lincoln Way are low to moderate on weekdays and moderate to high during the weekend. Bicycle volumes along the rest of the corridor are low to moderate. There are sharrows painted in both directions along 7th Avenue between Kirkham and Lawton Streets which is existing Bicycle Route 65 (Class III). Route 65 continues south on 7th Avenue with Class II bicycle lanes. Project 7-2 intersects existing Bicycle Route 40 (Class II) at Kirkham Street. Project 7-2 slopes down to the north with grades ranging from three percent to five percent.

Loading

The segment of 7th Avenue between Lawton and Lincoln Way has mostly residential buildings with a few retail businesses. Loading demand is relatively low and takes place within the on-street parking spaces. No conflicts between loading vehicles and bicyclists were observed[36] during field visits.

PROJECT 7-3: GREAT HIGHWAY AND POINT LOBOS AVENUE BICYCLE LANES, EL CAMINO DEL MAR TO CABRILLO STREET

Roadways

Great Highway and Point Lobos Avenue are four-lane (two lanes each way) recreational streets between Cabrillo Street and El Camino del Mar. Traffic volumes are generally moderate during the PM peak period.

[36] Field surveys were conducted by CHS Consulting on Monday, November 26, 2007 during the midday.

Traffic: Intersection Level of Service (LOS)

Intersection LOS calculations were performed for the PM peak hour. Intersection level of service and average delay under Existing conditions is included in Table V.7-3, p. V.A.3-172.

Intersection 56: 48th Avenue/Point Lobos Avenue

During the weekday PM peak hour, the 48th Avenue/Point Lobos Avenue intersection operates at an acceptable level of service (LOS B), with 10.7 seconds of delay.

TABLE V.7-3
CLUSTER 7– PROJECT 7-3
INTERSECTION LEVEL OF SERVICE (LOS) AND AVERAGE DELAY – EXISTING CONDITIONS
WEEKDAY PM PEAK HOUR

Intersection	Traffic Control Device	Average Delay[a]	LOS
56. 48th Avenue/Point Lobos Avenue	Signal	10.7	B

Source: Wilbur Smith Associates, October 2008.
Note:
a. Delay in seconds per vehicle.

Transit

Muni bus line 18 runs in both directions along Point Lobos Avenue between Balboa Street and El Camino del Mar with approximately four buses per hour each way during the AM and PM peak periods. The bus stop for this Muni bus line is located at the 48th Avenue/El Camino Del Mar at the intersection with an additional westbound stop near the Cliff House.

Parking

On-street parking, most of it at an angle, is permitted only on the north and west sides of the Great Highway/Point Lobos Avenue. In addition, several public parking lots are located on both sides of Point Lobos and the Great Highway. The National Park Service (NPS) is constructing a new parking lot with 135 spaces on Point Lobos Avenue north of the Cliff House. Parking occupancy is generally low to moderate on weekdays along Project 7-3 and high on weekends especially near the Cliff House restaurant on the west side of Point Lobos Avenue. There currently is no designated tour bus parking in the area although the new NPS parking lot would include five bus parking bays. Tour bus visits to the Cliff House have declined over the years; most tour buses travel slowly through the area without stopping, while some tour buses stop for a few minutes to allow their passengers to disembark to take pictures.

Pedestrian

Pedestrian volumes are low to moderate on weekdays along Point Lobos Avenue and the Great Highway; pedestrian traffic is high near the Cliff Restaurant on the west side of Point Lobos Avenue, especially on weekends. Attractions in the area include the Cliff House Restaurant and neighboring retail businesses, Sutro Baths, Ocean Beach and trails connecting to the Golden Gate National Recreation Area. In addition, Project 7-3 terminates one block from the western edge of Golden Gate Park closest to the Dutch Windmill, Beach Chalet and soccer fields.

Bicycle

Bicycle volumes in the area are low to moderate on weekdays and higher on weekends and near the Cliff House. There are several bicycle/pedestrian path entrances to the Golden Gate National Recreational Area (GGNRA) directly across from Point Lobos and the Great Highway. Point Lobos Avenue and the Great Highway are designated as existing Bicycle Route 95 (Class III) in both directions along the length of Project 7-3. Existing Route 95 intersects with existing Bicycle Route 20 (Class II) at Cabrillo Street. Street grades along Project 7-3 are mostly flat from Cabrillo Street to Balboa Street. North of Balboa Street, Point Lobos Avenue reaches gradients of ten percent.

Loading

Freight loading activity taking place in this area is associated with the Cliff House restaurant and adjacent administrative offices and retail stores. There are no on-street yellow freight commercial loading spaces along this segment of the Great Highway. It was observed[37] that available on-street parking spaces are generally adequate to accommodate the loading demand with occasional truck double-parking in the wide angle-parking lane just north of the Cliff House or in the passenger loading zone located in front of the Cliff House entrance. As was previously mentioned, tour bus activity in the area has declined over the years so that there is little demand for tour bus parking/loading zones. This activity is accommodated for the short-term stops in the passenger loading zone in front of the Cliff House entrance or in the wide angle-parking lane just north of the Cliff House. The new NPS lot would include parking for five tour buses.

[37] Field surveys were conducted by CHS Consulting on Monday, November 26, 2007 during the midday.

PROJECT 7-4: JOHN F. KENNEDY DRIVE AND KEZAR DRIVE BICYCLE LANES, STANYAN STREET TO TRANSVERSE DRIVE

Roadways

John F. Kennedy Drive between Stanyan Street and Transverse Drive is a two-lane (one lane each way) east-west recreational street within Golden Gate Park. Traffic volumes are low. John F. Kennedy Drive between Stanyan Street and Transverse Drive is closed to motor vehicles from 6:00 a.m. until 6:00 p.m. on Sundays and Saturdays from the beginning of April through the end of September.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

There are no transit lines on John F. Kennedy Drive.

Parking

On-street parking is permitted on both sides of John F. Kennedy Drive. Because John F. Kennedy Drive is mostly a recreational street that serves those visiting Golden Gate Park, parking occupancy, is relatively low on weekdays and moderate to high on Saturdays when the road is open to motor vehicle traffic.

Pedestrian

Pedestrian volumes along Project 7-4 are typically low on weekdays and moderate to very high on weekends, especially during the summer. There are sidewalks on both sides of John F. Kennedy Drive. Pedestrians generally use the sidewalks on weekdays but are allowed the use of the full roadway when the road is closed to motor vehicle traffic.

Bicycle

John F. Kennedy Drive is designated as existing Bicycle Route 30 (Class III with wide curb lanes) and existing Bicycle Route 830 (Class I) in both directions between Kezar Drive and Transverse Drive. A short segment of existing Bicycle Route 30 between 8th and 10th Avenues is signed as Class III. There is a short segment of Class II bicycle lane on westbound John F. Kennedy Drive between Stanyan Street and Kezar Drive. Existing Bicycle Routes 30/830 intersects with existing Bicycle Route 75 (Class III with wide curb lanes) at Transverse Drive, existing Bicycle Route 69 (Class I) east of Stow Lake, existing Bicycle Route 330 (Class III with wide curb lanes) at 8th Avenue, existing Bicycle Route 65 (Class III with wide curb lanes) at the Conservatory of Flowers on Conservatory Drive and Middle Dr E and existing Route 32 (Class I) and existing Route 365 (Class I) at Kezar Drive. Route 30 continues to the east of Stanyan Street as Class I through the Panhandle.

Street grades along Project 7-4 are relatively flat with slopes below a five percent gradient. Bicycle volumes are relatively low on weekdays and moderate to very high on good weather weekends and in the summer. No conflicts have been noted between pedestrians and bicyclists on weekends when the road is closed to motor vehicle traffic and pedestrians are allowed the full use of the roadway.

Loading

This segment is located within the Golden Gate Park with recreational uses that typically do not have a loading demand.

PROJECT 7-5: KIRKHAM STREET BICYCLE LANES, 9TH AVENUE TO GREAT HIGHWAY

Roadways

Kirkham Street between 9th Avenue and the Great Highway is a two-lane (one lane each way) east-west local street in a predominantly residential area with neighborhood schools and some retail businesses. Traffic volumes are generally low.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

There are no transit lines on this section of Kirkham Street.

Parking

On-street parking is permitted along both sides of the street, and parking occupancy is generally low on most sections.

Pedestrian

Pedestrian volumes are generally low, except before and after school at the two elementary schools and two elementary-junior high schools in the area (Francis Scott Key Elementary at Kirkham Street and 43rd Avenue, Holy Name School at 40th Avenue and Lawton Street, Lawton

Alternative School at 31st Avenue and Lawton Street, and Alice Fong Yu Alternative Elementary School at 12th Avenue and Lawton Street). Intersections along Kirkham Street at 43rd, 42nd, 40th, 39th, 31st, 30th, and 29th Avenues, Funston Street, and 12th Avenue have yellow crosswalks designated as school crossings.

Bicycle

Kirkham Street is designated as existing Bicycle Route 40 (Class III) in both directions between 9th Avenue and the Great Highway. Existing Bicycle Route 40 intersects existing Bicycle Route 95 (Class I and Class III with wide curb lanes) at the Great Highway, existing Bicycle Route 85 (Class III with wide curb lanes) at 34th Avenue, existing Bicycle Route 75 (Class III with wide curb lanes) at 20th Avenue and continues as Route 40 (Class II on Kirkham to the east of 9th Avenue. Bicycle volumes are generally low. Project 7-5 has rolling topography with the steepest slopes (five percent to ten percent) between 10th and Funston Avenues, between 17th and 20th Avenues; and between 34th Avenue and the Great Highway.

Loading

Most of this segment is residential and on-street loading activities are low. Loading activities are usually accommodated with on-street parking. No deficiencies in loading facilities or conflicts between loading activities and bicyclists were observed.[38]

PROJECT 7-6: PAGE AND STANYAN STREETS INTERSECTION TRAFFIC SIGNAL IMPROVEMENTS

Roadways

The intersection of Page and Stanyan Streets is a T-intersection located at a pedestrian/bicycle entrance to the east side of Golden Gate Park. This intersection is currently controlled by a STOP sign on the westbound approach of Page Street. Traffic volumes are moderate to high on Stanyan Street and low to moderate on Page Street during the PM peak period.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

38 Field surveys were conducted by CHS Consulting on Monday, November 26, 2007 during the midday.

Transit

Muni bus line 33 runs in both directions along Stanyan Street with approximately four buses per hour each way during the AM and PM peak periods. There are no bus stops at this intersection.

Parking

On-street parking is permitted on both sides of Stanyan and Page Streets, and parking occupancy is moderate to high, particularly on weekends.

Pedestrian

Pedestrian volumes are generally moderate but relatively high during weekends when recreational activities take place at Golden Gate Park. There are marked crosswalks across Page and Stanyan Streets. The east side of Stanyan Street has restaurants, retail stores, and bicycle shops with repair and rental services.

Bicycle

Page Street is designated as existing Bicycle Route 32 (Class III with wide curb lanes and sharrows). Stanyan Street has no existing bicycle facilities. Existing Bicycle Route 32 becomes a multi-use Class I facility west of Stanyan Street, once inside Golden Gate Park. Topography along Project 7-6 is flat. Bicycle volumes are generally high during weekends, especially during summer months, and typically moderate at other times.

Loading

There are no designated on-street loading zones at this intersection or within a block of it. Loading activities are usually accommodated on the street and no deficiencies or conflicts have been observed[39] with existing bicycle activities along this street.

CLUSTER 8: LOWER SUNSET/INGLESIDE AREA

This section presents the project-level transportation impact analysis conducted for the near-term bicycle route network improvement projects (near-term improvements) within the Cluster 8 area, including a description of the near-term improvements, their location and existing traffic, transit, parking, pedestrian, bicycle, and loading conditions in the area. The project

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39 Field surveys were conducted by CHS Consulting on Monday, November 26, 2007 during the midday.

alternatives, any potential transportation impacts of the near-term improvements and possible mitigation and improvement measures are also discussed and analyzed.

PROJECT LOCATION

Cluster 8 is located in the southwest corner of San Francisco. It is bounded by Moraga Street to the north, the Pacific Ocean coastline to the west, and the city boundary to the south. The eastern boundary is formed by 19th Avenue from Moraga Street to Sloat Boulevard, then eastward to include a southwest sliver of Mt. Davidson, a portion of Ingleside and Park Merced. The cluster contains many residential neighborhoods as well as several recreational attractions including Ocean Beach, Harding Park, Lake Merced, San Francisco Zoo, Stern Grove, Fort Funston, SFSU, and the Stonestown Galleria Shopping Center.

The five near-term improvements contained in Cluster 8 (see Figure V.A.3-12 on p. V.A.3-179) are all included on the San Francisco Bay Area Regional Bikeway Network. They provide important connections within the City as well as links to regional destinations. The near-term improvements in Cluster 8 would provide upgrades to existing bicycle routes and add one additional segment to San Francisco's existing bicycle route network. The terrain is relatively flat, sloping towards the ocean.

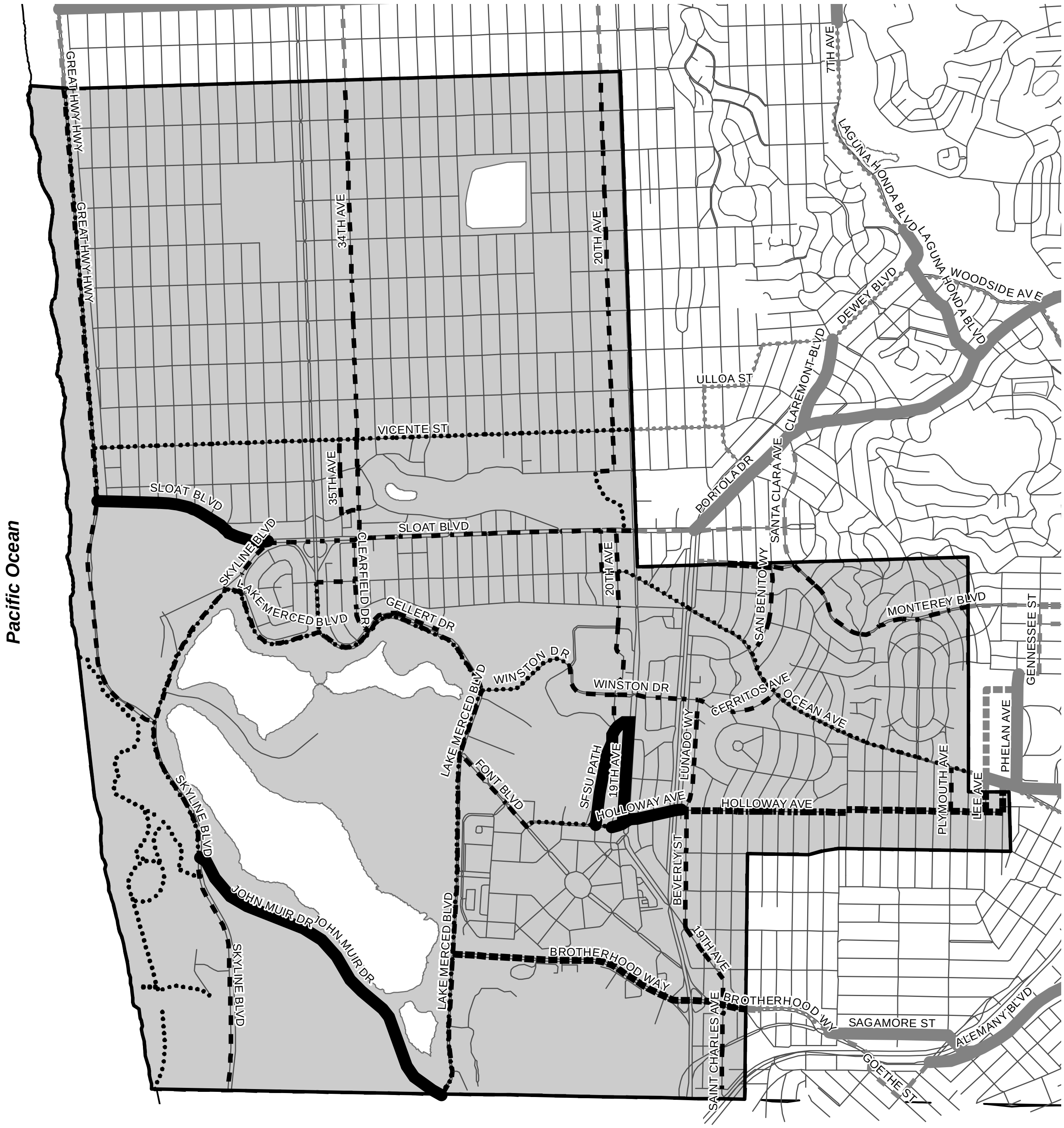
Five projects are included in Cluster 8. Each project is identified below:

Project 8-1: 19th Avenue mixed-use path, Buckingham Way to Holloway Avenue

Project 8-2: Buckingham Way Bicycle Lanes, 19th Avenue to 20th Avenue

Project 8-3: Holloway Avenue Bicycle Lanes, Junipero Serra Boulevard to Varela Avenue

Projects 8-1, 8-2 and 8-3 are centered in the vicinity of SFSU and the Stonestown Galleria providing improved bicycle access to both these important destinations. Project 8-1 includes a proposed mixed-use path which is an addition to the existing bicycle route network. Projects 8-2 (existing Bicycle Route 75) and 8-3 (existing Bicycle Route 90) propose bicycle lanes on existing Class III bicycle route facilities. Together these near-term improvements are part of the system through San Francisco, north to the Golden Gate Bridge and Marin County and south to Daly City, to ultimately connect with Highway 35 (Skyline Boulevard) and locations in San Mateo County.



LEGEND

- Cluster 8
- Near-Term Bicycle Improvement Projects - Project-Level Review
- Long-Term Bicycle Improvement Projects - Program-Level Review
- Minor Improvements to Bicycle Route Network - Program-Level Review
- Existing Bicycle Route Network - Program-Level Review

NORTH

NOT TO SCALE

SOURCE: Wilbur Smith and Associates, 2008.

FIGURE V.A.3-12: CLUSTER 8 - STUDY AREA

Project 8-4: John Muir Drive Bicycle Lanes, Lake Merced Boulevard to Skyline Boulevard

Project 8-5: Sloat Boulevard Bicycle Lanes, Great Highway to Skyline Boulevard

Projects 8-4 and 8-5 would also upgrade existing facilities on the San Francisco bicycle route network from Class III bicycle routes to Class II bicycle lanes. Project 8-4 is located on John Muir Drive through Harding Park on the southern banks of Lake Merced; it is included on existing Bicycle Route 91 connecting Lake Merced Boulevard with Skyline Boulevard. Project 8-5 is located on Sloat Boulevard (existing Bicycle Route 50). Both Project 8-4 and 8-5 would connect with the regional network at the Great Highway and Skyline Boulevard which connect the Golden Gate Bridge and Marin County with San Mateo County. Existing Bicycle Route 50 is a major east-west connector linking the Great Highway with the Ferry Building on San Francisco Bay.

PROJECT DESCRIPTION

The following paragraphs describe the five near-term improvements included within the Cluster 8 area. Two design options are proposed for Projects 8-1 and 8-3; the remaining projects have only one proposed option. Detailed drawings of existing and proposed lane striping and roadway geometry changes are included in Appendix B.

PROJECT 8-1: 19TH AVENUE MIXED-USE PATH, BUCKINGHAM WAY TO HOLLOWAY AVENUE

Project 8-1 would add a new route to the City's existing bicycle route network.

Project 8-1 would involve the installation of a two-way Class I bicycle path between Buckingham Way and Holloway Avenue, either along the west side of 19th Avenue or through the SFSU campus. Project 8-1 includes two design options:

- **Option 1**
  Option 1 would add a two-way Class I bicycle path along the west side of 19th Avenue between Buckingham Way and Holloway Avenue by removing approximately 45 vehicle and 35 motorcycle parking spaces and by shifting the existing sidewalk westerly into the SFSU campus right-of-way. Approximately 300 feet north of Holloway Avenue, the path would shift westerly into the campus to avoid conflicts with the existing transit stop and main pedestrian entrance to campus, and would terminate at Holloway Avenue near Cardenas Avenue.

- **Option 2**
  Option 2 would add a two-way Class I bicycle path through the SFSU campus between Buckingham Way and Holloway Avenue, as called for in the SFSU Campus Master Plan. Long-term SFSU plans include building a new bicycle and pedestrian bridge with a 32-foot wide deck through SFSU. The proposed bridge would connect the student housing complex University Park North, with the north side of Thornton Hall. The proposed bridge would provide two 10-foot sidewalks for pedestrians and two 6-foot Class I unidirectional bicycle paths for bicyclists.

PROJECT 8-2: BUCKINGHAM WAY BICYCLE LANES, 19TH AVENUE TO 20TH AVENUE

Modified Project 8-2 would involve the installation of sharrows to the existing Class III bicycle route in the westbound direction on Buckingham Way between 19th Avenue and 20th Avenue.

PROJECT 8-3: HOLLOWAY AVENUE BICYCLE LANES, JUNIPERO SERRA BOULEVARD TO VARELA AVENUE

Project 8-3 would involve the installation of Class II bicycle lanes in both directions on Holloway Avenue between Junipero Serra Boulevard and Varela Avenues. Project 8-3 includes two design options:

- **Option 1**
  Option 1 would remove one travel lane in each direction and install Class II bicycle lanes in both directions on Holloway Avenue.

- **Option 2**
  Option 2 would install Class II bicycle lanes in both directions by removing approximately 50 parking spaces on Holloway Avenue between Junipero Serra Boulevard and 19th Avenue and removing approximately seven parking spaces on the south side of Holloway Avenue between 19th and Varela Avenues. The eastbound Holloway Avenue approach to 19th Avenue would be striped with a Class II bicycle lane, one shared through-right traffic lane, and one left-turn only lane.

PROJECT 8-4: JOHN MUIR DRIVE BICYCLE LANES, LAKE MERCED BOULEVARD TO SKYLINE BOULEVARD

Project 8-4 would involve the installation of Class II bicycle lanes in both directions on John Muir Drive between Lake Merced Boulevard and Skyline Boulevard.

Project 8-4 would add continuous Class II bicycle lanes in both directions. Project 8-4 would involve modifying the existing parking on the south side of John Muir Drive by implementing back-in angled parking. Project 8-4 would not involve travel lane or parking removals.

PROJECT 8-5: SLOAT BOULEVARD BICYCLE LANES, GREAT HIGHWAY TO SKYLINE BOULEVARD

Project 8-5 would involve the installation of Class II bicycle lanes in both directions on Sloat Boulevard between Great Highway and Skyline Boulevard.

Project 8-5 would remove one travel lane in the westbound direction between Skyline Boulevard and Lower Great Highway and remove one travel lane in the eastbound direction from Lower Great Highway to 41st Avenue. There would be no parking loss associated with Project 8-5.

Project 8-5 would include the installation of a bicycle box at the intersection of Sloat Boulevard at Great Highway in the westbound direction. A bicycle box is a striping treatment that includes a Class II bicycle lane leading to a box situated in advance of a crosswalk, with an advance stop limit bar for motor vehicles to allow bicyclists to move in front of a queue of motor vehicle traffic and position themselves for a through or left-turn movement during a red signal.

On the eastbound approach to Skyline Boulevard, Project 8-5 would establish a “Right Lane Must Turn Right Except for Muni” regulation on Sloat Boulevard from 350 feet west of Skyline Boulevard to Skyline Boulevard. Project 8-5 would convert a Muni bus stop on eastbound Sloat Boulevard at Skyline Boulevard into a bus zone and would relocate the westbound mid-block bus zone at Sloat Boulevard and Lower Great Highway to 47th Avenue.

Project 8-5 would establish a “Right Lane Must Turn Right Except for Muni” regulation for westbound Sloat Boulevard between 37th Avenue and 39th Avenue, reducing the through movement to one travel lane. This would allow the addition of a westbound bicycle lane on Sloat Boulevard beginning at 37th Avenue.

PROJECT SETTING

This section provides a description of the existing transportation conditions along the five near-term improvements in Cluster 8. Descriptions of the existing roadway access, traffic, transit, parking, pedestrian, bicycle and loading conditions are included.

PROJECT 8-1: 19TH AVENUE MIXED-USE PATH, BUCKINGHAM WAY TO HOLLOWAY AVENUE

Roadways

19th Avenue between Buckingham Way and Holloway Avenue is a six-lane north-south major arterial with a center median. This segment is part of the MTS Roadway Network and the CMP Network. Left turns from 19th Avenue onto Holloway Avenue are not permitted from either the northbound or southbound approaches. Traffic volumes on 19th Avenue are high, especially during AM and PM peak commute hours.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

Muni bus lines 17, 28, and 28L run in both directions along 19th Avenue between Buckingham Way and Holloway Avenue, with approximately 12 buses per hour each way during the AM peak period and eight buses per hour each way during the PM peak period. There is one southbound bus stop on 19th Avenue between Buckingham Way and Holloway, located on the nearside of Holloway Avenue.

Muni light rail line M-Oceanview runs in the center median on a separate right-of-way with approximately seven trains per hour each way during the AM and PM peak periods. The SFSU station for the M-Oceanview is located in the center median on the north side of the 19th Avenue/Holloway Avenue intersection.

Parking

On-street parking is permitted on both sides of the street, and parking occupancy is very high when SFSU is in session.

Pedestrian

Pedestrian volumes are generally high during weekday morning, noon, and afternoon hours at Holloway Avenue, and on the west side of 19th Avenue when SFSU is in session; pedestrian volumes are generally low on the east side of 19th Avenue.

Bicycle

Bicycle volumes are generally low to moderate. There are no existing bicycle route designations in this section of 19th Avenue. Project 8-1 intersects with the existing Bicycle Route 75 (Class III) at Buckingham Way and existing Bicycle Route 90 (Class II/III) at Holloway Avenue. Street grades along Project 8-1 are relatively flat with gradients less than five percent.

Loading

This segment of 19th Avenue has the SFSU campus on the west side. Freight loading activities related to SFSU occur in off-street facilities. Passenger loading, from the SFSU shuttle bus service to BART, takes place on the west side of 19th Avenue, north of Holloway Avenue. There are no on-street yellow commercial freight loading spaces along this segment of 19th Avenue.

PROJECT 8-2: BUCKINGHAM WAY BICYCLE LANES, 19TH AVENUE TO 20TH AVENUE

Roadways

Buckingham Way between 19th Avenue and 20th Avenue is an east-west local street with two travel lanes (one lane each way). Traffic volumes are generally moderate during the PM peak period.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

Muni bus line 18 and SamTrans bus line 122 run westbound only along Buckingham Way; there are no bus stops within this section. There are approximately seven buses per hour each way during the AM and PM peak periods.

Parking

On-street parking is permitted on both sides of the street, and occupancy is generally high in this area because the Stonestown Galleria Shopping Center is located on the north side and SFSU is located on the south side of Buckingham Way.

Pedestrian

Pedestrian volumes are generally moderate to high during the weekday morning, noon, and afternoon peak hours when SFSU students use the sidewalks and crosswalk at Buckingham Way and 19th Avenue.

Bicycle

Bicycle volumes are generally low. Buckingham Way is designated as existing Bicycle Route 75 (Class III) in both directions for the one block between 19th and 20th Avenues. Existing Bicycle Route 75 continues north from Buckingham Way on 20th Avenue to intersect existing Bicycle Route 86 (Class III) at Winston Drive. Street grades along Project 8-2 are relatively flat with gradients less than five percent.

Loading

This short segment of Buckingham Way has no freight loading activity or demand. The Stonestown Galleria Shopping Center parking lot is located on the north side of Buckingham Way. Off-street loading docks are located on Buckingham Way west of 20th Avenue. The south side of this road has residential apartments that do not rely on on-street spaces for loading. There are no on-street yellow commercial freight loading spaces along this segment of Buckingham Way.

PROJECT 8-3: HOLLOWAY AVENUE BICYCLE LANES, JUNIPERO SERRA BOULEVARD TO VARELA AVENUE

Roadways

Holloway Avenue is an east-west local street with four travel lanes (two each way) between Junipero Serra Boulevard and Varela Avenue. Traffic volumes are generally high west of 19th Avenue and moderate between 19th Avenue and Junipero Serra Boulevard during the AM and PM peak periods.

Traffic: Intersection Level of Service(LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

Muni bus line 29 runs in both directions along Holloway Avenue between Junipero Serra Boulevard and Varela Avenue with approximately six buses per hour each way during the AM and PM peak periods. There is one bus stop located on the far side of Junipero Serra Boulevard within a 17-foot westbound travel lane.

Parking

On-street parking is permitted on both sides of the street, and parking occupancy is high along the corridor when SFSU is in session.

Pedestrian

Pedestrian volumes are generally low east of 19th Avenue, but moderate to high in the vicinity of the SFSU campus at 19th Avenue.

Bicycle

Holloway Avenue is designated as existing Bicycle Route 90 (Class III) in both directions between Junipero Serra Boulevard and Varela Avenue and Class II bicycle lanes on the block between Varela Avenue and Font Boulevard. Street grades along Project 8-3 are moderate ranging from five percent to ten percent. Bicycle volumes are generally moderate in the vicinity of the SFSU campus west of 19th Avenue and low east of 19th Avenue.

Loading

The segment of Holloway Avenue, west of 19th Avenue includes the SFSU campus on the north side and the Parkmerced residential complex on the south side; single-family residential buildings are located on Holloway Avenue, east of 19th Avenue. SFSU loading facilities are located on campus. Loading activity for the residential buildings is primarily associated with mail or parcel delivery; this demand is usually low and can be accommodated by on-street parking spaces.

PROJECT 8-4: JOHN MUIR DRIVE BICYCLE LANES, LAKE MERCED BOULEVARD TO SKYLINE BOULEVARD

Roadways

John Muir Drive between Lake Merced Boulevard and Skyline Boulevard is a two-lane (one each way) north-south recreational street. Traffic volumes are generally low.

Traffic: Intersection Level of Service(LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

Muni bus line 18 runs in both directions between Lake Merced Boulevard and approximately 1,000 feet south of Skyline Boulevard; Muni bus line 88 operates in both directions along the full length of Project 8-4. There are bus stops at each of the three pedestrian crosswalks on both sides of John Muir Drive. There are approximately seven southbound buses and four northbound buses per hour during the AM peak period. During the PM peak period, there are approximately four southbound buses and ten northbound buses per hour.

Parking

On-street parking occupancy is relatively low during weekdays, but moderate to high on weekends for recreation.

Pedestrian

There are sidewalks only on the east side of John Muir Drive. Pedestrian volumes are relatively low during weekdays but moderate to high on weekends.

Bicycle

John Muir Drive is designated as existing Bicycle Route 91, which includes a narrow northbound multi-use path (Class I) that is discontinuous. Project 8-4 is also a Class III bicycle route in both directions Lake Merced Boulevard to Skyline Boulevard. Existing Bicycle Route 91 intersects existing Bicycle Route 85 (Class I/III) at Lake Merced Boulevard and existing Bicycle Route 95 (Class I/III) at Skyline Boulevard. Street grades along Project 8-4 are generally flat with gradients below five percent. Bicycle volumes are relatively low during weekdays but moderate to high on weekends for recreation.

Loading

This area is mostly used for recreational purposes (Lake Merced on the north side of John Muir Drive and the Olympic Golf Club on the south side) with the exception of an apartment complex on the south side of John Muir Drive near Skyline Boulevard. There is little freight or passenger loading demand associated with the recreational uses; loading demands for the apartment complex are accommodated by the on-street parking in located in front of the complex.

PROJECT 8-5: SLOAT BOULEVARD BICYCLE LANES, GREAT HIGHWAY TO SKYLINE BOULEVARD

Roadways

Sloat Boulevard between the Great Highway and Skyline Boulevard is a six-lane (three lanes each way) east-west major arterial with a six-foot median. This section is part of the MTS Roadway Network and the CMP Network. Traffic volumes are generally low except on the weekends and the first Wednesday of the each month when it is free admission day at the San Francisco Zoo.

Traffic: Intersection Level of Service (LOS)

Please see the discussion on p. V.A.3-3 of this EIR.

Transit

Muni bus line 23 runs along the entire portion of Project 8-5 on Sloat Boulevard; Muni bus line 18 operates along Sloat Boulevard between 47th Avenue and Skyline Boulevard. There are approximately eight buses per hour each way during the AM and PM peak periods. There are five westbound bus stops and four eastbound bus stops.

Parking

There is on-street parallel parking on the north and south sides of Sloat Boulevard as well as angled parking on the north side of the median. Curbside parking on the north side is relatively full, but the south side has lower occupancy. However, parking occupancy is usually higher during the summer weekends and on the first Wednesday of every month when the San Francisco Zoo offers free admission.

Pedestrian

Pedestrian volumes are generally low in the area, but also higher during the weekends and on the first Wednesday of each month when admission to the San Francisco Zoo is free.

Bicycle

Sloat Boulevard is designated as existing Bicycle Route 50 (Class III) in both directions between the Great Highway and Skyline Boulevard. Existing Bicycle Route 50 intersects existing Bicycle Route 95 (Class I/III) at the Great Highway and existing Bicycle Route 91 (Class III) at Skyline Boulevard. Street grades along Project 8-5 are relatively flat with gradients less than five percent. Bicycle volumes are generally low in the area during the weekdays but typically higher on weekends and on the first Wednesday of each month when the San Francisco Zoo is free to visitors.

Loading

This segment of Sloat Boulevard is mostly residential with retail businesses and motels on the north side of the street. Loading activity is generally low and is accommodated by the available on-street and off-street parking spaces.

PROJECT IMPACTS AND MITIGATION

THRESHOLDS OF SIGNIFICANCE

The following are the thresholds of significance used by the San Francisco Planning Department for the determination of impacts associated with a proposed project:

Traffic

The threshold for a significant adverse impact on traffic has been established as the deterioration in the LOS at a signalized intersection from LOS D or better to LOS E or LOS F, or from LOS E to LOS F. The operational impacts on unsignalized intersections are considered potentially-significant if project-related traffic causes the LOS at the worst approach to deteriorate from LOS D or better to LOS E or LOS F and the California Department of Transportation (Caltrans) signal warrants would be met, or causes Caltrans signal warrants to be met when the worst approach is already at LOS E or LOS F.

For an intersection that operates at LOS E or LOS F under existing conditions, there may be a significant adverse impact depending upon the magnitude of the project's contribution to the worsening delay. This is measured by deterioration in the volume-to-capacity (V/C) ratio at the intersection. For an intersection operating at LOS E or LOS F, if the project results in the V/C ratio worsening by more than 10 percent of the V/C under no project conditions, a significant impact would occur. In addition, a project would have a significant adverse effect if it would cause major traffic hazards, or would contribute considerably to the cumulative traffic increases that would cause the deterioration in LOS to unacceptable levels (i.e., to LOS E or LOS F).

Parking

San Francisco does not consider parking supply as part of the permanent physical environment. Parking conditions are not static, as parking supply and demand varies from day to day, from day to night, from month to month, etc. Hence, the availability of parking spaces (or lack thereof) is not a permanent physical condition, but changes over time as people change their modes and patterns of travel.

Parking deficits are considered to be social effects, rather than impacts on the physical environment as defined by CEQA. Under CEQA, a project's social impacts need not be treated as significant impacts on the environment. Environmental documents should, however, address the secondary physical impacts that would be triggered by a social impact (CEQA Guidelines Section 15131 (a)). The social inconvenience of parking deficits, such as having to hunt for scare parking spaces, is not an environmental impact, but there may be secondary physical environmental impacts, such as increased traffic congestion at intersections, air quality impacts, safety impacts, or noise impacts caused by congestion. In the experience of San Francisco transportation planners, however, the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g., transit service, taxis, bicycles or travel by foot) and a relatively dense pattern of urban development, induces many drivers to seek and find alternative parking, shift to other modes of travel, or change their overall travel habits. Any such resulting shifts to transit service, walking, and bicycling would be in keeping with the City's "Transit First" policy. The City's Transit First Policy, established in the City's Charter Section 16.102 provides that "parking policies for areas well served by public transit shall be designed to encourage travel by public transportation and alternative transportation."

The transportation analysis accounts for potential secondary effects, such as cars circling and looking for a parking space in areas of limited parking supply, by assuming that all drivers would attempt to find parking at or near the project site and then seek parking farther away if convenient parking is unavailable. Moreover, the secondary effects of drivers searching for parking is typically off-set by a reduction in vehicle trips due to others who are aware of constrained parking conditions in a given area. Hence, any secondary environmental impacts which may result from a shortfall in parking in the vicinity of the proposed project would be minor and the traffic assignments used in the transportation analysis, as well as in the associated air quality, noise, and pedestrian safety analyses, reasonably address potential secondary effects.

Transit

The project would have a significant effect on the environment if it would cause a substantial increase in transit demand that could not be accommodated by adjacent transit capacity, resulting in unacceptable levels of transit service or cause a substantial increase in operating costs or delays such that significant adverse impacts to transit service levels could result. The Bicycle Plan would not impact transit demand. Therefore, the focus of the transit impact analysis was on transit delay. The methodology for assessing transit delay is discussed below. A near-term improvement would have a significant impact on transit if one of the following is true: 1) For transit lines where the headway is greater than six minutes, the sum of the delay in both directions is equal to or greater than six minutes. 2) For transit lines where the headway is equal to or less than six minutes, the impact is significant if the sum of delay in both directions is equal to or greater than the headway of the affected transit line.

Pedestrian

The project would have a significant effect on the environment if it would result in substantial overcrowding on public sidewalks, create potentially hazardous conditions for pedestrians, or otherwise interfere with pedestrian accessibility. Pedestrian volumes observed on sidewalks were compared to the 2000 Highway Capacity Manual[1] estimates for pedestrian counts to determine level of pedestrian activity.

Bicycle

The project would have a significant effect on the environment if it would create potentially hazardous conditions for bicyclists or otherwise substantially interfere with bicycle accessibility.

Loading

The project would have a significant effect on the environment if it would result in a loading demand during the peak hour of loading activities that could not be accommodated within the proposed on-site loading facilities or within convenient on-street loading zones, or if it would create potentially hazardous traffic conditions or significant delays affecting traffic, transit, bicycles, or pedestrians.

Construction

Impacts due to the installation of the near-term improvements would likely be short in duration lasting from a few days to a few weeks. It is expected that these impacts would be similar between the 60 near-term improvements described in this report. Since impacts from construction would be temporary, impacts related to construction of the near-term improvements would be less than significant.

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[1] For details, refer to Pedestrian Walkway LOS (Exhibit 11-8), Chapter 11 – Pedestrian and Bicycle Concepts, 2000 Highway Capacity Manual.